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TUESDAY, APRIL 21, 2020 ~ VOL. CCLXXV NO. 93

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DJIA 23650.44 ▼ 592.05 2.4%

NASDAQ 8560.73 ▼ 1.0%

STOXX 600 335.70 ▲ 0.7%

10-YR. TREAS. ▲ 10/32, yield 0.625%

OIL -\$37.63 ▼ \$55.90

April 1

April 6

GOLD \$1,701.60 ▲ \$12.40

EURO \$1.0864 **YEN** 107.62

Business ヴ Finance

.S. oil futures plunged below \$0 for the first time, a chaotic demonstration of the dwindling capacity to store all the crude that the world's stalled economy

- would otherwise be using. A1 ♦ Halliburton is cutting jobs, slashing costs by \$1 billion and reducing debt to gird itself against the drop in investment in the U.S. oil patch. B3
- Whether a small business received aid under the government's \$350 billion rescue program often came down to how and where it banked. A1
- **♦ U.S. stocks slid** to start another potentially volatile week, with the Dow, S&P 500 and Nasdaq falling 2.4%, 1.8% and 1%, respectively. B11
- **◆ IBM posted** lower firstquarter sales and pulled annual earnings guidance, highlighting the challenges facing new CEO Krishna. B1
- ◆ Neiman Marcus is preparing to file for bankruptcy protection. The retailer hopes to reopen most of its stores after the pandemic. **B1**
- **♦ Companies have** adjusted executive compensation amid volatile markets and economic contraction. B1
- ◆ The Treasury sent \$2.9 billion in aid to airlines, the first payments the government has made as part of a grant and loan program. **B3**
- ♦ Bondholder groups rejected a proposal by Argentina to restructure tens of billions of dollars in foreign debt. B11
- ◆ Antitrust officials are nearing a settlement with a major dairy cooperative that would allow it to buy dozens of plants from Dean Foods. B6

World-Wide

- ◆ New York state has asked the federal government for a \$4 billion no-interest loan to cover unemployment payments for people put out of work by the pandemic, as it and other states burn through funds set aside for jobless claims. A1
- **◆ Trump said** he plans to sign an executive order temporarily suspending immigration into the U.S., saying he was doing so to protect American jobs amid the pandemic. A3
- ♦ U.S. governors took steps to start reopening their economies and focused on accelerating testing capacity for the coronavirus, as infection rates slowed in some hard-hit areas. A6
- **♦ Governments across** Europe and in the U.S. say they have driven down a key variable to levels that suggest lockdowns are containing the coronavirus's spread. A9
- **♦** Facebook is banning posts and groups promoting anti-lockdown protests that don't comply with government health directives. A3
- ◆ Netanyahu and rival Gantz agreed to form a unity government in a deal that would keep the Israeli leader in power while he faces trial on corruption charges. A11
- **♦ The Supreme Court** ruled that defendants can't be convicted of serious crimes under the Constitution unless jurors are unanimous, overturning laws in two states. A3
- ◆ Police were investigating multiple crime scenes after a gunman's rampage in Nova Scotia left at least 19 dead. A11

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Oil Takes Historic Dive Below \$0

Producers face prospect of paying buyers as the pandemic pushes prices to minus \$37.63 a barrel

By Ryan Dezember

U.S. oil futures plunged below \$0 for the first time Monday, a chaotic demonstration of the dwindling capacity to store all the crude that the world's stalled economy would otherwise be using.

The price of a barrel of West Texas Intermediate crude to be delivered in May, which closed at \$18.27 a barrel on Friday, ended Monday at negative \$37.63. That effectively means that sellers must pay buyers to take barrels off their hands. Overseas early Tuesday, the contract rebounded and was back in positive territory at \$1.60 a bar-

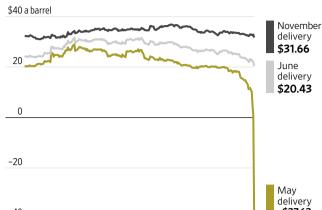
The historic low price reflects uncertainty about what buyers would even do with a barrel of crude in the near term. Refineries, storage facilities, pipelines and even ocean tankers have filled up rapidly since billions of people around the world began sheltering in place to slow the spread of the deadly coronavi-

Prices remain in positive territory for barrels to be delivered in June. In the most actively

traded U.S. futures contract, U.S. crude-oil futures, by contract crude for June delivery lost 18% on Monday to close at \$20.43, while oil due to be delivered to the main U.S. trading hub in Oklahoma in November ended at around \$31.66.

Those higher prices, like the recent surge in stocks, reflect investors' optimism that the global economy will bounce back later this year, and that sufficient demand will return to soak up some of the glut that was building even before borders closed, factories idled and billions of people stopped driving Please turn to page A10

◆ Halliburton pulls back, citing oil free fall.



April 13

Parking Lot Fills as People Wait Their Turn at Drive-Up Food Bank



HELPING HAND: In West Palm Beach, Fla., on Monday, cars assembled in the parking lot of the Palm Beach Outlets mall, which partnered with Feeding South Florida to provide a week's supply of groceries to the first 800 vehicles in line.

Companies Improvise Reopening Plans

Employers have no clear-cut road map toward restarting the American economy from lockdown

By Jennifer Maloney, Mike Colias AND PAUL ZIOBRO

As America's attention turns to reopening its economy, many businesses are deploying a range of tactics to attempt to shield their workforces from the coronavirus. For the most part, they are making it up as they go.

With no single standard or clear-cut road map, safety procedures and implementation vary widely, particularly on how to handle confirmed Covid-19 cases in the workplace.

Pepsi-Cola bottling plants in New York are giving factory workers surgical masks and checking their temperatures at the door. A rival Coca-Cola bottler has given employees

THE **CORONAVIRUS PANDEMIC** Trump bans immigration, citing virus fight, A3

More infections than

thought in L.A. county, A6

Shops begin to reopen

in Germany, A10

bandannas as face covers at work. "A lot of this is reacting in real-time,"

said Jeffrey Honickman, chief executive of the Honickman companies, a group of East Coast bottlers including Pepsi-Cola Bottling Co. of New York. "I never thought we'd be doing any of these things. We're learning as we go along."

thermometers to monitor themselves and red

A spokeswoman for the Coke bottler, Liberty Coca-Cola Beverages LLC, said its policies would evolve as it identified best practices and received more guidance from health officials.

Government guidelines so far have been Please turn to page A8

States Rapidly Draining Job-Loss Reserves

April 20

By Sarah Chaney

WASHINGTON-New York state has asked the federal government for a \$4 billion nointerest loan to cover unemployment payments for people put out of work by the coronavirus pandemic as it and other states burn through funds set aside for jobless claims.

States are quickly depleting funds set aside as millions of laid-off workers apply for unemployment-insurance benefits offered by state governments, according to a Wall Street Journal analysis of Treasury Department data.

Nearly half of U.S. states have logged double-digit percentage declines in their trustfund balances since the end of February, the month before the coronavirus pandemic triggered shutdowns that led to widespread job losses and record numbers of jobless claims.

Loans from the federal government offer a backstop for states faced with a surge in claims to keep money flowing to laid-off workers should a state run out of funds set aside for jobless benefits. After the 2008 crisis, states turned to the federal government for help in funding unemployment benefits, with some taking years to pay back loans.

States use their trust funds to pay regular unemployment benefits, while the extra \$600 payments recently added for workers laid off during the pandemic are funded through a federal stimulus package signed into law last month.

From the end of February to mid-April, New York had used about half of the trustfund money it had on tap, rep-

Please turn to page A6

The Fate of Office Plants Left Behind

The lucky ones get adopted; 'a tragic little Sahara'

By MATTHEW RIVA

In the rush to close offices as the new coronavirus spread, employees grabbed laptops, gym bags and stray Tupperware.

Many left behind their desk plants. A month later, they are wondering what's become of

"Those plants are probably having conversations in their own language, asking, 'Where did everyone go? How long are we going to be here?" said Julia Goldberg, BuzzFeed's Los Angeles-based head of facilities and security.

Skeleton crews of workers securing and cleaning office

Small Businesses' Bank Ties Help Determine Federal Aid

BY RUTH SIMON AND PETER RUDEGEAIR

The small businesses that received aid under the federal government's \$350 billion rescue program weren't always the ones with the greatest needs or the best chances to survive the coronavirus pandemic. Whether a firm made the cut often came down to how and where it banked.

Some recipients were publicly traded companies that already had significant loans

with big banks. Others were customers of community banks that had long made loans through the Small Business Administration, which is guaranteeing loans made through the government program. Thousands more that lacked the right ties weren't approved.

As lawmakers and the Trump administration neared a deal Monday to spend an additional \$310 billion on smallbusiness aid as part of a larger rescue package, the inadver-Please turn to page A4

Netanyahu Keeps Hold in Unity Pact



Israel's Prime Minister Benjamin Netanyahu, right, and Benny Gantz formed a new government, with Mr. Netanyahu serving Please turn to page A2 | first as prime minister, followed by Mr. Gantz next year. A11

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P2JW112000-0-A00200-1-----XA

U.S. Warns Its Rivals Not to Seek Advantage

While President Trump is ticularly troubling. absorbed with confronting the coronavirus pandemic home, administration officials

By Gordon Lubold in Washington and Dion Nissenbaum in Beirut

and their allies are seeking to head off any attempt by adversaries around the world to test U.S. resolve.

In public warnings, Mr. Trump, his key aides, military officials and allies in recent weeks have voiced concern that attention to the health crisis by the White House and military could give rise to challenges.

"I think some of this stuff is profoundly and clearly taking advantage of a bad situation,' said an administration official, who pointed to China's actions in the South China Sea as par-

In recent weeks, Beijing has conducted operations to gain more of a foothold in the Spratly and Paracel island chains, emblematic of China's attempts to assert its influence.

Since the outbreak of the global health crisis, China has begun operating military aircraft from Fiery Cross Reef in the South China Sea, including an airborne early warning and control aircraft that has begun to use an airstrip on the reef as a "forward operating base" to conduct reconnaissance flights, military and State Department officials said.

While some of the operations might have been planned before the pandemic swept the globe, U.S. officials said American rivals like China are capitalizing on the Trump administration's diverted attention

"Beijing is a net beneficiary of global attention diverted towards the pandemic rather than military activities in the South China Sea," said Navy Capt. Mike Kafka, a spokesman for Indo-Pacific Command, Ho-

Officials at China's embassy didn't respond to a request to comment, but the country's foreign ministry has said it considers the island chains its territory and that its activities on its territory are lawful.

Chinese forces were accused this month of sinking a Vietnamese fishing vessel in the vicinity of the Paracel Islands, prompting a protest from the State Department.

"We call on [China] to remain focused on supporting international efforts to combat the global pandemic, and to

and the strains on its military. stop exploiting the distraction stricken by Covid-19. One crew or vulnerability of other states to expand its unlawful claims in the South China Sea," spokeswoman Morgan Ortagus said.

China's Foreign Ministry said the vessel was fishing illegally and, when confronted,

China has asserted itself in the region since the start of the global pandemic.

rammed a Coast Guard ship, took on water and sank.

China's latest moves come as a U.S. aircraft carrier in Asia, the USS Theodore Roosevelt, is sidelined in Guam, with more than 600 crew members

member has died.

The Pentagon says it remains prepared despite 5,000 members of the Defense Department testing positive for the disease, with 19 deaths.

"Our readiness is still strong, and we are able to deter and defeat any challenges that may try to take advantage of these opportunities at this point of crisis," Army Gen. Mark Milley, chairman of the Joint Chiefs of Staff, said last week.

The warnings come as the U.S. has faced a series of fresh tests elsewhere in the world.

Iran's Islamic Revolutionary Guard Corps Navy last week made "dangerous and harassing" moves near six American warships in the Persian Gulf, U.S. Navy officials said, the first such encounter since 2018.

Russia test-fired an anti-

satellite missile and twice buzzed American Navy planes over the Mediterranean Sea, military officials said. North Korea also test-fired suspected short-range cruise missilesthe first time it has used such missiles in nearly three years.

Militant rocket strikes in Iraq have continued, while Taliban fighters continue to attack Afghan forces as they seek political leverage while the U.S. withdraws forces. Islamic State and al Qaeda militants are urging their followers to strike America and its allies while their health-care systems and military forces are being strained.

The pandemic can be an opportunity for U.S. adversaries to test American resolve," said Lina Khatib, director of the Middle East and North Africa Program at Chatham House, the London-based think tank.

U.S. WATCH

SOUTH

New Round of Deadly Storms Hits Region

Suspected tornadoes killed at least two people as severe weather blasted the South, and a house fire believed to have been caused by lightning claimed a third person, officials said Monday.

Jerry Oliver Williams, 61 years old, of Henry County, Ala., died when the storm struck a rural area about 11:30 p.m. Sunday, coroner Derek Wright said. The area was under a tornado warning when winds flipped his mobile home.

A suspected twister also resulted in a death in Marion County, Miss., said coroner Jessie Graham. Jerry Johnson, 70, died when his home took a direct hit from the storm.

In south Georgia, Wilcox County coroner Janice Brown said a 95-year-old woman died in a house fire early Monday that the state fire marshal's office suspected was caused by a lightning strike. Heavy storms were in the area at the time.

The Storm Prediction Center received more than 250 reports of possible tornadoes, high winds, hail and storm damage from east Texas to central Florida on Sunday and Monday.

Teams from the National Weather Service will assess tracks to determine where tor-

nadoes struck. The storms hit a week after a two-day outbreak of more than 100 tornadoes that began Easter Sunday killed at least 36 people across the region.

-Associated Press



Penny Temples on Monday sat in the yard of her house heavily damaged by a suspected tornado in Baxterville, Miss., the day before.

CALIFORNIA

Suits Filed in Bryant Helicopter Crash

Family members of four of the eight passengers killed in a helicopter crash with Kobe Bryant and his daughter have ioined the NBA star's widow in filing wrongful death lawsuits against the companies that owned and operated the air-

The suits were filed electron-

ically in Los Angeles Superior Court on behalf of three members of one family, as well as a woman who helped coach Mr. Brvant's 13-year-old daughter in basketball

The two lawsuits come about two months after Mr. Bryant's widow, Vanessa Bryant, also sued Island Express Helicopters Inc., which operated the helicopter, and its owner, Island Express Holding Corp. All the suits allege the two companies were careless and negligent.

A person who answered the phone at Island Express Helicopters declined to comment and an email requesting comment wasn't returned.

The helicopter was headed to a basketball tournament on Jan. 26 when it crashed in thick fog northwest of Los Angeles.

An initial National Transportation Safety Board report said there were no signs of engine failure from the wreckage recovered.

—Associated Press

NFW YORK

Judge Says Stabbing Suspect Unfit for Trial

A man accused of stabbing five people with a machete at a suburban New York Hanukkah celebration isn't mentally fit to stand trial, a judge ruled in a decision made public Mon-

Grafton Thomas, 37 years old, is charged in an attack at a

rabbi's home on Dec. 28 that

left five people wounded in Monsey, an Orthodox Jewish community north of New York City. The most critically injured victim, Josef Neumann, 72, died three months after the attack.

Judge Cathy Siebel wrote that Mr. Thomas should be committed to a treatment facility for no more than four months to determine if he can reach "the capacity to permit criminal proceedings to go forward against him."

The ruling applies only to Mr. Thomas's trial for federal hate crimes. He has also been indicted on state charges including attempted murder. He has pleaded not guilty.

-Associated Press

WEST VIRGINIA

Three Children, Man Killed in House Fire

Firefighters in Huntington found the bodies of three young children and a man Monday morning while responding to a nouse fire in which ammunition

The children—an 8-year-old girl and two boys ages 3 and 2were found inside the house and the 30-year-old man was found dead outside, city spokesman Bryan Chambers said.

Crews that initially responded to the home about 5:30 a.m. said ammunition inside the home started exploding, news outlets reported.

The house partially collapsed and heat from the blaze burned the siding off the house across the street. The cause of the fire hasn't been determined.

—Associated Press

The Fate of Desk Plants Left Behind

Continued from Page One buildings have become caretakers of other people's plants. Other workers have gone on rescue missions to extricate office greenery and let it shelter at home with them.

New York-based copy editor Adam LoBelia, 36, was on plant "patrol" last month at his office. Many colleagues given the option had decamped for home. He decided to stay behind at the office, where he carried out plantcare requests; "in everyone's emails they specified exactly how much water."

That worked out well for the plants until the state's essential-businesses-only order came down and he had to leave, "I did my best, and I think I saved at least a couple lives," he said. "Some of those, I think, are gonna be OK." The San Francisco e-com-

merce company where Martha Smith works was early to ask workers to stay home, and she had been OK with her setup for the first few days of Ms. Smith, 38, had inher-

ited plants from a co-worker who moved to another job just weeks ago, and her company had offered employees the chance to run back in to get anything from their desks they needed. "I said, 'I'm gonna rescue the plants!'

When she got into the office, her fiddle-leaf fig was on the outs from no water and more-than-partial shade, so



Plants corralled by staff on a conference-room table this month at BuzzFeed's New York office.

she packed up it and a couple of others from her desk. They were luckier than the 40-some communal ferns and succulents on a partition nearby.

"It's gonna be a tragic little Sahara when we come back," she said. "It'll be a very triumphant day when I can march back in with my alive pothos."

Ms. Smith expects the fig and company to make a comeback while rehabilitating at home in Oakland, but: "We're in very much a transitional period, getting

to know each other. The hard-

est thing at the moment is my cat sees them and says 'Woo! A salad bar!' " Ms. Goldberg's

staff at BuzzFeed on multiple continents rooted out office plants they could find and placed them in conference rooms where they could easily be watered while their owners were away. Photos of the plants spread like weeds on Twitter. Ms.

Goldberg, now working from home, said her staff now cares for well over 100 plants left behind. She has no desk plants of her own.

Anyone here?

Anyone?

Urban planner Jason Diaz worries about the six or seven plants he left behind a month ago in his Midtown Manhattan office, including a pothos and Sansevieria, chosen long ago

for their resiliency. Mr. Diaz, 33, didn't bring his desk plants with him to his home in Queens. "My fiancée would kill me if I brought more plants home. We did a count this week, and we have over 30 plants in our apartment, and it's all my fault," he said.

Before he left last month, he said many other plants were still in the office. One window office had 20-or-so plants. He gave the plants "one last watering" and "wished for god to

have mercy on their souls." Plant-immunity Ph.D. stu-

dent Zachary Savage, 24, said he and some colleagues took their personal plants home but couldn't help the scores of others in their London lab. "We work with plants daily for experiments," he said. "In the middle of South Kensington in London we have these big chambers we grow plants to use for research, and we had to make a decision."

Those indoor greenhouses at Imperial College London will mostly have to start from scratch. Mr. Savage said it would take about a month to regrow everything.

Lauren Seely, a New York production coordinator, is trying to get others' plants help remotely. Before she left the NBC offices in Rockefeller Center to socially distance in Brooklyn, Ms. Seely, 26, took her snake plant, named Keith, and a friend's basil plant for safekeeping. "I told my coworker, 'Yo man, this plant is dying!' He left it on the heater, which is probably part of the problem, and he was like 'Get her water, stat!' " she recalled, before taking the basil with

BuzzFeed's Ms. Goldberg said the idea of having a desk plant is still growing on her, but she understands why people sneak in during a quarantine to care for them or beg remaining employees, whether janitors or doormen, to adopt them for a while.

"People are very sensitive to them, and they're a part of our family," she said. "We will alwavs have security of some kind and they're going to water the plants." They post plant pictures on Slack, she said. There is quite a ruckus if they don't post on a regular basis.'

Until people get back, she said, "That conference room will have very clean air."

CORRECTIONS ど **AMPLIFICATIONS**

Sales at Walmart Inc.'s stores rose nearly 20% in March, and the company's 2020 fiscal year ended Jan. 31. In some editions Monday, a graphic with a Business & Finance article about Walmart incorrectly said that sales declined in March and that sales figures for the third and fourth quarters of the 2020 fiscal year were estimates.

HE 6's recording of "In-A-Gadda-Da-Vida" was released in 1971. An Off Duty article on Saturday about long songs incorrectly said 1968, which is when Iron Butterfly's version was recorded.

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

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P2JW112000-6-A00300-1-----XA

Trump Declares Immigration Ban

President in tweet says temporary move will help protect against coronavirus

By Rebecca Ballhaus AND MICHELLE HACKMAN

WASHINGTON-President Trump said he plans to sign an executive order temporarily suspending immigration into the U.S., saying he was doing so to protect American jobs as the novel coronavirus has taken a sharp toll on the economy.

In a tweet Monday night, Mr. Trump said he was signing the executive order "in light of the attack from the Invisible Enemy"—a reference to coronavirus—"as well as the need to protect the jobs of our GREAT American Citizens." He didn't provide further details.

Administration officials said the order wouldn't make substantial changes to current U.S. policy. Even without an executive order, the administration has already all but ceased nearly every form of immigration. Most visa processing has been halted, meaning almost no one can apply to visit or move to the U.S. Migrants caught crossing the border are now immediately expelled once they are found.

The executive order is expected to include exceptions for migrant farmworkers, who make up about a tenth of the workforce on U.S. farms, and health-care workers, particularly those helping treat coronavirus patients, an administration official said. It is not expected to address the removal of immigrants already in the U.S. or the visa renewal process, the official said.

As with past efforts by the president to curb immigration, the executive order will likely face legal challenges

The president has already taken several steps to restrict who can enter the country as the coronavirus has spread around the globe. In January, he imposed entry restrictions on foreign nationals who had traveled in China. In March, he banned travel by foreign nationals from Europe to the U.S., with some exceptions.

Later that month, the administration effectively closed the border with Mexico to illegal border-crossers and asylum

The outcome was one Mr. Trump and immigration hardliners in his administration had long sought to achieve, and in announcing the policy, he suggested it might outlast his emergency declaration.

In recent weeks, a debate has unfolded inside the administration over how many migrant workers to allow into the U.S. under a separate seasonal program, known as H-2B. Typically, these workers take jobs that last a few months, at resorts, county fairs and landscaping companies, and the number of visas is capped at 66,000, though the Department of Homeland Security has the authority to issue extra visas if

would issue 35,000 extra H-2B visas, over the objections of senior White House adviser Stephen Miller and other immigration hard-liners.

In March, DHS announced it

demand exceeds supply.

As the coronavirus crisis worsened and millions of Americans lost their jobs, the agency announced it was putting the extra visas on hold. An administration official said the

executive order would ensure these extra visas don't become available.

At the same time, the administration has prioritized continuing to detain and deport unauthorized immigrants, holding about 32,000 in detention centers where the virus has infected at least 220 people, according to data published by the U.S. Immigration and Customs Enforcement.

The president's announcement, suggesting he believes coronavirus continues to pose a severe threat to the country. comes in contrast to his comments in the past several days, when he has laid out plans for how to reopen the country, indicating he believes the threat is dissipating. Last week, he betweeting that several states, including Minnesota and Virginia, should themselves.

'Act of God' Disputes Are on Upswing

By Jacob Gershman

Companies are suspending or terminating business agreements by relying on a common but rarely invoked escape hatch in the fine print of many commercial contracts, as the new coronavirus and government measures to slow its spread upend the economy.

Known as "act of God" clauses—or force majeure, French for "superior force"the provision has been cited in court cases across the U.S. and around the world in recent weeks by companies large and small-from California developers to global energy firms.

The crisis is putting a spotlight on the clauses and testing the sanctity of contracts like no other event, lawvers say. A wave of litigation is expected in the coming months.

"What we have here is an unprecedented nationwide force-majeure event," said David Marmins, an Atlanta realestate litigator who works with landlords and tenants and has handled force-majeure cases.

Force-majeure clauses are routine in contracts, from collective bargaining agreements to bank loans to drilling rights. They typically spell out extraordinary circumstances that can excuse a party from contractual obligations, including natural disasters and disruptions such as war, rioting, terrorism or government interventions.

Live-performance contracts are more likely to address pandemics—a lesson learned from earlier outbreaks such as SARS that canceled concerts and left event promoters in the lurch.

Some businesses say stateimposed restrictions on travel and commerce have made it close to impossible for them to deliver on contracts.

Force-majeure declarations are already sparking disputes. In California, a retail devel-

oper is citing force majeure in trying to delay its purchase of a 120-acre tract of land in Culver City from Exxon Mobil Corp. The developer, Pacific Collective LLC, said government stayhome orders prevented it from immediately bringing in construction workers, architects, inspectors and others to develop the land, according to its lawsuit filed in Los Angeles County Superior Court.

Pacific Collective claimed meeting the agreement's deadline would "pose a danger to human life" and expose the company to criminal prosecution.

Exxon disagrees. In an April 3 letter to Pacific Collective, a lawyer for Exxon said the shutdown orders didn't prevent the company from closing the transaction, according to court documents.

Facebook Puts Limits on Protest Organizers

By Georgia Wells AND ANDREW RESTUCCIA

Facebook Inc. is banning posts and groups promoting anti-lockdown protests that don't comply with government health directives, as organizers of those events seek to recruit

new members on social media.

Dozens of protests have taken place in recent days, with participants complaining of shelter-in-place restrictions and pushing for state governments to allow more freedom to return to normal activities as the coronavirus pandemic plays out. Most of the events have been relatively small, but have drawn outsize attention on social media as the debate about when and how to reopen the economy becomes increasingly political.

Facebook groups, some with tens of thousands of members and some using near-identical language in their descriptions, have popped up in states like Michigan, Minnesota and Pennsylvania. The groups raise concerns about what they see as overly restrictive orders imposed by state governors.

Polls show most Americans worry more about inflaming the coronavirus pandemic by reopening the country too soon as opposed to the economic impact of waiting too long.

Facebook's prohibition doesn't explicitly target posts promoting anti-lockdown protests; rather, the company said it is barring content that advocates for in-person gatherings that don't follow government health guidance. A spokeswoman for the socialmedia giant said it is also taking down claims designed to discourage treatment for coronavirus infection or taking appropriate precautions against its spread.

Facebook removed content related to anti-lockdown protests planned in California,



Demonstrators rallied Monday outside the Ohio Statehouse in Columbus to protest the state's stay-at-home order.

New Jersey and Nebraska.

"Unless government prohibits the event during this time, we allow it to be organized on Facebook," the spokeswoman said. "For this same reason, events that defy government's guidance on social distancing aren't allowed on Facebook."

Michigan has emerged as the center of the protests, with critics focusing their frustration on the Democratic governor, Gretchen Whitmer, who has imposed some of the most stringent coronavirus restrictions in the country. Ms. Whitmer has put in place measures limiting the number of shoppers in stores and closing off some sections of stores, including those for gardening supplies.

Two right-leaning groups the Michigan Conservative Coalition and the Michigan Freedom Fund—created a Facebook event called Operation Gridlock to protest the state's restrictions. The April 15 event in Lansing, Mich., drew more than 3,000 protesters, many in cars to bring traffic to a standstill. Some participants left their cars and huddled in groups in viola-

tion of social-distancing rules. Facebook's decision to ban content that promotes events that risk defying health restrictions is part of a series of moves it has made to limit the spread of what it sees as misinformation and harmful con-

tent related to the pandemic. Some of the content also attempts to erode trust in public-health authorities, who say social-distancing rules have slowed the spread of the virus.

The move again injects Facebook into an increasingly polarized national debate. While some governors have asked protesters to stay home. President Trump expressed his support for their actions in tweets over the weekend

The president's son on Monday criticized Facebook's move.

Why is Facebook colluding with state governments to quash peoples [sic] free speech?" Donald Trump Jr. posted on Twitter. "Regardless

of what you think about the lockdowns or the protests against them, this is a chilling."

The protest in Lansing last week was organized by the Michigan Conservative Coalition. The group was founded by Michigan state Rep. Matt Maddock and his wife, Meshawn Maddock. The Maddocks didn't respond to requests for comment.

The gathering also received backing from the Michigan Freedom Fund, a conservative group started by Greg Mc-Neilly. Mr. McNeilly said his group wasn't the main organizer of the event, but paid for \$250 worth of Facebook advertising for it.

Serious Crimes Need Unanimous Convictions, Court Rules

By Jess Bravin AND BRENT KENDALL

WASHINGTON—The Supreme Court ruled that defendants can't be convicted of serious crimes under the Constitution unless jurors are unanimous, overturning laws in two states and calling thousands of verdicts into question.

But the court's fractured ruling Monday has little significance for cases outside Louisiana and Oregon, the only states where a 10-2 or 11-1 jury can convict. Instead, the justices' remarks about precedent—an issue of increasing importance, as the abortion-rights decision Roe v. Wade and other liberal landmarks face challenges-may be the decision's most significant legacy.

Justice Neil Gorsuch wrote Monday's opinion, overturning a splintered 1972 decision that had left the two states' jury rules intact.

The Sixth Amendment right to a jury trial always has required unanimous verdicts, Justice Gorsuch wrote, a principle tracing back through centuries of English law and recognized explicitly by the Supreme Court in the 19th century. Such was the case in Louisiana as well until the state's Jim Crow constitution of 1898. It adopted the 10-2 jury to prevent the occasional African-American who made it onto a jury from interfering with a white majority determined to convict, the court observed. The court rejected a chal-

lenge to that practice in the 1972 case, Apodaca v. Oregon. with a plurality opinion finding no constitutional problem with a nonunanimous jury. To overrule that case, Justice Gorsuch rejected the reasoning of his mentor who wrote the decision, the late Byron Justice White had argued

that an "impartial jury" existed, in the modern era, to "safeguard against the corrupt or overzealous prosecutor and against the compliant, biased, or eccentric judge." That could be something that could be accomplished with a 10-2 vote as well as a unanimous one, he

Justice Gorsuch wrote that since the framers understood verdicts to require unanimity, "as judges, it is not our role to reassess" the wisdom of that choice. "With humility, we must accept that this right may serve purposes evading

our current notice," he wrote. Justices Ruth Bader Ginsburg, Stephen Brever, Sonia Sotomayor and Brett Kavanaugh joined all or part of the Gorsuch opinion, while



Justice Neil Gorsuch wrote the Supreme Court opinion that overturned a 1972 decision that left intact two states' jury rules.

Justice Clarence Thomas weren't similarly tainted. agreed with the outcome through a different legal framework.

Justice Samuel Alito dissented, joined in whole or part by Chief Justice John Roberts and Justice Elena Kagan. Justice Alito wrote that the racist and nativist motivations that led to the initial adoption of the jury rules were irrelevant, since they were readopted through processes

Moreover, he warned, the past 48 years have seen Louisiana and Oregon conduct "thousands and thousands of trials under rules allowing non-unanimous verdicts. Now, those States face a potential tsunami of litigation on the jury-unanimity issue" and when it should apply retroactively to existing convictions.

Still, both Louisiana and Oregon already have been moving away from the nonunanimous-jury rule.

Louisiana voters abolished it for future cases, while Oregon is expected to amend its constitution to the same end, according to a brief from that state. The most significant as-

pects of the decision, therefore, may turn out to be the implications for the weight the court ascribes to precedent in future cases.

Justice Kavanaugh has wrestled with that issue before and on Monday published a three-part test for evaluating when prior cases should be overturned. To do so, he wrote, the

precedent must be "egregiously wrong," should have "significant negative jurisprudential or real-world consequences" and shouldn't "unupset reliance interests"—or the behavior of individuals, businesses and others based on the expectation that the precedent accu-

rately describes the law. The immediate victor in Monday's case was Evangelisto Ramos, who was sent to prison without possibility of parole after a 10-2 jury convicted him of the 2014 stabbing murder of Trinece Fedison, with whom prosecutors said he had been "sexually in-

Court has held, once and for all, that the promise of the Sixth Amendment fully applies in Louisiana, rejecting any concept of second-class justice," said Ben Cohen, an attorney for Mr. Ramos and with the Promise of Justice Initiative, a New Orleans nonprofit. "Louisiana's law was based

"We are heartened that the

upon a previous Supreme Court ruling that allowed for non-unanimous juries," the Louisiana attorney general's office said. "Our law has since been changed and the Supreme Court has now issued this new ruling, yet our focus remains the same: to uphold the rule of law and protect victims of crime." In a separate decision Mon-

day, the court addressed the cleanup of hazardous waste sites, limiting the ability of landowners to use private ligation to force restoration measures beyond those required by the Environmental Protection Agency.

In dissent, Justice Gorsuch accused the court of stripping rights from landowners and forcing them to live with toxic

"The implication here is that property owners cannot be trusted to clean up their lands without causing trouble," Justice Gorsuch, joined by Justice Thomas, wrote.

A4 | Tuesday, April 21, 2020

Young Voters Catch Another Bad Break



CAPITAL JOURNAL By Gerald F. Seib

Put yourself in the shoes of a 32-year-old American. You graduated from college in the spring of 2009, loaded up with student-loan debt



because that's what the system encouraged you to

You walked into the worst recession

since the Great Depression, which prevented you from moving onto the professional track you were promised. For a decade, you scratched and clawed to catch up, perhaps putting off getting married,

buying a car, buying a house and having children along the way. By the beginning of this year, with the economy humming, you felt you finally caught up.

Then the coronavirus struck. You and your friends, while less susceptible to the ravages of the virus itself, find you are the most likely to lose a job, wages and health insurance amid the crisis. Your faith that the economy will bounce back is, understandably, lower than everyone else's-and your cynicism about the political and economic system that allowed all this to happen has deepened.

As all that suggests, one of the great aftershocks of the coronavirus crisis will be its impact on the economic trajectory and political attitudes of millennials, roughly defined as Americans born in the 1980s and early 1990s. Before this, they already have lived through two major shocks, the 9/11 terrorist at-

tacks and the financial plunge of 2008 and 2009.

Beyond those jolts, they also have seen rising income inequality, and emerged as perhaps the first cohort in American history to believe life for them won't be better than it had been for their parents. As a result, they don't seem as inclined as their elders to see silver linings in the current virus upheaval.

hat certainly is the picture that emerges from a new Wall Street Journal/NBC News poll. It found that voters aged 18-34 are more likely than any other age group to report having lost a job during the current crisis. In fact, that age group is most likely to have experienced at least one of four potential economic shocks caused by the virus crisis: loss of a job, loss of health insurance, a cut in pay or worry about job and pay loss.

Overall, just 13% of these vounger Americans rate the

current state of the economy as good or excellent, compared with 28% of Americans aged 35 to 49. They are less likely than any set of older Americans to think the economy will bounce back in the next few weeks. Among the population at large, almost three-quarters say the crisis is bringing out the best in America; only about half of those aged 18 to 34 feel that

It's common, of course, for younger people to be a bit jaded about the world being prepared for them by their elders. For today's millennials, the coronavirus pandemic may simply be adding to that feeling. Young Americans are the least satisfied with the federal government's response, the poll indicates.

The political impact of these cumulative experiences is significant. Ben Wessel, a young activist who leads NextGen America, a progressive organization dedicated to increasing voter turnout

among young Americans, describes the attitude this way: "Anxiety caused by all these crises manifests itself in a belief that leaders can't really ever be trusted—that it's gotta be us that makes a change." He adds: "That means no one is looking for a singular leader to fix it. We don't need a hero."

Before the coronavirus hit, the shocks millennials already had endured had left them feeling "somewhat detached from the political system," says Democratic pollster Celinda Lake. Indeed, a report by the GQR polling organization prepared early this year for NextGen America found that a majority of voters under the age of 35 were "unenthusiastic" about voting in 2020. "A basic dislike of politics keeps many from voting," the report said.

t's impossible to know right now whether the shock of the coronavirus will drive young voters fur-

ther away from the political process, or draw them into it. If they do show up to vote, it's clear they will be a force for the presumptive Democratic presidential nominee, former Vice President Joe Biden. In the new Journal/NBC News poll, voters aged 18 to 34 favored Mr. Biden over President Trump by a whopping 23-point margin, 54% to 31%.

Yet that endorsement of Mr. Biden apparently comes with no great enthusiasm. Just 25% of those young voters reported having positive feelings about the former vice president personally, compared with 44% with negative feelings.

Broadly speaking, millennials are advocates for what Ms. Lake calls "a major role for government" in society, and that may be more true now. But, there may be a disconnect, she notes: "You can't have a big role for government if you don't take part in picking the government."

Bank Ties Affect Aid Program

Continued from Page One tent winners and losers of the Pavcheck Protection Program were becoming clearer.

The PPP provides forgivable loans to small businesses and nonprofits that use the money for payroll and certain other expenses. Banks that already made SBA loans were the first ones authorized to submit applications to the program; most gave priority to existing customers. Some lenders have been faster than others to launch their programs; others have prioritized certain customers.

Before the program was launched April 3, Alan Edelson had worked with his accountant to prepare the documents needed to apply for a \$120,000 loan for Metropolitan Furniture, his nearly century-old retailer in Allen Park, Mich. He wasn't able to submit his application because his bank. Comerica Inc., was still working on an online portal to take applications when the money dried up.

Mr. Edelson dipped into savings to meet his first pay roll after he closed the store in mid-March and he was counting on the loan to fund the next set of paychecks. He said he would pay his 10 employees again this week now that more funding is likely from Congress. But if the money doesn't come through before the next pay period, he said, he will have to tell them to file retroactively for the two weeks of pav.

"It's inconceivable to me that the fate of your business is decided by the incompetence of your bank," Mr. Edelson said.

Last Thursday, the Treasury Department said the \$350 billion program had reached capacity, with more than 1.6 million loans approved on a firstcome, first-served basis.

In an email sent to customers Thursday after the money ran out, Comerica said it was "working hard to finalize our new online application portal."

A Comerica spokeswoman said the bank accepted applica-





through relationship managers and from those who expressed interest through its website. The bank received more than 5,000 applications for payroll loans and got approval for half of the requested dollars; it is queuing up additional applications to submit when more funds are approved. She declined to comment on Metropolitan Furniture.

While a congressional deal

to replenish the business program and pay for other coronavirus-related priorities was coming into clearer focus, negotiations continued Monday over several details. Besides the \$310 billion for the smallbusiness program, the deal was set to include \$75 billion in assistance for hospitals and \$25 billion to expand testing for the virus across the country.

Senate Majority Leader

Mitch McConnell (R., Ky.) said he had asked senators to convene Tuesday afternoon after a deal wasn't reached on Monday. President Trump said Monday afternoon he hoped to have a deal with Congress 'very soon."

When the federal government rolled out the program, more than 80 publicly traded companies were among the first in line. They secured a to-

tal of more than \$330 million from the loan program, according to Securities and Exchange Commission filings.

JPMorgan Chase & Co. issued more than \$115 million in forgivable loans to at least two dozen public companies. according to SEC filings. The figures include \$20 million in loans to two units of Ruth's Hospitality Group Inc., the owner of the high-end Ruth's Chris Steak House chain: and \$10 million each to Potbelly Corp. and to Shake Shack Inc. Some of these companies

already had significant loans with the bank. JPMorgan committed \$41.7 million to Ruth's on March 30 and at least \$40 million to Potbelly last August, according to securities filings. The bank was a lender to Shake Shack until August 2019, when the restaurant operator refinanced with Wells Fargo & Co.

The PPP was designed to help companies with 500 or fewer employees, but some larger companies can receive loans under exceptions for restaurants and hotels.

Many of those companies also could borrow from separate government efforts to support midsize businesses, such as the Federal Reserve's \$600 billion Main Street Lending Program.

Loans for more than \$1 million accounted for about 4% of applications but nearly 45% of approved dollars under the program, according to SBA data released Friday. That suggests larger companies received a disproportionate share of aid.

JPMorgan funded about \$14 billion in payroll loans, and half of its loans were for less than \$140,000, a spokeswoman said. Within JPMorgan, where businesses applied mattered. Customers of JPMorgan's small-business unit submitted 55 times more applications than those of its commercialbanking division, focused on midsize companies, according to JPMorgan's website. That meant the commercial bank was able to work through a greater share of applications.

Ruth's said it sought the loans to ensure the company "is well positioned to emerge from this situation a strong and viable entity." Shake Shack said it would return its loan after securing equity financing on Friday.

Lily Bird Inc., a Reno, Nev.based company that makes underwear for menopausal women, couldn't get a banker at Citigroup to return its calls for technical help with its application, co-founder Jason Holloway said. The bank's online portal said Lily Bird's application was held up "pending additional ownership responses," even though the company provided Citigroup with the requested information about its shareholders.

Mr. Holloway was also turned away from other banks because Lily Bird didn't have accounts there. He said he is dipping into personal savings to keep paying the company's six employees.

You never think when you open a checking account, that a decision like that could be something as big as whether or not you get saved in a financial crisis," Mr. Holloway

A Citigroup spokesman said in an email that the bank worked with applicants to submit their applications as quickly as possible and "regret that some of our clients did not receive funding before the SBA's funds being exhausted."

> and Andrew Duehren contributed to this article.

-Theo Francis

Shake Shack to Return Its \$10 Million Small-Business Loan

Shake Shack Inc. said it from the program have said would return a \$10 million loan from a federal coronavirus aid program that some small restaurants say shouldn't have made funds available to big companies.

By **Heather Haddon** in Chicago and Bob Davis in Washington

The publicly traded burger chain, which employs more than 8,000 people, is one of several larger restaurant operators that have received funds from the Small Business Administration's Paycheck Protection Program. The company said Monday that it would return its PPP loan, after raising additional capital from stock

Some independent restaurants that didn't receive funds large, publicly traded chains shouldn't have had access to the \$350 billion fund intended for small businesses. Many restaurants and other small businesses said they didn't get funding from the program before it ran out of funds last

John DiBella, owner of barrestaurant PJ Carney's in Manhattan, said he applied for funding the day the program began accepting applications but received nothing. "Shake Shack got the money; they just opted to return it. I would like to have that option," he said.

When Shake Shack applied for the forgivable loan, it wasn't clear the program's funds could be exhausted before all applicants were approved, Chief Executive Randy Garutti said in a statement. "Many who need it most, haven't gotten any assistance," Mr. Garutti said.

Tom Colicchio, a New York City restaurateur who previously co-founded Gramercy Tavern with Danny Meyer, whose restaurant founded Shake Shack, said the program should have extended aid to independent restaurants

"This really exposed the weakness in the program," said Mr. Colicchio, co-founder of an advocacy group pushing Congress to change the loan program. "We need to quantify what a small business is. I don't think that's a publicly traded company."

The SBA said that Shake Shack's loan will go back in the funding pool, but that new loans can't be made unless Congress authorizes

funds. The SBA said it aphundred more small businesses proved more than one million applications for loans.

The agency added it didn't keep track of whether companies would scrap their loans. "That is a decision for busi-

The loans were intended for businesses with fewer than 500 employees.

nesses to make on their own accord," an SBA spokeswoman

Ann Marie Mehlum, who ran SBA's lending under President Obama, said she applauded Shake Shack's decision. "Their action alone will allow a couple

in the program," she said. is debating

Congress whether to provide more funding for the program as part of a broader coronavirus-related funding package. The restaurant industry wants a dedicated pool of funding and changes to the payroll program, including allowing restaurants to tap the funds when they reopen as opposed to a current eight-week window.

A survey of 6,500 restaurants by the National Restaurant Association on Monday found that 60% of owners couldn't keep their employees working through existing federal programs. Restaurants will lose \$50 billion in sales this month due to the crisis, the group said, up from \$30 billion last month.

The loans were intended for

businesses with fewer than 500 employees, but language in the \$2 trillion stimulus bill allowed restaurants and hotel chains to participate regardless of how many total people they employ. Around 9% of the funds went to the hospitality sector, the SBA said.

Another large chain that received a loan was Ruth's Hospitality Group Inc., owner of Ruth's Chris Steak House chain, which qualified for \$20 million under a provision that allowed it to seek loans for each of two subsidiaries.

Ruth's said it is following guidelines on how the funds are to be spent. The chain has furloughed the majority of its restaurant employees, including managers at the 23 restaurants of its 150 restaurants where it doesn't have takeout operations.

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Taking Care of the Families of Healthcare Workers Who Risk Their Lives Every Day

A message from:

Ted Mathas, New York Life Insurance Company Chairman and CEO David Cordani, Cigna Corporation President and CEO

The brave healthcare workers in our communities have families who need our help. While many of us have the opportunity to seek shelter from the COVID-19 virus, healthcare workers are doing what they do best – saving the lives of others. There is simply no way for them to do their jobs today and help all of us without putting themselves directly in harm's way. As a result, each of these courageous individuals and their families are living with the growing fear and anxiety of what may happen if they become sick or succumb to COVID-19. This is playing out for millions of people across our country, in every state and town we live in.

This is an unprecedented societal test, and Americans are rising to the occasion, revealing our shared values, and living up to our rich history of sacrifice for the common good. The fortitude of our healthcare workers is inspiring, as are the actions of so many neighbors and friends finding ways to help, and the institutions that have retooled their factories or provided funding for ventilators, masks and other life-saving equipment.

Our two companies are uniquely positioned to be there for people in times of need – providing them with peace of mind today, while also helping protect their futures with hope for a better tomorrow. As a life insurer, New York Life does this by helping families send their kids to college, pay their bills and stay together in their homes. As a health services company, Cigna supports every individual to live their healthiest life, both in body and mind.

That's why today, the New York Life Foundation and the Cigna Foundation are jointly launching the Brave of Heart Fund at E4E Relief, a subsidiary of Foundation For The Carolinas, to provide charitable grants to financially support the families of healthcare workers who lose their lives in the fight against COVID-19. Each of our foundations has agreed to seed the charitable Fund with an initial \$25 million contribution. The New York Life Foundation will also provide a dollar-for-dollar match on the first \$25 million of individual donations received. And, beyond financial support, Cigna is providing these families with emotional and behavioral health services by phone and online. Our shared goal is simple: to ensure that every family who has a nurse, technician, orderly, cafeteria worker, custodian, doctor, or other front line healthcare worker or volunteer who loses their life supporting the battle against COVID-19 has a safety net to rely on in the days ahead.

We know our efforts cannot begin to restore what these families have lost, but we can show our deep gratitude by offering financial assistance to cover their basic needs such as housing, food, transportation, education and medical care, as well as support in the form of emotional and behavioral health services.

And just as our two companies and our foundations have come together, our sincere hope is we can do this together with you. With support from individuals and corporations across the country, we aim to raise more than \$100 million for this critical cause so we can help maximize the impact we can have on these families' futures.

If there is one thing this global pandemic has taught us, it is that by working together, caring for each other, and supporting those in need, we can help address the monumental challenges of those who need us most. The Brave of Heart Fund offers a powerful way to demonstrate our unity and shared values by expressing our deepest gratitude to the families who are fighting the fight of a generation.

Please consider showing your support and donating to this important mission at www.braveofheartfund.com.

Sincerely,

Ted Mathas is Chairman and CEO of New York Life Insurance Company

David Cordani is President and CEO of Cigna Corporation







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The Fund will be administered by E4E Relief, a subsidiary of Foundation For The Carolinas, a 501(c)3 public charity.

States Press To Speed Up **Their Testing**

Some governors take steps toward lifting business restrictions and other measures

U.S. governors took steps to start reopening their economies and focused on accelerating testing capacity for the new

> By Jennifer Calfas, Scott Calvert and Phred Dvorak

coronavirus, as infection rates slowed in hard-hit areas like New York and reported cases globally rose above 2.47 million.

In the U.S., there were 1,433 reported deaths from the coronavirus in the 24 hours that ended at 8 p.m. Monday, continuing a recent general downward trend, according to a Wall Street Journal analysis of data from Johns Hopkins University. In total, there are more than 786,000 confirmed cases of the new coronavirus in the U.S. and have been more than 42,000 deaths, according to Johns Hopkins.

In Georgia, where nearly 19,000 people have tested positive, Gov. Brian Kemp said the state's stay-at-home order would expire April 30, and recommended more vulnerable residents stay at home until May 13. Gyms, bowling alleys, barbers and other "nonessential" businesses may reopen Friday, Mr. Kemp said, with some social-distancing restrictions and sanitation practices still required. Dine-in services at restaurants may resume next week.

"Today's announcement is a small step forward and should be treated as such," Mr. Kemp

Tennessee's stay-at-home orders will also expire at the end of the month, Gov. Bill Lee said, allowing the "vast majority" of affected businesses to reopen May 1. The state has 7,070 confirmed infections.

South Carolina Gov. Henry McMaster, meanwhile, issued an order lifting restrictions on some retailers and other businesses. He also eased limits on access to public beaches, leaving the issue up to mayors and U.S. cases local leaders.

Public-health experts say any return to something resembling normal life will require fast and widespread testing, but state health officials and laboratory operators are navigating supply shortages, test backlogs and unreliable results. Adm. Brett Giroir, the Trump administration's testing coordinator, has said the federal government is fully engaged in fixing testing.

State and local health de-



Covid-19 tests are given at a drive-through site near San Francisco. Gov. Gavin Newsom said California aims to conduct 25,000 tests daily.

Coronavirus Daily Update

As of 9:39 p.m. EDT April 20

786,638

2,475,841

170,261

42,295

Source: Johns Hopkins University Center for Systems Science and Engineering

partments are also working to expand contact-tracing teams, which track down those sick with Covid-19 and those they might have exposed.

On Monday, Pennsylvania Gov. Tom Wolf vetoed a bill passed by Republican lawmakers last week that would have partially repealed the Democratic governor's order closing nonessential businesses.

"Reopening tens of thousands of businesses too early

72,687 U.S. recoveries

646,433

will only increase the spread of the virus, place more lives at risk, increase the death tolls, and extend the length of the economic hardships created by this pandemic," Mr.

Significantly more testing will be key to accelerated reopenings, most experts agree, and some states are moving aggressively to expand their

capabilities to do so. Maryland Gov. Larry Hogan said Monday the state acquired 5,000 test kits-enough to run 500,000 coronavirus tests-from a South Korean company for about \$9 million.

California Gov. Gavin Newsom said the state aims to conduct 25,000 tests daily by the end of the month, with plans to increase that capacity "by multiples" in May and June.

New York, the state suffering the most from the virus, began tests Monday aimed at estimating what percentage of its population has been infected.

Contact-Tracing Efforts Expand

By Dan Frosch

AND JOSHUA JAMERSON

Sandra Melman asks the sick person on the other end of the phone to grab a calendar. She wants to know everything the person did and everyone the person spent time with during the 48 hours before symptoms of the new coronavirus began to appear.

We want to try and figure out how you got the disease and who could have been exposed to you, so we can help stop it from spreading," said Ms. Melman, an epidemiologist for the New Mexico Department of Health, about what she typically tells the people she calls.

Since the end of March, Ms. Melman and a team of nearly 100 public-health workers in New Mexico have spoken to more than 150,000 people as part of contact-tracing efforts to stem Covid-19, the illness caused by the coronavirus.

State health departments are quickly expanding similar contact-tracing teams, in hopes they will help the states reopen their economies sooner and lower skyrocketing unemployment. People who have come into contact with an infected person are typically told by the teams to isolate themselves for 14 days or consult with a doctor.

In lieu of a vaccine, which might not be widely available for at least a year, and mass testing, public-health experts say tracking down sick people and those they might have exposed to the virus will be critical in allowing the public to work, shop and gather in groups again. The more restrictions are eased, these experts say, the more contact-tracing workers will be needed.

"The scale at which that is required far supersedes what is available right now at public-health departments," said Emily Toth Martin, a professor of epidemiology at the University of Michigan School of Public Health. Countries such as Singapore

and South Korea have leaned heavily on sophisticated, techdriven contact tracing to successfully slow coronavirus outbreaks. The U.S., by contrast, is just gearing up its efforts, which are at the state and countyrather than federal—level.

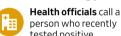
In Arizona, public-health graduate students at the University of Arizona who track food-borne-illness cases for Maricopa County recently began performing Covid-19 contact tracing for Pima County, which includes Tucson.

Partners in Health, a global nonprofit, recently forged a partnership with Massachusetts to hire and train nearly 1,000 people to do contact tracing.

In Utah's Salt Lake County, the public-health department has beefed up its contact-tracing team of 30—typically used against chickenpox and other common communicable diseases-to 130.

Lee Cherie Booth worked in a Salt Lake City immunization clinic before switching to her current contact-tracing job about a month ago. She spends more than 10 hours a day. sometimes seven days a week, calling people referred by health authorities after the paHealth departments are forming teams to identify and isolate anyone exposed to a confirmed Covid-19 patient.

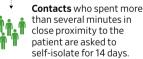
The contact-tracing process



tested positive. Patient describes everywhere they went,







Source: state public health officials Lindsay Huth/THE WALL STREET JOURNAL

tients test positive for the new coronavirus. Her mission is to jog their memories about where they were and with whom they were in contact as long as two days before the onset of symptoms.

Ms. Booth's questions, all relayed by phone, can be painstaking and personal.

What time did you wake up? What did you do? Who did you see? Did you drive your own car? Did you take public transportation? Did you order a Lyft? When you went to get your car serviced, did you talk to the receptionist? Did you touch anything?

"A lot of the time they're just sitting there coughing," Ms. Booth said.

Apple Inc. and Alphabet Inc.'s Google have said they intend to build software together that would alert people if they were in contact with someone infected with the new coronavirus. Such mobile apps, which have already been used in Asian countries, promise more precision than relying on peo ple's memories, but have raised privacy concerns and aren't ready for widespread rollout in

Public-health officials said laypeople can be trained to make the calls and read off the scripts provided. But the work requires trying to compel sick people to recall important events and assisting individuals exposed to the virus in figuring out how best to isolate them-

Ms. Melman said that at first, her team typically generated lists of between 10 and 30 people to call based on a sick person's contacts. The number of contacts from a single case has since dwindled to between three and five people, she said.

Still, the ability of the virus to transmit so easily was striking, Ms. Melman said. "Eventually, everyone in that household tests positive," she said.

More Infections Than Thought in L.A. County

By Brianna Abbott AND ALICIA A. CALDWELL

Many more people in Los Angeles have likely been infected with the new coronavirus than previously known, according to preliminary blood test results released Monday by the Los Angeles County Department of Health.

Yet the vast majority of the county's residents—more than 94 out of every 100 peoplestill remain susceptible to the novel virus, city health authorities said.

Some 863 adults in the county of about 10 million were tested for antibodies, and about 4.1% were positive, said Barbara Ferrer, director of the Los Angeles County Department of Public Health.

Researchers at the University of Southern California, who joined with the health department, then estimated that 2.8% to 5.6% of Los Angeles County's adult population has been infected at some point.

"It does, for me, reinforce the need for everyone to continue to stay at home." Dr. Ferrer said. "Because there are many, many people who are positive throughout the county who may not be showing symptoms."

The findings, which independent experts haven't yet vetted, come from serology tests that look for antibodies in the blood that have developed to fight off the coronavirus. The tests are different from the diagnostic tests, which examine a nose swab to see if the virus is present. Health authorities and re-

searchers have begun rolling out the serology tests to gauge how widely the virus is spreading, and when it might be safe to ease social distancing, lockdowns and other restrictions.

The results echo other findings in the U.S. and Europe, and point to a lower hospitalization and mortality rate among the infected than current case counts suggest.

Yet the results also suggest that Los Angeles county and other hot spots are still vulnerable, because most people still haven't been infected. This means the virus could spread among the uninfected within communities if social-distancing measures are lifted too

Epidemiologists estimate that at least 50% to 60% of a population would need to be infected to build up a level of herd immunity that could potentially stop the chain of transmission.

"What the data are telling us most clearly and most concerningly is that a substantial majority of individuals remain unaffected," said Joseph Lewnard, an assistant professor of epidemiology at the University of California, Berkeley, School of Public Health. "We remain at critical risk for second waves."

Dr. Ferrer also said it is still too early to ease social-distancing requirements. "We asking people to have more patience," she said.

State Funds For Jobless Drained

Continued from Page One resenting one of the steepest declines among states.

"All benefits, including enhanced benefits, are being paid, and to help ensure it remains that way the state has applied for an up to \$4 billion, no-interest federal loan," said Deanna Cohen, a spokeswoman for the New York Labor Department.

Massachusetts also has used up about half of its available funds.

California registered the third-largest decrease over this period: Its trust-fund balance had dropped nearly 40% since February to \$1.9 billion in mid-April.

Charles Pearce, communications director for the Massachusetts labor department, said the state "will continue to take any steps necessary to ensure the solvency of the trust fund, including seeking support from the federal government." California didn't respond to

requests for comment.

Economists said the cash drain means more states in coming weeks could run out of money for paying regular unemployment benefits and put in requests for loans from the federal government.

Congress doesn't need to approve additional federal loans to replenish state trust funds when they run dry. A state's governor submits a letter to the federal government asking for the funds to be placed in their state account.

"To the extent that their own reserves are running low, they have the ability to take an interest-free loan up from Treasury." U.S. Labor Secretary Eugene Scalia said. "It wouldn't surprise me to see more avail themselves of that going forward."

The U.S. Treasury Department didn't respond to requests for comment.

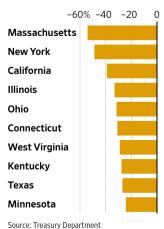
States have struggled to process an unprecedented number of claims applications. States also face added coronavirus-related spending, while shutdowns of much of the economy, along with shifting deadlines for income-tax filings, have threatened to crimp state budget revenues.

More than 22 million peonle have filed for unemployment claims nationwide in the month that ended on April 11. Two weeks ago, about 660,000 people applied for unemployment benefits in California. Nearly 400,000 individuals filed in New York and 100,000 in Massachusetts. No state has run out of

money, but state officials are already planning for the possibility. Connecticut will probably need to take out federal loans for regular benefit payouts next month, said Danté Bartolomeo, deputy commissioner of the state's labor department.

Burning Cash Unemployment trust fund

balances among states with the largest funding declines, percent change from February through mid-April



Connecticut's funding for unemployment benefits has declined about 30% since the end of February.

Many states entered the current crisis without sufficient funding to weather a

prolonged downturn. Twenty-two states' and ju-

risdictions' unemployment trust funds were unprepared to pay out enough in unemployment benefits in the event of a recession, according to Labor Department data.

For a trust fund to be recession-ready, it must have enough to pay benefits through a yearlong recession.

After the last recession, states eventually turned to the federal government as a backstop when their unemployment trust funds went broke. They later pursued different strategies to pay back the money, often by either raising employer taxes or cutting the duration of benefits.

States could repeat the same strategy of benefit cuts during the current downturn, perhaps on an expedited timeline. The recent surge in jobless claims far outpaced the increase during the 2007-09 recession.

"The concern is that they're going to feel pressure to restrict benefits," said Andrew

Stettner, senior fellow at the Century Foundation, adding, "They may feel that pressure before the economy is fully recovered."

Another potential concern is a further run-up of federal debt. The federal government has started to pour money into the unemployment-insurance system to help supplement incomes for the millions who have lost their jobs.

The federal-stimulus plan signed into law last month will add \$1.76 trillion to federal budget deficits over the coming decade, the Congressional Budget Office said Thursday. Of that, the CBO expects the expansion of the unemployment-insurance system will add \$268 billion to the deficit.

The Treasury paid out more than \$11 billion in unemployment benefits last week through Friday, more than the amount it spent on the assistance program in the first three months of the year.

–Anthony DeBarros and Eric Morath contributed to this article.



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A8 | Tuesday, April 21, 2020

Firms Look at Testing Employees in Return to Work

By Sarah Krouse

Companies from Amazon.com Inc. to General Motors Co. are exploring ways to test their employees for Covid-19 before they come in to work.

Regular tests for workers could keep exposure to sick employees to a minimum and boost employees' confidence about coming back to work, corporate medical advisers and human-resources executives say. Yet companies face hurdles in rapidly building testing capacity. For one, tests remain tough to obtain in large quantities, those people

Jeff Bezos, Amazon's chief executive, told shareholders that the company has started gathering the equipment it needs to build a Covid-19 testing lab for its employees. The e-commerce giant has redeployed a team of scientists, procurement specialists and software engineers to work on a lab for testing front-line

"Regular testing on a global scale, across all industries, would both help keep people safe and help get the economy back up and running," Mr. Bezos wrote in the shareholder

Business leaders convened by the Trump administration last week to discuss reopening the economy said the U.S. needed to dramatically increase the availability of testing before their workers would feel comfortable returning to the office. Some executives on the call indicated they were looking into providing tests for workers and, potentially, customers, according to people familiar with the matter.

Despite broad employer interest in testing, some executives discussing these plans say that there first must be enough tests for health workers and people who are sick. Many labs have faced challenges including a shortage of swabs and reagents, backlogs and unreliable results.

"I think the big question we're seeing that everyone wants to know is how much testing we need to do at the individual employee level,"

said Ryan Smith, CEO of Qualtrics, a unit of German enterprise software giant SAP SE. Mr. Smith said he is considering various tests for his work-

While temperature screening and masks remain the most common types of protection companies are considering to protect their workforces, a survey earlier this month of Fortune 200 companies by Employer Health Innovation Roundtable, a benefitsfocused industry group, found that about a quarter of the 40 survey respondents said they were considering some form of testing at worksites they plan to reopen in the next

Corporate testing sites

could pop up in office buildings, or at nearby facilities that provide occupational health or primary care for workers, said Dr. Neal Mills, chief medical officer at Aon PLC, which advises companies on workplace benefits and sells retirement and insurance products. With the arrival of virus tests that deliver results in minutes, rather than days, employees could report to those sites for virus tests before heading into work, he

Many employers provide annual flu shots, but testing for coronavirus is more invasive and potentially hazardous, medical experts say. The tests typically take a swab from the back of a person's

nose or throat, and getting accurate results requires a trained tester clad in full protective gear, said Dr. Jeff Levin-Scherz, leader of Willis Towers Watson's health-management practice.

That nose or throat swab test often elicits a cough from the patient, which could spread viral particles. "That's not really good to do in the lobby of a factory or office," he said.

In lieu of testing for now, businesses are trying other ways to gauge the health of workers. Partners their HealthCare in Boston, for example, requires employees to sign an attestation saying they feel well within two hours of the start of their shifts.

Companies Plan for Reopening

Continued from Page One

broad on what employers should do, leaving many companies to jury-rig internal safety procedures to fight the coronavirus outbreak. Some common practices include regular health screenings at entrances and requiring workers to wear face masks and other protective gear on the job, industry executives and consultants say. Many companies are changing floor plans, rerouting workers through separate entrances and exits, and staggering shifts to limit interaction.

Testing employees for the virus before they come to work has also emerged as a potential solution for businesses looking to better track the outbreak. But executives say there are still many hurdles to widespread deployment, including whether enough tests can be secured and workers will agree to take them.

Businesses that never closed their facilities because they were deemed essential are on the forefront of these ad hoc efforts-with vastly mixed results and constant changes. Others, such as many major car makers, plan to reopen factories in coming weeks.

The patchwork approach to safety is creating tensions with unions and debate over whether some companies are doing enough to protect workers. Some employees in recent weeks have walked off the job, saying their workplaces were putting them at risk.

'We don't have to put people in space suits, but we have to do more than hand sanitizers," said Ford Motor Co. CEO Jim Hackett. He said he didn't see concerns about the virus outbreak abating soon and the company was putting in place a global safety standard that should last until at least next spring. "We've got to get that

part really right," he said. Some companies are taking their cues from what has worked in China, where efforts to reboot businesses are ahead of other parts of the globe because the country has been dealing with the virus outbreak longer. There, temperature checkpoints and employeehealth screenings have become commonplace at most business locations. Factory workers wear masks and rubber gloves during shifts, and companies have closed down break rooms and smoking areas to prevent employees from congregating in one spot.

Federal guidance

The federal Occupational Safety and Health Administration has released guidance on protecting workers, providing recommendations-some industry-specific—on limiting the virus's spread. The Centers for Disease Control and Prevention offers workplace guidelines, including what to do if an employee has been exposed.

But OSHA stresses its guidance isn't regulation, only an advisory. In practice, executives and workplace-health experts say, much is left open to interpretation. OSHA didn't respond to requests for comment, Bradley King, a CDC industrial hygienist, said employers should prioritize keeping employees separated to avoid the spread of Covid-19. If that wasn't possible, he said, the employer must determine what protective equipment workers need



With each new Covid-19 case, UPS informs co-workers in the immediate vicinity and informs local union officials.

and provide it.

A CDC team recently made an on-site visit to a pork-production plant in Sioux Falls, S.D., operated by Smithfield Foods Inc. to evaluate workersafety measures, said Smithfield CEO Kenneth Sullivan. That team planned to visit other Smithfield plants and provide similar guidance, he said. Smithfield closed its Sioux Falls pork plant, one of the industry's biggest, for an indefinite period after the state's governor said the facility was linked to more than 200 cases of the new coronavirus.

FedEx Corp. and United Parcel Service Inc. have continued operating their global-delivery enterprises, even as the virus's spread led to infections and death in their employee ranks.

When a UPS employee in San Diego tested positive in March, the company quarantined the worker and disinfected all affected workspaces before opening the area back up, a UPS spokesman said. With each new Covid-19 case, UPS informs co-workers in the immediate vicinity and informs local union officials. UPS doesn't disclose the sick employee's identity nor does it communicate a positive diagnosis to all workers at a site, the spokesman said, adding: "This is beyond the scope of guidance provided by public health officials."

FedEx said it removes from duty pilots who test positive or are exposed to an infected person. They self-isolate pending further testing and evaluation. If a worker tests positive in another facility, such as a package-sorting center, managers work with human-resources personnel to notify other employees or vendors who may have been exposed or who work closely with the infected worker and ensure they take

recommended precautions. If the case is in a retail location, FedEx said, it would close the store for 24 hours to have a third-party cleaning company sanitize the space and reopen it with staff from a nearby store.

Last week, business leaders pressed President Trump to increase virus-test availability to help convince the public it is safe to return to work. Mr. Trump has formed a task force of more than 200 business executives and political leaders to advise on reopening the economy. The White House said the CDC and the Department of Homeland Security have issued specific guidance for critical infrastructure workers, which can be applied broadly but are specific for businesses in the first phase of the administration's guidelines to reopen the coun-



An employee's temperature is checked at a Pepsi-Cola Bottling Co.

Amazon.com Inc. CEO Jeff common appliances such as mi-Bezos on Thursday said in a shareholder letter the company has started building test capacity to diagnose all employees for Covid-19, including those with no symptoms.

Nervous employees

Where workers are coming in daily, managers are trying to reassure nervous employees that the companies aren't putting them at risk, emphasizing efforts to deep-clean workspaces, make hand sanitizers and protective gear widely available, and restrict visitors.

Tire maker Bridgestone Corp., which recently restarted five U.S. factories, said it suspended rules regarding unexcused absence to encourage workers feeling sick to remain home and has installed partitions at some plants to maintain 6 feet between employees.

At GE Appliances factories, nurses are available on site, and "social-distance ambassadors" monitor behavior and address employee issues that may arise, a company spokeswoman said. The company, which Chinese appliance maker Haier Group bought from General Electric Co. in 2016, taped off some factory restroom urinals so workers wouldn't stand too close to each other, according to company materials.

Volkswagen AG has rolled out a list of 100 workplace changes it plans for building cars as it begins reopening its European factories this week and plants in other countries, including the U.S., after April 27. Among them, workers will no longer pass materials to each other by hand, setting them down instead. Employees will line up single-file to enter factory gates, keeping a 6-foot distance. The overhaul is so exhaustive, union officials have said, staff will have to take extra time to absorb the new rules.

Ford, General Motors Co. and Fiat Chrysler Automobiles NV said workers would see changes when their U.S. factories reopen in the coming weeks, such as a requirement g to fill out daily question-≥ naires—likely online before arrival-about symptoms, and temperature checks.

The companies said they were taking steps to reduce ing teraction during the flow of factory life. Where possible, degranting workers would use a ੋ separate exit from those arriving for the next shift, instead of filing by one another through turnstiles. Seating in kitchen areas would be spread out, with

crowaves sometimes removed.

Ford, at one plant making protective gear for medical workers, is experimenting with workers wearing wristbands that alert them if they come within 6 feet of another, a Ford spokeswoman said. Specific measures to main-

tain 6-foot guidelines will require auto makers and many parts suppliers to rejigger some tasks and may not be feasible, said Kristin Dziczek, a labor expert at the Center for Automotive Research, a research group. For example, bolting an engine into a vehicle typically requires more than one worker standing underneath.

The car companies say they are still working out assemblyline changes. Jim Glynn, GM's workplace-safety chief, said spacing workers would be one of the biggest hurdles to resuming work. GM would give extra protective gear to those working in proximity, he said. Some measures, such as

'We have to do more than hand sanitizers? savs Ford CEO Jim Hackett.

lengthening time between shifts and using fewer workers in some areas, are expected to hamper productivity, consultants and executives say. "If necessary, we will produce less rather than take any risks," said Andreas Tostmann, Volks-wagen's global production chief. "We won't have the entire workforce back in the early days, but rather successively increase capacity."

The United Auto Workers union in mid-March successfully pressured Ford, GM and Fiat Chrysler to close U.S. factories as the virus spread. Since then. UAW leaders have been vocal about workplace changes they want, such as testing protocols and assurance that those with symptoms can self-quarantine at home without penalty to dissuade employees from showing up sick. The car companies and union are jointly developing the plans, they have

The UAW, representing roughly 150,000 factory workers at the Detroit car companies, has confirmed at least 22 Covid-19 deaths among its membership, but it isn't clear if any contracted the virus at work, a union spokesman said.

Protocols on what to do when a worker tests positive for Covid-19 vary, even within the same industry.

Liberty Coca-Cola in at least four cases has shut down an entire plant or warehouse when a worker there had a confirmed Covid-19 case, the spokeswoman said. Managers sent the shift home, and an outside firm disinfected every surface, including printers and microwaves, before the next shift.

The rival Pepsi bottler interviews sick workers, asking which parts of a facility they worked in recently and targeting those areas for deep cleaning. It reviews security-camera footage to confirm the cleaning firm has addressed the spots, said the company's Mr. Honickman. In some cases, he said, it has cleaned an entire facility over a weekend without needing to send workers home.

"In a perfect world, I'd love to see more" guidance from public-health officials, he said. When the guidance is clear, it's easier to implement.'

In March, tobacco giant Alria Group Inc. said it was closing down its Marlboro cigarette factory for two weeks after two employees tested positive for the virus. When it reopened the plant, it reduced the number of workers and implemented measures such as closing the cafeteria and giving employees box lunches instead, an Altria spokesman said.

'Balancing act'

"It is a true balancing act and we really said employee safety first, with an eye towards business continuity," Billy Gifford, who was named Altria CEO last week, said in a March interview. "Our focus is on the health and welfare of our employees so we're being very deliberative in our approach," the spokesman said.

Reynolds American Inc.'s procedure for a confirmed Covid-19 case is to perform additional cleaning of the areas where the employee worked, a spokeswoman for the cigarette maker said. In one case, the company shut down a small facility a day early before the Easter holiday for cleaning.

University of Iowa professor Renée Anthony, an industrial hygienist, said while government guidelines offer some direction, companies must finetune responses to specific workplace situations. The CDC recommends people wear cloth face masks in public places where it is difficult to maintain distancing, for example. But cloth masks don't provide sufficient protection when employees work huddled together, she said, where industrial-grade masks would be more effective. N95 respirator masks also are effective but are in short supply because of medical demand, she said.

The CDC's Mr. King said cloth face masks were recommended to potentially limit the spread of the virus to others. They shouldn't be considered a substitute for protective gear like respirators or industrialgrade masks if the employer deems a need for them, he said.

Joe Vitta, president of Teamsters Local 812, which represents workers at the Coke and Pepsi bottling plants, said the union's priority was ensuring workers get adequate protection against the virus.

"It's a moving target," Mr. Vitta said. "9/11, it happened and we reacted. Sandy, it happened and we reacted," he said, referring to the superstorm. "This is different. It changes day to day."

Bob Tita, Thomas Gryta, Nora Naughton, Andrew Restuccia and William Boston contributed to this article.

Governments Zero In On an Essential Ratio

By Stephen Fidler

Governments across Europe and in the U.S. say they have driven down a key variable to levels that suggest that the lockdowns that plunged their economies into the deep freeze are succeeding in containing the spread of the deadly new coronavirus.

The variable measures the average number of other people each carrier of the new coronavirus infects. This infection ratio will be avidly watched as policy makers calibrate the task of rolling back measures that have kept hundreds of millions of people at

If the reproduction ratio is below one, the epidemic peters out. The closer to one, the slower the decline, and the greater risk of a resurgence. If the ratio sticks above one, the epidemic will gather momentum. The good news is across Europe and in parts of the U.S. the ratio has fallen below one.

The trouble is that the spread of the virus is highly sensitive to whether the ratio is just below or just above

That sensitivity means governments will have to estimate how proposed relaxation measures such as opening schools, restarting factories and reopening stores will affect the ratio, and they will have to continue to monitor the impact in real time. If the number rises back above one. some restrictions may have to be reimposed.

In the center of the U.S. health crisis, New York Gov. Andrew Cuomo said on Sunday that the infection ratio in the state had been slowed to 0.9, but added, "We have a very small margin of error here as we navigate going forward." If the reproduction ratio were to rise slightly to 1.2, he said, "the virus is increasing and is an epidemic and an outbreak and is out of con-

In Europe, governments have also said they have brought the ratio below one, while emphasizing that the battle against the virus is far from won and that the ratio could surge again.

French Prime Minister Édouard Philippe said on Sunday that the variable in France had fallen to 0.6, showing that the spread "is slowing and slowing rapidly" thanks to the confinement measures that have been in place since March 17.

The latest ratios represent a significant decline from the average of three to four that many studies estimate would have been the reproduction ra-

In Europe and the U.S., relaxation of containment efforts will be fraught.

tio if nothing had been done. With an unmitigated rate of spread, the serious symptoms of Covid-19, the disease caused by the new coronavirus, suffered by a minority of patients would have overwhelmed health systems in most coun-

A review of 12 modeling studies cited by the European Centre for Disease Prevention and Control, which coordinates disease responses in the European Union, suggests that if the disease were left to its own devices, the reproduction ratio—known as RO—would be about 3.28. A study led by Chinese scientists of the experience in Wuhan in China, where the virus appears to have originated, suggests the severe lockdown there cut the reproduction number to 0.32 from

The RO estimates are based on information about the growth in number of confirmed cases and the number of people hospitalized.

Mr. Philippe, the French prime minister, said Sunday that the estimate of R0 would be one of the tests France would use as it phases out its lockdown measures, which are in place until May 11.

In the U.K., the government's chief scientific adviser, Patrick Vallance, said last week that it was highly likely that the ratio was below one but probably above 0.5, which meant that the epidemic is now shrinking but that it is unclear by how much.

He emphasized that allowing it to rise above one again would be dangerous. "It may be quite difficult to predict and detect that growth and we run the risk of a second peak with all of the damage that that will cause to health and to the economy," he said, adding that in some places like hospitals and care homes the reproduction ratio could be higher.

In Germany, the estimated fall in the rate has encouraged the government to cautiously move to open up some locked down parts of the economy.

The Robert Koch Institut, which advises the German government on the medical response to the pandemic, said Sunday that it estimated the reproduction factor at 0.8. In Italy, the first European country to be hit hard by the crisis, the rate is about 0.8, according Franco Locatelli, one of the government's main scientific advisers.

Scientists are still working on models that may help in calibrating measures to relax the lockdowns.

> -Jason Douglas and Bertrand Benoit contributed to this article.



Izzy Wheatley has been sharing a bedroom with two penguin chicks at Paradise Park in Cornwall, U.K.

She Still Feeds the Penguins, But Now Calls Her Zoo Home

As the new coronavirus forces big changes in how we

work, The Wall Street Journal is looking at how different people are coping with the stresses and risks. For earlier articles in the series, visit wsi.com/makingitwork.

By Saabira Chaudhuri

The first thing Izzy Wheatley hears when she wakes up in the morning is the sound of penguin chicks squeaking.

The 20-year-old zookeeper moved into Paradise Park—a zoo in the southwestern British county of Cornwall—just before the U.K. went into lockdown to stem the spread of Covid-19. She had been living with her parents, but in March joined three of her colleagues to hunker down with the army of animals that call the 14acre park home.

The two penguin chicks sleep in her bedroom and she hand feeds them hourly through the day while juggling other duties, including feeding otters and exercising eagles, vultures and hawks. "I constantly smell of

whisked-up fish," she said. Ms. Wheatley moved into the zoo because the park was concerned about not having enough staff if some were forced to self-isolate because of contact with sick family members. She also worried about contracting the virus at the park and then infecting her parents.

The zoo can host crowds of hundreds daily, but is currently closed to the public. Still, it costs over £1,500 (\$1,875) a week to feed the nearly 1,200 animals including penguins, parrots, birds of prey, red pandas, goats, otters and red squirrels. Ms. Wheatley's pay hasn't changed, but she is encouraged to keep track of overtime in case the zoo can eventually pay her for the extra hours.

The house Ms. Wheatley and three other female keepers live in is typically used for visiting conservationists. Ms. Wheatley has worked at

the park for $2\frac{1}{2}$ years, but this is her first time living away from home.

"At first it felt like one big sleepover," she said. The group brought potted plants and framed photos to feel more at home.

Reality soon set in and squabbles broke out. Schedules changed abruptly, and the keepers found it hard to decompress. Ms. Wheatley now wakes up about an hour earlier, and often finishes work an hour later because of staff shortages.

"Stress levels completely spiked," Ms. Wheatley said. "Everybody was a bit grumpy at each other, nobody knew who was doing what." The on-site keepers and workers who commute to the zoo have since developed a routine.

On her days off, Ms. Wheatley has a new appreciation for a park she otherwise sees as a workplace.

"There's a cool breeze, the sun shines and it's like being on holiday," said Ms. Wheatley. "It does feel like you're in a bit of paradise."

#AloneTogether

Staying home saves lives.



For more information, visit coronavirus.gov P2JW112000-4-A01000-1-----XA

THE CORONAVIRUS PANDEMIC

Small Shops Start to Open In Germany

By Ruth Bender

BERLIN-Shoppers flocked back to stores across most German states as Chancellor Angela Merkel warned that exiting lockdowns too fast could jeopardize the country's progress in curtailing the coronavirus pandemic.

Germany's government last week said it would start tiptoeing its way back to economic normality, gradually restarting businesses this week that were closed by a monthlong lockdown.

First in line are smaller shops, which can now reopen as long as they follow strict hygiene rules and put safeguards in place to prevent the buildup of crowds.

The government is stressing that the relaxation was no license to stop practicing the country's strict social-distancing measures, which are still binding, lest infection rates begin rising again, forcing a renewed lockdown.

"We mustn't allow ourselves for one second to be lulled into a false sense of security," Ms. Merkel told a press conference on Monday. The impact of the gradual reopenings will be visible only in two weeks, Ms. Merkel warned, urging citizens and states to remain vigilant and disciplined. "We mustn't forget that we're still at the beginning of this pandemic."

Germany so far has been spared the high death tolls seen in northern Italy or New York state. It never fully shut down its economy, leaving factories free to operate, and unlike France or Italy, continued to allow citizens to go for walks outside.

As of Monday afternoon, figures compiled by Johns Hopkins University showed Germany had 146,293 confirmed Covid-19 cases and 4.683 deaths, about a quarter of the fatalities reported in France, which has a similar number of confirmed cases.



A mother and son wore protective masks while shopping at a shoe store in Leipzig on Monday, as stores began to reopen in Germany.

Germany's Retail Federa- Hilbig, owner of a clothing tion, Handelsverband Deutschland, said it expected foot traffic to ramp up slowly given the safety restrictions put on shops.

But several shop owners said on Monday they were pleasantly surprised by the attendance.

"It shows that people haven't been shopping for a month. I sold more than on a regular Monday," said Iris

store in Cologne.

Ms. Hilbig said she was still concerned that the reopening might be coming a little too fast. She is allowed to let five people into her store at once but for now she prefers to limit it to three.

"It would be dramatic if this leads to a new rise in infections and then we are forced to close again," she

The country's 16 states vary widely in their implementation of the reopening plan—with some states allowing malls and furniture stores to restart while others are still banning them. The exact reopening date and safety measures also vary from one jurisdiction to the next.

In downtown Frankfurt on Monday afternoon, lines formed outside some stores that were restricting the number of shoppers allowed inside to as few as four. Staff stood at the door, asking customers to disinfect their hands and offering gloves or masks.

Large fashion chains, department stores and cafes on the Zeil, one of Germany's busiest shopping boulevards, remained shut. People wandered down the street and sat on benches, enjoying the spring sunshine. Very few wore masks.

hina Aims to Allow Some Business Travel

By Chun Han Wong

HONG KONG-China has approached a number of countries to discuss the possibility of easing border controls to allow some business travel to resume, part of broader efforts to restart economic activity stalled by the coronavirus pandemic.

With China signaling initial success in containing its domestic contagion, its officials have in recent weeks proposed efforts to facilitate essential travel with foreign counterparts from more than a dozen countries across the Asia-Pacific region, diplomats familiar with the matter said.

Chinese raised the idea with counterparts from Japan, South Korea and Southeast Asia, among other governments, the diplomats said. South Korea and Singapore have formally agreed to discuss ways to facilitate essential travel with China, according to government statements.

Beijing has also reached out to some European countries about allowing some travel necessary for sustaining supply

chains, some diplomats said. China's travel curbs are among the strictest worldwide, imposed to halt the rein-

troduction of the coronavirus.

officials have Since late March, China has suspended entry for nearly all foreigners and limited international air routes to weekly flights—weeks after Beijing urged other countries not to restrict travel to and from China, saying such curbs go against World Health Organization guidance.

The proposal to ease some of those controls comes as China steps up efforts to restore economic activity and repair global supply chains. On Friday, China said its economy shrank 6.8% in the first three months of this year from a vear earlier—the first contraction since Beijing began reporting quarterly gross-do- be spared mandatory quaranmestic-product figures in

China's Foreign Ministry didn't respond to a request to comment.

China's proposal would exempt certain travelers-such as business executives-from existing travel bans and streamline the health-screening measures they need to go through, the diplomats said.

One possibility is to have participating governments recognize the results of each other's coronavirus tests, so prospective travelers could be tested before they depart rather than after arrival—and tine measures at the destination country, the diplomats said.

Multinational companies in the automotive, electronics and chip industries need senior engineers to travel to testing centers and labs in other countries to make real-time adjustments to products or components, executives said. Companies also often send senior staff from their home countries to oversee production processes in facilities abroad.

China has started discussions with South Korea and Singapore on how to facilitate essential travel, people familiar with the talks said.

Eastern and South Asian reci-

pes, hopes to avoid provoking

envy by cooking for her virtual

guests. "I think [we're] still

surprised that this is what it's

In New York, Imam Suhaib

Webb is organizing virtual

events for every night of Ram-

adan that he is calling BYOI—

Many people already strug-

gle with loneliness, and both

Ramadan and lockdowns can

highlight that isolation, said

Imam Webb, an adjunct pro-

fessor at New York University

who runs his own religious-ed-

ucation website. There is a

need to find alternatives to

gathering around one table for

the sake of people's mental

and emotional health, he said.

hour before sundown with a

religious lesson, discussion

fill that social gap that's a cru-

cial part of Ramadan," he said.

You don't need to necessarily

feed people with food. Some-

times you can feed people

with your presence and by

and prayer.

Each BYOI will begin an

You're trying your best to

bring your own iftar.

come to, though," she said.

Jews Face More Hatred Amid Crisis, Report Says

By Felicia Schwartz

TEL AVIV-The new coronavirus pandemic is fueling anti-Semitic sentiment, Israeli researchers said Monday, as messages online and elsewhere falsely blame Jews for the spread of the disease and the ensuing economic impact.

Researchers from the Kantor Center at Tel Aviv University, which released its annual assessment of global anti-Semitism on Monday, said the virus that causes the Covid-19 illness had revived centuriesold habits of faulting Jews for things that go wrong, such as natural disasters, plagues, world wars and economic crises. Far-right groups, ultraconservative Christian circles, Islamists and the far left are seen as common sources of such accusations, the report found.

"Since the beginning of the Covid-19 pandemic, there has been a significant rise in accusations that Jews, as individuals and as a collective, are behind the spread of the virus or are directly profiting from it. Moshe Kantor, president of the European Jewish Congress, said in connection with the report's unveiling. "The language and imagery used clearly identifies a revival of the medieval 'blood libels' when Jews were accused of spreading disease, poisoning wells or controlling economies.

Others have echoed the findings of the Tel Aviv researchers.

"We are already seeing coronavirus being used as a pretext for violent anti-Semitism," said Jonathan Greenblatt, chief executive officer of the Anti-Defamation League, which studies hate and anti-Semitism in the U.S.

Muslims Try to Safely Sustain Ramadan Traditions

By Raja Abdulrahim

With Ramadan beginning week, Sarah Farid-Chaudhry is planning for what she has termed "e-iftars."

The clinical nutritionist and her husband want to replicate, as best they can amid the coronavirus pandemic, the communal dinners that mark the breaking of the fast after sunset each day during Islam's holy month of Ramadan.

Ms. Farid-Chaudhry, a 30year-old mother of two in Windsor, Conn., plans to cook and drop off food—from a safe distance—to family and friends so they can all share the same meal over Zoom.

"I'm much more on board physical distancing rather than social distancing, she said. "Especially during Ramadan, when it's the time we spend more time with family and friends."

Like the Christian and Jewish faithful who already have celebrated Easter and Passover at a distance, Muslims are planning virtual iftars as most countries remain under some form of lockdown and social



Sarah Farid-Chaudhry plans to deliver food to people who will join her for communal dinners over Zoom.

distancing precludes large gatherings.

The virtual events are expected to be more popular in the West, where Muslims are more likely to live outside a nuclear-family household.

Not everyone is on board.

Some say the lack of sometimes-gluttonous group dinners offers a chance to focus on the spiritual aspects of the month, including special nightly prayers called *tarawih* and reading from the Quran.

Others worry about the risk

of iftar envy: Wishing you were eating what is on the other side of the screen.

Ms. Farid-Chaudhry, who just published an e-cookbook timed for Ramadan, which starts around Thursday, with healthier versions of Middle

praying with people." higher in the future than they

are in the present. In 1990, Phibro, the oil-trading arm of Salomon Brothers, loaded tankers with cheap crude just before Iraq invaded neighboring Kuwait and crude prices surged. The trade's architect, Andy Hall, rose to fame, bought a century-old castle in Germany and became known for a \$100 million payday. Present market conditions have inspired emula-

In the past four weeks, nearly 50 long-term contracts have been signed for VLCCs. Mr. Giveans said. Jefferies has identified more than 30 of them as being intended for storage, usually because they are leased without discharge locations. The coast of South Africa offers popular anchorage since it is relatively equidistant to markets in Asia, Europe and the Americas.

'We've seen more floatingthan we've seen in the last three years," Mr. Giveans said.

Companies that own and operate pipelines and oil-storage facilities could gain as well.

Consider the difference between Friday's prices for West Texas Intermediate to be delivered in May, which was \$18.27 a barrel, and in May 2021, which closed at \$35.52: A \$17.25 spread could be locked in by buying contracts for oil to be delivered next month and then selling contracts for delivery a year later.

Assuming monthly costs for storage owners of 10 cents a barrel-as Bernstein Research analysts did when they ran back-ofthe-envelope storage math in a recent note to clients-and that leaves a profit of \$16.05 a barrel. Companies don't usually disclose unused storage capacity, but it is possible that bigger players such as Energy Transfer LP, Enterprise Products Partners LP and Plains All American Pipeline LP could have room for tens of millions of barrels, the Bernstein analysts said.

Oil Futures Plunge Below \$0

Continued from Page One and flying. Yet prices around \$30 a barrel, which is below break-even for many producers, still suggest economic worries ahead, some analysts said. "It's absolute bedlam," said Chris Midgley, director of analytics at S&P Global Platts. "I hate to hear who's on the wrong side of this."

Monday's trading was exacerbated by the looming expiration of the May futures contract on Tuesday. The price of oil futures converge with the price of actual barrels of oil as the delivery dates approach.

Contract expiration also flushes out speculators who have no intention to take delivery. Exchange-traded funds, which control a large number of futures contracts, are among those that must sell at expiration. The forced selling adds downward pressure to prices. President Trump said his ad-

ministration again was exploring taking oil off the market by pumping barrels into the Strategic Petroleum Reserve. "This is a great time to buy oil," he said at a press briefing Monday.

Though producers from Alberta, Canada, to Midland, Texas, are racing to shut in productive wells, they haven't been able to close off the spigot fast enough and avoid running out of places to store crude and petroleum products, such as gasoline and

Even before the price went negative, the spreads between oil to be delivered now and later were at record levels, presenting a rare opportunity for traders, who are filling up tankers with crude and setting them adrift. "If you can find storage, you can make good money," said Reid I'Anson, economist for marketdata firm Kpler Inc. Lease rates have soared for

very large crude carriers, the two-million-barrel high-seas behemoths known as VLCCs. The average day rate for a VLCC on a six-month contract is about \$100,000, up from \$29,000 a year ago, according to Jefferies analyst Randy Giveans. Yearlong contracts are about \$72,500 a day, compared with \$30,500 a year ago. Spot charter rates have risen sixfold, to nearly \$150,000

Day rates rise as the spread between oil-futures contracts widens. The basic math is that every dollar in the six-month spread equates to an additional \$10,000 a day that can be paid for a VLCC over that time without wiping out all the oil-price gains, Mr. Giveans said.

May delivery futures of Brent crude, the international benchmark typically used to price waterborne oil, ended Monday at \$25.70 a barrel. The contract for November delivery settled at \$36.39. The \$10.69 difference is less than the record spread of \$13.45 reached on March 31 but enough to justify a \$100,000 day

At the end of March there were about 109 million barrels of oil stowed at sea, according to

Prices remain in positive territory for barrels to be delivered in June.

Kpler. By Friday it was up to 141 million barrels.

The collapse in current oil prices, combined with the expectations that a lot of economic activity will resume by autumn, has resulted in a market condition called contango in which prices for a commodity are

storage contracts signed for 12 months in the last three weeks

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Israeli prime minister been signed after weeks of Israel's history in terms of min-Netanyahu in order to form a defense minister as well as ney general, would be frozen talks that had faltered in redeputy prime minister until he isters and deputy ministers. government that could tackle

will retain power while fighting charges, then yield to rival next year

By Felicia Schwartz AND DOV LIEBER

Israel's Prime Minister Benjamin Netanyahu and his rival Benny Gantz agreed to form a unity government, a move that would avert the prospect of another election as the country grapples with the coronavirus pandemic and keep the Israeli leader in power while he faces trial on corruption charges.

On Monday, Mr. Netanyahu's Likud party and Mr. Gantz's Blue and White party issued a statement saying an agreement for a "national emergency government" has cent days

The deal will see Mr. Netanyahu serving first as prime minister, with Mr. Gantz taking over the position in October 2021, according to a copy of the agreement. Should Mr. Netanyahu try to dissolve the government before Mr. Gantz takes over, Mr. Gantz will automatically become prime minister for six months before a new election is called.

Under the deal's terms, the emergency government is supposed to deal exclusively with the coronavirus for six months, with one major exception: Starting in July, Mr. Netanyahu will be able to bring to a vote a bill to apply Israeli sovereignty in the West Bank under conditions agreed upon with the U.S. government. The government is expected to be the largest in

"I promised the country a national emergency government that will work to save the lives and livelihoods of the citizens of Israel," Mr. Netanyahu wrote on Twitter. The deal cements an im-

probable marriage between two politicians who have spent three election campaigns denigrating each other, with Israelis growing increasingly weary of the country's political stalemate and deep divisions. Mr. Netanyahu once called

Mr. Gantz, a former army general, unfit to be prime minister, and Mr. Gantz said Mr. Netanyahu was a corrupt leader who had been in power for too long.

Mr. Gantz in March reversed course about serving in a government with Mr. Netanvahu, breaking up Blue and White to join forces with Mr.

the fallout from the coronavirus crisis. Mr. Gantz said the move would allow the country to end its political stalemate while also preventing Mr. Netanyahu from undermining Is-

The pair spent three election campaigns denigrating each other.

rael's democracy to shield himself from the court.

"We prevented a fourth election. We will preserve democracy. We will fight the coronavirus," Mr. Gantz wrote in a tweet Monday night.

Mr. Gantz will serve as the

assumes the role of prime

Mr. Netanyahu has been indicted on corruption charges. with his trial set to begin next month. He denies any wrongdoing. His efforts to find support for immunity legislation or other legislative measures to insulate him from the charges he faces have contributed significantly to the electoral impasse, though divisions over religion and state in the country also played a role in the earlier votes.

One of the most sensitive issues of the talks revolved around the Likud's power to appoint senior judicial officials that could have influence over Mr. Netayahu's cases.

The parties agreed that these appointments, such as the state prosecutor and attorfor six months. After that they will be chosen with the consent of both parties, giving Mr. Netanyahu a veto.

The decision prompted quick criticism from lawmakers from the center and left.

Likud also sought ways to assuage Mr. Netanyahu's concerns about what would happen if the High Court ruled he would be unable to form a government while under indictment.

If Mr. Netanyahu is legally prevented from forming a government, the deal says the two sides will agree to dissolve the Knesset and go to elections.

Analysts said Mr. Netanyahu agreed to step down after 18 months but won agreement from Mr. Gantz on most of his demands, including backing annexation of the West Bank and judicial appointments.

Residents Resist Saudi Arabia's Megacity Plan

By Jared Malsin AND SUMMER SAID

Saudi Arabia's government is facing rare resistance to one of Crown Prince Mohammed Bin Salman's signature projects, as members of a tribe in the kingdom's northwest say they won't leave their homes to make way for a new megacity, according to residents there and rights activists.

Plans for the futuristic urban development, Neom, were unveiled by Prince Mohammed in 2017 as part of an ambitious effort to reshape Saudi Arabia's oil-dependent economy. It is expected to cover an area nearly the size of Belgium along the Red Sea coast.

The site set aside for Neom is home to about 20,000 people, mostly members of the Huwaitat tribe. Residents and rights activists say police have arrested locals who wouldn't sign relocation documents and detained others for protesting the loss of what they consider ancestral lands.

Officials have promised compensation and resettlement assistance for displaced residents, many of whom work



given details.

Officials at the Saudi Embassy in Washington and at the Neom project declined to say how people would be compensated.

Tensions mounted last week after security forces shot and killed a man who had mounted an online campaign critical of the government and vowed in online videos to resist eviction from his home in the town of al-Khuraybah.

"This is my home and I will protect it," the man, who identified himself as Abdulrahim

and kill me now."

The kingdom's State Security agency said Mr. al-Huwaiti was killed in an exchange of gunfire.

Many members of the Huwaitat tribe are armed, and some have suggested on social media that they could sabotage government infrastructure as a means of fighting back against relocation. Other voices have aligned with the state. A statement attributed to tribal leader Sheikh Alyan Ayed al-Zumhri was published in a Saudi newspaper saying the tribe is loyal to the House

economic-development program, despite strains on the government budget from low oil prices, according to a person familiar with government thinking on the project.

An abandoned boat on the Red Sea coastline that Saudi Arabia wants to develop into a futuristic city called Neom.

Part of a wider effort by the crown prince to modernize Saudi Arabia and make the kingdom more open. Neom is meant to attract an international population. It is one of three such developments along the Red Sea that would displace conservative local communities.

Plans for Neom include a legal system that is distinct from the rest of Saudi Arabia and is expected to mirror the neighboring city-state of

Dubai, where less-restrictive practices such as consumption of alcohol, which is forbidden by Islam, are permitted.

Neom's media office said the project remains on schedule to open to its first residents in 2023.

The friction over Neom raises the possibility of an escalating clash between the government and members of a large tribe—something that could complicate efforts to attract international investment

hard line against dissent in the past, overseeing the arrests of political activists and dissident

rovals. Men working for the prince murdered Saudi journalist Jamal Khashoggi in the kingdom's consulate in Istanbul in 2018. The crown prince has denied involvement in the killing.

Some residents said unhappiness with terms of the relocations was widespread, even if people weren't opposed to the development in principle.

"The reality is the following: It is true we don't object to Neom. This entire area has been neglected for a long time and we need services, but we The crown prince has taken a don't want to leave our homes either," a tribe member said.

contributed to this article.

in government jobs or in small Ahmad Mahmoud al-Huwaiti, of Saud and supports Neom. shops and hotels. But locals said in one message. "I would Neom is a high priority as complain they haven't been not be surprised if they come part of Prince Mohammed's Gunman Left Trail of Dead in Rampage

AND KIM MACKRAEL

OTTAWA-Police on Monday were investigating 16 separate crime scenes in Canada's most lethal shooting, after a man dressed as a Royal Canadian Mounted Police officer went on a spree of violence that left five burned-down properties and at least 19 people dead.

The attack began late Saturday night after gunfire was reported in a rural, waterfront community, and ended around midday Sunday after the suspect was killed in a gunfire exchange with police about 60 miles away.

Among the dead are a police officer, an elementary school teacher, a nurse, a waitress and an aspiring fiddler. Police warned the toll could climb further as they searched the burned properties.

Some of the victims knew the suspect, Gabriel Wortman, while others targeted were unaware who he was, said Superintendent Chris Leather, head of the RCMP's criminal-investigation unit in Nova Scotia. Wortman, 51 years old, operated a denture clinic in Dartmouth, Nova Scotia.

He said the suspect moved about in central Nova Scotia unimpeded because of his use of a mocked-up police cruiser and a facsimile of an RCMP uniform, which let him pass himself off as law enforcement.

'There are still many unanswered questions. We will be in this for months," Supt. Leather said of the investigation.

RCMP Commissioner Brenda Lucki later said in Ottawa that Wortman was "not well known to police." She said it was premature to say what type of



The suspect in the violence that killed at least 19 people operated a denture clinic in Nova Scotia.

weapon or weapons the suspect used, and whether he had licenses to use firearms.

The killings in Nova Scotia, a province with a population just shy of one million, has "jolted" the country, Prime Minister Justin Trudeau said. "We were all shaken by the senseless violence and evil in Nova Scotia," he said. This weekend's tragic rampage marks the deadliest shooting in modern Canadian history, surpassing the 14 women killed in December 1989 at a Montreal engineering school.

Supt. Leather said police are confident they identified all relevant crime scenes, which include the five burned-down properties. "We believe there may be victims still within the remains of those homes....That speaks to why we don't have a final [death] total because we expect that to rise in the coming days," he said.

The shooting spree began late Saturday night in the community of Portapique in Nova Scotia's Colchester County.

Tom Taggart, a local councilor who represents the Portapique area, said Wortman owned one year-round property in the community, located on Portapique Beach Road. and at least two properties in a nearby subdivision. Mr. Taggart said he lost several close friends and acquaintances in the shootings.

Oliver-McCurdie Tammy said her sister, Jolene Oliver, brother-in-law and niece lived in a house next door to Wortman's. Sunday night, Ms. Oliver-McCurdie learned they were among the dead. "People don't always see eye-to-eye but that's no reason to commit this kind of act." Ms. Oliver-McCurdie told Canada's CTV News network.

After Portapique, Wortman

reportedly drove east, then south for roughly 60 miles. Along the way, law-enforcement officials said he was involved in a "serious criminal event" where two cars were found burned. It was there that Const. Heidi Stevenson, a 23-year RCMP veteran and mother of two, was killed.

Wortman, police said, used a different vehicle afterward, a silver Chevrolet Tracker. Supt. Leather declined to elaborate on how the suspect was able to get another car "to circulate around the province steps ahead of our investigators."

In a yearbook from Wortman's high school published in 1986, Wortman was described as a motorcycle enthusiast, whose future "may include being an RCMP officer."

RCMP officers confronted Wortman at a gas station in Enfield, Nova Scotia, where-Wortman was killed.

in the project.

WORLD WATCH

BURKINA FASO

Forces Kill Unarmed Men, Report Says

Burkina Faso's security forces reportedly killed 31 unarmed men in the country's north earlier this month, according to a report on Monday by Human Rights Watch.

The killings occurred on April 9, hours after the men were detained during a government counterterrorism operation, the report said.

The West African nation continues to be racked by violence linked to Islamic extremists and local defense militias, which has displaced nearly 840,000 people within Burkina Faso.

The country's ill-equipped military previously has been accused by rights groups of committing human-rights atrocities in an attempt to combat the violence.

The report's writers interviewed 17 people with knowledge of the killings and found that all of the victims were ethnic Fulani who have been targeted for their alleged affiliation with Islamist groups.

On Monday, the Ministry of Defense said it doesn't target its own people and that now more than ever success in ending the crisis depends on "the confidence and collaboration of local populations." The ministry said that if these allegations are true it will take action and noted that on April 10 it requested an investigation into similar accusations against the army.

-Associated Press

RUSSIA

Putin and Maduro Discuss Cooperation

Russian President Vladimir Putin and Venezuelan leader Nicolás Maduro discussed cooperation between the two countries amid the coronavirus pandemic over the phone on Monday, the Kremlin said in a statement.

Mr. Maduro thanked Mr. Putin for the support Moscow is providing to Venezuela during the pandemic, including a shipment of tests for the virus. According to the Kremlin, Mr.

Putin also reiterated Russia's support for Mr. Maduro's "efforts...to peacefully resolve domestic dispute" with the opposition that has been smoldering in the country since 2019, and pointed out that "destructive foreign interference into Venezuelan affairs" is unacceptable.

Both presidents hailed the global OPEC+ deal to pump less crude oil in a bid to limit a crash in prices that has been straining some countries' economies. -Associated Press

UNITED KINGDOM

Harry and Meghan Rebuff Tabloids

The Duke and Duchess of Sussex have announced they will no longer cooperate with several British tabloid newspapers because of what they call "distorted, false or invasive" stories.

Meghan and Prince Harry told the editors of the Sun, the Daily Mail, the Daily Express and the Daily Mirror in a letter that they won't "offer themselves up as currency for an economy of click bait and distortion." The couple's representative released a copy of the letter on Monday.

Ian Murray, executive director of Britain's Society of Editors, said "there is no escaping their actions here amount to censorship and they are setting an unfortunate example."

-Associated Press

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GREATER NEW YORK

Outbreak Hits New Phase in New York

Officials are trying to determine next steps as data suggest virus's spread is slowing

By Ben Chapman

New York's daily death toll from the novel coronavirus is continuing to drop, Gov. Andrew Cuomo said Monday, and now health officials are closely studying the pandemic's trajectory to determine whether its decline will be quick or gradual.

The hard-hit state recorded deaths because of Covid-19 on Sunday, marking the fourth consecutive day of a decline in fatalities, Mr. 5 Cuomo said. New York has so far counted 14,347 confirmed virus-related deaths.

The rate of new hospitalizations for Covid-19, the illness caused by the coronavirus, fell Sunday to 1,380 new admissions, Mr. Cuomo said, the lowest daily number recorded since March. The total number of people hospitalized for the disease fell by 110 on Sunday as discharges rose. The num-



Medical personnel attended to a person experiencing difficulty breathing on Monday.

ber of patients in intensive care and the number intubated with ventilators also declined.

New York hospitals were able to keep pace with new admissions, Mr. Cuomo said, and facilities in some areas may

soon be able to resume elective medical procedures.

As the data continued to suggest a slowing in the spread of the virus in the state, officials began to question how quickly the disease would recede, with an eye toward reopening the economy and relaxing socialdistancing restrictions.

"The question is now, how long is the descent and how steep is the descent," Mr. Cuomo said Monday. The governor added that some projections show the disease reaching a low in two weeks and others in a month.

New York officials are pursuing expanded testing, including at public-housing developments in New York City, the governor said. As of Sunday, 633,861 people had been tested for the virus in New York, officials said, with 247,512 of them testing positive.

Any plans to loosen socialdistancing restrictions and reopen the state's economy will proceed gradually and reflect progress in stopping the pandemic's spread, Mr. Cuomo said.

Last week the governor unveiled a task force to plan a reopening of the region's economy in coordination with six other states. On Monday, he didn't give details of when nonessential businesses might reopen and said there isn't a date to reopen public schools. He said plans to reopen public spaces such as beaches and parks would be executed in partnership with other states.

Hospitalizations for the virus also declined in New Jersey, officials there said Monday.

The illness continued taking a toll on New York City. Mayor Bill de Blasio said at a news conference Monday that the city would cancel all public events for June, including two of its biggest celebrations, the National Puerto Rican Day Parade and the NYC Pride March.

Mr. de Blasio said officials are investigating the deaths of three men over the weekend in a Times Square hotel. Each of them had been treated for the disease in separate hospitals and then released to stay at the hotel, the mayor said.

Mr. de Blasio called on the federal government to aid in testing to inform strategies to further reduce cases of the virus, but said social distancing has contributed to slowing it. City hospitals are in need of surgical gowns, although they had enough masks for staff, the mayor said.

As part of reopening the city's economy, businesses might be called on to check the temperature of employees. Mr. de Blasio said, but he cautioned that a looming shortage of equipment might frustrate



Nurses at Jacobi Medical Center protested their lack of personal protective equipment last week. A nurses union has sued several facilities.

Nurses Sue Over Working Conditions

By Shalini Ramachandran

The New York State Nurses Association filed three lawsuits health-care workers "have the against the state and two hospital systems on Monday, alleging that dangerous work guidelines and protective-gear shortages exacerbated the spread of the novel coronavirus.

The state's largest nurses union filed suit in New York County Supreme Court against the state health department, charging that it failed to ensure that health-care employees had enough safety equipment, including N95 respirators and fluid-resistant gowns.

The union, which has 42,000 members, said the department forced sick nurses to return to work too soon, turning hospitals into "petri dishes" and putting the public at risk.

The union also filed suits against Montefiore Medical Westchester and County Health Care Corp., the company parent of Westchester Medical Center.

The union called the hospitals a "war zone," claiming that they rationed gear and failed to test the fit of workers' masks or to properly ventilate Covid-19 patients' areas.

NYSNA filed the suit against Montefiore in the U.S. District Court for the Southern District of New York. Its suit against WCHCC was filed in Westchester County Supreme Court.

A spokesman for New York's

state "continues to take every step necessary" to ensure public health emergency.

In a statement, a spokesman for the Westchester hospital system said "the allegations in NYSNA's lawsuit are wrong" and that "our focus is, and has always been, protecting our workforce."

A spokeswoman for Montefiore didn't respond to a request for comment.

Earlier this month, The Wall Street Journal reported that many workers in the Montefiore system were angry with the hospital, saying it didn't take seriously early alarm bells and hadn't done enough to protect staff and patients against transmission of the virus.

The NYSNA lawsuits mark one of the first collective legal actions of health-care workers against major hospital administrations and a state government over their response to the coronavirus pandemic.

They come after Gov. Andrew Cuomo on Saturday said that it appears New York is "past the plateau and we are starting to descend," with the total number of Covid-19 patients hospitalized below 17,000, compared with about 18,000 at peak.

Still, 2,000 people tested positive and were admitted to New York hospitals on Friday,

health department said the about the same number as in versity Hospital, said in an aflate March.

Part of the reason the union recent guideline from the governor's office requiring hospitals to give health workers a new N95 mask daily if they asked for it, said Patricia Kane, NYSNA's executive director.

The union says that many of its nurses have fallen sick after reusing masks and other

Some actions are turning hospitals into 'petri dishes,' the union said.

protective gear for days and have in turn infected relatives. At least 11 NYSNA nurses

have died so far from Covid-19. 84 are hospitalized and 954 have tested positive—numbers that likely underreport the true impact, the union said.

In affidavits, many nurses described working conditions that made them feel unsafe at hospital systems including Montefiore, Northwell Health and Westchester Medical Center. Northwell wasn't a party to the lawsuits.

Cristal Torres, a nurse at Northwell's Staten Island Uni-

fidavit she had to use her N95 mask for a week and store it decided to sue was that it in a brown paper bag in a "bin support and supplies needed found the New York health defilled with other N95 respirato address this unprecedented partment wasn't enforcing a tors," without any protocols for sanitizing them.

> Ms. Torres eventually tested positive for the virus and says her daughter also has fallen ill. Hospital administrators told her to use her own sick days for leave, she said, and "strongly encouraged" her to return to work after seven days, even though she continued to experience symptoms.

> Terence Lynam, a Northwell Health spokesman, said the company disputes that claim and said confirmed Covid-positive employees are eligible for up to 14 days of paid leave.

"We would never force an employee to return to work if they were still symptomatic.' he said. Northwell has "consistently put the safety of its team members and the patients we serve as the highest priority.'

The union wants the state to change a directive allowing hospitals to call back sick workers after seven days, which it said has resulted in potentially contagious and symptomatic nurses returning to work and putting others at risk.

Nurses who test positive should get at least 14 days of paid sick leave. NYSNA said, in accordance with another state law that offers the same for workers at large companies.

Transplants Wait **During Pandemic**

By Melanie Grayce West

The volume of organ transplants across New York state has dropped precipitously with the outbreak of the novel coronavirus, falling to 23 total organ transplants during April from an average of 220 transplants, according to an official for one of the state's nonprofit transplant organizations.

Hundreds of transplant recipients have contracted coronavirus, and at least 200 were hospitalized in the past week, according to Samantha Delair, the executive director of the New York Center for Liver Transplantation, who shared the data during a recent online seminar for peers in the organtransplant community. Recently, 64 organ recipients have died from the disease, she said.

In New York City and across New York state, health-care systems were ordered by health officials in March to halt elective surgeries except for the most urgent.

Those orders remain in place, though some health-care systems, including NYU Langone Health and Northwell Health, are now considering ways to bring back some surgeries that are time sensitive and can no longer wait, officials said.

'Patients are stacking up," said David Battinelli, chief medical officer for Northwell Health. "We're always trying to understand who can wait and who can't wait.'

During the first few months of 2020, the U.S. saw some of the highest transplant numbers ever, according to a spokeswoman for United Network for Organ Sharing, the nonprofit that manages the nation's organ-transplant system.

When coronavirus cases surged in mid-March, transplant programs in the Northeast decided to proceed with surgeries on a case-by-case basis, given the risk to patients and health-care workers, in addition to limited bed availability and staffing shortages.

For the week ended April 13, 22 transplants occurred across the Northeast, according to data provided by UNOS. For the week ended April 15, 2019, 79 transplants took place in the region.

Adding to the complications, patients who have died from Covid-19 aren't eligible to be organ-transplant donors. Living-donor transplants also have stopped in the Northeast, and hundreds of people have been inactivated from wait lists, according to UNOS.

Brigitte Sullivan, executive director of the NYU Langone Transplant Institute, told peers during the same recent online seminar that each patient was given a risk analysis at the beginning of the outbreak.

"Our rule of thumb was if the risk of mortality related to Covid-19 was greater than the risk of mortality without a transplant within three months—which is a time frame we expect the Covid outbreak to last and really settle down enough to be safe then we would not proceed with the transplant," she said.

Only a handful of patients are actively on the waiting list and being considered for transplant, Ms. Sullivan said.

With people staying home there are fewer trauma-related deaths, further limiting the pool of potential donors, according to Helen Irving, the president and chief executive of LiveOnNY, the organ-procurement nonprofit that services the New York City region.

On a typical day, the organization follows about 30 to 35 donor referrals; now the organization is lucky to follow four cases a day, she said during the online seminar.

For deceased donors, hospitals aren't allowing family members into hospitals to visit with loved ones during their last moments, said Ms. Irving during an interview. Doctors are now communicating bad news over the phone, and organ-donation counselors have had to call or visit the homes of next-of-kin to have conversations about donation.

Many donor families, she said, are feeling such sadness right now with what's going on in the world that saving a life through organ donation is giving them comfort.

Still, said Ms. Irving, "My fear is that we will see an increase in deaths on the wait list because of the lack of availability for an organ right now."

Le Cirque Creator Brought Verve to a Celebrity Favorite

By Charles Passy

The ringmaster's run has

Sirio Maccioni, the largerthan-life restaurateur behind New York City's **OBITUARY** Le Cirque, died Monday in his **MACCIONI** native Italv 1932-2020 from natural

causes, according to family members. He was 88 years old.

In Le Cirque, Mr. Maccioni created a restaurant known as much for its see-and-be-seen vibe as for its food. Regular patrons included such boldfaced names as Henry Kissinger, Jacqueline Kennedy Onassis, Robert De Niro and Frank Sinatra.

It was also the rare restaurant to become a mainstay in New York's ever-competitive dining scene. It opened in 1974 and survived until 2017, albeit in three different Manhattan locations over the years.

At the center of it all was Mr. Maccioni, who was often dubbed the ringmaster for the theatrical verve he brought to the circus that was Le Cirque.

"He made celebrities more celebrated and he made regulars feel great," said Stephen Zagor, an adjunct professor at Columbia Business School who specializes in the restaurant industry.

Not that Mr. Maccioni didn't pay heed to what was on the plate at Le Cirque. which had a menu focusing on French and Italian cuisine. Several celebrated chefs, including Daniel Boulud, Jacques Torres and Michael Lomonaco. spent a portion of their early careers working for Mr. Maccioni at the restaurant.

"He had outstanding taste. He knew good from bad and best from better," said Mr. Lomonaco, now the chef behind Porter House Bar and Grill and the Hudson Yards Grill, both in Manhattan.

Mr. Maccioni is widely credited with creating pasta primavera, a dish combining pasta with spring vegetables, that became wildly popular decades ago.

Born in the Italian town of Montecatini, Mr. Maccioni was orphaned at an early age, family members said. He found his way into the dining world and later moved to New York, where he spent his early days as a waiter. He moved through the industry ranks and established Le Cirque. The restaurant became a miniempire, with Le Cirque locations from Las Vegas to India.



Sirio Maccioni in 1999. His Le Cirque restaurant, which first opened in Manhattan in 1974, was famed for its see-and-be-seen vibe.

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GREATER NEW YORK



Steve Lunapiena, left, and Nick Diminno Jr., owner of Sip Fine Wines, where he says his once-floundering business is booming.



Johnny Ryan sets up the bar at Lizzie King's Parlor, a Fifth



Erik Goetze prepares coffee for a customer at the Blue Sky Avenue bar and restaurant in Park Slope, for potential customers. Bakery, which has seen most of its wholesale business dry up.

Once Bustling Brooklyn Street Goes Quiet

Merchants close their doors and wait for aid; some subsist on pickup and delivery business

By Peter Grant AND JUSTIN LAHART

When New York shut down. Jennifer DeLuca kept her Brooklyn Pilates studio open by offering virtual classes. Body Tonic had been around for 20 vears and she didn't want to lose her staff or her clients.

A month later, she said she sometimes asks herself whether she can keep it up. "Does it make more sense to just roll over and close?" Ms. DeLuca asked.

Revenue is down but rent is due, she's juggling her two children who aren't in school, and she's playing counselor to her staff. One of her toughest instructors broke down in tears during a staff Zoom call, saying the sound of ambulance sirens at the hospital across the street from her home had become too much.

Body Tonic is one of 520 businesses along a stretch of what Brooklyn residents jokingly call "the other Fifth Avenue." Among the bars, shops and restaurants, 75 tried to stay open, according to the Park Slope Fifth Avenue Business Improvement District.

By the first week in April, the number was down to 60, said Mark Caserta, the business group's executive director. New casualties included Maya Taqueria, a block away from Body Tonic, which is among several restaurants that gave up on a takeout- and delivery-only strategy. "Everyone is taking a few weeks off to see what happens," he said.

On Sunday, Mr. Caserta said some of businesses that initially closed are now trying takeout and other "ways to bring some money in so as not to disappear." He said the situation is so fluid, his group adjusts its list of who's doing

what several times a day. The density of small businesses and the intensity of the coronavirus outbreak in New York means Brooklyn's Fifth Avenue has been particularly hard hit as owners wait for government stimulus money and the easing of lockdown restrictions. Further battering the neighborhood is the cancellation of professional sports. Fifth Avenue ends at Barclays Center, home to the NBA's Brooklyn Nets.

In the blocks around Body Tonic, businesses are taking small orders to keep some cash coming in. At LuLu's Cuts & Toys, on the corner of Fifth and Bergen Street, owner Brigitte Prat has been taking phone orders, sometimes from people looking in the window of the store. A half block away, Blue Sky Bakery has seen most of its wholesale business dry up and its retail business has been reduced to selling takeout coffee and baked goods.

Gerry Reilly, the co-owner of Lizzie King's Parlor, a Fifth Avenue bar and restaurant. hand-delivers chicken sandwiches to a lawyer who had been a regular customer and is now recovering from Covid-19 alone in his apartment. The restaurant throws in a soda.

CORRECTIONS ど AMPLIFICATIONS

A photo that appeared with an April 6 article about New York coronavirus victims came from the Koutsoudakis family. The credit misspelled the family's name as Koustoudakis.

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



Many businesses along a stretch of what Brooklyn residents jokingly call 'the other Fifth Avenue' in the Park Slope neighborhood are closed or struggling to remain open.

"We'll wait for him to gain his strength before he has a pint," Mr. Reilly said.

But now many of those are finding the challenges insurmountable. Nationally, smallbusiness credit-card data collected by software and business-services provider Womply shows that as of April 14, 38% of local restaurants in the U.S. had gone three days without recording a single transaction—an indication they were closed.

Bart DeCoursy tried to keep Sidecar in business after the city lockdown order with takeout and delivery. He gave up and closed the bar and restaurant that specializes in comfort food after getting a text from one of his cooks saying he wasn't coming to work anymore. The text said: "Thank you for everything but sometimes we have to look after ourselves," Mr. DeCoursy said. "I had to do some soul searching on that. I was kind of putting [the staff] at risk."

So far, Mr. Caserta and others say they know of no one who has decided to go out of business permanently. Business owners are banking on the federal government's \$349 billion Paycheck Protection Program, which is designed to provide loans to small businesses. The program so far has been bogged down in bureaucracy and overwhelmed with applications.

Some business owners say that the loan program was poorly crafted for New York City retailers because no more than 25% of loans can be spent on rent. That is not nearly high enough for the city's stratospheric rents, they say.

Mr. Caserta said he knows of only one retailer along the strip who has received a

Residents who flocked to the neighborhood as it gentrified have tried to support the local businesses.

For Rebecca Zellmer's son's 10th birthday in March, they ordered a chocolate cake from Blue Sky and toys from Lulu's.

"I'm worried about everything closing down and wondering how everybody will come back from it really," she

Business was falling before the lockdown.

At Miriam, a Middle Eastern restaurant, sales started dropping in February, says



Jennifer DeLuca says business at Body Tonic, a Pilates studio, has fallen 40% and she is 'trying to keep it going.' At LuLu's Cuts & Toys, owner Brigitte Prat says she has been taking phone orders.



owner Rafi Hasid, and it shut in mid-March when weekend brunch attracted a third of the usual crowd. Miriam put its perishable foods on tables outside the restaurant for neighbors to take for free.

"We had nice mushrooms, eggplants and feta cheese and milk and cream and butter," Mr. Hasid said. "People were very appreciative."

Nick Diminno Jr., the owner of Sip Fine Wine, at 67 Fifth Ave., was thinking about selling or even closing the store because of flagging sales when the pandemic hit. But now

sales are soaring. "I just did the numbers for March and it was like Christmas," Mr. Diminno said. "It's totally turned the business around.

He has been ordering most of his meals from the area restaurants. One day earlier this month, Mr. Diminno walked into Pizzatown to get lunch. "The owner was in there. I said, 'How are you guys doing?' " Mr. Diminno recalled. "He said, 'Look around.' And there was like nobody in there."

The next day Pizzatown temporarily shut down. On its metal gate there was a sign saying it would stay that way for two to three weeks.

Like Pizzatown, many of the closed shops and restaurants along the strip have signs in their windows promising to return.

"We may not be there yet, but we are closer than we were yesterday," says a chalkboard in front of Velvette Brew, an espresso bar.

But some of the notices in the window reflect the tragedy of the pandemic. "It is with great sadness to inform you that our much beloved bartender Chris passed away yes-

terday resulting from complications associated with the Covid-19 virus," says a sign with a photo of a young smiling Chris Pittman in the window of the Prospect Bar & Grill.

Mr. Pittman's death "made it personal," said co-owner John Griffin. He said another employee arranged a memorial on Zoom that was attended by about 50 people. "We were all in shock," he said.

Now that they are closed, many business owners are worried about the reopening. While New York has imposed an eviction moratorium, some say landlords are making it clear to them that they have to pay everything that is owed when the all-clear signal

Mr. Hasid, who closed Miriam on March 15, said last week that he's going to reopen for pickup and delivery partly because no government subsidies have arrived. "We want to keep supporting our staff," he said. "We need to create income."

Ms. DeLuca, of Body Tonic, said that as the crisis was erupting in New York she "went into high gear." She notified staff and customers they would move all classes online immediately. She sent her customers shopping lists of things they should order from Amazon.com-such as weights, tripods and mats-so they could do Pilates at home.

Body Tonic's business has fallen 40% from where it was last year. That is far less than many neighboring businesses, giving Ms. DeLuca hope that she can tough it out.

But Ms. DeLuca said she realized how much the emotional and physical exhaustion is hurting her at last week's Zoom staff meeting. She said the teacher who broke down was the strongest person on her staff. "She could teach for six hours straight without taking a sip of water, then go to rehearsal," Ms. DeLuca said.

One of the teacher's clients lost three people she knew to Covid-19. "She started to cry," Ms. DeLuca said. "She had trouble getting the words

The incident "revealed how deeply tragic and sad this all is and how desperately I am trying to keep it going," Ms. DeLuca said. "It's kind of hopeless in a lot of ways."

LIFESARTS



Travel Movies To Escape Into

Five directors share the films that transport them to other times, other places

By Ellen Gamerman

he Trip to Greece," a movie set along the sun-dappled Aegean, arrives at a moment when no one can go anywhere. The timing of the new film is either perfect or sadistic. Maybe both.

Movies can get on the planes, book the hotels and drink in the landscapes for viewers whose only travel right now is by armchair.

In "The Trip to Greece," a middleaged bromantic odyssey, Steve Coogan and Rob Brydon play versions of themselves, trading celebrity impressions and heckling each other in a way fans of "The Trip" franchise will recognize. The series started in England's lake district in 2010, then moved on to Italy and Spain in later installments. On May 22, the fourth and final film is set to debut digitally and in select drive-in theaters still open through the pandemic.

But there are other ways to travel by movie too—the road trip through wine country ("Sideways"), the meditation on a single place ("Lost in Translation"), the trip home to see family ("The Farewell") or even the search for danger abroad ("The Last Thing He Wanted").

Here, we talk to the directors of all five movies to get their go-to

picks for cinematic getaways. Most of the movies are available via maior digital outlets; viewing platforms are listed only for more obscure recommendations.

Michael Winterbottom ("The Trip to Greece")

'I think all films are a form of documentary," Mr. Winterbottom says. "What you're trying to capture is a miniature version of the experience—like you're on a journey and the film crew is recording it.

"Fitzcarraldo": Some of Mr. Winterbottom's favorite travel films include a voyage that is itself unenjoyable, like Werner Herzog's 1982 adventure about a madman whose quest includes pulling a 300-ton river boat over a mountain in the Amazon.

"Aguirre, the Wrath of God": The director loves Mr. Herzog's 1970s film about a conquistador's search for a fabled city of gold shot in the Peruvian rainforest. The Criterion Channel calls the historical drama "a senses-shattering journey to the edge of madness."

'God's Country": French director Louis Malle's documentary about a Minnesota farming community. (iTunes)

Alexander Payne ("Sideways") "Mindfulness teachers tell us always to be in the moment," says



Mr. Payne. "Sometimes in moments like this, it's good to get away. Fred Astaire used to say that he really liked a movie if it made him want to have been there—there as they were shooting, and there within the world of the film." Here, three 1950s-era films that make Mr. Payne feel that way.

"Summertime": David Lean's 1955 film follows an American spinster (Katharine Hepburn) who finds love and heartbreak on her dream trip to Venice. "Who wouldn't want to visit Venice in 1955?" Mr. Payne asks. "And with Katharine Hepburn?"

"The Red Balloon": Another trip back in time to Europe in the 1950s. The 34-minute film from di rector Albert Lamorisse tells the story of a young boy and a seemingly sentient balloon that befriends him. It offers a great view of Paris street life.

"The River": French director Jean Renoir traveled to the banks of the Ganges to make the 1951 movie, which is bathed in the gorgeous sheen of 1950s Technicolor. Satyajit Ray, soon to become one of India's greatest directors, worked for Mr. Renoir as an assistant. "I remember being absolutely transported by it, lulled almost hypnotically into its vision and rhythms," Mr. Payne says.

Sofia Coppola ("Lost in Translation")

"Movies always let you travel to places and other times, and help vou dream, and make vou feel connected, especially when stuck at home," she says. Here are her picks:

"Blade Runner": Ridley Scott's 1982 dystopian science-fiction thriller starring Harrison Ford as a bounty hunter-and possible android—reminds Ms. Coppola of how Tokyo felt the first time she visited the city.

"In the Mood for Love": She gravitates to director Wong Karwai's stylized love story. Set in 1960s Hong Kong, it is the story of a man and woman who develop a relationship after discovering their spouses are having an affair. (Amazon Prime Video, Kanopy)

One mode of travel: the road trip movie, including 'The Trip to Greece' (left) and 'Sideways' (below).

"Breathless": French director Jean-Luc Godard's influential feature film debut in 1960 is a favorite, about a criminal who hides out in his girlfriend's Paris apartment.

"The Piano": To go further in time and distance, she heads to 1800s New Zealand with Jane Campion's 1993 drama starring Holly Hunter as a mute woman trapped in an unhappy relationship.

Dee Rees ("Mudbound" and "The Last Thing He Wanted")

"Escaping to a different world doesn't always mean going to a place where the weather is sunnier," Ms. Rees says. "In difficult times, I think going to a bleaker universe lends perspective. Kind of the same logic of listening to the blues when you're feeling downyou feel a little better to know someone's been where you are and survived the pain."

"Mad Max Beyond Thunderdome": Ms. Rees travels to the post-apocalyptic Australian desert with this 1985 action picture. She is particularly transported by Tina

Turner's performance as Aunty Entity, a fierce ruler in a chain mail dress. "Aunty Entity was the literal personification of what I thought power looked like," she says. "I'd watch it again and again for the climactic fight between Max and Master Blaster." and of course my favorite line of the whole film: 'You think I don't know the law? Wasn't it me who wrote it?' Cheering for the villain is a guilty, delicious comfort."

Lulu Wang ("The Farewell") The director is busy

writing and keeps a schedule during the day. Evenings are for escape. "Be-

fore all of this, I used to write at night," she says. "Now cocktail hour starts at 5 p.m., or earlier, followed by dinner and a movie." **"Belle de Jour":** Ms. Wang favors

classics like this one from the late 1960s, with Catherine Deneuve as a bored Parisian housewife who slips away in the afternoons to her double life as a high-class prostitute. "This erotic surrealist comedy is all about fantasizing an alternative reality than the one you're currently living," Ms. Wang

"Tampopo": The director calls this a Japanese comedy about noodles, but it also strikes a deeper chord given the current social isolation. "Food has taken up an even more significant role in our daily lives—figuring out how to obtain it, how to prepare it, how to eat it and how often to eat it," she says. "This film explores the many facets of eating-personal and communal, healthy and perverse."

"Gravity": "If all else fails," she says, "go to space."

Children's Music Shows Move Online

OF ALL THE MUSICIANS live streaming during the coronavirus pandemic, the ones with the most powerful effect may also be the ones playing to the youngest audience.

Children's performers in New York City, the epicenter of America's Covid-19 crisis, are taking their concerts online, to meet surging demand for children's programming and provide relief to parents stressed out about occupying toddlers while working from home.

The live streams aren't standins for child care. But—just ask any parent-they are something: a brief interval in the routine that children can count on every day during an unsettling time.

Ari the Singalong Guy is among the children's musicians making the transition online. The 35-yearold, whose real name is Ari Brand, is a New York theater actor who had been performing a weekly children's morning show at Brooklyn's Knitting Factory club.

Since launching an Instagram Live show from his Manhattan apartment in early March, Mr. Brand has tripled his followers to more than 1,700 from 500. Every weekday, he can attract roughly 100 viewers at the same time, with up to 500 unique visitors catching his 45-minute show over 24 hours. Based on donations from fans, he is making roughly what he made be-₹ fore Covid-19 suspended live music, he says. On Friday, Mr. Brand will release his first children's album, "Everybody Jump," which he recorded before the crisis hit.

He's a "rock star in the kids' music scene," says Lauren Adler, founder of CalendarKiddo, a digital platform that lists children's activities in Brooklyn and Oueens.

The shift of children's concerts to platforms like Instagram Live, Facebook Live, Zoom and YouTube is part of a broader jump in the popularity of children's music. With kids at home, streaming of children's music initially surged 15% from pre-pandemic levels, even as online playing of more popular genres like hip-hop, rock and Latin music declined, due in part to fewer people listening during their commutes, according to Nielsen Music. Videobased streaming of children's music, including on YouTube, soared 30%. While the surge has eased recently, children's videobased streams remain 11% above precrisis levels, based on the most recent Nielsen data, which rely on a revised methodology.

Roughly 70% of CalendarKiddo's events, including children's concerts, now have virtual options, Ms. Adler says. With public schools in New York City closed, this migration online is expected to continue. The Rock and Roll Playhouse, a family-concert series in music venues around the country, started offering a free daily live stream in late March. New York performer Hopalong Andrew recently took his cowboy-and-guitar routine online, though he briefly halted it because he has been ill with what he suspects is

Ari the Singalong Guy, below, and Hopalong Andrew, right, turned their shows into live



Covid-19.

"Online classes—music, martial arts, dance, or read-aloud time-are helping [parents] make this new normal work," says Audra Tsanos, 51. Her organization, AudraRox, teaches music and theater classes and went online last month.

Virtual concerts can't replace the feeling of being with other children, Ms. Adler says. But she expects lasting effects from the pandemic, such as more performers offering online options. During coming flu seasons, for example, children and parents might seek out online shows instead of just skipping live ones, she says.

Every weekday at 11 a.m., Mr.

with his back to the camera. After warming up the audience with some clapping, he launches into a combination of classics like "You Are My Sunshine" and easy-to-learn ditties he improvises. There's a "grown-up" song every day, usually a classic like "Lean on Me" by the late Bill Withers. "Consistency is so key with kids," Mr. Brand says.

Brand kicks off his

show wearing a vel-

strumming his guitar to

low headband and

build anticipation, often

The son of an Israeli concert pianist and a music teacher, Mr. Brand's biggest professional success was playing the title role in the off-Broadway play "My Name is Asher Lev." More recently, he has branched out into television and other acting roles, while ramping up his children's work. Roughly 80 children were attending his weekly

Knitting Factory gig, where parents and caretakers were encouraged to throw \$10 into a guitar case.

Four months ago, Mr. Brand had his second child. while at the same time juggling the lead role in a New York production of a play he wrote. Then Covid-19 hit.

After canceling his Knitting Factory show, the linchpin of his children's activities, he

asked fans via Instagram whether they wanted a virtual version. They said yes. "I had to Google how to do it," he says. Now Mr. Brand has a new morning routine. Around 10:40, he rummages through his apartment for ideas to spice up the show—displaying a stuffed animal, putting on a fireman's hat—and looks up lyrics for his grown-up song. He frequently interrupts his songs to make jokes or urge kids to clap or do a "rock jump." (Imagine Bruce Springsteen leaping exuberantly, legs perpendicular to his body.)

During singalongs, he might mash up "Twinkle, Twinkle, Little Star," "Baa, Baa, Black Sheep" and the ABC jingle, observing that all three have the same chords.

He finishes with the day's grown-up song, at times nixing requests with "Nope, that's a little too grown-up." One day, he settled on a tune that felt appropriate: John Lennon's "Imagine."

ONE MONTH after closing its doors, Chicago's Theater Wit has a hit play-or what passes for one when the roughly 300 theaters in the city and hundreds more around the country are dark. Ticket sales for an online version of "Teenage Dick," a twist on Shakespeare's "Richard III" set in a high school, were about 15% higher than typical sales for a play in its first few weeks during normal times.

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More than a half of ticket buyers have been from places outside Illinois, including Pakistan and Japan. Online showings of "Teenage Dick," captured on camera last-minute before the Wit shut down due to coronavirus fears, have brought in an average \$3,400 per week. That's keeping the 11 people in the show's cast and crew paid, and warranted an extension of the play's virtual run into May.

And yet, this relative success also reveals a disaster unfolding behind the scenes, the same one faced by performing arts organizations of every size as bans on group gatherings go on indefinitely. The Wit, a 16-year-old company on Chicago's north side, is losing about \$7,500 a week in other revenues, such as bar sales and rentals of its three 98-seat inhouse theaters. Debts are deepening, including a now-deferred monthly rent of \$10,000.

This is a completely untenable position," says Jeremy Wechsler, the Wit's artistic director. The company has applied for various sources of relief funding, but none

has come through so far. Without that, paychecks to staff will stop in early May.

Arts and culture organizations have already lost an estimated \$4.5 billion, according to a recent survey of some 11,500 organizations by the group Americans for the Arts.

Social-distancing lockdowns have forced the theater world to improvise with digital performances in a way that would have seemed inconceivable pre-coronavirus. As the crisis descended in March, companies scrambled to

record performances of shows they had on stage, a process normally done only for archival purposes. Then they struck emergency deals with rights holders and labor unions that have long put strict limits on the use of such recordings, and got permission to put the shows online and sell tickets for streaming access.

With an entire work force of entertainers idle, the internet is awash in free homemade performances, from singers live-streaming showtunes from their living rooms, to actors doing script readings on Zoom. That's different from the relatively small number of theater companies that are selling tickets for virtual performances. About 90 theater producers have signed agreements allowing them to put interrupted productions online



Theaters Struggle Despite **Success of Webcast Plays**





Clockwise from above, plays such as 'Toni Stone,' 'Teenage Dick' and 'Kill Move Paradise' moved to the internet as the coronavirus closed performance spaces.

since last month, when Actors' Equity Association, the union representing actors and stage managers, introduced the temporary streaming deals.

On Broadway, the major theaters didn't have time to shoot their big-budget plays and musicals, even if they had wanted to. New York theaters closed at 5:00 p.m. on March 12, the same day Gov. Andrew Cuomo announced they would shut down.

"Now the opportunity is gone. We're not going to be able to shoot those shows, and many, I'm afraid to say, will not be coming back." says Stewart F. Lane, a Broadway producer and co-founder of BroadwayHD, a subscription streaming service. The five-year-old company uses about 14 cameras to shoot

Broadway shows, but typically only at the end of their live runs, when producers perceive less risk of can-

nibalizing ticket sales. In San Francisco, "Toni Stone," Lydia R. Diamond's play about the first black woman to break into big-league baseball, opened in the American Conservatory Theater's historic 1,000-seat venue on March 11. It closed the following day when California banned gatherings of more than 250 people. Anticipating such a shutdown, A.C.T. had teamed up with the nearby Berkeley Repertory Theatre to keep their productions alive online. The companies reached agreements with three separate unions, representing actors, directors and designers, to let the theaters' subscribers and other ticket holders

watch recorded versions of the plays online, which were streamed by BroadwayHD.

Wall Street Journal critic Terry Teachout called the "Toni Stone webcast "hugely impressive." A.C.T. says the online version sold 1,100 tickets. That, along with sales for another A.C.T. webcast of the play "Gloria," grossed about \$60,000. That's slightly less than what it cost the theater to shoot the show and pay for the streaming arrangement, says executive director Jennifer Bielstein.

Despite that loss, she describes the ticketed webcasts as a big success in the midst of a crisis. They helped the shows get seen, prevented refunds to existing ticket holders, and maintained ties with an audience that is physically cut

The WSJ Daily Crossword | Edited by Mike Shenk

off from the theater indefinitely. The durability of that relationship will be key for the nonprofit theater as it tries to weather a forecasted hit of \$4.5 million for the fiscal year. "We don't have a financial cushion. We don't have a cash reserve. There's no way to absorb that kind of sudden loss," Ms. Bielstein says

Meanwhile, even the trickle of revenue from pay-per-view shows is drying up for troupes, due to the parameters of their ad-hoc streaming agreements with rights holders and unions. In most cases, a play's online run can't go longer than it was originally scheduled to run in the theater. Though ticket buyers have some flexibility in when they can stream the pre-recorded shows, tickets are typically sold in scheduled time slots, with sales capped at the number of physical seats the theater has.

That's how TimeLine Theatre, which has 99 seats in its shuttered theater in Chicago, "sold out" several online showings of "Kill Move Paradise," James Ijames's play about characters in a way station between death and afterlife. Tickets went for \$25 (half the previous box office price) and included access to a live Zoom discussion with director Wardell Julius Clark and other members of the production. Sales for the virtual "Kill Move Paradise" generated about \$10,000.

"My short term response is, thank goodness there's some dollars coming and there are people still engaging with us," says PJ Powers, co-founder and artistic director of the TimeLine, which has construction planned for a new

building in the city's Uptown neighborhood. The longer this goes on, the harder it will be to come out the other side looking like the organization we spent 23 years working to build."

Though the coronavirus crisis forced innovation in theatrical webcasts that was long overdue, participants say, they're a stopgap for live performances, the alpha and omega of the art-

"Theater is theater. You're in the room. That's the point," says

Roche Schulfer, executive director of the Goodman Theatre, Chicago's oldest and largest non-profit stage. The company rushed to create a three-camera recording of Jocelyn Bioh's "School Girls; Or, the African Mean Girls Play." With tickets starting at \$15, the webcast has generated \$18,000 in sales so far, and "closes" April 26, when online access expires.

Looking ahead, theaters ranging from scrappy storefronts to Broadway palaces are struggling to plan for reopening dates they don't yet have. There's concern that socialdistancing rules or lingering fears of infection will prevent patrons from flocking back. Others anticipate pent-up demand for the communal experience of live theater. As Mr. Schulfer puts it, "People staring at screens? They're really over it."

29 Prefix for

30 Wander

(about)

31 Sound asleep?

34 Omar of "House"

35 In working order

37 Krypton, for one

38 Jane Austen title

36 Union for sch.

workers

character

crannies

45 Sage

46 Makes a

talk TV

51 Sentence

division

an Oscar

56 Commotion

57 Crumple (up)

59 Lovelace who

computer

was a pioneering

53 Be plenty angry

54 Hathaway with

55 Bird droppings?

43 Have a vision?

44 Counterparts of

musical into a

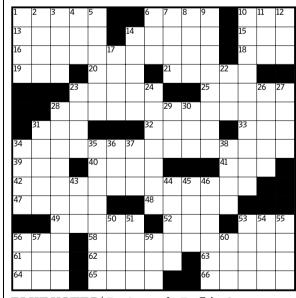
classical or

conservative

Weather AccuWeather DOWNLOAD THE FREE APP Shown are today's noon positions of weather systems and precipitation. Temperature bands are highs for the day 10s. 50s 0s 40s 10s 60s Seattle 20s (50s 70s 30s 70s 40s Eugene 50s 50s 50s 40s Pierre 60s **50**s 70s 80s :50s 50s San Francisco Washington D.C. 90s 40s 100+ 7.0s 60s Los Angeles Charlotte Santa Fe 80s Phoenix 50s Albuquerque Columbia Warm Rain Atlanta Ft. Worth . . Dallas Cold 80s T-storms 10s Snow 80s 40s 70s **U.S. Forecasts**

		Toda	,	To	Tomorrow			
City	Hi	Lo	W	Hi	Lo	W		
Anchorage	44	37	c	43	36	sh		
Atlanta	75	47	S	71	54	S		
Austin	84	68	рс	82	62	t		
Baltimore	65	37	t	59	43	S		
Boise	73	46	S	67	49	C		
Boston	54	33	t	49	32	S		
Burlington	52	26	r	43	27	рс		
Charlotte	75	43	S	70	51	S		
Chicago	51	38	рс	64	46	рс		
Cleveland	45	30	pc	46	40	S		
Dallas	79	64	рс	80	56	t		
Denver	63	40	c	67	44	рс		
Detroit	45	28	pc	46	39	рс		
Honolulu	83	69	рс	84	72	рс		
Houston	84	69	рс	81	65	t		
Indianapolis	54	36	S	67	49	рс		
Kansas City	68	48	рс	66	47	r		
Las Vegas	81	64	S	88	66	S		
Little Rock	78	54	S	68	54	t		
Los Angeles	73	56	S	84	65	S		
Miami	92	72	pc	89	77	S		
Milwaukee	48	36	рс	52	40	sh		
Minneapolis	51	39	S	64	41	рс		
Nashville	70	41	S	69	52	pc		
New Orleans	83	67	c	83	72	pc		
New York City	60	35	t	52	40	S		

		Today	,	To	morr	ow	1		Today	,	To	morr	ow
City	Hi	Lo	W	Hi	Lo	W	City	Hi	Lo	W	Hi	Lo	W
Omaha	69	52	S	74	46	c	Frankfurt	70	49	S	73	47	S
Orlando	87	64	S	87	70	S	Geneva	70	49	C	71	48	рс
Philadelphia	61	35	t	55	41	S	Havana	93	73	рс	92	74	рс
Phoenix	84	63	S	93	66	S	Hong Kong	80	72	рс	78	69	t
Pittsburgh	47	28	sh	50	39	pc	Istanbul	55	46	r	56	45	C
Portland, Maine	49	32	sh	46	29	pc	Jakarta	91	77	t	91	77	t
Portland, Ore.	65	50	C	61	49	r	Jerusalem	76	61	pc	82	56	S
Sacramento	77	50	pc	82	59	pc	Johannesburg	77	49	pc	76	51	pc
St. Louis	64	45	pc	70	53	r	London	63	49	S	67	47	S
Salt Lake City	68	48	pc	69	52	pc	Madrid	60	46	t	67	50	C
San Francisco	64	52	pc	68	56	pc	Manila	96	81	pc	97	81	pc
Santa Fe	66	38	C	69	38	pc	Melbourne	67	54	pc	66	52	рс
Seattle	59	49	C	59	50	r	Mexico City	82	57	pc	82	57	t
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Athens	70	52	pc	64	50	t	Seoul	54	37	pc	51	37	C
Baghdad	95	71	pc	97	72	pc	Shanghai	59	52	C	66	51	C
Bangkok	100	83	pc	101	83	pc	Singapore	90	81	t	90	79	t
Beijing	57	40	S	60	41	S	Sydney	77	60	S	78	56	S
Berlin	62	42	S	63	41	S	Taipei City	81	67	C	72	63	r
Brussels	67	48	pc	69	46	S	Tokyo	65	52	pc	61	49	pc
Buenos Aires	69	61	pc	68	62	pc	Toronto	40	25	pc	44	26	pc
Dubai	91	78	C	89	75	рс	Vancouver	58	46	pc	57	46	r
Dublin	56	43	рс	56	43	рс	Warsaw	58	39	pc	61	38	pc
Edinburgh	56	39	pc	57	39	pc	Zurich	69	42	pc	71	41	S



S | By Amanda Rafkin & leau

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28 Host of Animal

40 Sound from a 41 "Au revoir, _

42 Match that 47 Passover feast

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

64 Peculiar 65 Pound of poetry 66 Shoe parts

2 Croft of the

catacombs 3 "I'll handle that right away!' de deux 5 Like some dream

vacation destinations 6 Maniula's husband on "The Simpsons"

7 Wild guess 8 Garr of "Young Frankenstein'

9 Enhances the

flavor, in a way 10 Put down roots? 11 Bewitch 12 Sharon Olds work 50 Physician of

unpleasantly 17 Consequence of a dull razor, perhaps

22 Gusher output 23 Gullible ones

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48 Dutch cheese

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63 Helping hand for Morticia

16-, 28-, 34-

61 Pop

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24 Opening for Fallon or Colbert 26 Finals, e.g.

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Previous Puzzle's Solution

programmer 60 "Billions" network, briefly

A14 | Tuesday, April 21, 2020

Jordan Will Interrupt Your Quarantine

Amid a pandemic, a lengthy ESPN documentary assesses the impact of a basketball icon



What would I do right now without Michael Jordan? I guess I could do that 6,000-piece puzzle, the one with the baby ducks riding

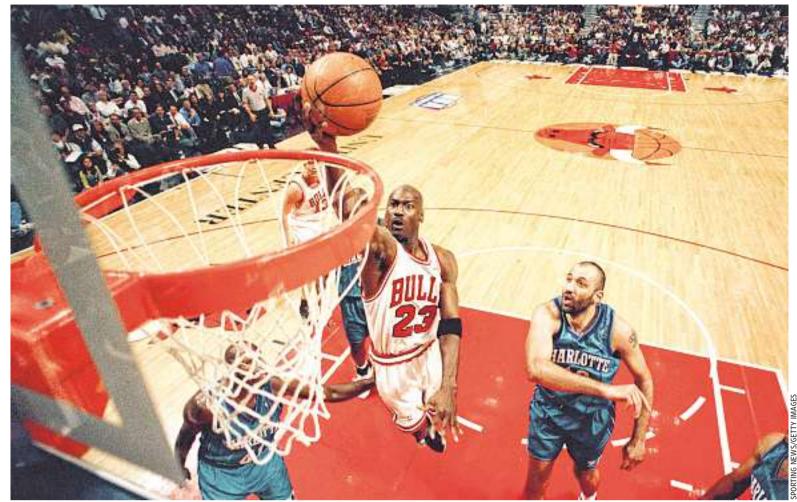
in the hot air balloons. Perhaps I could read—bleccchhh—a book. I could re-watch the Rolling Stones performing on a Zoom call, like they did for a charity fundraiser a few nights ago. I suppose I could finally learn to make that stupid sourdough bread everyone's talking

Instead, Michael Jordan is here, if not to save the world, then at least to offer a reprieve from the soul-sucking, sports-deprived tedium of quarantine. On Sunday night, ESPN premiered the first two installments of "The Last Dance," its lengthy documentary about Jordan's final season with the Chicago Bulls. It will run for 10 hours and 10 episodes—one more episode than Ken Burns needed to sift through the Civil War.

If you have spent the past four weeks or so marooned in the basement, watching Superstation-vintage Braves twin bills on VHS, searching for semi-legal underground otter racing on the internet, and re-enacting Kurt Russell's "Mir-acle" speech before your bewildered family, then this is welcome news. ESPN is offering the attraction of the new. Or at least newish. (This is a doc, of course. It, too, is stuff that already happened.)

I'm assuming you've heard a thing or two about this project. For the past several weeks, the whole of ESPN has been hyping "The Last Dance" as if it contained footage of Armstrong and Aldrin playing 2on-2 on the lunar surface versus little green men. Owned by Disney, ESPN is no stranger to synergistic tub-thumping—you don't want to go near the place when a "Star Wars" or Marvel movie is coming but even by those brazen standards, this rollout has been unabashed. I'm surprised Bob Iger himself didn't knock on my door to tell me what time it was on Sunday night. Or, better still, Woj.

Driving the excitement, of course, is the circumstance. The doc was originally supposed to air in June, amid the NBA Finals; instead, it's been scrambled together for a national sports fix during shelterin-place. One imagines a Wonka-like assembly of editors, sleeping little, stitching together clips—get me



Michael Jordan is here, if not to save the world, then at least to offer a reprieve from the soul-sucking, sports-deprived tedium of quarantine.

some Bill Wennington, stat!-in order to get it ready for its accelerated premiere. The bet is that "The Last Dance" will become a cultural moment—" 'The Thorn Birds' of sports documentaries," as the Ringer's Bryan Curtis called it.

(Briefly: I do want to say something about the notion that there is "nothing" happening in sports, because it's lazy nonsense. It's true there are no games, no stats, no playoffs on the verge. But sports news? There's never been more. The pandemic shutdown is nothing less than the most seismic disruption in the history of sports. The economic impact of what's happening now will be vast; the way games at every level will be played and viewed is likely to change forever. Every athlete on earth will remember this time for the rest of their lives. If you're claiming "nothing is happening" in sports—or, worse, you're one of the media executives out there using the pandemic to cull the herd—you should hang up your helmet and probably try something else. OK end rant.)

As for "The Last Dance," I watched. Of course I did. And from the start, director Jason Hehir's doc slips on like a warm sweater. The doc is putatively about the conflict that nearly tore apart the 1997-98 Bulls season—in particular Jordan's combative relationship with the club's late general manager, Jerry Krause—but the first two episodes mostly delivered a comforting blast of nostalgia.

Who doesn't love watching Michael Jordan play basketball? Come on. It's like making a case against pizza. If you remember this stuff, you remember it—for crying out loud, this was only 22 years ago, this isn't a history of the Camden Skeeters—but now there's a vault's worth of never-before-seen-footage.

There's Jordan in a beret, visiting Paris. There's Scottie Pippen, fuming about his contract. There's Phil Jackson, pre-Gandalf era, looking rakish in dark hair. There's Dennis Rodman, sui generis. There is, indeed, Bill Wennington. There is a definite '90s je ne sais quoi.

This footage is delightful—watch it with the young, if you can, simply to remind them that the NBA's wide reach did not begin with Kyrie Irving. But the revelation of the doc thus far is, surprisingly, its interviews with the current-day Jordan, now 57, including one conducted with a chair-side cigar and a substantial tumbler of what appears to be Scotch. (Or, possibly, his tequila.)

Jordan's never been viewed as much of an off-script talker, at least publicly. (In the locker room, he could be a ruthless Mamet character.) Here, for Hehir's camera, he's loose, profane and funny, especially when asked to recall arriving as a rookie to a moribund Bulls club known as a "traveling cocaine circus." (Jordan, who says he did not partake, erupts giddily, and tells of

a Bulls bacchanal he once left.) This is the MJ that's always been there, but has seldom been seen. It's irresistible. I wanted a cigar and a Scotch, too. (Or tequila.)

"Distraction" has become a vaguely dirty word in 21st century sports—above all else, an athlete doesn't want to be a distraction, or the jackals will descend—and yet a distraction feels very necessary now. Watching "The Last Dance," it's easy to forget the heartbreak of the time—until the commercials, from the likes of State Farm and Facebook, which gently remind of the crisis lurking out the front door. "The Last Dance" is not a substitute for a big game with big stakes, and it may not prove to be landmark filmmaking, but it's hard to argue it doesn't have value. ESPN may not have what you want, but it's got what you need. I think that's a line from a song—in fact, I saw some old Brits singing about it, just the other night, in quarantine.

The Risk and Reward of Drafting Tua Tagovailoa

By Andrew Beaton

IT WAS 14 YEARS AGO, and yet the decision that resulted in Nick Saban leaving the Miami Dolphins and returning to college football still eats at him. The Dolphins had the chance to sign the most prolific quarterback ever, but instead of putting a blank check on the table and planning parade routes, they did something else. They

"We failed Drew Brees on the physical," Saban says, "That's why he's not Miami's quarterback."

There's a reason Saban is still thinking about someone who signed with the New Orleans Saints, won a Super Bowl and threw for more yards and touchdowns than anyone in NFL history.

It's that today's NFL teams have to make the same decision about the guy who has played quarterback for Saban at Alabama the last several years.

Tua Tagovailoa may be the most talented quarterback in Thursday's NFL draft, but teams have to weigh his phenomenal ability to throw a football with the unfortunate reality that his final college season ended because of a gruesome hip injury. He'll be one of the first picks off the board—very possibly by the Miami Dolphins who own the fifth selection. The Dolphins have used 14 starting quarterbacks since passing on Brees. And they have won ex-

games. It's a risk-reward calculation unlike anything else in sports: No player affects a team's success and failure as much as a quarterback. Teams can stomach the injury risk and roll the dice on a poten-

actly zero playoff

tially great quarterback. Or they can play it safe with someone with less talent and a healthier track record. But even that's a risk: They could end up like the Miami Dol-

'The sky's the limit," Saban said. "I don't think any of the questions with Tua have to do with his ability to throw the ball and be effective."

Before Brees became more popular than beignets in New Orleans, he was a young quarterback for the San Diego Chargers, and everyone quickly realized his future was somewhere other than San Diego. With the No. 1 pick in the 2004 draft, the Chargers took Eli Manning, who so clearly didn't want to play in San Diego that they traded him to the New York Giants for the No. 4 pick, Philip Rivers. Brees's departure clock was ticking the



off Rivers because it turned out that the barely 6-foot former secondround pick was quite good at playing quarterback. The Chargers went 12-4 in 2004 and 9-7 in 2005, when something happened that would make a decision much easier

for them. In the final game of that 2005 season, right before he was set to become a free agent, Brees was hit and tore the labrum in his throwing shoulder.

Brees entered free agency as damaged goods, and there were two teams that showed a keen interest in signing him. One was the Saints, a moribund franchise that had won just a single playoff game in its 39 seasons in the NFL. The

other was the Dolphins, who were run by one of the greatest minds in football history but were missing a single piece: the right quarterback. During Nick Saban's first season in Miami, the team went 9-7 despite starting a journeyman named Gus Frerotte.

The two teams made opposite calculations. The Dolphins failed Brees on the physical and opted to trade for Vikings quarterback Daunte Culpepper, who was coming off a different injury and wound up missing most of the next season. The Saints signed Brees, who stayed healthy. The Saints became a powerhouse. Saban left the pros after a 6-10 season and moved to Tuscaloosa, Ala.

That decision was out of our hands," said Randy Mueller, the Dolphins' GM at the time. "It's a complete organization call when you get to this level of decision making.'

What Mueller means is that a decision of that magnitude is so big that it goes over even Nick Saban's head. There are doctors whose evaluations can essentially kibosh whatever the coaches think. There's also an owner who has to be willing to invest tens of millions of dollars and bet the franchise's future on the player.

Which is the same series of complex choices NFL teams will have to weigh with Tua Tagovailoa.

Tagovailoa was a top recruit to Alabama and emerged as a sensation when he came off the bench midway through the national championship in January 2018 to lead the Crimson Tide on a furious comeback.

He validated that with his play over the next two seasons, throwing 76 touchdowns and only nine interceptions in 2018 and 2019until the hip injury ended his last season prematurely. Meanwhile, quarterback Joe Burrow broke out and led LSU to the championship, cementing him as the likely No. 1 pick in this draft.

In the time since, Tagovailoa has been working his way back. But the pre-draft process has been particularly challenging for players like him. At the NFL's scouting combine, where he went through a full day of rigorous medical testing with the results "all positive," he said he was looking forward to getting cleared and showing off his abilities at Alabama's Pro Day. That was later canceled, just like similar events across the country, in response to the coronavirus.

Those restrictions also cut off in-person visits between players and teams, further limiting opportunities for Tagovailoa to show he was back in shape. In lieu of that, Tagovailoa sent out a video of a taped workout to demonstrate his health.

The situation has left quarterback-hungry teams like the Dolphins and Chargers, who have the fifth and sixth picks, mulling if they should leap for him or take someone such as Oregon's Justin There are two NFL quarterbacks

who Tagovailoa says he tries to model his game after. One is Russell Wilson.

The other: Drew Brees.



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OPINION

The Lockdown Rebellion



STREET By William McGurn

science and refusing to defer to their betters. state capitals the across

country, citi-

again, ordi-

nary Ameri-

cans denying

zens are protesting the continued coronavirus lockdowns. A CNN critic calls "Covid-19 deniers," notwithstanding that the science they allegedly deny still lacks conclusive answers to some of the most fundamental questions about the coronavirus.

In the past week, demonstrations have broken out in Arizona, Colorado, Florida, Idaho, Kentucky, Michigan, Minnesota. North Carolina. Utah, Virginia and Washington. In Pennsylvania the state legislature got into the act, sending Gov. Tom Wolf a bill that would order much of the state re-opened more quickly than he would like. More protests are planned for this

So who are these people? Some are folks who fear a permanent expansion of government and worry when they hear leaders such as New Jersey Goy. Phil Murphy saving that constitutional considerations about lockdown measures are "above my pay grade." Others are troubled by the First Amendment implications of politicians shutting down churches.

The do-as-I-say-not-as-I-do behavior of those imposing tailers from selling "nones- the average number an in-

whether it be Chicago Mayor Lori Lightfoot going out to get her hair done or New York Mayor Bill de Blasio being driven to his gym even as they were imploring everyone else to stay home. On Monday Mark Zuckerberg told George Stephanopoulos on ABC News that Facebook now classifies "a lot of the stuff" protesters are saying as "harmful misin-

book will "take that down." Lost in all this is that the protesters are for the most part simply struggling Americans who have concluded that-at least for them-the cure is turning out to be worse than the disease.

formation"-and that Face-

"These protesters aren't rich or privileged," says Stephen Moore, a Trump economic adviser. "Most are folks living paycheck to paycheck or small-business owners seeing their livelihoods destroyed, and they are the ones who are bearing the crushing burden of the lockdown in their states." Mr. Moore says he's formed an organization, Save Our Country, to help them ensure their voices are heard.

Feeding the sense of grievance is not just the lockdowns they are antiscience. Surely but the way they have been imposed. Start with the overkill. This includes sheriff's deputies arresting a paddle boater alone in the ocean off Malibu, Calif., city officials in San Clemente filling a popular skateboarding park with 37 tons of sand, and various states restricting big-box re-

trust in authorities, either, that you can get three scoops of chocolate chip from your local ice-cream shop but God forbid Home Depot sell you a bag of mulch.

Though it is common to portray the protesters as putting profits over public health, these are hardly wealthy investors worried about their portfolios. Unlike the roughly one-third of Americans who can work at

Ordinary Americans protesting to reopen the economy face only contempt from elites.

home and still draw paychecks, for most Americans the lockdowns are more than an inconvenience. And the urgency of reopening looks very different for the 22 million American workers who have iust lost their jobs—or the 1 in 4 small-business owners who, according to the U.S. Chamber of Commerce, say they are two months or less away from shutting down permanently.

Ditto for the charge that we could all use a little more modesty. Any honest appraisal would have to concede there is much that scientists have gotten wrong (the many models whose estimates of, say, deaths and ventilators needed proved wildly off), and much we still don't know (the true lethality of Covid-19,

There they go these rules isn't boosting sential items," which means fected person will infect, and so on).

> Medical officials haven't always been right, either. In January, Anthony Fauci, the immunologist who serves as a lead member of the president's coronavirus task force, assured America Covid-19 was "not something that the citizens of the United States right now should be worried about."

This is no slam on Dr. Fauci. To the contrary, this is the way science works, as experts revise and adjust to new information. But it should be a warning not to regard these experts as oracles or science as a source of unequivocal answers beyond dispute. Scientists should have doubts and continue to put their hypotheses to the test.

The protests remain relatively small. But they do expose the elite disconnect with ordinary America. A recent New York magazine article captured the condescension and lack of empathy when it declared the protests are probably "going to spread nearly as rapidly as the coronavirus itself in the rich soil of anti-government subcultures where it's widely accepted that 'tyrants' are exploiting the emergency to impose their godless socialist views on freedom-loving but fearful Americans."

A better sense of this subculture might be the words chanted by Kentucky protesters outside their governor's office last week. Their outrageous message? "We want to

Write to mcgurn@wsj.com.

BOOKSHELF | By Naomi Schaefer Riley

The Passionate Classroom

Learning by Heart

LEARNING

BY HEART

By Tony Wagner (Viking, 340 pages, \$28)

n response to the shutdown, Randi Weingarten, the head of the American Federation of Teachers, has proposed ending the school year by letting teachers put aside their standardized-test assessments. Instead they can work with their students on term projects that will "demonstrate their learning for the year." If every crisis is an opportunity, then the current crisis may give education leaders the opportunity to eliminate the government-mandated testing that they so deplore. Tony Wagner, for one, would like nothing better.

Mr. Wagner, a former teacher and administrator and now a fellow at the Learning Policy Institute, isn't at all keen on the way we educate kids in America. In "Learning by Heart," a memoir entwined with policy analysis and educational philosophy, he argues that there is too much testing, too much memorization, too much competition, and too many teachers who don't enjoy teaching and are not very kind to students. His diagnosis, by now, may sound rather familiar. As for his solutions, they are no doubt well-meant but often

feel like platitudes better suited to an inspirational poster.

Most of "Learning by Heart" consists of Mr. Wagner describing his own disappointing educational experiences. His first teachers—that is, his parents sound like a 1950s parody. His mother kept house and dabbled in photography and watercolor. His father, who left early for work, came home late, golfed on weekends and rarely smiled, told him when he dropped him off at

boarding school: "Work hard, son. I don't care what you do so long as you are the best.

Mr. Wagner wasn't the best. He would be kicked out of high school and drop out of college. He read plenty, though: "Hemingway, Fitzgerald, Steinbeck—none of the books that were actually assigned." The problem, he explains, was that "teachers ruined good books by lecturing about their structure, while asking us nothing about what we thought or how the books felt to read."

Enrolling at the Richmond Professional Institute, now Virginia Commonwealth University, Mr. Wagner again grew bored. In the middle of an ancient-history course, he interrupted the professor's "droning monologue" by saying: "I don't understand why we only study the kings and their wars. Why don't we learn about how ordinary people lived then?" This critique may have sounded profound in 1965, but in most classrooms today teachers ask students about their feelings all the time. And you'd be hard-pressed to find many schools that teach about kings and wars, let alone schools that do so to the exclusion of teaching about "ordinary people."

It was only when Mr. Wagner got to a place called Friends World Institute, a Quaker college with daily seminars "and no grades," that he began to feel at home. "Students kept a journal of their learning. . . . There were also regular meetings where students and faculty dealt with community concerns together." He describes approvingly the topics that professors covered: "automation, concepts of labor, worker alienation, arbitration, conciliation, mediation, Black Power, white thinking, urban blight, rural poverty, the destructive pressures of modern society." His only complaint was that the classes focused on problems and not enough on solutions.

Is the problem with American education too much memorization, too much testing and too much competition?

Though Mr. Wagner became involved in the civil-rights and antiwar movements-"I was going to stop reacting and start acting"—he wasn't enamored of the social dysfunction and drug culture that accompanied them and grew frustrated. When he visited a progressive school in San Francisco where his girlfriend was volunteering, he found total chaos. Kids were fighting; there weren't any books. And when he asked where the teachers were, she told him: "They believe kids should be free to do whatever they want." without adult interference." Mr. Wagner wondered: "Were there any boundaries?"

As Mr. Wagner began his own teaching career, he kept confronting this paradox. On the one hand, he hated the structure of school as a student; on the other, he saw that, without structure, students wouldn't learn anything. His solution, which seems not very workable on a large scale, is to meet with individual students to ask them what each is interested in and then oversee each student's own research project. Whether he is teaching in a public school or at an elite school like Sidwell Friends in Washington, Mr. Wagner finds that students lack "intrinsic motivation" to learn. They want merely to get a diploma or, in other cases, to get good grades. What is the answer? Find each student's "passion," Mr. Wagner urges. Instead of all that memorization, he asks: "What if . . . school prepared us for revolution?"

There are flashes of insight in "Learning by Heart," as when Mr. Wagner realizes that his ed-school classes are a waste of time or when he notices that public-school teachers get jobs for life with little or no effort. But mostly he waxes poetic about antinuke demonstrations and the teachers who wrote nice comments on his grad-school papers—he quotes them. Some of his moments of self-revelation are almost embarrassing. He describes how he emerged from a shiatsu massage in Manhattan crying, only to grasp that he wanted to leave his job at a nonprofit and go back to education: "The massage had stripped me of my armor."

What exactly students should learn, Mr. Wagner says, is not his concern because "teachers have far more important things to impart to our students than just subject matter.' In the best cases that may be true, but our schools have thrown "subject matter" under the bus, and it's been a disaster. Studies show that teaching kids reading is much harder without their having any understanding of a particular topic, just as teaching kids "how to do math" without having them memorize multiplication tables is a waste of time. As for tests, another study shows that students learn more when teachers are tougher. A revolution may be needed, but not the sort that Mr. Wagner has in mind.

Ms. Riley is a resident fellow at the American Enterprise Institute and a senior fellow at the Independent Women's Forum.

The Coronavirus Hits the Global South



GLOBAL VIEW By Walter Russell Mead

have many countries, but for much of the world the worst is yet to come. Dehopes spite that warmer

temperatures would slow Covid-19's spread in the Global South, the disease is spreading with relentless speed in countries like Kenya and Brazil. The strategies that have limited and out a vaccine or treatments, almost as powerless before the disease as humanity once was against smallnox.

Take the "lockdown" strategy. The purpose of this extremely costly policy is to "flatten the curve," by shutting down much of the economy to ensure that health systems aren't overwhelmed by waves of desperately ill patients.

In much of the world, this strategy is impossible. Only rich countries and rich peoples can afford lockdowns. In much of the Global South a substantial percentage of the population lives from hand to mouth. Many people make money selling things on the street or in crowded informal markets. They draw their water from communal taps; they use community latrines, if they have sanitation at all. Hundreds of mil-

access to clean water, much less to soap or hand sanitizer. After a few days without work, hunger will drive people back out onto the streets.

Even if lockdowns could be sustained, they would do little good. There are five ventilators in the Democratic Republic of Congo, one for about 20 million people. Ten African countries have no ventilators at all. Even if the disease's spread could be slowed, medical capacity in the Global South is so lacking that slowed the virus in the Global there's no chance it could be North won't work for the built up in time to help. The most part in the South. With- most stringent lockdown could not prevent a massive the people living there will be public-health crisis in many countries, and no such lockdown can endure.

Short of finding a cheap and simple therapy or a vaccine, there is very little that can be done to prevent the coronavirus from taking its natural course across much of the world. Those who can self-isolate will do so in their compounds or country homes, much as rich Londoners fled the plague in the 1660s, but for much of the population exposure cannot really be prevented, and whatever care the infected receive will in many cases fall critically short of what's needed

In parts of the Middle East and Africa, state failure cannot be ruled out. As economies collapse and the pandemic rages, weak states may well lose control of some or need debt relief and aid to one, depending too much on

groups will be ready to step

Some blame national leaders and international institutions for a "lack of international leadership." That's more than a little unfair. While the World Health Organization has not covered itself in glory, the Interna-World Bank, the U.S. governhave all been much more proactive and generous in 2020 than any of them were in the 2008-09 financial crisis

Only economic growth of the free market, but withcan lift incomes and generate resilience after the pandemic.

Substantial debt relief is in the pipeline and more will almost certainly come. As the supplies of vital medical equipment ranging from personal protective equipment to ventilators and test kits increase, much will be sold at cost or given to needy countries. And any vaccines or treatments will be shared and—thanks to what the world learned in the fight against HIV/AIDS—poor countries will have faster and cheaper access to these drugs than ever before in world history.

The short-term priorities are clear: These countries all of their territory. Drug help manage the extraordi- the kindness of strangers.

The pandemic lions do not have reliable gangs, warlords and jihadist nary costs of the pandemic. And after experiences with HIV/AIDS and Ebola, rich countries have learned how to collaborate with countries in the Global South to build up their public health capacities. Current support comes more easily because of past successes.

> But what these countries tional Monetary Fund, the really need to avoid or at least mitigate disasters like this in ment and the European Union the future is the most unfashionable thing in the world right now: more capitalism. We hear a lot of loose talk in the rich world about the downsides of economic growth and the supposed immorality out the technological progress that capitalism promotes and the economic resources it provides, the rich world would be as helpless in the face of global pandemics as our anestors were in the times of the Black Death.

Economic growth is going to be more important than ever as the world recovers from the pandemic. Only growth can help rich countries recover from an economic shock of this magnitude and service the vast amounts of debt they have taken on to meet the emergency. For the world's poor and middle-income countries. economic expansion matters even more. Without progrowth policies in the rich world and pro-growth policies at home the Global South will face the next pandemic, as it has faced this

PPP Loan Terms Amount to Legalized Fraud

By Pete Vegas

own a food-manufacturing business with more than 200 employees that was recently awarded a \$3.4 million loan through the Small Business Administration. From what I've observed, the Paycheck Protection Program is completely flawed and will function as a handout to companies that don't need it. Billions of misspent dollars will never be paid back.

As a maker of food products sold in grocery stores, my business hasn't yet been negatively affected by the Covid-19 crisis, unlike many other industries. We are an essential service provider," so we've been able to keep our workforce intact. We're worried about a potential shutdown if any of our employees test positive for the virus, so we're doing everything in our power to miti- Ark., plant could be next. This plicitly prohibits such behavgate that possibility.

In the PPP application, only one line pertains to the effects of Covid-19. In signing the application, I agreed to the statement: "Current economic uncertainty makes this

loan request necessary to

Healthy companies can easily exploit aid meant for those that had to shut down.

support the ongoing operations of the Applicant." We're incurring additional expenses to protect against a potential shutdown, but for the moment my business is in a strong financial position. Yet in light of recent shutdowns of meat-processing facilities, we know our Little Rock,

counts as "economic uncer-I agonized over the deci-

sion to apply for the loan, but ultimately accepted it, placing it in a separate account. We have every intention of repaying it in full. But if in 60 days I maintain my current payroll, then the loan can be forgiven. I assume the loan was intended to help companies that are currently shut down or severely suffering remain in business and keep their employees on the payroll. But tect themselves. Given the the program doesn't differentiate between companies that are completely shut down and those operating at 50% or 100% capacity.

That means profitable companies like mine, which may weather this storm regardless of the stimulus, have no incentive or obligation to pay back the money. No wording in the application ex- Colo.

ior. This program creates encourages—conduct that would normally be considered fraud. Once government officials figure this out. they might spend years tracking down fraudulent uses of the funds (provided the loan agreement's loose wording doesn't make fraud impossible to prove).

The SBA has passed responsibility for disbursing PPP loans to banks, which have every incentive to protime crunch to award loans, banks were forced to focus on larger existing clients, not the smaller companies that need the money most. PPP loans are shaping up to be a national scandal, in more ways than one.

Mr. Vegas is owner of Sage V foods, based in Boulder,

A16 | Tuesday, April 21, 2020

Care to Store Some Oil?

Texas crude hasn't

fallen below \$0.

f you thought negative interest rates were doesn't begin until May 1. The deal also depends bizarre, how about minus-\$37 for a barrel

on Monday on the futures contract for a barrel of West Texas Intermediate crude delivered in May. To put it another way, it would cost you less under that contract to fill your bathtub with oil than to fill it with water.

So goes the continuing turmoil in oil markets from the collapse in demand amid the coronavirus pandemic and global recession. The real price of oil isn't less than \$0. The bizarre behavior in futures markets is a combination of crashing oil demand today and expectations for higher oil prices later in the year when the economy is beginning to recover.

Oil traders are storing crude in the expectation that they can get a higher price later, but storage capacity is running out. Traders who are long in the market are having trouble finding storage for delivery, so they have to sell at a firesale price. Meanwhile, the oil price for contracts due in June was \$21.40 on Monday, and for August it was \$29.15.

Few traders actually take delivery on these contracts, so the tangible damage will be losses for those on the bad end of the trades. These presumably include major banks, and regulators will have to watch for bank trading losses in addition to losses that will be forthcoming from loans to the oil patch.

The larger problem that won't expire when these contracts do is the mismatch between supply and demand. The American Petroleum Institute estimates that global oil production is still about 100 million barrels a day. But demand has fallen to 70 million barrels.

Storage—on the high seas especially, but anywhere people can find a place that will take it—has been making up for much of that mismatch. But API estimates that storage capacity in the U.S. is about 825 million barrels, and actual storage has never previously exceeded 500 million barrels. Now there are fewer than 100 million barrels of storage left.

This will mean downward price pressure for weeks or longer until the pandemic eases and economic growth returns. The deal to limit oil production that President Trump negotiated recently with Saudi Arabia and other oil nations should help reduce supply somewhat, but it

on voluntary pledges, and in any case no producof oil? That was the going price for a time tion agreement can entirely offset such a global collapse in demand. The real price of West

The Texas Railroad Commission, which regulates energy in the state, is meeting on Tuesday to consider production quotas that haven't been imposed since the

1970s. The quotas are being pushed by some leading shale-oil producers such as Pioneer and Parsley.

But it isn't clear if less production in Texas would affect global prices at this moment, and API economist Dean Foreman suggests not that much. The quotas would presumably apply to everyone, which means the most efficient producers and marginal wells would face the same limits. The quotas may also have to be in place longer than producers think unless there is a price boom soon.

All of which signals considerable pain for American oil producers. The drilling rig count in the oil patch is heading to its lowest level since 2015 or worse. Many major producers are hedged against falling prices, at least for several months. But some smaller and less integrated drillers that have borrowed heavily are headed for bankruptcy.

Already calls are rising for tariffs on foreign oil to help U.S. producers. But the foreign oil is being imported because U.S. refineries are equipped to handle foreign crude more than they are the light variety produced in the U.S. Retrofitting refineries costs tens of millions of dollars. Tariffs will also raise oil prices in the U.S. above the rest of the world, which will hurt U.S. industries that consume oil. As painful as job losses will be in the oil patch, U.S. industries that use oil employ more Americans.

All of this is only one example of the structural economic damage that is occurring across the U.S. as the shutdown continues. The government is slathering cash across the economy that will keep some businesses afloat. Some oil companies may be able to tap the Paycheck Protection Program loans or the Federal Reserve's Main Street lending facility if the Fed's final terms aren't too onerous.

But the longer this continues, the more physical and human capital will be lost for years. Demand for oil will return when global growth returns, and the sooner the better.

Mia Land O'Lakes, 1928-2020

The butter company's

Native American icon

vanishes with no trace.

and O'Lakes, the Minnesota farm co-op that sells its butter by the tubful, has silently laid off its longest-tenured sales-

woman: "Mia," the figure of a Native American maiden who has enlivened its packaging for generations. Did the company see the pandemic as an opportune time to make this sure-tobe newsworthy change?

packaging in February, so maybe butter lovers are only receiving or noticing it now. The co-op was founded in 1921, and as it "looks toward our 100th anniversary," the CEO said earlier this year, "we've recognized we need packaging that reflects the foundation and heart of our company culture." There was no mention of Mia's disappearing act.

Her roots trace to 1928, but she was redesigned in the 1950s by an Ojibwe artist named Patrick DesJarlait, according to the Minneapolis Star-Tribune. "I'm sad to see it go," his son Robert told the newspaper, "but I can understand why it's gone. We live in a politically correct time, so maybe it was time to get rid of it."

Then he added: "But in our family, my dad's work is a source of pride for us. He broke barriers as an Ojibwe artist from Red Lake. Back

> then, you didn't find native people in those kinds of jobs, and this gave him the opportunity to put his spin on a wellknown native image."

> Mia wasn't an ugly stereotype. She was a sweet-looking

No, Land O'Lakes began to roll out its new woman holding a box of Land O'Lakes butter. on which she also appeared, recursively. If your face was on the side of a food package, wouldn't you be proud to show it off? But in America in 2020, a box of butter is never just a box of butter.

> What's next, a protest that Lucky Charms trades in stereotypes and appropriates Irish-American culture? An actor who voiced the leprechaun mascot on TV for decades admitted in 2005 that he wasn't Irish. Nobody had asked about that back when he auditioned in 1963. But during a brief period in the 1970s, Waldo the Wizard was a Lucky Charms pitchman. Maybe it's time to bring him back and make the leprechaun socially isolate for good.

The Court's Conservatives Clash

Gorsuch and Alito issue

dueling opinions on jury

trials and precedent.

ith Republican-appointed judges reshaping the federal courts, Democrats have described legal conserva-

tives as partisans who want the same things and think the same way. Close Supreme Court-watchers know this is false. Last term there were more 5-4 decisions when a conservative joined the liber-

als than when the conservatives were united. But if there were still any doubt, Monday's ruling requiring unanimous jury verdicts offers an illuminating look at the diversity of conservative thought.

In 48 states, a conviction in court requires all jurors to agree. But in Oregon and until recently Louisiana, 10 of 12 jurors were sufficient. In a 1972 decision, a majority of Justices had approved non-unanimous verdicts, though they did not agree an a rationale. In Monday's case, Ramos v. Louisiana, the Court was asked to overturn that decision and establish that the Sixth Amendment guarantees the right to a unanimous conviction.

Six Justices agreed, and Justice Neil Gorsuch wrote the controlling opinion. Justice Gorsuch has established himself as a muscular advocate of the Bill of Rights, and that has sometimes aligned him with the liberal Justices in criminal cases. He writes that unanimity was expected in criminal trials when the Sixth Amendment was ratified and notes the Jim Crow origins of some laws allowing non-unanimous verdicts.

Justice Gorsuch is also among the most willing—along with Justice Clarence Thomas—to set aside precedents that he believes are at odds with the original meaning of the Constitu-

tion, especially in cases involving individual rights. Justice Samuel Alito, by contrast, would have kept the Court's 1972 ruling in place.

Joined by Chief Justice John Roberts and Justice Elena Kagan, his dissent emphasizes the damage to the rule of law and stability when judges set precedent aside.

Justice Alito also takes issue with the majority's invocation of race. He notes that even if Louisiana and Oregon initially adopted their rules under the influence of Jim Crow, racism may have nothing to do with why states want to allow less than unanimous verdicts today. This reflects Justice Alito's conservative preference for narrow and incremental rulings, which sometimes clashes with Justice Gorsuch's flags-flying originalism.

Justice Brett Kavanaugh wrote separately to outline his principles for when the Court should overturn precedent. Court-watchers will scrutinize that concurrence for hints on how he'll rule on abortion precedents.

Justice Sonia Sotomayor also wrote separately to emphasize that this precedent should be overturned only because it is egregiously wrong and non-unanimous juries are rooted in racism. She wants to be able to criticize the Court's conservatives for overturning precedent the next time she's on the losing side.

Democratic threats against the Supreme Court have been escalating in the last year. They want to convince the public that the Justices are glorified partisans so they can pack the Court or intimidate Justices to deliver liberal outcomes. The Ramos decision is a rebuttal to that partisan distortion.

LETTERS TO THE EDITOR

Biden and His Vice Presidential Candidate

After reading Lance Morrow's "Biden-Cuomo Is the Way to Beat Trump" (op-ed, April 13) one could conclude that no woman is better qualified than Gov. Andrew Cuomo to get out the vote. Dangerous territory for both Messrs. Biden and Cuomo should Mr. Biden change his mind and pick a man. The Biden box (men need not apply) was created when he declared in March that: "I will, in fact, appoint a woman to be vice president." Under the same criteria, Mr. Biden wouldn't have been chosen vice president by Barack Obama. No doubt Mr. Obama was both an "equal employment opportunity" candidate and a better politician.

JORDAN CLARK Rockville, Md.

I notice the recent editorial page coverage of the president questions why we all can't just be more civil. Well the answer is in Mr. Morrow's piece. He supports the Blue team's approach to the president as "Carthago delenda est." The next time your editorial writers wonder where all the civility went, tell them: "Carthage must be destroyed." About 100 years after Carthage was destroyed, the republic was replaced with the first Caesar. I wonder if we will have that long.

Tom Rittenhouse Palm Harbor, Fla.

Even as Joe Biden is looking at mass defections from disgruntled Bernie Sanders' supporters, imagine the

disgruntled supporters of Elizabeth Warren, Amy Klobuchar, Kamala Harris and even Stacey Abrams if Mr. Biden goes with a male. At least a Biden-Cuomo ticket would end the endless criticism of President Trump's so-called "late response" to the pandemic, since Gov. Cuomo refused to shut down New York until March 20, well after it was obvious that New York City was going to have more coronavirus deaths than anywhere in the country. A Biden-Cuomo ticket would guarantee one thing-that millions of American women would protest the day after President Trump wins re-

> BOB SPEAR Coronado, Calif.

I found myself in a state of disbelief. Aside from implying that there is no suitable female candidate out there to run on the Democratic ticket, Mr. Morrow's description of Gov. Cuomo as being "blessedly nonideological" beggars belief—a man who told Christian conservatives to get out of his state and that America was never that great?

JENNIFER W. HONIGMANN Blue Bell, Pa.

I like and admire Gov. Cuomo, too. But women are not irrelevant to the purpose at hand. Women are never irrelevant. Typical of a man to ask women to wait their turn, again and again and again.

BEVERLY GABRIELE Sacramento, Calif.

Be Fair to African-American Small Business

As a black CEO of a nonprofit dedicated to prosperity for all Americans, I'm concerned that the Cares Act orphans most black-owned businesses from small-business loans, particularly in neighborhoods that need these businesses to shore them up ("Negotiations Stall Over Virus Aid," The Coronavirus Pandemic, April 14). Last year 2.6 million small businesses owned by African-Americans generated \$150 billion in revenue and supported nearly 3.6 million jobs. But even in better times, black business owners were denied bank loans at triple the rate of nonminority business owners, according to a 2016 report of the U.S. Conference of Mayors.

Republicans need to address this inequity by targeting a portion of federal funds to Community Development Financial Institutions (CDFIs.)

These local organizations stepped in where banks stepped aside, dispensing capital and financial counsel to minority-owned businesses in all 50 states and the District of Columbia. Working with the Expanding Black Business Credit Initiative and the Alliance of African-American CDFI CEOs, CDFIs know best to whom, how and where federal funds can promote localized stability that will last long term.

Small businesses are the beating heart of African-American communities. Like an injection of plasma, federal funds targeted via CDFIs would be a fast, efficient method to revive an economic engine now one virus away from financial death.

GARY L. CUNNINGHAM President and CEO, Prosperity Now Washington

The State Department Saw Us Safely Home

Regarding Secretary of State Michael R. Pompeo's "Leave No American Behind" (op-ed, April 16): It's true. From August 17-22 my wife and with a volunteer service team of 28 (with only eight Americans) from all over the world, were in lockdown in the town of Kutkai, Myanmar for six days because of safety hazards because of local battles that blocked our only road access to a local airport 48 miles away.

Because the U.S. Embassy staff served us professionally from the first day I contacted them on a weekend via Twitter and then calls and texts, our lockdown was prevented from escalating to a hostage situation, Deputy Counsel Matt Scranton made sure we were safe,

Captain Crozier Followed USNS Roosevelt's Namesake

Regarding the April 11 letters responding to your editorial "The Navy Captain and the Coronavirus" (April 4) that asks: "What would motivate a captain with more than 25 years in the Navy to torch his own career?" One need look no further than the name of the ship which Capt. Brett Crozier commanded.

In the weeks following the successful American invasion of Cuba in 1898, then-Col. Theodore Roosevelt affixed his signature to two letters which assailed the Army's high command and War Department for failing to quickly evacuate American troops who were suffering from yellow fever, malaria and dysentery. Roosevelt knew that he would earn the enmity of the Army leadership. He would subsequently be denied the Medal of Honor for which he had been nominated, only to finally receive it posthumously in the closing days of the Clinton administration. In a service steeped in tradition and history, it is not wild speculation to think that Capt. Crozier wrote his letter calling for aid for those under his command because he knew that his ship's namesake expected no less.

Orange City, Iowa

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protected and medically taken care of, and Ambassador Scot Marciel made a timely conference call to calm our nerves a couple of days before our smooth and professional rescue by Myanmar Air Force helicopters and then a military jet to Yangon.

I had the unique experience and privilege of handling the communications between our team leader and the U.S. Embassy and I realized it is true that "leave no American behind" is one of the core values of our nation. I want to express our team's appreciation for our successful evacuation that included 20 non-Americans. This is the apex of our nation's humanness, hospitality and professionalism. This is foreign diplomacy at its best. Thank you!

MELVIN WONG, PH.D. San Francisco

Private Labs Should Just Start Testing for Covid-19

Regarding Jack W. Lipton and Carvl E. Sortwell's "We Have a Covid Test-Let Us Use It" (op-ed, April 16): It's time to ask forgiveness rather than permission. Start testing people, record the data and maintain a transparent process that can be clearly audited later. I dare the FDA to ignore results or impose fines on high-quality labs that provide unassailable data. When did Americans become so beholden to the bureaucracy in the face of such a serious crisis? It's time to recapture the spirit of Admiral David Farragut: Full speed ahead!

> ANNA JENSEN Indianapolis

Pepper ... **And Salt**

THE WALL STREET JOURNAL



"Maybe it's just playing dead."

P2JW112000-0-A01700-1-----XA

By Bob Kerrey

n times of emergency, public officials live in fear of not doing enough. But sometimes doing nothing is the right answer. And sometimes doing something makes the problem a lot worse.

An example is the decision to shut down elective surgery in U.S. hospitals and ambulatory clinics. On March 14, Surgeon General Jerome Adams urged a halt in such procedures out of concern they'd spread the coronavirus and strain hospital capacity. On March 18, the Centers for Medicare and Medicaid Services released guidance to limit "elective surgeries" and "nonessential procedures." Thirtyfive states followed these directives. Administrator Seema Verma's Sunday announcement that CMS is relaxing its guidelines came none too soon.

Temporary bans prevent treatment for cancer, heart disease, cataracts and other serious ailments.

The term "elective" is misleading. It doesn't mean "unnecessary" but "capable of being scheduled." The result of these orders is that Medicare. Medicaid and commercial health-insurance companies won't reimburse patients for most surgical procedures that don't require overnight stays, including diagnostic biopsies, wound care, removal of tubes, and treatments for heart disease, cancer, vascular conditions and orthopedic ail-

According to a survey of state hospital associations, the daily reduction in revenue is \$1,600 per bed. Not counting the increased cost for hot spots like New York and New Jersey, this implies a contraction of \$45 billion a month for hospitals, which have been forced to furlough nurses, technicians and other workers. Ambulatory surgical centers are simply closing their doors.

It should be relatively easy to reopen ambulatory surgical centers. They aren't seeing coronavirus patients, and they typically operate 12 hours a day and provide safe, sanitary and effective off-campus locations to deal with outpatient de-

Hospitals deal with infectious disease as part of their normal routines and know how to minimize risk to patients and employees. In addition to careful and regular monitoring of the Covid-19 health status of patients and staff, it will be critical to designate wards and procedure rooms, work flows and, when possible, the transit paths to and from these areas, according to Covid status.

The concept of a "certificate of immunity" may ultimately be useful once the science based on serology studies is more advanced. Many more tests will be needed, as Harvard's Safra Center suggests in a recent report: "While 1 [million] to 10 million tests per day may suffice if we have in place a precise tracing infrastructure, such as that provided by highprevalence and high-reliability Bluetooth-based apps or large scale manual tracing . . . a target of tens of millions of tests per day [is] a good focal estimate." Many large hospitals will be able to run their own tests.

But there's an additional problem all employers will face as they move to reopen: patient privacy for expanded or required testing. We'll need legislation to overrule existing federal, state and local laws, as well as employment contracts.

Getting the hospitals open won't cost taxpayers anything. It will save money and lives. We all make mistakes, and this one is understandable. It won't be understandable if officials fail to correct it.

Mr. Kerrey, a Democrat, severed as Nebraska's governor (1983-87) and a U.S. senator (1989-2001).

Seven Fateful Coronavirus Decisions

By Robert C. O'Brien

acing a once-in-a-century pandemic, a crisis that some have likened to a world war, the U.S. is fortunate to have President Trump in charge. I have witnessed him make the tough decisions necessary at every turn to keep America safe. Seven of these decisions stand out.

First, the president assembled a team. On Jan. 29 he established the White House Coronavirus Task Force. Now under Vice President Mike Pence's leadership, the task force has consolidated the government's public-health expertise and responded in real time to the virus's spread. Deborah Birx, a world-renowned physician, was detailed on March 2 from the State Department to serve as the coronavirus response coordinator, joining Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, and Robert Redfield, director of the Centers for Disease Control and Prevention, who were already in the fight.

Second, on Jan. 31 Mr. Trump ordered travel restrictions barring foreign nationals who had recently been in China from entering the U.S., quarantines for Americans who had visited China's Hubei province, and a strong advisory against Americans traveling to China. These moves bought time to prepare for the large-scale arrival of the virus on U.S. shores, but they weren't popular at the time.

The next day, on Feb. 1, Joe Biden criticized the president's "xenophobia" and "fear-mongering." He stressed that "diseases have no borders." It took until April 3 for Mr. Biden to do a 180 and come out in support of the president's travel restrictions. The Washington Post editorial board condemned the restrictions on Feb. 5, positing that "Mr. Trump's goal is to shut off the spigot of plucky, hopeful and ambitious people who aspire



President Trump tours the NIH's Viral Pathogenesis Laboratory, March 3.

to become Americans."

Third, on March 11 Mr. Trump suspended travel to the U.S. for foreign nationals who had recently been in 26 European nations, despite considerable pressure to exempt allies. The president extended these restrictions on March 14 to travel from the U.K. and Ireland,

President Trump acted with dispatch, to keep Americans safe, even when it was unpopular.

two of America's closest partners. This was, again, a difficult and controversial call at the time, given our countries' unique and longstanding

Fourth, on March 16, as the virus began to stretch the public-health resources of major American cities such as Seattle and New York, the president issued the "15 Days to Slow the Spread" initiative, which included strict social-distancing guidelines and recommendations for those with the highest risk of severe illness. Mr. Trump understood the economic consequences but acted to protect American lives. After concluding that the damage to the economy would be even greater if the virus were permitted to spread unabated, the president extended these guidelines through April 30. Because of the president's early initiative, the U.S. economy will soon be in a position to reopen carefully on a rolling basis.

Fifth, for many weeks the president pushed for the innovative use of therapies to fight the virus. On March 19 Mr. Trump announced the availability of remdesivir for patients in emergency situations and in a national clinical trial. While not yet proved to work, the antiviral drug has shown promise in academic research and in treating a small number of Covid-19 patients, and the Food and Drug Administration is also looking at other experimental coronavirus treatments to provide more tools to physicians on the front lines.

Sixth, Mr. Trump announced on April 3 that the CDC would issue guidelines recommending that Americans use cloth masks to help stop the spread of the virus and pave the way to get back to work. While some health-care experts had dismissed the idea, the president saw new research on the benefits of masks and successful examples in South Korea, Hong Kong and Taiwan, and got this important information to the American people right

Seventh, since the extent of the danger became apparent, Mr. Trump and his team have contracted with more than 10 ventilator suppliers to ramp up production. The suppliers will make more than 100,000 ventilators over the 100-day period starting March 27. The president also initiated a public-private partnership, Project Airbridge, to fly in essential personal protective equipment from around the globe. Working with governors, mayors, manufacturers and hospitals, the Trump administration has used every tool available, including the Defense Production Act, to break through bureaucratic red tape and ensure that critical supplies are prioritized and delivered to where they are needed most.

These decisions took courage. Many said that the most significant among them would be unpopular with the American people, harm the economy, or even hurt the president's chances of re-election. Nevertheless, in each situation Mr. Trump acted decisively and put the American people first. That's what I witnessed.

In my assessment, the president's decisions outlined here have saved tens or even hundreds of thousands of American lives. The war on this virus isn't over. But I am confident that under Mr. Trump's leadership, America will prevail.

Mr. O'Brien is White House national security adviser.

Americans Need Forbearance, Not More Stimulus

By Peter J. Wallison

ess than a month after the passage of the Cares Act stimulus, Congress and the White House are already on the cusp of an extension. Their instinct is right the economy will recover in a few months but will need massive taxpayer support in that period. But there's a far better approach than more blanket government stimulus payments: short-term credit forbearance. Granting delays on payments would keep the economy's gears turning without forcing taxpayers to fund the entire effort.

Though President Trump hopes to reopen the economy in May, there is reason to believe this recovery will be slower than he projects. People will still be wary of the virus, and many won't return quickly to work, restaurants, sporting events and schools merely because the president said they can. Governors who have locked down their states may be reluctant to take the political risk of easing the restraints on their citizens.

That means millions of Americans and thousands of businesses will need support in the coming two to four months to cover rent, mortgage payments, car payments, utilities and countless other timely expenses. If these funds were granted as stimulus, the cost to the taxpayers would be enormous, increasing the nation's debt substantially. The federal government's efforts to recover funds from people who weren't eligible to receive them, or didn't use them in the intended way, would go on for

Those problems would be reduced substantially with a short-term forbearance system. The Cares Act already allows homeowners whose mortgages are held by the Federal Housing Administration or other government agencies to request deferral of payments on very generous

terms. But Congress could require that landlords not foreclose because of unpaid rent, nor banks for defaulted nongovernment mortgages. Due dates would also be deferred for car payments, electricity and other utility bills, and school tuition. Credit-card companies could also temporarily increase their borrowing limits. All these deferred obligations would be treated as temporary private-sector loans and bear a special interest rate higher than that of the deferred obligation.

The special rate should be high enough that those who take advantage of the forbearance have an incentive to pay off the deferred amounts before other obligations. Today the interest rate on a personal bank loan to a borrower with an average credit score would be about 4%, so the special rate might be set at about 6%. Such a rate might be high enough to attract private groups to buy the deferred obligations from creditors, gambling that the special rate will provide a profit after covering any losses. Alternatively, any holder of the deferred obligations could sell its loans to the Federal Reserve, which has been trying to assist the recovery by acquiring non-investment-grade

The program would be voluntary and short-term, intended only for the two to four months until full recovery. Creditors such as banks and landlords would participate because they might not otherwise be paid unless Congress appropriates sufficient funds. Individuals and businesses that are unable to meet their obligations would participate as a way to avoid foreclosure, or at least stave it off.

Congress and the Fed should make it possible to pay off obligations later, at a special interest rate.

When the crisis is finally over, most "borrowers" would quickly set about repaying their debts. This would encourage people to return to work even though they may be earning more from unemployment insurance. Those who had deferred their obligations would pay back the balance, plus interest at the special interest rate, until they became current. They could then resume regular payments for mortgages, rent and other obligations.

The forbearance would certainly cause some losses. Many businesses will never make it back to profitability, and their unpaid rent or debts to suppliers will never be recovered. Some individuals may never return to jobs that had enabled them to meet their financial obligations. But these losses are occurring already, and the only other way to get through the next few months would be to appropriate more unrecoverable funds, burdening taxpayers for years to come.

Americans are a resourceful people, willing to take risks and work hard. The current downward trend in Covid-19 deaths strongly suggests that in two to four months fear of the infection will have subsided substantially. Businesses will resume hiring, and people now unemployed will again be able to meet their obligations.

It would be far better for the country's future if this brief period were financed by a system of private forbearance rather than by further burdening taxpayers.

Mr. Wallison is a senior fellow at the American Enterprise Institute and author, most recently, of "Judicial Fortitude: The Last Chance to Rein In the Administrative State.'

Stocking Shelves in Covid-19 America

By Daniel Lee

Greenwood, Ind. mployees now receive health checks at the department store where I work part-time. I'm asked about fevers and chills, unexplained coughs, foreign trips and the like. Then they take my forehead temperature. Pass, and I get to work unloading a semi truck and stocking its contents.

It takes some doing. Trucks can run 3,000 to 3,500 separate pieces; unloading one can take a good three hours. The receiving area reminds me of the Christmas rush. Pallets stacked eight feet high with boxes. Stocking carts loaded and lined up 10 in a row, waiting for us to roll them out on the floor and stock the shelves. Customers are still good-tempered, but now that many are wearing kerchiefs and bandanas, they've started to look like the

Hole-in-the-Wall Gang. Press reports claim at least 41 supermarket workers have died of the virus. The United Food and Commercial Workers International Union says about 1,500 of its members have tested positive for Covid-19.

No one at work has turned up with the virus, and people darkly joke about it. Sneeze, and someone will call out, "Go check your temperature!" But more are wearing the company-issued masks. I resist, but I do wear gloves, which I swab every so often with sanitizing wipes I keep in my pocket.

As we work, we hear a canned announcement reminding shoppers to practice social distancing and good hygiene. We know when to call out, "But how long should we wash our hands?" just in time for the announcer to respond "... for at least 20 seconds." A bit flippant,

Retail and grocery workers persevere, wondering which is worse: disease or economic devastation?

But as we were stocking the pharmacy shelves the other day, a bleary-eyed customer asked me where we keep the thermometers (we were out). I decided to start wearing the mask, at least in the sick-person part of the store.

Honestly, I do this job mostly to stay busy. Our finances are fairly secure, for now. My wife is doing work deemed essential-cancer research at a local children's hospital. But who among my co-workers has the financial wherewithal to wait this out at home?

So should I be taking up a job

that somebody else might need more than I do? And should I keep showing up at a workplace where I might contract the virus?

The first question is laughable. Stores like ours are hiring anybody they can get. There's a sign on the door that says, "Apply today, start The second is irrelevant, at least

for my co-workers. Work isn't a choice for them; it's a necessity. And the question is serious, too. It reflects the country's dilemma as leaders consider how quickly to reverse the sharp economic shutdown that has cost 22 million jobs and might equal or surpass the hardship of the 2007-09 recession.

Calls to reopen the economy are becoming more serious. And the mood in Indiana, which averages fewer Covid-19 cases than the nation as a whole, is passing resentment and edging toward defiance. Saturday brought protests at the governor's mansion in Indianapolis.

So I could stay at work and possibly get the virus. And the country could stay in shutdown and risk another Great Depression—not to mention a soft rebellion leading to the arrest of normally law-abiding citizens. If widespread testing doesn't become available soon, things could get ugly.

Mr. Lee is an Indianapolis writer.

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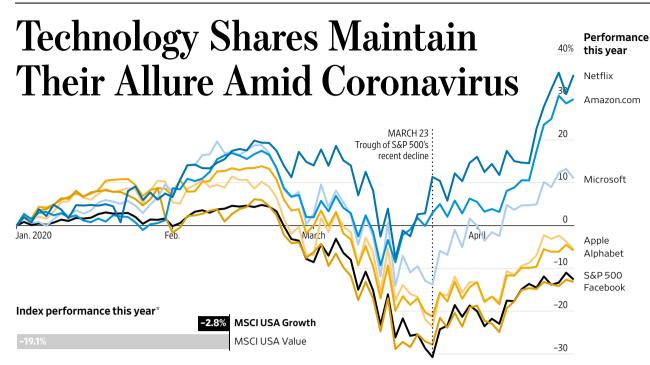
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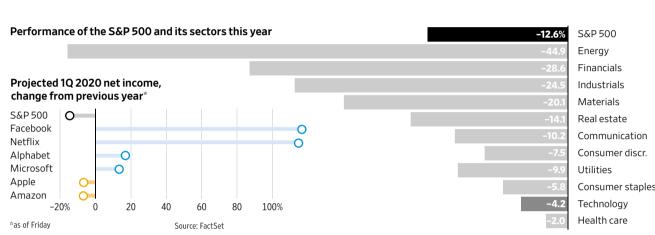
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By Caitlin McCabe

The FANG trade hasn't lost its bite.

Big technology stocks are again charging to new heights and propelling the broader stock market, which is swiftly rebounding after a punishing selloff.

The NYSE FANG+ indexwhich comprises Facebook Inc., Amazon.com Inc., Netflix Inc. and Google parent Alphabet Inc., along with Apple Inc., Twitter Inc., Tesla Inc., Nvidia Corp. and Chinese behemoths Alibaba Group Holding Ltd. and Baidu Inc.—is up 11% yearto-date after a dramatic rally

The four FANG stocks added \$251 billion in market value last week, their biggest gain on record dating to Facebook's 2012 initial public offering. The S&P 500, in comparison, is down 13% in 2020 but has rallied 9% month-to-date.

The big tech stocks "are like chicken noodle soup," said Mike Larson, a senior analyst for Weiss Ratings. "They are the old reliable and old standby for portfolio managers...Nobody is going to get fired for adding Apple stock in a downturn like this."

The returns for big tech companies have helped answer, at least for now, a question that has long swirled: How would the deep-seated market leaders fare in a downturn? Many analysts and investors worried that an eventual market rout could extinguish the FANG trade's flame, pulling the broader market down with it.

The four companies, along with Apple and Microsoft Corp., together accounted for roughly 20% of the S&P 500's value in mid-February, giving them outsize influence on the market's direction.

Their resiliency during the coronavirus pandemic underscores investors' faith that they have enough momentum to continue powering the mar-

After driving much of the historic 11-year bull run that ended in March-Amazon's share price, for example, has swelled 3,857% since March 2009—the tech companies now face one of their biggest tests yet. Although investors and analysts have suggested that global stay-at-home orders have been a boon for the tech firms, their coming earnings reports will begin to reveal the true damage from coronavirus.

The results will also likely give clues about which of the companies are best positioned to emerge stronger.

> Investors are already bet-Please turn to page B11

IBM Sales Drop Dents CEO's Plans

Company withdraws annual profit guidance, takes \$900 million restructuring charge

By Asa Fitch

International Business Machines Corp. posted lower firstquarter sales, withdrew annual earnings guidance because of uncertainty caused by the coronavirus pandemic and took a large restructuring charge, highlighting the challenges new Chief Executive Arvind Krishna faces in trying to revive Big Blue's fortunes.

IBM on Monday said it was withdrawing full-year earnings guidance that included generating at least \$13.35 in adjusted earnings per share, citing the Covid-19 crisis. The company said it would reassess the situation at the end of the current quarter.

"It was a tough decision to withdraw guidance," Krishna told analysts. "But these are unprecedented times, and this quarter is not the time to declare we have clarity—that does not benefit us, and it does not benefit you as investors and analysts.

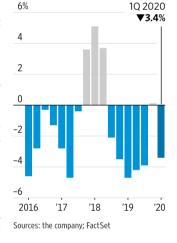
The Armonk, N.Y.-based company also said earnings per share fell 18% on an adjusted basis to \$1.84. Sales over the first three months amounted to \$17.57 billion, down 3.4% from the same period last year, in part dented by currency movements. IBM shares fell 1.3% in after-

hours trading. The results come as IBM is trying to focus increasingly on the booming cloud-computing field while shedding more traditional but less profitable parts of a global business spanning IT services, consulting and hardware. It is a move that began under Ginni Rometty, who ran IBM for more than eight vears, before Mr. Krishna took over as CEO on April 6.

IBM's adjusted earnings per share for the quarter exceeded Wall Street forecasts that had been revised downward in recent months. Analysts surveyed by FactSet anticipated \$1.81 in adjusted earnings per share. IBM's sales were roughly in line with Wall Street expectations.

IBM also took a \$900 million charge against earnings, largely to cover restructuring costs linked to its Global Technology Services division, which offers IT outsourcing. IBM in January signaled it was planning changes at the unit to bolster its competitiveness. Those moves should deliver gross sav-Please turn to page B2

IBM's quarterly revenue, change from previous year



Companies Revamp **Executive Pay With** Less Cash, More Stock

Amid volatile markets and business reasons, and that any economic contraction, companies have adjusted executive compensation, with salary cuts

By Theo Francis, Coulter Jones and Susan Pulliam

for top leaders often accompanied by new equity grants.

As companies furloughed or laid off workers and cut other costs, many chief executives have had their base salaries cut for 2020 by anywhere from 50% to 100%. In many cases, they also have received stock or option awards meant to motivate and reward long-term performance—in some instances, as stocks hit recent lows in March. Companies that made March equity awards included Vornado Realty Trust, Gap Inc. and Hess Corp.

Low share prices at grant times offer the prospect of large gains if markets rebound. Generally, companies awards are set in advance for

potential upside from making them when share prices are low is coincidental. As with any equity investment, there are risks. especially in a volatile market amid economic dislocation.

If share prices fall further, stock awards lose value. Option grants made at relatively low share prices can still expire worthless if the share price never rises, or if it rises and then falls again before the options expire or the executive exercises them.

"When the market stumbles, companies have a timely opportunity to award meaningful stock grants to executives because there is built-in potential for appreciation," said Stewart Reifler, a lawyer specializing in executive pay.

Many boards review compensation arrangements early in the year. In recent years March has been the second most-common month for S&P 500 companies to make equity

Please turn to page B2

The luxury retailer hopes to reopen most of its 43 department stores after the pandemic.

Neiman to Seek Bankruptcy as Creditors Weigh Sale, Closings

Neiman Marcus Group Inc. is preparing to file for bankruptcy protection as soon as Wednesday, with plans to restructure its debt in hopes of reopening most of the luxury chain's stores after the coronavirus pandemic, according to people familiar with the mat-

The lenders who would steer Neiman through bankruptcy are considering several options, including selling the business outright or closing some of Neiman's 43 department stores to continue operating in a slimmed-down form, they said.

The company is near a debtor-in-possession financing agreement with existing lenders, a person familiar with the matter said. The company has about \$4.7 billion in debt.

Neiman failed to make interest payments last week, starting a clock on a potential bank-

By Soma Biswas, Miriam Gottfried and Suzanne Kapner

ruptcy filing. One of the missed payments had a grace period of just five days. Reuters earlier reported that Neiman could file for bankruptcy protection as soon as this week.

A potential buyer is Saks Fifth Avenue parent Hudson's Bay Co., which could make an offer for the troubled retailer after Neiman tips into bankruptcy, according to a person familiar with the matter. Saks has tried unsuccessfully to merge with its rival three times in the past decade, according to other people familiar with the situation.

Most of the negotiations between Neiman and its lenders and creditors have so far focused on shedding debt, and exiting bankruptcy court with most of its stores intact, some of the people said.

Because of the coronavirus pandemic, Neiman closed its stores in March and furloughed many of its 14,000 workers, while reducing hours and pay for the rest.

Even before the virus shut many U.S. stores, department stores were struggling from increased competition from upstarts as well as the brands they sell, which have opened their own stores and websites. Even wealthy shoppers are scouring the internet for deals as they purchase more online.

Barneys New York was sold to a licensing company after it filed for bankruptcy last year, and its brand lives on in boutiques at Saks. J.C. Penney Co. missed a debt payment last week, throwing its future in doubt. Sears Holdings Corp. has closed most of its stores Please turn to page B2

Pressure on Commercial Paper **Persists**

The normally staid corner of Wall Street where companies and banks borrow money for days or weeks at a time was

> By Paul J. Davies, Anna Isaac and Caitlin Ostroff

suddenly at the center of a near financial meltdown last month. Some fund managers are concerned problems remain despite the quick work of central banks to ease the funding strains.

Known as commercial paper, this more than \$1 trillion market of short-term loans, used by companies to cover expenses such as payroll and paying suppliers, froze during March's coronavirus-induced mayhem.

One problem, say market participants: Trading was dominated by a limited cast of big investors who were seeking to sell big slugs of commercial paper through a smaller number of banks that arrange the financing, known as dealers. This led to bottlenecks.

"Like eight elephants trying to fit through three small doors," said David Callahan, head of the money-market management team at Lombard Odier Investment Managers.

The Federal Reserve acted on March 17 to prop up moneymarket funds, the main investors in commercial paper. A Fed lending facility was immediately used by Goldman Sachs Group Inc. and Bank of New York Mellon Corp. to swap commercial paper held in funds they managed in exchange for cash.

The extent of the freeze shocked money-market fund managers. "Like: Wait a minute, Please turn to page B10



BUSINESS NEWS

Unsold clothing piles up for retailers who can't find ways to clear it. B3

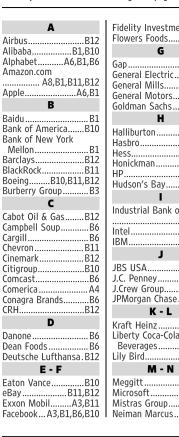


TECHNOLOGY

As role-playing games move online, platforms make moves to boost cybersecurity. **B4**

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Neiman's Creditors Weigh Sale

Continued from page B1 after filing for bankruptcy protection in 2018.

In addition to its 43 namesake stores, Neiman operates two Bergdorf Goodman stores in New York City and 22 Last Call discount locations. Earlier this year, the company said it was closing most of its Last Call stores.

A bankruptcy filing for Neiman would mark a blow for private-equity firm Ares Management Corp. and the Canada Pension Plan Investment Board, which bought Neiman Marcus in 2013 for \$6 billion. including debt. The previous owners were private-equity firms TPG and Warburg Pincus LLC, which paid about \$5.1 billion for the company in 2005.

Neiman was on the brink of embarking on a restructuring of its debt before it closed its stores in the initial wave of the coronavirus pandemic. Neiman has \$120 million in interest payments due in April, including those that it missed last

BUSINESS & FINANCE

ESPN Series on Michael Jordan Scores Big Ratings for Premiere

By Benjamin Mullin

Once again, Michael Jordan put up impressive numbers in prime time.

The first two episodes of ESPN's documentary series on the former Chicago Bulls superstar averaged about 6.1 million viewers Sunday night, according to Nielsen, giving the network a much-needed shot in the arm at a time the cancellation of live sports has made it hard to attract audiences.

"The Last Dance" is the most-viewed telecast on the ratings-starved network since January's College Football Playoff championship game, which drew about 25.5 million

viewers. The documentary's ratings pale in comparison with major sports events such as the National Basketball Association Finals and the Super Bowl, but were better than last year's NBA playoffs leading up to the Finals, which averaged about four million viewers.

The ratings validate ESPN's decision to move up the release date for "The Last Dance," a documentary series on Mr. Jordan's final championship run with the Chicago Bulls in the 1997-1998 season. The show, which will be aired over the next five weeks, has a budget of about \$20 million, according to people familiar with the matter.

ESPN said "The Last Dance" was the most-watched telecast among adults between the ages of 18 and 34 since the coronavirus pandemic shut down major sports leagues.

Despite an industrywide slowdown in TV advertising, ESPN scored several sponsors for the documentary, landing ads for Facebook Inc., Hershey Co. and State Farm Mutual Automobile Insurance Co. According to eMarketer, TV ad spending will decline by at least \$7.56 billion in the first half compared with the same period last year, a 22% decrease.

"The Last Dance" marks a large-scale collaboration between **Netflix** Inc. and **Walt** Disney Co.'s ESPN, which are sharing production costs and distribution rights for the documentary. ESPN has the exclusive rights to show the documentary in the U.S. until July, when Netflix can begin streaming it for its U.S. subscribers.

Cancellation of sporting events around the world because of the novel coronavirus pandemic has sent ESPN's ratings tumbling as viewers seek alternative programs in the absence of live games. ESPN averaged about 420,000 prime time viewers between March 16 and April 12, according to Nielsen, a decrease of about 54% from a comparable period last vear.

IBM Pulls Guidance; Sales Drop

Continued from page B1 ings of almost \$2 billion a year, Chief Financial Officer James Kavanaugh said, adding that more restructuring was likely.

The charge for GTS in the first quarter was more than offset by a one-time tax benefit, the company said.

IBM is one of the first large tech companies to report quarterly results since the coronavirus outbreak led to stay-athome orders across the U.S. Tech companies are broadly expected to weather the downturn better than many other businesses, aided by Americans flocking to online services.

IBM has asked almost all of its employees to work remotely during the crisis. IBM executives recently urged some employees to take a week of vacation during the current quarter to avoid a shortage of staff later in the year once companies ramp up as shutdown or-



ders end, according to a group that tracks IBM layoffs and posted the memos online.

IBM declined to comment on the request to employees.

Mr. Krishna takes over an IBM that faces the twin challenges of coping with the pandemic and reorienting a company that has suffered through several years of declining revenue and an anemic share

IBM has been eager to capture more revenue from cloudcomputing. To help spur

growth, IBM last year closed the roughly \$33 billion acquisition of open-source-software giant Red Hat, the biggest deal in its history.

IBM said its cloud and cognitive software sales rose 5% in the first quarter.

ExecutivePay Gets Revamp

Continued from page B1 awards, after February. This March, 95 companies in the index made awards to 615 executives backed by \$2.2 billion in shares, according to a Wall Street Journal analysis of securities filings and data from S&P Global Market Intelligence.

At many of these companies. the equity awards were similar in size and timing to ones made in years past, though at dramatically lower share prices than last year, due to the market downdraft.

companies Some other awarded executives stock packages larger than at similar times last year or made grants at times they ordinarily haven't. At 48 companies in the S&P 500, the shares underlying executive equity awards had a total value at least 20% higher than awards made in March 2019, according to the Journal analysis.

The total value of an executive's award can be higher even when share prices are depressed if the company grants more stock or options at one

Before the pandemic hit. real-estate investor Steven

Roth stood to gain about \$4.9 million on stock options from Vornado Realty Trust, the commercial real-estate giant he runs. He held those options for a decade and could have exercised them at a profit before March 9, when the company's share price fell below the options' exercise price for the first time in more than a year. By March 11, the options had expired worthless.

The company's share price fell further. Vornado issued Mr. Roth new equity awards on March 30, when the share price closed at \$37.60, indicating a potential value of about \$4.9 million—a later grant, and a bigger one, than he has typically received in March in recent years. He received similarly valued grants earlier in the year in prior years.

As the market and Vornado's shares have recovered, the value of the shares underlying Mr. Roth's March 30 award has risen 12% to around \$5.5 million as of Friday's close. If Vornado shares return to their February closing high of \$67.89, it stands to grow in value by about 80%, to just over \$8.8

million. On Monday, Vornado said in a regulatory filing that Mr. Roth and other Vornado executives would take pay cuts, effective April 1, for the remainder of 2020. The filing said Mr. Roth waived 50% of his base salary, which has been \$1 million a year since 2001.

Vornado declined to com-

ment on the equity awards beyond its regulatory filings.

Equity awards have made up the bulk of top executives' pay for years—nearly two thirds of it since 2015 for the chief executives of S&P 500 companies, Journal analyses of CEO pay have shown.

In general, investors prefer top executives to be paid in stock, reasoning that it aligns their interests with those of shareholders. Awards tend to come in February and March because that is shortly after many companies close the books on their fiscal years, giving boards the time and information they need to determine

When the market falls, firms have an opportunity to award stock grants.

the size of the awards.

Gap said on March 30 it would furlough employees and that its top executives would take a temporary pay cut. A week earlier, the company had issued options to six executives at around \$6 a share, near a recent low and down about 66% from its February high closing price of \$18.68 on Feb. 5. The options vest over four years. The March 23 awards were backed by 56% more shares than awards in all of March

2019. Gap shares have risen since the awards to Friday's

close of \$8.35. Gap said the March equity awards were tied to the appointment of a new leadership team, including CEO Sonia Syngal, and preceded the biggest impact of the pandemic on the company's operations, including store closures.

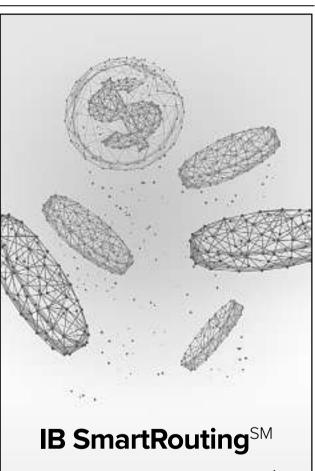
"The timing of these awards is based on our company's fiscal calendar and our standard annual rewards process that happens at this time each year," Gap said.

Some companies have made an effort to avoid making equity awards at lower stock prices. Mistras Group Inc., which provides asset-protection services to the energy and industrial sectors, said in a regulatory filing on April 6 that it would make equity awards to executives at \$9 a share despite the company's stock trading at prices ranging from \$3.69 to \$5.13 during the relevant period. The company's executive team also agreed to salary cuts ranging from 25% to 45% for its CEO, the filing said. Mistras didn't respond to requests for comment.

John Hess, CEO of Hess Corp., could make up for lost stock options if his company's shares recover from March lows. Early in the year, he stood to gain about \$2 million on options that were set to expire on Feb. 3. Hess shares slipped below the exercise price on those options at the end of January and closed below that level on Feb. 3, rendering them worthless.

In March, the company made stock and option grants to its top executives backed by \$35.5 million in shares, 23% more than the \$28.8 million it awarded to executives in March 2019. Of that, awards backed by about \$16 million in shares went to Mr. Hess. If Hess shares return to February prices, the options in Mr. Hess's March 2020 award could yield gains of about \$3.5 million. The rest of the award could rise in value by as much as \$2.6 million if the company meets various performance goals; if the goals are missed, those shares could prove worthless.

"The equity awards granted in early March were in recognition of our company's outstanding 2019 performance," a Hess spokeswoman said.



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04-IB20-1326CH12

Steven Roth, CEO of Vornado Realty Trust, held options on nearly 300,000 shares that expired without value on March 10. At the end of the month, Vornado awarded Mr. Roth and seven other executives new options, one of many large companies issuing equity awards in March.

Vornado Realty Trust stock price Mr. Roth's options expire 55 50 New options awarded 45 Exercise value of Mr. Roth's options is \$4.9 million 30

*Reflects grant date value for awards disclosed under most common reporting category. Sources: FactSet (Vornado); SEC filings; S&P Global Market Intelligence

Value of shares underlying

equity awards by S&P500

companies in March*

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BUSINESS NEWS

Halliburton Pulls Back, Citing Oil 'Free Fall'

By Collin Eaton

Halliburton Co. is cutting jobs, slashing costs by \$1 billion and reducing its debt to gird itself against the dramatic drop in investment happening in the U.S. oil patch.

Chief Executive Miller said the world's secondlargest oil-field services company is consolidating facilities and removing a layer of management in its North American operations to conserve cash as oil companies have cut spending in half.

"Activity is in free fall in North America," Mr. Miller said, noting it is impossible to know when U.S. shale drillers will recover following the coronavirus outbreak.

As the largest supplier of U.S. oil equipment, Halliburton could get hit particularly hard by a sharp oil-patch downturn in shale plays such as the Permian Basin of West Texas and the Bakken Shale of North Dakota.

U.S. sales made up more than half its revenue last year, and since oil prices crashed, U.S. drillers have stopped billions in capital spending, the lifeblood of oil-field services companies that provide the industry's equipment and crews.

The company Monday reported a first-quarter net loss of \$1 billion, or \$1.16 a share, compared with net income of \$152 million, or 17 cents a share, in the same period last year. Revenue dropped to \$5 billion from \$5.7 billion.

Its earnings per share, adjusted to exclude impairments and other charges, of 31 cents for the quarter beat analysts' expectations of 25 cents a share, according to FactSet.

Halliburton shares have fallen 69% this year as oil prices plunged because of a historic drop in demand after the coronavirus pandemic spurred stay-at-home orders across the U.S.

The Houston-based company's North American sales, its biggest regional segment, fell 25% compared with the same period last year. International sales increased 5%. Halliburton said it would lower capital spending to \$800 million, down 50% from last year.

The company said it cut its total debt by \$500 million and extended some debt maturities out to 2030. It issued \$1 billion in senior notes during the quarter, using the proceeds and cash on hand to redeem \$1.5 billion in bonds due in 2023 and 2025.

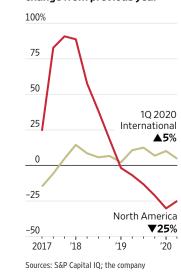
It has about \$5 billion in liquidity from cash on hand and an undrawn credit facility, with \$2.6 billion less in debt than it had in the last downturn in 2016.

In January, Mr. Miller had touted two years of growth in international sales in places like Asia, Latin America and Europe, and said he expected a third consecutive year of increased oil-field spending in overseas markets. But any hopes of growth in 2020 have been demolished in just a few

Halliburton plans to cut more than 1,000 jobs in oilrich Texas and Oklahoma, according to state regulatory filings from earlier this month. In March, the company said it furloughed 3,500 employees in Houston. It has also reduced executive salaries and is halting pay raises for employees.

Halliburton had 55,000 employees globally at the end of 2019, down from 80,000 at the height of the oil boom in 2014.

Halliburton quarterly revenue, change from previous year





Mannequins and empty merchandise tables are visible through the window of the temporarily closed Nordstrom flagship department store in Seattle last week.

Unsold Clothing Buries Retailers

By Suzanne Kapner

Clothing retailers are sitting on tens of billions of dollars of unsold merchandise, and the usual methods for clearing it out aren't working while the coronavirus keeps most U.S. stores closed.

Retailers are discounting heavily on their websites, but consumers aren't rushing to buy spring clothes. Off-price chains like T.J. Maxx that would normally snap up the excess are also closed. Liquidators, often a last resort, are already saddled with goods from bankrupt retailers that have halted their going-out-of-business sales.

"This is not like wine that gets better with age," Manny Chirico, the chief executive of Calvin Klein and Tommy Hilfiger parent **PVH** Corp., said on a conference call this month. "Your inventory gets worse."

Some companies are packing away goods with the intent of selling them next year, a process known as hoteling. But this can be costly and doesn't work for fashion items that go out of style, executives say.

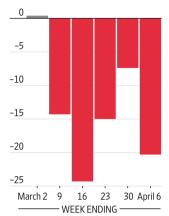
Saks Fifth Avenue ran a oneday flash sale last week with

Nordstrom Inc. is offering up to 40% off certain styles. J.Crew Group Inc. is offering up to 60% off spring styles, and the Gap brand is selling everything for 60% off.

"It's Black Friday in April," said Prashant Agrawal, chief executive of Impact Analytics, which tracked online prices in April for 400 items and compared them with prices on the day after Thanksgiving, when the holiday season kicks off with big promotions. Twothirds of the items, mostly apparel but also shoes and jewelry, were selling at Black Friday prices or below, Mr. Agrawal said.

Despite the temptation of deals, homebound shoppers still aren't spending on apparel and footwear. Online sales for the category have declined each week since March 9, including a 20% drop in the week ended April 6, compared with the same period a year earlier, according to Rakuten Intelligence, which tracks electronic receipts.

That means retailers will have to find other ways to get rid of unsold merchandise, and convert those goods into muchWeekly online U.S. sales of apparel and footwear, change from a year ago



Source: Rakuten Intelligence

needed cash. Many chains have drawn down credit lines and furloughed workers since March. J.C. Penney Co. and Neiman Marcus Group Inc. have skipped April interest payments, signs of deep distress.

The first stop is normally offprice chains like T.J. Maxx, which is owned by TJX Cos.; Ross Stores Inc.; and Burlington Stores Inc. But these chains, which are sitting on their own unsold goods while their stores remain closed, aren't in a position to pick up the excess at the moment. T.J. Maxx has closed its website during the pandemic, and Ross Stores doesn't sell online. Burlington stopped selling online last month, part of a plan to permanently exit ecommerce, a spokeswoman said.

"No one is out there buying huge lots of inventory right now because everyone's stores are closed," said Adam Freede, chief of MadaLuxe Group, a distributor and retailer of luxury goods. "No one has a sense of the pricing, because you don't know where the floor will be."

In normal times, apparel companies typically recover the full cost of goods, which includes manufacturing, shipping, warehousing and duties, when unloading inventory to large off-price chains, according to industry executives. They might recover a third to half of costs with a jobber, a middleman who resells the goods to smaller regional off-price chains. The recovery rate with liquidators who run closeout sales is around 10%, the executives said. Recovery rates could be much lower in the current environment, they added.

"It will be a bloodbath," Cowen Inc. analyst John Kernan said. "There will be old inventory everywhere."

Shipping items overseas, another common method of disposal, isn't an option because the coronavirus pandemic has shut stores around the world, executives said. One U.S. company considered shipping unsold luggage overseas so it could claw back the 40% duty it paid on the products-the result of U.S. tariffs on Chinesemade goods-but determined the freight was too costly, according to a person familiar with the situation.

Luxury brands tend to take back their goods, rather than see them widely discounted. In the past, these brands would destroy unsold items. But environmental groups have criticized the practice.

Another option for luxury players is the growing number of sellers of secondhand goods. The RealReal Inc., a consignment company that sells preowned luxury items, had a 30% increase in supply from brands in the six weeks to April 14, compared with the same period a year earlier.

Airlines Get U.S. Aid Totaling \$2.9 Billion

Treasury Department sent \$2.9 billion in aid to airlines Monday, the first payments the government has made as part of a grant and loan program to help the industry weather disruptions caused by

the coronavirus pandemic. The Treasury said it sent the payments to two large airlines and 54 smaller passenger carriers and would continue to disburse funds on a rolling basis. It didn't identify the air-

It also said that it had completed agreements with six large companies: American Airlines Group Inc., Delta Air Lines Inc., United Airlines Holdings Inc., Southwest Airlines Co., Spirit Airlines Inc. and Allegiant Air.

Alaska Airlines, Frontier Airlines, Hawaiian Airlines, JetBlue Airways Corp., and SkyWest Airlines have indicated that they plan to participate in the grant and loan program, which will allocate \$25 billion for passenger air carriers to help them continue paying workers' salaries and benefits through the summer.

Together, the 11 large airlines represent 95% of U.S. air-WASHINGTON—The U.S. line capacity, the Treasury said.

> Air travel has plunged as governments around the world imposed travel restrictions to help contain the pandemic.

"The Payroll Support Program is critical to supporting American workers and preserving our airline industry. which is a vital part of the U.S. economy," Treasury Secretary Steven Mnuchin said. "We continue to work quickly to deliver this needed relief."

The \$25 billion for airlines is part of the \$2.2 trillion economic relief package Congress passed in March.

Southwest said Monday that it had completed its agreement to receive \$3.2 billion under the program and would receive an immediate payment of \$1.6 billion with the rest paid in installments in May, June and July.

"This assistance will support valuable jobs which exist to serve the flying public and the infrastructure, supply chain, and recovery of our national economy," Southwest Chief Executive Gary Kelly said in a statement.

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United Warns of Loss As Revenue Shrinks

By Alison Sider

United Airlines Holdings Inc. expects to report a \$2.1 billion pretax loss in the first quarter, as the coronavirus pandemic decimated demand.

The results are the first indication of the severity of the impact that travel restrictions, stay-at-home orders, and growing fears of travel had on airlines as they accelerated in the last month of the quarter.

United said it lost about \$100 million in revenue a day in the last two weeks of March compared with the previous year, and plans to cancel all but 10% of flying in May to match severely diminished demand

that it says could linger for months. The \$2.1 billion pretax loss is United's largest since 2008, when airlines were ravaged by the financial crisis.

Excluding the value of onetime items, United said its adjusted pretax loss was over \$1 billion. The airline reported revenue of \$8 billion during the quarter, down 17% from a year

The pandemic arrived as airlines were in the midst of a decadelong stretch of profitability. Now their future is uncertain, with some analysts and executives predicting it could be vears before travel demand returns to the same level as before the virus hit.

B4 | Tuesday, April 21, 2020

Dungeons & Dragons Players Battle Intruders As They Migrate Online

By James Rundle

Dungeon-delving is going digital as coronavirus shelterin-place orders have sent devoted roleplayers online. With the mass appearance of wizards and warriors-many of them chil-

CYBERSECURITY dren-platform providers are scrambling to expand capacity and address cybersecurity risks.

Dungeons & Dragons, a tabletop classic since the 1970s, is usually played in person, in after-school clubs, at friends' dining-room tables or in local gaming stores, to weave tales, roll dice and portray elves, dwarfs and other characters.

Though the game has occasionally been played virtually, online play has taken off since coronavirus lockdowns began. But online tools such as Discord, a popular gaming chat application, and Zoom Video Communications Inc.'s teleconferencing product introduce privacy and security concerns.

Online intruders look for "zoombombing" opportunities to disrupt Zoom conferences with offensive images and comments or spy on meetings. Zoom's chief executive, Eric Yuan, has pledged to improve the platform's security.

For some players, the desire to play games can outweigh worries about cyber intrusion.

"The privacy concerns fall by the wayside because I'm just trying to connect with my friends, and I deal with that stuff so frequently in everyday life that I'm just not worried about it," said Joseph Andrews, a 19-year-old freshman at

George Washington University who started playing Dungeons & Dragons online with friends in high school.

Games once supervised by parents or school clubs are now

Game's Popularity Attracts Bad Guys

Dungeons & Dragons has had a renaissance in popularity in recent years and the shift to online has been going on for some time, even before the coronavirus pandemic lockdowns accelerated the trend.

Wizards of the Coast said the surge is thanks in part to gamers broadcasting their campaigns on social-media websites such as Alphabet Inc.'s YouTube and Amazon Inc.'s Twitch. Wizards of the Coast estimates roughly 16,000 campaigns were broadcast across the two services in 2019, with fans watching around 146 million hours of that content.

This popularity has drawn hackers. Roll20, a virtual tabletop operated by the Orr Group LLC in Overland Park, Kan., was

vulnerable, and the platforms

are aware of this. Wizards of

the Coast, the **Hasbro** Inc. unit

that makes Dungeons & Drag-

ons, and Fandom Inc.'s D&D Be-

yond, a tool that allows players

to manage their characters,

have posted guides on how to

run games remotely. Both com-

panies say security must be a

priority, especially with minors

exercise caution and look care-

fully at what their kids are do-

ing online, under all circum-

stances," said Ray Winninger,

the game's executive producer

the third parties it works with,

such as D&D Beyond, adhere to

the Children's Online Privacy

Protection Act and similar

The company ensures that

at Wizards of the Coast.

"We encourage parents to

involved.

hit with a breach in late 2018. The company disclosed the following February that it affected four million users.

It then hired Kroll Inc., the cybersecurity forensics firm, to investigate after learning that some data, including the last four numbers of users' credit cards, were offered for sale on the dark web.

Nolan Jones, Roll20's managing partner, said the company continues to employ outside consultants and focus on how it stores customer data. "Our mind-set since the very beginning [of this company] has been that we would have a target on our back," he said.

Mr Jones said he suspected Roll20 may have been targeted in a number of cyberattacks in recent weeks. He has seen possible denial-of-service activity; an abnormal number of reguests were sent to Roll20 servers, but the attacks didn't disrupt service.

dren ages 8 to 17 years old make up roughly 24% of the game's players, according to the company. Teak Esneault, 13, plays a

weekly game from his home in Dallas with his friends via Zoom that in freer times used to rotate from one player's home to another's. His mother, Sacha Troxler, said she was satisfied with the security of the platform, as he himself approves any player who wants to join the call and it is password protected.

Teak said he is likely to continue using the platform for some games even after curbs on social gatherings end. But he also wants to get back to play in the actual world.

"I still think I would like doing it in person more, just to see people," he said. "But it's pretty easy online, and not that different.'

The proliferation of users has strained online systems. Roll20, a virtual tabletop operated by the Orr Group LLC in Overland Park, Kan., said that when Italy closed its borders in March, traffic on Roll20's platform briefly overtook that in the U.S. The company then started to expand server capacity and hired additional staff in anticipation of broader de-

Nolan Jones, Roll20's managing partner, said he suspected Roll20 may have been targeted in a number of cyberattacks in recent weeks. He has seen possible denial-of-service activity; an abnormal number of requests were sent to Roll20 servers. He doesn't know if the intention was to shut down his

systems or attempt to scrape data from his servers, but the attacks didn't disrupt service.

Housebound gamers are flocking to other services as well. "We have absolutely seen all of the usage metrics go up across the board since this started," said Adam Bradford, vice president of tabletop gaming at Fandom Inc. and a cocreator of D&D Beyond.

Mr. Bradford said the number of registered users has tripled in the past month, and the number of online players at any one time has doubled on average. The uptake has forced the company to accelerate the expansion of its infrastructure, which otherwise would have taken place months from now.

Doug Davison, president of SmiteWorks USA LLC, a company based in Merritt Island,

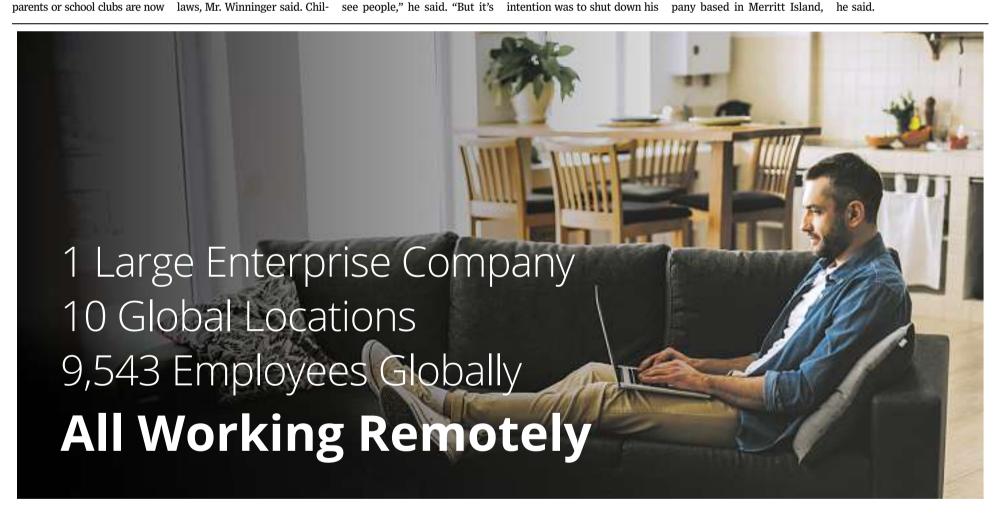
Fla., that operates the Fantasy Grounds virtual tabletop platform, said roughly 50,000 new users have joined in the past month. That is a 25% increase in users, he said.

Before the pandemic hit, the company had decided to test a new version of its software at about this time, Mr. Davison said. The combined strain has forced him to hire more staff to keep up with customer demand for technical support and other

"It's been hard on our infrastructure to kind of scale to that. And we've had to spend many, many sleepless days just working on systems and diagnosing and debugging issues to try to wrap things up, and to get the capacity to handle that much of a big load all at once,"



Teak Esneault, 13, plays a password-protected online game through Zoom videoconferencing.



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BUSINESS NEWS

Google, Facebook Will Have to Pay For Australian News

By MIKE CHERNEY

SYDNEY—Australia plans to require Alphabet Inc.'s Google and Facebook Inc. to pay local media organizations for their content, the latest development in a global debate over whether the tech giants are unfairly benefiting from news articles that appear on their platforms.

Details on how much the tech companies will need to pay are still being decided. Australian government officials said Monday that the country's competition regulator would determine how the payments would be calculated, which the government plans to pass into law in Parliament.

"This is a battle worth fighting," Australian Treasurer Josh Frydenberg said. "We believe this is crucial for the future viability of our media sector."

Publishers have long sought compensation from Google and Facebook, which collect ad revenue based on visits to their sites and increase their traffic by including links to news arti-

In the past, the tech giants have resisted paying for content, instead making donations through philanthropic arms and arguing that publishers benefit by getting large amounts of traffic directed to

They have softened their stance in recent months. Facebook in 2019 said it would pay some news organizations-in some cases millions of dollars a year—to license their headlines

and story summaries for a news service.

Google was also in talks with publishers about licensing their content in a news product. The Wall Street Journal reported in February.

And Apple Inc. last year launched a subscription-based app, Apple News+, which provides access to articles from many magazines and newspapers, including The Wall Street Journal.

Facebook on Monday said it was disappointed with the Australian government's announcement, and Google said it sought to work constructively with the Australian media industry. Both companies were working toward a voluntary agreement regarding possible compensation for news organizations and had met with publishers.

The Media, Entertainment & Arts Alliance, a union for media professionals in Australia, on Monday said it supported the government's move and would scrutinize the details when they are available.

Mr. Frydenberg said the country's competition regulator—which was overseeing discussions regarding a voluntary agreement—was pessimistic that a voluntary agreement would be reached.

Australian officials said a solution is needed soon given that economic disruption from the coronavirus pandemic is putting fresh financial pressure on local news organizations.

–James Glvnn contributed to this article.



A settlement with Dairy Farmers of America would allow the purchase of dozens of plants from bankrupt milk processor Dean Foods.

Justice Department Nears **Accord on Dean Foods Assets**

By Brent Kendall

WASHINGTON-Justice Department antitrust officials are nearing a settlement with a major U.S. dairy-farming cooperative that would allow it to buy dozens of plants from bankrupt milk processor **Dean** Foods Co., according to people familiar with the matter.

The settlement with **Dairy** Farmers of America, which could be announced soon, would require the cooperative to shed some assets as a condition of government approval for the Dean Foods purchase, the people said. Details of the settlement couldn't immediately be learned.

Dallas-based Dean Foods, the top U.S. milk processor by sales, sought chapter 11 protection in November after struggling for years with slumping

milk demand as consumers Dean-DFA deal would affect jected to the deal, saying it flock to other beverages, including milk alternatives made from soy and oats. The decline has caused a shift in milk production to a small number of larger plants.

Dean's brands include Dairy-Pure, Land-O-Lakes and Tru-

DFA, based in Kansas City, Kan., is the biggest U.S. dairy cooperative by membership. It has been pursuing the bulk of Dean's assets for months. Dean said on March 31 that DFA had won a bankruptcy auction with a \$433 million bid to purchase 44 fluid- and frozen-dairy processing facilities.

A federal bankruptcy judge approved the purchase this month, but it still needs antitrust clearance from the Justice Department, which for months has been considering how a milk prices and competition in the dairy business.

DFA said it was continuing to work with the department.

"As part of our purchase agreement with Dean Foods, we have committed to the potential divestiture of some Dean Food facilities in response to feedback received from DOJ during the course of their review of this transaction," said Monica Massey, DFA executive vice president and chief of staff. "We believe we will finalize an agreement with DOJ and close on this transaction as anticipated."

A Dean spokeswoman referred to a recent press release in which the company said it anticipated completing the sale in early May. A Justice Department spokesman declined to

comment. Some farm groups have ob-

could lead to an excessive concentration of milk buyers in parts of the country.

The Justice Department, in a letter to creditors last month, said a Dean-DFA deal appeared to threaten "serious risk of anticompetitive harm" to farmers and consumers. The letter, made public in court papers, said Dean and DFA would need to agree to remedies like divesting assets to address the concerns, or else face a potential lawsuit. The department indicated it was looking to move quickly because of Dean's liquidity problems.

The dairy industry has seen further turmoil since the new coronavirus pandemic, which has closed the nation's schools and restaurants-major markets for milk and other dairy

Walmart's Streaming Unit Sold to Fandango

By LILLIAN RIZZO

NBCUniversal's Fandango movie-ticketing and videorental business has agreed to buy streaming service Vudu from Walmart Inc., a deal that comes as media giants look to offer free or low-cost alternatives for consumers who don't want to pay for streaming subscriptions.

Walmart, which acquired Vudu in 2010 for more than \$100 million, said Monday that it signed the agreement to sell the service to Fandango. Terms of the deal, which will close in coming months, weren't disclosed.

The Wall Street Journal reported in February that NBC-Universal, a unit of Comcast Corp., was in advanced discussions to acquire Vudu, a service that allows consumers to buy or rent movies or shows.

The agreement comes less than a week after NBCUniversal's heavily ad-supported streaming service Peacock started its rollout to Comcast cable and internet customers.

Vudu's ad-supported service will serve as a complement to Peacock, while its movierental business will support Fandango, which is said to have more than 30 million online and mobile monthly visitors, the Journal previously reported.

. Vudu, which Walmart said is available on more than 100 million devices across the U.S., in 2016 launched a free, adsupported service that includes thousands of movies and television shows. Vudu's free service features movies such as "March of the Penguins," "Black Hawk Down" and "Gone in 60 Seconds."

While many companies, including Walt Disney Co. and AT&T Inc.'s WarnerMedia, are launching ad-free video services to compete with Netflix Inc., the ad-supported video space has been heating up as competitors look to add free streaming options.

Closures Spread to Packaged Foods

AND ANNIE GASPARRO

The pandemic is deepening challenges for the U.S. food system, forcing plant closures and infecting farmworkers as packaged-food companies say demand for groceries has never been higher.

Production was curtailed at facilities across the country, including a Kraft Heinz Co. macaroni-and-cheese plant and a Conagra Brands Inc. frozenmeal factory. At the same time, food companies are instituting precautions to maintain or restore production so they can keep grocery stores stocked.

Conagra said 20 of the 700 workers at its factory in Missouri that makes chicken pot pies and other frozen meals had contracted the virus, prompting the plant to close for 10 days beginning April 17. A spokesman said the company needs the time to conduct a deep cleaning and prepare more rigorous preventive measures.

Flowers Foods Inc. said it closed a baking plant in Tucker, Ga., for a few weeks recently after workers tested positive for the virus. The company, whose brands include Wonder Bread and Tastykake, wouldn't say how many of the plant's 255 workers were sick.

The disruptions come amid heightened worry over the nation's food supply chain as illnesses close meatpacking plants, limiting supplies at grocery stores. Pork giant Smithfield Foods Inc. shut down its Sioux Falls, S.D., plant, which with hundreds of infected workers has become a major virus hot spot.

Even as the virus forces more plant closures, some facilities that were closed because of the outbreak are reopening. In Pennsylvania this week, meatpacking facilities run by Cargill Inc., JBS USA Holdings Inc. and Empire Kosher Poultry Inc. will ramp back up with new safeguards. The measures include footprints painted on the floor to mark recommended distances between employees, and tents set up for extra cafeteria seating, company and



Production at a Kraft Heinz Co. macaroni-and-cheese plant was curtailed.

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6 May 2020 (the "Hearing").

Any shareholder or creditor wishing to support or oppose the making of any order (an "Interested Party") that wishes to obtain a copy of the Originating Notice of Motion and Grounding Affidavit, or details in relation to the conduct of the Hearing, should contact the Solicitors for the Company at the address below. Any Interested Party may appear at the Hearing personally or be represented by a solicitor or by counsel. Any Interested Party intending to so appear should give notice in writing to the Solicitors for the Company by no later than 5:30 p.m. (Irish time) on 1 May 2020, and any affidavit in support of any such appearance should be filed with the Central Office of the High Court of Ireland, and served on the Solicitors for the Company, by no later than 5:30 p.m. (Irish time) on 1 May 2020.

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Farms Supplying Firms Are Affected

Workers are falling ill on farms that supply packaged-food companies. Three agricultural workers in Cayuga County in western New York tested positive for the virus, one of whoma man in his 40s who worked on a dairy farm-has died.

The Cayuga County health department says it conducted contact tracing on farms and a team of nurses traveled to farms to test symptomatic employees

union officials said. Food makers outside the

meat sector were initially able to avoid factory closures when the coronavirus began spreading throughout the U.S. in March. They say the production process for packaged food is typically more automated than work done on farms, slaughterhouses and meatpacking plants.

Companies such as Kraft Heinz, Danone SA and General Mills Inc. also took safety steps, including taking workers' temperatures and slowing production where necessary to allow for wider spacing and fewer workers.

Nonetheless, packaged-food executives are growing con-

A North Carolina farmworker tested positive, according to an email from a regional health clinic viewed by The Wall Street Journal. The worker was quarantined and is recovering, the email said.

The clinic has prepared hundreds of information packets in English and Spanish, as well as masks and gloves, for distribution to farmworkers through a faith-based group. The clinic is planning a Zoom conference for local farmers to provide information about the pandemic and is opening its coronavirus help line to farmers.

Across the country, the

cerned about mounting ill-

nesses at their plants and those

about factory workers," said

Patrick Criteser, chief executive

of Tillamook County Creamery

Association. "We can find dif-

ferent packaging-materials or

raw-materials suppliers, but we

need those plants to keep oper-

tive based in Oregon, has im-

plemented new safety measures

in its plant, which helped keep

the one Covid-19 case recorded

there from infecting more peo-

ple. That employee has recov-

ered from the coronavirus dis-

ease and is back at work, Mr.

Tillamook, a dairy coopera-

"Everyone is most worried

in their supply chain.

ating.

busy spring season is starting to bring thousands of workers to farms where they live and work in close proximity to one another. In North Carolina last year, nearly 22,000 migrant workers, largely from Mexico, joined others on farms to harvest crops including tobacco, sweet potatoes and cucumbers. Some farms and labor con-

tractors have been working to prevent the virus's spread by checking migrant workers' temperatures before they cross the U.S.-Mexico border, spacing workers further apart in fields and delivering groceries to housing camps.

Criteser said.

Kraft Heinz's macaroni-andcheese factory in Springfield, Mo., reported two Covid-19 cases last month and closed for a few days for cleaning. Campbell Soup Co. said its Pepperidge Farm bakery in Denver, Pa., had five cases and "paused certain operations" for a deep

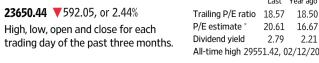
cleaning. A Frito-Lay factory in Modesto, Calif., shut down for a couple of days for a deep cleaning after an undisclosed number of workers contracted the virus. Frito-Lay, owned by Pep**siCo** Inc., employs 600 people

> —Jacob Bunge contributed to this article.

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Dow Jones										
Industrial Average	24108.69	23627.19	23650.44	-592.05	-2.44	29551.42	18591.93	-10.8	-17.1	4.7
Transportation Avg	8162.22	7894.84	7969.73	-264.08	-3.21	11304.97	6703.63	-27.4	-26.9	-4.4
Utility Average	817.94	793.77	794.85	-29.13	-3.54	960.89	610.89	3.1	-9.6	4.3
Total Stock Market	28803.58	28302.75	28346.72	-493.56	-1.71	34631.28	22462.76	-5.2	-14.2	5.0
Barron's 400	583.91	571.32	574.14	-10.67	-1.82	746.64	455.11	-19.3	-21.6	-3.0
Nasdaq Stock Mark	et									
Nasdaq Composite	8684.91	8553.37	8560.73	-89.41	-1.03	9817.18	6860.67	6.8	-4.6	13.1
Nasdaq 100	8855.18	8725.32	8726.51	-105.90	-1.20	9718.73	6978.02	13.1	-0.1	17.0
S&P										
500 Index	2868.98	2820.43	2823.16	-51.40	-1.79	3386.15	2237.40	-2.9	-12.6	6.2
MidCap 400	1559.88	1525.43	1532.49	-28.94	-1.85	2106.12	1218.55	-21.3	-25.7	-3.8
SmallCap 600	719.95	701.83	708.12	-14.46	-2.00	1041.03	595.67	-26.0	-30.7	-5.6
Other Indexes										
Russell 2000	1233.86	1202.22	1213.35	-15.75	-1.28	1705.22	991.16	-22.2	-27.3	-4.3
NYSE Composite	11181.81	10985.06	11003.88	-204.41	-1.82	14183.20	8777.38	-14.8	-20.9	-1.2
Value Line	385.93	375.65	378.34	-7.59	-1.97	562.05	305.71	-30.7	-31.5	-10.0
NYSE Arca Biotech	5377.18	5174.70	5291.07	107.03	2.06	5313.05	3855.67	14.1	4.4	14.5
NYSE Arca Pharma	656.49	643.10	648.62	1.18	0.18	670.32	494.36	15.0	-0.8	9.0
KBW Bank	70.81	67.17	69.15	-0.85	-1.21	114.12	56.19	-30.5	-39.0	-8.5
PHLX [§] Gold/Silver	108.11	104.24	106.39	2.11	2.02	111.51	66.14	48.5	-0.5	7.0
PHLX [§] Oil Service	27.21	24.10	26.42	0.27	1.03	102.39	21.47	-74.1	-66.3	-45.0
PHLX [§] Semiconductor	1704.35	1666.40	1667.57	-38.07	-2.23	1979.50	1286.84	7.0	-9.8	18.7
Cboe Volatility	43.83	39.88	43.83	5.68	14.	82.69	11.54	252.9	218.1	45.8
§Nasdag PHLX							Sources: Fact:			

Late Trading

 $Most-active \ and \ biggest \ movers \ among \ NYSE, NYSE \ Arca, NYSE \ Amer.$ 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.

3500

Most-active issues in late trading

MD

		Volume			After Hour		
Company	Symbol	(000)	Last	Net chg	% chg	High	Low
HP	HPQ	6,217.5	15.32	-0.04	-0.26	15.47	15.32
SPDR S&P 500	SPY	4,754.6	281.39	-0.20	-0.07	284.38	280.50
Plains All Amer Pipeline	PAA	4,620.3	7.00	-0.12	-1.69	7.12	7.00
ING Groep ADR	ING	4,049.2	5.25	0.18	3.55	5.29	5.07
Intel	INTC	3,921.5	59.15	-0.03	-0.05	59.25	58.88
Kinder Morgan	KMI	3,429.7	14.61	-0.08	-0.54	14.98	14.58
GenMark Diagnostics	GNMK	3,058.3	8.16	-0.10	-1.21	8.35	8.16
Yamana Gold	AUY	3,001.2	4.43	0.04	0.91	4.45	4.39
Percentage gaiı	ners						
Tsakos Energy Navigation	TNP	51.0	3.54	0.37	11.67	3.54	3.24
Nordic American Tankers	NAT	1,304.4	5.31	0.51	10.63	5.50	4.71
Teekay	TK	198.2	4.30	0.37	9.41	4.43	3.93
Aduro Biotech	ADRO	122.7	3.39	0.28	9.00	3.39	3.11
Insulet	PODD	84.5	220.00	16.02	7.85	220.00	203.98

Teekay	TK	198.2	4.30	0.37	9.41	4.43	3.93
Aduro Biotech	ADRO	122.7	3.39	0.28	9.00	3.39	3.11
Insulet	PODD	84.5	220.00	16.02	7.85	220.00	203.98
And losers							
Infinera	INFN	538.2	5.89	-0.21	-3.44	6.10	5.89
NovaGold Resources	NG	93.3	11.15	-0.39	-3.38	11.57	11.15
IBM	IBM	1,520.6	116.48	-3.93	-3.26	123.00	115.00
Axon Enterprise	AAXN	446.2	74.50	-2.28	-2.97	76.78	74.50

12.09

Trading Diary

Volume, Advancers, Decliners NYSE NYSE Amer.

Total volume*1,087,743,323 23,355,342

_, , ,	
238,946,130	14,042,007
841,261,119	9,239,164
3,007	267
670	102
2,294	158
43	7
19	1
14	2
0.98	0.40
5,781	165
Nasdaq	NYSE Arca
3,800,797,310	595,284,484
2,003,498,283	94,658,109
L,763,247,196	500,541,924
3,342	1,418
1,256	278
2,022	1,132
64	8
44	9
27	9
0.55	1.41
	670 2,294 43 19 14 0,98 5,781 Nasdaq 3,800,797,310 0,003,498,283 1,763,247,196 3,342 1,256 2,022 64 44 27

(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.

International Stock Indexes

Region/Country	y Index	Close	Net chg	— Latest ——— % chg	- YTD % chg
World	The Global Dow	2586.57	-21.81	-0.84	-20.4
	DJ Global Index	361.39	-3.60	-0.99	-16.7
	DJ Global ex U.S.	209.88	-0.09	-0.04	-20.4
Americas	DJ Americas	648.82	-10.79	-1.64	-14.7
Brazil	Sao Paulo Bovespa	78972.76	-17.53	-0.02	-31.7
Canada	S&P/TSX Comp	14388.28	28.40	0.20	-15.7
Mexico	S&P/BMV IPC	34477.06	-266.04	-0.77	-20.8
Chile	Santiago IPSA	2640.76	-52.55	-1.95	-20.8
EMEA	Stoxx Europe 600	335.70	2.23	0.67	-19.3
Eurozone	Euro Stoxx	316.45	1.50	0.48	-21.7
Belgium	Bel-20	3021.85	6.43	0.21	-23.6
Denmark	OMX Copenhagen 20	1162.47	17.64	1.54	2.3
France	CAC 40	4528.30	29.30	0.65	-24.3
Germany	DAX	10675.90	50.12	0.47	-19.4
Israel	Tel Aviv	1377.52	-15.41	-1.11	-18.2
Italy	FTSE MIB	17064.14	8.67	0.05	-27.4
Netherlands	AEX	512.76	6.94	1.37	-15.2
Russia	RTS Index	1068.32	-10.37	-0.96	-31.0
South Africa	FTSE/JSE All-Share	48849.52	-285.13	-0.58	-14.4
Spain	IBEX 35	6831.50	-44.30	-0.64	-28.5
Sweden	OMX Stockholm	585.25	3.11	0.53	-14.0
Switzerland	Swiss Market	9785.27	172.44	1.79	-7.8
Turkey	BIST 100	98945.88	766.06	0.78	-13.5
U.K.	FTSE 100	5812.83	25.86	0.45	-22.9
U.K.	FTSE 250	15822.73	-36.55	-0.23	-27.7
Asia-Pacific					
Australia	S&P/ASX 200	5353.00	-134.54	-2.45	-19.9
China	Shanghai Composite	2852.55	14.06	0.50	-6.5
Hong Kong	Hang Seng	24330.02	-49.98	-0.21	-13.7
India	S&P BSE Sensex	31648.00	59.28	0.19	-23.3
Japan	Nikkei Stock Avg	19669.12	-228.14	-1.15	-16.9
Singapore	Straits Times	2597.85	-16.75	-0.64	-19.4
South Korea	Kospi	1898.36	-16.17	-0.84	-13.6
Taiwan	TAIEX	10586.71	-10.33	-0.10	-11.8
Thailand	SET	1266.40	27.16	2.19	-19.8

Percentage Gainers...

Company	Symbol	Close	Net chg	% chg	High	Low	% chg
Benitec Biopharma ADR	BNTC	13.06	7.25	124.78	30.45	4.14	-50.0
Cyclacel Pharmaceuticals	CYCC	8.64	2.37	37.80	20.40	5.63	-38.7
DB Crude Oil Double Shrt	DTO	191.92	51.93	37.10	206.75	42.00	331.3
Immuron ADR	IMRN	3.20	0.85	36.17	7.25	1.55	-39.7
GasLog	GLOG	4.98	1.13	29.35	16.77	2.67	-69.4
Montage Resources	MR	4.82	1.02	26. 84	13.29	1.99	-63.0
Novavax	NVAX	23.80	4.72	24.74	26.34	3.54	125.3
VelocityShares 3x Lg Nat	UGAZ	35.65	7.03	24.56	277.00	19.26	-85.3
Build-A-Bear Workshop	BBW	2.51	0.49	24.26	6.29	1.01	-55.2
Borqs Technologies	BRQS	3.64	0.70	23.81	8.40	0.95	-19.1
Verastem	VSTM	3.88	0.70	22.01	4.03	0.83	81.3
Exelixis	EXEL	23.58	4.14	21.27	24.90	13.67	14.4
CNX Resources	CNX	12.88	2.25	21.17	12.97	4.26	25.4
Teekay	TK	3.93	0.67	20.55	5.76	2.04	-17.4
Teekay Tankers	TNK	24.03	4.09	20.51	25.74	7.68	180.7

Most Active Stocks

Company	Symbol	(000)	% cng from 65-day avg	Close	ession % chg	High	Low
PS Ult Bloomberg Crude	UCO	558,317	1371.1	1.35	-14.56	26.20	1.28
Taronis Technologies	TRNX	211,448	567.5	0.36	7.89	3.77	0.11
Seanergy Maritime Hldgs	SHIP	157,916	2027.8	0.15	3.38	4.37	0.12
TOP Ships	TOPS	137,578	388.5	0.28	21.11	15.00	80.0
General Electric	GE	99,424	8.0	6.51	-4.82	13.26	5.90
SPDR S&P 500	SPY	98,780	-40.6	281.59	-1.76	339.08	218.26
XpresSpa Group	XSPA	87,457	680.8	0.51	24.39	5.45	0.05
Barclays iPath B Crude	OIL	78,468	2615.0	3.73	-7.90	13.59	3.60
Occidental Petroleum	OXY	74,684	131.3	12.59	-7.63	63.42	9.00
Bank of America	BAC	74,284	-13.4	22.50	-3.35	35.72	17.95
* Volumes of 100,000 shares or r	nore are ro	unded to t	he nearest t	housand			

Track the Markets Compare the performance of selected global stock indexes, bond ETFs. currencies and commodities at WSJ.com/TrackTheMarkets

2020

Forex Race

Yen, euro vs. dollar; dollar vs.

Percentage Losers

-2.50 12.40 12.00

-0.31

			itest Sess	ion —	52-Week		
Company	Symbol	Close	Net chg	% chg	High	Low	% chg
VelocityShares 3x	DGAZ	182.50	-57.33	-23.90	425.20	85.41	44.9
Liberty TripAdvisor B	LTRPB	37.16	-10.67	-22.31	134.00	2.10	158.6
Invesco Mortgage Cap	IVR	2.90	-0.79	-21.41	18.30	1.82	-82.1
Summit Wireless Techs	WISA	4.29	-1.01	-19.08	54.00	3.53	-89.1
Playa Hotels Resorts	PLYA	2.08	-0.49	-19.07	8.95	1.30	-74.4
Eros International	EROS	2.50	-0.55	-18.03	9.04	1.10	-68. 8
Genetic Technologies ADR	GENE	1.90	-0.40	-17.39	6.32	1.41	-39.1
Seritage Growth Prop Cl A	SRG	8.32	-1.63	-16.3 8	46.43	5.00	-80.6
ATIF Holdings	ATIF	1.91	-0.35	-15.49	5.10	1.38	
Liquidia Technologies	LQDA	6.18	-1.12	-15.34	10.45	2.65	-27.0
Independence Contract	ICD	6.68	-1.20	-15.23	64.40	1.08	-89.0
PS UISh Bloomberg Nat Gas	KOLD	43.48	-7.79	-15.19	72.16	21.59	73.7
Utd Security Bancshares	UBFO	6.51	-1.11	-14.57	11.45	5.04	-36.9
Marlin Business Services	MRLN	6.39	-1.08	-14.46	25.44	4.66	-70.9
ΔdyanSix	ΔSIX	9.01	-1 50	-14 27	33 62	8.06	-70 0

Volume Movers Ranked by change from 65-day average*

Company	Symbol	Volume (000)	% chg from 65-day avg	Latest S Close	Session % chg	52-W High	eek
Cyclacel Pharmaceuticals	CYCC	11,988	99775	8.64	37.80	20.40	5.63
ETRACS S&P GSCI Crude O	il OILX	3,330	20309	10.61	-10.39	39.50	10.14
Brand Value ETF	BVAL	634	7933	14.24	-1.51	18.43	11.41
Western Asset Shrt Duratio	nWINC	672	4890	23.99	-0.64	27.49	21.13
Summit Wireless Techs	WISA	293	3942	4.29	-19.08	54.00	3.53
Benitec Biopharma ADR	BNTC	1,643	3182	13.06	124.78	30.45	4.14
Invsc S&P SC Cons Stpls	PSCC	150	2858	66.42	-0.26	80.82	55.25
iPath PB Crude Oil	OLEM	397	2639	9.52	-3.91	19.93	8.00
KraneShs China Hlth Care	KURE	859	2204	26.56	3.59	27.15	18.49
iShares MSCI UAE ETF	UAE	666	2008	9.91	0.30	15.71	8.30
* Common stocks priced at \$2 as 5.000 shares †Has traded fewer			average vo	olume ove	er 65 tradi	ng days of	at least

CURRENCIES & COMMODITIES

Currencies

 $U.S.-dollar\,foreign-exchange\,rates\,in\,late\,New\,York\,trading$

	_	_			_		
			US\$ vs,				US\$ vs,
		∕lon —	YTD chg			1on —	YTD chg
Country/currency	in US\$	per US\$	(%)	Country/currency	in US\$	per US\$	(%)
Americas				Vietnam dong	.00004264	23451	1.2
Argentina peso	.0152	65.9271	10.1	Europe			
Brazil real	.1881	5.3157	32.2	Czech Rep. koruna	.03964	25.230	11.3
Canada dollar	.7067	1.4151	8.9	Denmark krone	.1457	6.8648	3.0
Chile peso	.001167	857.20	15.9	Euro area euro	1.0864	.9205	3.2
Colombiapeso	.000252	3974.80	21.1	Hungary forint	.003085	324.20	9.8
Ecuador US dollar	1	1	unch	Iceland krona	.006910	144.71	19.5
Mexico peso	.0416	24.0605	27.1	Norway krone	.0956	10.4555	19.1
Uruguay peso	.02297	43.5300	17.2	Poland zloty	.2402	4.1638	9.8
Asia-Pacific				Russia ruble	.01329	75.250	21.2
Australian dollar	.6335	1.5785	10.8	Sweden krona	.0998	10.0230	7.0
China yuan	.1414	7.0735	1.6	Switzerland franc	1.0331	.9680	0.1
Hong Kong dollar	.1290	7.7503	-0.5	Turkey lira	.1441	6.9398	16.7
India rupee	.01306	76.575	7.3	Ukraine hryvnia	.0369	27.0819	14.4
Indonesia rupiah	.0000649	15413	11.0	UK pound	1.2434	.8042	6.6
Japan yen	.0000049	107.62		Middle East/Afri	ica		
Kazakhstan tenge	.009292	428.21		Bahrain dinar	2.6488	.3775	0.1
Macau pataca	.1252	7.9846		Egypt pound		15.7474	
Malaysia ringgit	.2286	4.3745	6.9	Israel shekel	.2816	3.5514	2.8
New Zealand dollar		1.6562	11.5	Kuwait dinar	3.2131	.3112	2.7
Pakistan rupee	.0020	163.500	5.5	Oman sul rial	2.5957	.3853	0.1
Philippines peso	.0197	50.750	0.1	Qatar rial	.2746	3.641	-0.1
Singapore dollar	.7038	1.4208	5.6	Saudi Arabia rival	.2664	3.7537	0.1
South Korea won	.0008193		5.7	South Africa rand		18.8531	34.7
Sri Lanka rupee	.0051937	192.54	6.2		.0750	10.0771	
Taiwan dollar	.03328	30.044	0.4		Close Net C	hg %Chg \	/TD%Chg
Thailand baht	.03077	32.500	9.2	WSJ Dollar Index	93.93 0.2	28 0.30	4.87

Sources: Tullett Prebon, Dow Jones Market Data

Commodities											
	Monday —— Close Net chg % Chg			High	YTD % chg						
DJ Commodity	472.02	-12.74	-2.63	647.86	451.81	-25.46	-26.51				
TR/CC CRB Index	118.76	-5.03	-4.07	187.92	118.50	-36.80	-36.08				
Crude oil, \$ per barrel	-37.63	-55.90	-305.97	66.30	-37.63	-157.28	-161.63				
Natural gas, \$/MMBtu	1.924	0.171	9.75	2.862	1.552	-23.77	-12.11				
Gold, \$ per troy oz.	1701.60	12.40	0.73	1756.70	1269.30	33.62	11.98				

CREDIT MARKETS

Consumer Rates and Returns to Investor Selected rates U.S. consumer rates Money market accounts A consumer rate against its benchmark over the past year Bankrate.com avg†: 0.32% 1.60% American Express National Bank Federal-funds 2.00% 866-215-8754 New York, NY target rate First Internet Bank of Indiana 1.61% 1.50 Indianapolis, IN 888-873-3424 Money market account yields **Citizens Access** 1.70% 1.00 888-201-6505 Westwood, MA 0.50 Goldman Sachs Bank USA 1.70% New York, NY 855-730-7283 **TAB Bank** 1.70% $\mathsf{M}\;\mathsf{J}\;\mathsf{J}\;\mathsf{A}\;\mathsf{S}\;\mathsf{O}\;\mathsf{N}\;\mathsf{D}\;\mathsf{J}\;\mathsf{F}\;\mathsf{M}\;\mathsf{A}$ 800-355-3063 Ogden, UT −Yield/Rate (%)− Last (●) Week ago 52-Week Range (%) — 3-yr chg Low 0 2 4 6 8 High (pct pts) Interest rate **0.00-0.25** 0.00-0.25 0.00 -0.75 2.25 Federal-funds rate target Prime rate* 3.25 3.25 3.25 5.50 -0.75 1.10 1.22 0.74 2.59 -0.06 Libor, 3-month Money market, annual yield 0.32 0.32 0.31 0.78 -0.44 Five-year CD, annual yield 0.86 0.88 2.01 0.86 **30-year mortgage,** fixed[†] 3.57 3.69 3.52 4.34 -0.40 15-year mortgage, fixed[†] 2.95 3.72 -0.03 3.25 4.71 Jumbo mortgages, \$510,400-plus 3.63 3.76 3.54 -0.89 3.47 3.26 4.78 0.05 Five-year adj mortgage (ARM)† 3.26 New-car loan, 48-month 4.28 4.26 4.26 4.81 1.07

Base rate posted by 70% of the nation

s largest

Bankrate.com rates based on survey of over 4,800 online banks.

Treasury yield curve Yield to maturity of current bills, notes and bonds

major U.S. trading partners 4.00% One year ago 3.00 2.00 Tradeweb ICE Monday Close 1.00 WSJ Dollar index 0.00 -8 _ 1 _ 1 _ 1 _ 1 _ 1 _ 1 _ 1 _ 1 3 6 1 2 3 5 710 30 2019 month(s) years maturity -

Sources: Tradeweb ICE U.S. Treasury Close; Tullett Prebon; Dow Jones Market Data Corporate Borrowing Rates and Yields

Close Bond total return index Last Weekago High Low 52-wk **U.S. Treasury**, Barclays 2482.920 0.520 0.600 2.510 0.500 14.84 5.76 U.S. Treasury Long, Barclays 4984.060 1.180 1.320 2.940 0.980 39.22 13.45 **Aggregate**, Barclays 2231.810 **1.440** 1.500 3.060 1.320 11.07 5.07 **Fixed-Rate MBS**, Barclays 2210.010 **1.330** 1.310 3.250 0.930 7.45 3.83 -4.098 **High Yield 100** ICE BofA 2903.884 **7.244** 7.286 10.740 4.516 1.654 Muni Master, ICE BofA 568.477 **1.637** 1.647 3.441 0.959 4.906 3.615 **EMBI Global**, J.P. Morgan 789.488 **6.418** 6.358 7.480 4.523 **-3.813** 0.542 Sources: J.P. Morgan; S&P Dow Jones Indices; Bloomberg Barclays; ICE Data Services

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. Plus, deeper money-flows data and email delivery of key stock-market data. Available free at WSJMarkets.com

COMMODITIES

WSJ.com/commodities

Source: FactSet

Stock Performance

Stock Performance

Last week

Futures Contracts

Metal & Petroleum Futures										
	IV			ruture	5					
	Open		ntract hi lo Low	Settle	Chg	Open interest				
Conne			00 lbs.; \$ per lb.	Jettie	City	interest				
April	2.3480	2.3515	2.3255	2 3345	-0.0190	1,139				
July	2.3555	2.3700	2.3290		-0.0200	75,508				
	MX) -100 to					,				
April	1686.00	1701.10	1680.00	1701.60	12.40	851				
June	1693.00	1718.40	1685.00	1711.20	12.40	341,443				
Aug	1694.50	1719.30	1686.40	1712.60	12.50	68,322				
Oct	1692.00	1710.00	1690.70	1714.60	12.60	12,382				
Dec	1697.20	1722.00	1689.20	1715.30	12.60	48,550				
Feb'21	1696.50	1716.80	1694.60	1715.80	12.40	7,894				
	ium (NYM) - 50 troy	oz.; \$ per troy o		2.40	4				
April June	2112.90	2159.20	2103.10	2156.00 2127.50	-3.40 -3.40	6,508				
Sept	2145.00	2150.00	2099.50	2117.80	-3.80	770				
			z.; \$ per troy oz.	2117.00	-5.00	//0				
April	,	,	-,+,,	792.00	10.70	4				
July	789.10	803.10	785.30	796.00	10.70	44,032				
Silver	(CMX)-5,00	00 troy oz.	;\$ per troy oz.							
April				15.556	0.319	23				
July	15.425	15.805	15.325	15.750	0.305	73,470				
			(NYM)-1,000 b							
May	17.73	17.85	-40.32	-37.63	-55.90	108,593				
June	24.76	24.92	▼ 20.19	20.43	-4.60	538,038				
July	29.33	29.41	25.75 28.04	26.28 28.51	-3.14 -2.69	330,373 146,830				
Aug Sept	31.07 31.90	31.24 32.09	29.20	29.84	-2.24	153,740				
Dec	33.69	34.14	32.00	32.41	-1.41	295,314				
			-42,000 gal.; \$ p		1.71	277,714				
May	.9589	.9645	▼ .8855	.8878	0685	54,182				
June	.9814	.9883	▼ .9126	.9152	0648	80,753				
Gasoli	ne-NY RE	BOB (NY	M) -42,000 gal.;	\$ per gal.						
May	.7121	.7367	.6570	.6683	0424	69,789				
June	.7713	.7900	.7143	.7255	0391	97,242				
			00 MMBtu.;\$pe							
May	1.774	1.970	1.701	1.924	.171	115,470				
June	1.930	2.085	1.860	2.049	.146	236,140				
July	2.110	2.257	2.051	2.231	.157	169,360				
Sept Oct	2.205 2.273	2.361 2.428	▲ 2.175 ▲ 2.247	2.348 2.414	.164 .164	108,076 99,179				
Jan'21	2.273	3.060		3.053	.125	73,890				
Juli ZI	2.740	5.000	2.710	3.033	.127	75,070				
		Agric	culture Fut	ures						
	BT) -5,000									
May	322.50	323.25	▼ 313.50 ▼ 321.50	314.25	-8.00	236,285				
July Oats (329.25 BT) -5,000	329.75	▼ 321.50	322.25	-7.00	546,048				
May	9,000- ر اظ۔ 289.25	294.50	per bu. 286.00	293.25	5.25	1,098				
July	273.25	275.00	271.50	274.75	2.75	1,487				
			; cents per bu.	,	,,	_,,				
May	833.50	835.75	824.50	826.50	-6.00	140,606				
July	843.50	845.75	834.25	836.25	-6.00	278,318				
) tons; \$ per ton.							
May	288.20	289.40	▼ 285.10	285.60	-2.60	48,408				
July	293.10	294.20	▼ 290.30	290.80	-2.30	158,627				
Soybe May	26.35	26.38	0 lbs.; cents per 25.88	ID. 25.98	31	67 106				
	26.73	26.76	26.25	26.37	30	67,186 160,498				
July Rouah			:wt.;\$percwt.	20.57	٠.٠٠	100,470				
May	1450.00	1473.00	1443.50	1456.00	6.50	4,336				
July	1416.00	1444.00	▼ 1416.00	1431.00	8.50	4,478				
	(CBT) -5,0	00 bu.; cer				,				
May	536.00	562.00	535.25	548.75	15.25	46,349				
July	536.00	561.50	535.50	547.50	13.75	171,152				
	t (KC) -5,00			405.55	44.55	22.0==				
May	480.00 487.00	507.75	480.00	495.25 502.25	16.50 17.00	33,872 117,214				
July Cattle		514.00 CME)-50	486.50		17.00	11/,217				
			486.50 000 lbs.; cents: 117.900		-1.200	1,475				

	•		itract .	c	-	Open
	0pen	High hil		Settle	Chg	interest
Aug	128.425	130.300	126.775	127.650	750	14,298
Cattle			os.; cents per l	b.		
April	94.875	95.000	93.150	93.525	-1.125	4,132
June	86.825		84.875	85.100	-1.200	120,253
			s.; cents per ll			
May	38.500	41.375	38.425	40.600	2.675	3,117
June	44.825		43.950	46.250	2.525	86,014
			:., \$ per 1,000 l			
May		340.60	326.00	328.50	-13.20	838
July	337.20	342.50	328.60	328.60	-18.00	1,071
		00 lbs., cent				
April	13.43	13.43	▼ 13.39	13.41		2,971
June	12.21	12.28	▼ 11.67	11.91	25	4,685
		0 metric ton				
May	2,304	2,320	2,284	2,338	-41	146
July	2,354	2,361	2,325	2,358	-10	80,887
		37,500 lbs.; c				
May	116.30	116.75	113.05	113.65	-2.40	8,451
July	117.75	118.40	114.75	115.25	-2.30	73,615
			000 lbs.; cents			
May	10.37	10.37	10.03	10.06	31	126,828
July	10.53	10.55	10.22	10.26	27	344,344
			-112,000 lbs.; o			
July	26.02	26.02	▼ 26.00	26.00		1,846
Sept	26.05	26.05	26.05	26.05	.05	2,946
			cents per lb.			
May	52.77	54.27	52.51	54.03	1.26	8,840
July	53.07	54.30	52.52	54.02	1.16	101,091
			00 lbs.; cents			
May	105.85	109.40	105.15	108.70	2.10	2,767
July	107.05	108.25	105.80	107.65	.25	6,230
		Interes	t Rate Fu	tures		
	Treasury	Bonds (C	ST) - \$100,00			
June	225-050	227-000	224-310	226-120	1-25.0	1,040,492
Sept	225-020	225-070	223-110	224-270	1-24.0	2
Treasu	ury Bond	S (CBT) -\$10	0,000; pts 32	nds of 100	%	
June	180-070		180-010			1,007,391
Sept	179-010	179-180	178-150	179-050	28.0	149
			>0			- 17

July	107.05	108.25	105.80	107.65	.25	6,230
		Interes	t Rate Fu	tures		
Ultra T	reasury	Bonds (CB	T) - \$100,000	0; pts 32nd	s of 100%	
June	225-050	227-000	224-310	226-120	1-25.0 1	1,040,492
Sept	225-020	225-070	223-110	224-270	1-24.0	2
Treası	ıry Bond:	S (CBT) -\$10	0,000; pts 32	nds of 100	%	
June	180-070	181-060	180-010	180-240	28.0 1	L,007,391
Sept	179-010	179-180	178-150	179-050	28.0	149
Treasu	ıry Notes	(CBT)-\$100),000; pts 32r	nds of 1009	%	
June	139-005	139-075	138-295	139-035	7.0 3	3,210,577
Sept	138-285	139-005	138-235	138-290	7.0	44,633
5 Yr. T	reasury M	Notes (CBT) -\$100,000;	pts 32nds o	of100%	
June	125-152	125-172	125-122	125-150	1.7 3	3,645,235
Sept	125-122	125-125	125-080	125-105	1.7	24,824
2 Yr. Tı	reasury M	Notes (CBT) -\$200,000;	pts 32nds	of 100%	
June	110-071	110-071	110-059	110-065	-0.1 2	2,597,529
Sept	110-100	110-116	110-105	110-108	-0.1	11,333
30 Day	Federal	Funds (CB	T) -\$5,000,00	00; 100 - da	aily avg.	
April	99.9475	99.9500 🛦		99.9475	.0025	227,721
May	99.9200	99.9250	99.9200	99.9200	.0000	273,744
10 Yr. I	Del. Int. R	ate Swap	S (CBT) -\$10	0,000; pts	32nds of	100%
June	105-145		105-095	105-180	12.0	68,378
Eurodo	ollar (CME) -\$1,000,00	0; pts of 100%	6		,
May	99.3600	99.3600	99.2800	99.3050	0500	431,986
June	99,5500	99.5550	99,4900	99,4950	0550 1	, , , , ,
Sept	99.6550	99.6550	99.6200	99.6300	0250 1	
Dec	99.6500	99.6550	99.6250	99.6350	0150 1	
	, , , , , , ,		,,,,,,,,,,			.,,

Sept	99.6550	99.6550	99.6200	99.6300	0250	1,544,543
Dec	99.6500	99.6550	99.6250	99.6350	0150	1,074,803
		Curre	ncy Futu	res		
Japan	ese Yen (CME) -¥12,50	00,000;\$per	100¥		
May	.9277	.9307	.9270	.9296	0004	447
June	.9301	.9315	.9274	.9301	0004	123,188
Canad	ian Dolla	r (CME)-CAI	0 100,000; \$ p	er CAD		
May	.7123	.7132	.7069	.7076	0056	1,349
June	.7138	.7138	.7070	.7078	0056	110,225
British	Pound (ME) -£62,50	00; \$ per £			
May	1.2511	1.2511	1.2420	1.2446	0044	1,564

Cash Prices | wsJ.com/commodities

Monday, April 20, 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 months.

	Monday		Monday		Monday
Energy		Aluminum, LME, \$ per metric ton Copper,Comex spot	*1482.5 2.3345	Wheat - Hard - KC (USDA) \$ per bu-u Wheat,No.1soft white,PortId,OR-u	5.0525 6.1500
Coal,C.Aplc.,12500Btu,1.2SO2-r,w Coal,PwdrRvrBsn,8800Btu,0.8SO2-r,w	55.200 11.550	Iron Ore, 62% Fe CFR China-s Shredded Scrap, US Midwest-s,m	86.2 236	Food	
Metals		Steel, HRC USA, FOB Midwest Mill-s	479	Beef,carcass equiv. index choice 1-3,600-900 lbsu	195.63
Gold, per troy oz		Fibers and Textiles		select 1-3,600-900 lbsu	183.19
Engelhard industrial Handy & Harman base Handy & Harman fabricated LBMA Gold Price AM LBMA Gold Price PM	1684.00 1686.20 1871.68 *1693.15 *1692.55	Burlap,10-oz,40-inch NY yd-n,w Cotton,11/16 std lw-mdMphs-u Cotlook 'A' Index-t Hides,hvy native steers piece fob-u Wool,64s,staple,Terr del-u,w	0.5700 0.5077 *63.05 25.000 n.a.	Broilers, National comp wtd. avgu,w Butter,AA Chicago Cheddar cheese,bls,Chicago Cheddar cheese,bls,Chicago Milk,Nonfat dry,Chicago lb. Coffee,Brazillan,Comp	0.5000 1.2000 101.25 100.75 84.00 1.1399
Krugerrand, wholesale-e	1767.17 1784.16	Grains and Feeds		Coffee,Colombian, NY	1.6598
Maple Leaf-e American Eagle-e Mexican peso-e Austria crown-e Austria phil-e Silver, troy oz. Engelhard industrial	1784.16 1784.16 2056.73 1668.56 1784.16	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 Cottonseed meal-u,w	n.a. 113 2.9850 123.8 496.0 285	Eggs,large white, Chicago-u Flour, hard winter KC Hams, 17-20 lbs, Mid-US fob-u Hogs, Iowa-So. Minnesota-u Pork bellies, 12-14 lb MidUS-u Pork Ioins, 13-19 lb MidUS-u	1.4250 14.75 n.a. 44.93 n.a. 1.2243
Handy & Harman base	15.4140	Hominy feed,Cent IL-u,w	105	Steers,TexOkla. Choice-u Steers,feeder,Okla. City-u.w	105.00 140.94
Handy & Harman fabricated	19.2680 *£12.1800	Meat-bonemeal,50% pro Mnpls-u,w Oats,No.2 milling,Mnpls-u	300 3.2575	Fats and Oils	140.74
(U.S.\$ equivalent) Coins, wholesale \$1,000 face-a Other metals LBMA Platinum Price PM Platinum,Engelhard industrial Palladium,Engelhard industrial	*15.1600 14297 *780.0 782.0 2160.0	Rice, Long Grain Milled, No. 2 AR-u,w Sorghum, (Milo) No. 2 Gulf-u Soybean Meal, Cent IL, rail, ton 48%-u Soybeans, No. 1 yllw IL-bp,u Wheat, Spring 14%-pro Mnpls-u Wheat No. 2 soft red, St. Louis-bp,u	28.50 7.5313 289.80 8.1500 6.3075 5.6400	Corn oil,crude wet/dry mill wtd. avgu,w Grease,choice white,Chicago-h Lard,Chicago-u Soybean oil,crude;Centl IL-u Tallow,bleach;Chicago-h Tallow,edible,Chicago-u	45.7500 0.3000 n.a. 0.2533 0.3350 0.3800

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; nal; 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 4/17 Source: Dow Jones Market Data

Borrowing Benchmarks | wsJ.com/bonds

Money Rates

April 20, 2020

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.

> 0.50 0.10 0.25

							14/1	
	Infl	ation				Lat	Weel est ago	
	March ir le		Chg Fron Feb. '20 M		Switzerland Britain	0.50 0.10	0.50 0.10	
U.S. consi	umer pri	ce inde	x		Australia	0.10	0.10	
All items Core		3.115 7.312	-0.22 0.02	1.5 2.1	Overnight	repurc	hase	
				2.1	U.S.	0.01	0.08	3.40
II.	iternati	onai r	ates		11.5	gover	nmon	t rate
		Week	-52-	Week -	0.3.	gover	IIIIIeii	trate
	Latest	ago	High	Low	Discount			
Prime rat	es					0.25	0.25	3.00
U.S.	3.25	3.25	5.50	3.25	Federal fu	nds		
Canada	2.45	2.45	3.95	2.45	Effective rate	0.0700	0.0800	2.4800
Japan	1.475	1.475	1.475	1.475	High		0.1500	
Policy Rat	tes				Low		0.0300	
Furo zone	0.00	0.00	0.00	0.00	Bid	0.0500	0.0500	2 4400

			2.1	U.S.	0.01	0.08	3.40	-0.07
ernati	onal ra	ates		0.5.	0.01	0.00	2.70	0.07
	Mook	- 52	Mook -	U.S.	gover	nmen	t rates	;
atest	ago	High	Low	Discount				
Prime rates					0.25	0.25	3.00	0.25
3.25	3.25	5.50	3.25	Federal fu	nds			
2.45 1.475	2.45 1.475	3.95 1.475	2.45 1.475	Effective rate				0.0700
0.00	0.00	0.00	0.00	Low Bid	0.0300	0.0300	2.4400	0.0200
	3.25 2.45 1.475	Week ago 3.25 3.25 2.45 2.45 1.475 1.475	3.25 3.25 5.50 2.45 2.45 3.95 1.475 1.475 1.475	Week ago −52-Week High 3.25 3.25 5.50 3.25 2.45 2.45 3.75 1.475 1.475 1.475 1.475 1.475	Week ago High Low Discount 3.25 3.25 5.50 3.25 2.45 2.45 3.95 2.45 1.475 1.475 1.475 1.475 Low	Week -52-Week Discount 0.25	Week -52-Week ago High Low Discount 0.25 0.25 3.25 3.25 5.50 3.25 4.475 1.475 1.475 1.475 5 U.S. government 0.25 0.25 0.25 0.25 Federal funds Effective rate 0.070 0.0800 High 0.1500 0.1500 Low 0.0300 0.0300	Week ago High Low Discount 0.25 0.25 0.25 0.20 0.000 3.25

Key Interest Rates

Data are annualized on a 360-day basis. Treasury yields are per annum, on actively traded noninflation and inflation-indexed issues that are adjusted to constant maturities. Data are from weekly Federal Reserve release H.15.

	Weel	Ended	— 52-W	eek —		Wee	ek Endec	1
	Apr 17		High	Low		Apr 17	Apr 10	
Federal fu	nds (effe	ctive)			6-month	0.21	0.21	
- cuciai ia	0.05	0.05	2.44	0.05	1-year	0.21	0.22	
	0.05	0.05	2.44	0.05	2-year	0.22	0.26	
Commerci	al paper				3-year	0.27	0.34	
					5-year	0.38	0.45	
Nonfinancia		0.27	2.45	0.27	7-year	0.55	0.62	
1-month	0.37 0.58	0.37 0.65	2.45	0.37	10-year	0.68	0.73	
2-month	0.91	0.05	2.40	0.58 0.91	20-year	1.11	1.14	
3-month	0.71	0.97	2.47	0.91				_
Financial			0.40		Treasury yie	lds (s	econd	a
1-month	n.a.	n.a.	2.43	1.09	1-month	0.14	0.13	
2-month	n.a.	n.a.	2.46	1.16	3-month	0.17	0.19	
3-month	n.a.	n.a.	2.48	0.98	6-month	0.21	0.21	
Discount v	vindow r	orimar	v credit	t		0.21	0.21	
	0.25	0.25	3.00	0.25	TIPS			
				0.27	5-year	-0.44	-0.42	
Treasury y	rields at	consta	nt		7-year	-0.47	-0.45	
maturities	;				10-year	-0.47	-0.45	
1-month	0.15	0.13	2.43	0.01	20-year	-0.30	-0.27	
3-month	0.17	0.19	2.44	0.01	Long-term avg	-0.13	-0.09	

Notes on data: Federal-funds rate is an average for the seven days ended Wednesday, weighted according to rates on broker trades; Commercial paper rates are discounted offer rates interpolated from sales by discounted averages of dealer bid rates on nationally traded certificates of deposit; Discount window primary credit rate is charged for discounts made and advances extended under the Federal Reserve's primary credit discount window program; **rate** is average for seven days ended Wednesday; **Inflation-indexed long-term TIPS** average is indexed and is based on the unweighted average bid yields for all TIPS with remaining terms to maturity of 10 years or more;

Sources: Federal Reserve; for additional information on these rate data and their derivation, please see, www.federalreserve.gov/releases/h15/data.htm

	Latest	Week ago	—52-1 High	WEEK— Low
Offer	0.0800 0.0	0600 2	.5000 (0.0500
Treasury b	ill auctior	1		
4 weeks	0.150		2.400	0.000
13 weeks 26 weeks	0.125 0.145		2.400 2.400	0.000
Se	condary	marl	ket	
Fannie Ma	e			
30-year mort	gage yields			
30 days 60 days			3.857 3.884	
Othe	r short-	term	rates	
	۷ Latest	Veek ago	– 52-\ high	Week — low
Call money	,			
	2.00	2.00	4.25	2.00

LIDUI				
One month	0.66738	0.81400	2.48588	0.61163
Three month	1.09763	1.21888	2.58638	0.74050
Six month	1.07588	1.22588	2.63850	0.73538
One year	0.98213	1.05088	2.74638	0.74350
Euro Libo	r			
One month	-0.367	-0.379	-0.360	-0.621
Three mont	h -0.167	-0.212	-0.167	-0.539
Six month	-0.083	-0.139	-0.083	-0.491
One year	-0.003	-0.126	-0.003	-0.441

Commercial paper (AA financial)

n.a. n.a. 2.58 0.58

90 days

	Latest	Traded	High	Low								
DTCC GCF Repo Index												
Treasury	0.060	47.532	6.007	0.002								
MBS	0.086	74.730	6.699	0.011								
Notes on data:												
U.S. prime rate is the base rate on corporate												

Value

- 52-Week

loans posted by at least 70% of the 10 largest 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. **DTCC** GCF Repo Index is Depository Trust & Clearing Corp.'s weighted average for overnight trades in applicable CUSIPs. Value traded is in billions of U.S. dollars. Federal-funds rates are Tullett Prebon rates as of 5:30 p.m. ET. Sources: Federal Reserve; Bureau of Labor Statistics; DTCC; FactSet; Tullett Prebon Information, Ltd.

			Contrac	t			Open		Contract					Open
Mini S&P 500 (CME)-S50 xindex Sept 2855.50 x Sept 2856.50 x Sept 2855.50 x Sept		Open			Settle	Chg			Open			Settle	Chg	interest
Mini S&P 500 (CME)	une	1.2506	1.2509	1.2421	1.2448	0045	152.347	Sept				2799,40	-63.20	11
Sept 1.0363 1.0404 1.0366 1.0382 0004 68 Sept 2855.50 2867.00 2799.00 2799.50 -63.00 28,337 Mustralian Dollar (CME)-AUD 100,000; \$per AUD 0007 646 Mini S&P Midcap 400 (CME)-\$100 x index 0008 0007 124,820 Mexican Peso (CME)-MXN 500,000; \$per MXN	wiss F	ranc (CM	E)-CHF 125,00	0; \$ per Cl	HF				&P 500 (d	ME) -\$50 x inc	lex			
Mini S&P Midcap 400 (CME)-\$100 xindex Mini S&P Midcap 400 (CME)-\$100 xindex	une	1.0356	1.0377	1.0327	1.0350	0004	33,975	June	2861.50	2875.50	2804.25	2806.50	-63.50	3,356,812
May .6355 .6397 .6334 .6346 .0007 646 June .1551.70 .1560.80 .1520.40 .1527.20 .29.40 .74,401	ept	1.0363	1.0404	1.0366	1.0382	0004	68	Sept	2855.50	2867.00	2798.00	2799.50	-63.00	28,337
une	lustral	ian Dolla	IT (CME)-AUD	100,000;	\$ per AUD			Mini S	&P Midca	р 400 (сме) -\$100 x in	dex		
May .04144 .04168 .04106 .0411400070 948 June 8799.50 8846.00 8687.00 8682.00 -117.00 174,041 1.000	Лау	.6355	.6397	.6334	.6346	0007	646	June	1551.70	1560.80	1520.40	1527.20	-29.40	74,401
May	une	.6366	.6398	.6333	.6347	0007	124,820	Sept	1434.70	1563.50	1528.40	1534.20	-29.40	1
une 0.4144 0.4155 0.4089 0.409600070 104,750 Euro (CME)-€125,000,5 per € Mini Russell 2000 (CME)-\$50 xindex June 1.0891 1.0912 1.0856 1.08770007 535,261 Index Futures	/lexica	n Peso (c	ME) -MXN 500),000;\$p	er MXN			Mini N	asdaq 10	O (CME)-\$20	x index			
Min Russell 2000 CME -\$50 x index Min Russell 200	Лау	.04144	.04168	.04106	.04114	00070	948	June	8799.50	8846.00	8687.00	8692.00	-117.00	174,041
May 1.0868 1.0903 1.0849 1.08690007 2.025 June 1221.10 1233.50 119.80 1206.40 -17.90 550,663 sept 1210.89 1221.10 1233.50 119.80 1206.40 -17.90 550,663 sept 1210.89 1221.10 1233.50 119.80 1206.40 -17.90 550,663 sept 1210.80 1231.30 1190.80 1206.40 -17.90 550	une	.04144	.04155	.04089	.04096	00070	104,750	Sept	8769.25	8834.00	8680.00	8682.25	-117.25	1,827
une 1.0891 1.0912 1.0856 1.08770007 535,261 Sept 1210.80 1231,30 1190.80 1205.00 -17.60 2,996 Index Futures	uro (CN	⁄IE)- €125,0	00;\$per€					Mini R	ussell 20	00 (CME) -\$5	0 x index			
Min Russell 1000 (CME)-\$50 x index Min Russell 1000 (CME)-\$50 x index	Лау	1.0868	1.0903	1.0849	1.0869	0007	2,025	June	1221.10	1233.50	1190.80	1206.40	-17.90	550,663
Index Futures June 156.20 1569.80 1542.00 1542.00 1544.00 -25.00 7,829	une	1.0891	1.0912	1.0856	1.0877	0007	535,261	Sept	1210.80	1231.30	1190.80	1205.60	-17.60	2,996
Mini D J Industrial Average (CBT)-\$5 x index U.S. Dollar Index (CE-US)-\$1,000 x index								Mini R	ussell 10	00 (CME) -\$50	0 x index			
une 24088 24203 23411 23488 -671 60,471 June 99.77 100.19 99.75 100.06 .22 28,790 ept 24010 24114 23379 23419 -660 665 Sept 99.93 100.12 99.84 100.03 .22 665			Index	Future	es								-25.60	7,829
une 2408 24203 23441 23488 -671 60,471 June 99.77 100.19 99.75 100.06 .22 28,790 lept 24010 24114 23379 23419 -660 665 Sept 99.93 100.12 99.84 100.03 .22 665	Aini D I	Industri	al Average	(CRT)_\$5	v indev			U.S. D	ollar Inde	X (ICE-US)-\$1,	.000 x inde	Х		
ept 24010 24114 23379 23419 -660 665 Sept 99.93 100.12 99.84 100.03 .22 665			_			-671	60 471	June	99.77	100.19	99.75	100.06	.22	28,790
							,	Sept	99.93	100.12	99.84	100.03	.22	665
					25417	000	005							

2806.70 **2806.50** -63.60 93,239

Bonds | WSJ.com/bonds

2855.70 2875.00

Tracking Bond Benchmarks

Return on investment and spreads over Treasurys and/or yields paid to investors compared with 52-week highs and lows for different types of bonds

Total							Total						
return close	YTD to		Index			6) — High	return close	YTD t return		Index		Yield (% st Low	
Broad N	Aarket F	Bloombe	erg Barclays				Mortga	ge-Back	red Bloo	mberg Barclays			
2231.81		4.8	U.S. Aggregate	1 440	1 320	3.060	2210.01		2.9	Mortgage-Backed	1.330	0.930	3.250
			Bloomberg Barclays		1.520	2.000	2161.97		2.9	Ginnie Mae (GNMA)	1.070	0.490	3.200
3179.22		1.2	U.S. Corporate	2.730	2 220	4.580	1303.36		2.9	Fannie mae (FNMA)	1.440	1.110	3.270
2899.89		0.3	Intermediate			4.400	2002.65		2.9	Freddie Mac (FHLMC)	1.420	1.080	3.270
4671.37		2.7	Long term	3.390			568.48		0.5	Muni Master	1.637	0.959	3.441
663.37		3.6	Double-A-rated	1.930	1.670	3.360	401.09		0.5	7-12 year	1.571	0.924	3.447
819.11	-1.3		Triple-B-rated	3.340	2.570	5.350	455.01		0.5	12-22 year	2.010	1.224	3.690
High Yie	eld Bond	is ICE Bo	ofA				434.50	-1.4	ĺ	22-plus year	2.818	1.765	4.123
425.51	-8.9		High Yield Constrain	ed 7.966	5.151	11.400	Global C	Governn	n ent J.P.	Morgan [†]			
352.64	-19.5		Triple-C-rated	15.899	10.558	19.071	608.75		4.4	Global Government	0.630	0.390	1.450
2903.88	-9.1		High Yield 100	7.244	4.516	10.740	854.82		6.4	Canada	0.910	0.590	1.900
382.54	-9.2		Global High Yield Constrain	ned 8.073	4.893	11.310	397.11	-0.8		EMU§	0.637	0.109	1.012
295.74	-10.0		Europe High Yield Constrai	ned 5.840	2.464	8.183	762.02		0.4	France	0.300	-0.160	0.630
U.S Age	ency Bloo	omberg	Barclays				546.91		2.1	Germany	-0.330	-0.740	0.160
1849.17		4.5	U.S Agency	0.800	0.730	2.610	296.08	-0.7		Japan	0.250	-0.070	0.260
1611.09		3.1	10-20 years	0.650	0.640	2.490	604.27		1.4	Netherlands	-0.130	-0.540	0.270
4244.07		11.2	20-plus years	1.580	1.170	3.110	1091.67		8.6	U.K.	0.550	0.390	1.540
2732.29		0.1	Yankee	2.420	1.920	3.500	789.49	-10.5		Emerging Markets **	6.418	4.523	7.480
*Constrain			dividual issuer concentra	ations to 2	2%; the	High Yie	eld 100 are th			s † In local curren Data Services; Bloomberg	,		

Global Government Bonds: Mapping Yields

 $Yields \, and \, spreads \, over \, or \, under \, U.S. \, Treasurys \, on \, benchmark \, two-year \, and \, 10-year \, government \, bonds \, in \, 10-year \, government \, 10-y$ selected other countries; arrows indicate whether the yield rose (\blacktriangle) or fell (\blacktriangledown) in the latest session

	Country/			_	— Yield (%) —————				r/Over U.S. Treası			
	Maturity, in year		2 -1 0 1	2		vious	Month ago	Year ago	Lat	est	Prev	Year ago
0.375	U.S. 2	0.214	•		0.7	202	0.344	2.390				
1.500	10	0.630 ▼	•		0.0	543	0.854	2.564				
2.000	Australia 2	0.217			0.2	214	0.270	1.517		0.3	1.2	-87.3
2.500	10	0.839 🔻	•		0.8	355	1.150	1.960		20.9	21.2	-60.4
0.000	France 2	-0.457 🔺	•		-0.	495	-0.488	-0.510	-67.1		-69.7	-290.0
0.000	10	0.077	•		0.0	022	0.101	0.370	-55.2		-62.2	-219.3
0.000	Germany 2	-0.678 🔺	•		-0.	701	-0.678	-0.571	-89.1		-90.3	-296.1
0.000	10	-0.450 🔺	•		-0.	471	-0.321	0.026	-108.0		-111.4	-253.8
1.200	Italy 2	0.908	•		0.:	799	0.518	0.463		69.5	59.7	-192.7
1.350	10	1.943		•	1.	783	1.622	2.451		131.3	114.0	-11.3
0.100	Japan 2	-0.136 🔺	•		-0.	140	-0.140	-0.152	-35.0		-34.2	-254.2
0.100	10	0.013 🔻	•		0.0	016	0.091	-0.026	-61.7		-62.7	-259.0
0.400	Spain 2	0.102 🔺	•		0.0	042	-0.150	-0.292	-11.2		-16.0	-268.2
0.500	10	0.885	•		0.8	302	0.728	1.061		25.5	15.8	-150.3
0.500	U.K. 2	0.108	•		0.0	380	0.130	0.770	-10.6		-11.4	-162.0
4.750	10	0.336	•		0.3	303	0.563	1.198	-29.4		-34.1	-136.6
											Source: Tu	ıllett Prebon

Corporate Debt

Price moves by a company's debt in the credit markets sometimes mirror and sometimes anticipate, moves in that same company's share price.

Investment-grade spreads that tightened the most... Spread*, in basis points

JPM	5.150	May 1, '49	397	-77		405	91.71	-3.65
VIAC	5.875	Feb. 28, '57	888	-63		935	15.52	-1.77
AINV	5.250	March 3, '25	1025	-56		1177	7.55	-4.25
MDT	3.500	March 15, '25	32	-47		85	101.54	-1.73
СВ	3.350	May 3, '26	65	-44				
HYNMTR	5.750	April 6, '23	320	-40				
AMZN	3.150	Aug. 22, '27	38	-37		75	2393.61	0.78
EPR	4.950	April 15, '28	703	-29		588	23.83	-3.05
widene	d the	most						
MS	5.550	July 15, '49	480		337	39.58	38.36	-1.87
SOCGEN	7.375	Sept. 13, '49	848		107			
AL	4.250	Feb. 1, '24	566		64	490	22.12	-6.90
GS	3.500	April 1, '25	195		47	170	180.40	-1.68
CDD	4 000	March 1E //O	201		11	156	E1 20	1.91
CPB	4.800	March 15, 48	201		44	150	51.50	1.91
EPD	3.900	Feb. 15, '24	195		41	230	15.65	-4.22
	VIAC AINV MDT CB HYNMTR AMZN EPR WIGHEN MS SOCGEN AL GS	viac 5.875 AINV 5.250 MDT 3.500 CB 3.350 HYNMTR 5.750 AMZN 4.950 widen⊎Uthe MS 5.550 SOCGEN 7.375 AL 4.250 GS 3.500	VIAC 5.875 Feb. 28, '57 AINV 5.250 March 3, '25 MDT 3.500 Warch 15, '25 CB 3.350 May 3, '26 HYNMTR 5.750 April 6, '23 AMZN 3.150 Aug. 22, '27 EPR 4.950 April 15, '28 Widenet the Wost MS 5.550 July 15, '49 SOCGEN 7.375 Sept. 13, '49 AL 4.250 Feb. 1, '24 GS 3.500 April 1, '25	VIAC 5.875 Feb. 28, '57 888 AINV 5.250 March 3, '25 1025 MDT 3.500 March 15, '25 32 CB 3.350 May 3, '26 65 HYNMTR 5.750 April 6, '23 320 AMZN 3.150 Aug. 22, '27 38 EPR 4.950 April 15, '28 703 widened the most MS 5.550 July 15, '49 480 SOCGEN 7.375 Sept. 13, '49 484 AL 4.250 Feb. 1, '24 566 GS 3.500 April 1, '25 195	VIAC 5.875 Feb. 28, '57 888 -63 AINV 5.250 March 3, '25 1025 -56 MDT 3.500 March 15, '25 32 -47 CB 3.350 May 3, '26 65 -44 HYNMTR 5.750 April 6, '23 320 -40 AMZN 3.150 Aug. 22, '27 38 -37 EPR 4.950 April 15, '28 703 -29 Widened the most MS 5.550 July 15, '49 480 SOCGEN 7.375 Sept. 13, '49 848 AL 4.250 Feb. 1, '24 566 GS 3.500 April 1, '25 195	VIAC 5.875 Feb. 28, '57 888 -63 AINV 5.250 March 3, '25 1025 -56 MDT 3.500 March 15, '25 32 -47 CB 3.350 May 3, '26 65 -44 HYNMTR 5.750 April 6, '23 320 -40 AMZN 3.150 Aug. 22, '27 38 -37 EPR 4.950 April 15, '28 703 -29 widened the most MS 5.550 July 15, '49 480 337 SOCGEN 7.375 Sept. 13, '49 848 107 AL 4.250 Feb. 1, '24 566 64 GS 3.500 April 1, '25 195 47	VIAC 5.875 Feb. 28, '57 888 -63 935 AINV 5.250 March 3, '25 1025 -56 1177 MDT 3.500 March 15, '25 32 -47 85 CB 3.350 May 3, '26 65 -44 HYNMTR 5.750 April 6, '23 320 -40 AMZN 3.150 Aug. 22, '27 38 -37 75 EPR 4.950 April 15, '28 703 -29 588 widened the most ms 5.550 July 15, '49 480 337 39.58 socgen 7.375 Sept. 13, '49 848 107 AL 4.250 Feb. 1, '24 566 64 490 GS 3.500 April 1, '25 195 47 170	VIAC 5.875 Feb. 28, '57 888 -63 935 15.52 AINV 5.250 March 3, '25 1025 -56 1177 7.55 MDT 3.500 March 15, '25 32 -47 85 101.54 CB 3.350 May 3, '26 65 -44 HYNMTR 5.750 April 6, '23 320 -40 AMZN 3.150 Aug. 22, '27 38 -37 75 2393.61 EPR 4.950 April 15, '28 703 -29 588 23.83 widened the most MS 5.550 July 15, '49 480 337 39.58 38.36 SOCGEN 7.375 Sept. 13, '49 448 107 AL 4.250 Feb. 1, '24 566 64 490 22.12 GS 3.500 April 1, '25 195 47 170

High-yield issues with the biggest price increases... -Bond Price as % of face value

Issuer	Symbol	Coupon (%)	Maturity	Current	One-day change	Last week	Close (\$)	% chg
Cedar Fair	FUN	5.250	July 15, '29	100.375	11.88	20.72	25.70	8.21
Patterson-Uti Energy	PTEN	3.950	Feb. 1, '28	60.262	8.01	42.000	2.07	0.49
NGL Energy Partners	NGL	6.125	March 1, '25	57.000	7.13	50.000	3.03	-8.18
Macy's Retail*	M	3.875	Jan. 15, '22	86.189	3.68	81.000	5.31	-10.30
Voc Escrow	VIKCRU	5.000	Feb. 15, '28	76.000	3.00			
Caesars Resort Collection	CGPHLC	5.250	Oct. 15, '25	86.488	2.99			
Talen Energy Supply	TLN	10.500	Jan. 15, '26	86.750	2.75			
Oceaneering International	OII	4.650	Nov. 15, '24	54.750	2.50	3.81	3.20	-8.31
And with the bigg	jest pri	ce dec	reases					

Alia With the big	gest pri	ce uec	i cases					
American Airlines	AAL	5.000	June 1, '22	60.500	-8.00	74.000	11.06	-4.41
Nabors Industries	NBR	5.750	Feb. 1, '25	23.250	-6.75	30.030	0.27	0.66
Transocean Sentry	RIG	5.375	May 15, '23	78.000	-5.75	93.000	1.17	-1.68
Occidental Petroleum	OXY	3.500	Aug. 15, '29	59.000	-5.50	68.125	12.59	-7.63
Staples	SPLS	7.500	April 15, '26	73.685	-5.38			
First Oventum Minerals	FMCN	4 07E	March 1 /26	OE OOO	E 00			

"Estimated spread over 2-year, 3-year, 5-year, 10-year or 30-year hot-run Treasury; 100 basis points=one percentage pt.; change in spread shown is for Z-spread. Note: Data are for the most active issue of bonds with maturities of two years or more

64.571

80.500

4.375 Jan. 15, '28

Dec. 8, '26

4.346

Sources: MarketAxess Corporate BondTicker; Dow Jones Market Data

-4.93

-4.50

Dividend Changes

Continental Resources

Ford Motor

Dividend announcements from April 20.

CLR

Company	Symbol	Yld %	Amount New/Old	Frq	Payable / Record	Company
Reduced						Foreign
Cedar Realty Trust	CDR	5.4	.01/.05	Q	May20/May08	Banco Santander AD
Green Plains Partners	GPP	41.8	.12 /.475	Q	May08/May01	Credit Suisse Group A
Schlumberger	SLB	13.1	.125/.50	Q	Jul09/Jun03	Sociedad Quimica Al
Targa Resources	TRGP	46.2	.10 /.91	Q	May15/May01	-
Initial	DUDE	1.4	0.2		May 14 / Apr 20	KEY: A: annual; M: mo

Company	Amount pany Symbol Yld% New/Old F						
Foreign							
Banco Santander ADR	BSAC	1.8	.41538	Α	May11/Apr27		
Credit Suisse Group ADF	R CS	0.9	.07161	Α	May21/May08		
Sociedad Quimica ADR	SQM	3.7	.25414	SA	May18/Apr30		

78.000

5.16

10.72

4.98

-4.46

-2.73

nonthly; Q: quarterly; r: revised; SA: semiann May14/Apr30 S2:1: stock split and ratio; SO: spin-off.

BIGGEST 1,000 STOCKS

How to Read the Stock Tables Footnotes:	Net Stock Sym Close Chg Stock Sym Clo	Net Net Stock Sym Close Ch	
The following explanations apply to NYSE, NYSE Arca, NYSE American and Nasdaq Stock Market listed securities. Prices are composite quotations dd-indicates loss in the most recent four	Etsy ETSY 65.05 3.99 Icon ICLR 158. EuronetWorldwide EEFT 83.87 -3.08 IDEX IEX 151. EverestRe RE 190.52 -5.83 IllinoisToolWks ITW 155.	.58 -1.15 MicrochipTech MCHP 77.71 -2.6	PulteGroup PHM 24.31 -1.21 SoCopper SCCO 29.59 -0.67 UnionPacific UNP 146.61 -3.28
that include primary market trades as well as trades reported by Nasdaq BX (formerly Boston), Chicago Stock Exchange, Cboe, NYSE National and h-Does not meet continued listing	Evergy EVRG 59.12 -1.86 Illumina ILMN 322. EversourceEner ES 87.77 -3.79 Immunomedics IMMU 21.	.88 6.52 Microsoft MSFT 175.06 -3.5 84 1.71 MidAmApt MAA 108.49 -5.0	4 Qorvo QRVO 84.77 -1.50 Splunk SPLK 133.38 -1.77 UnitedMicro UMC 2.40 -0.04 1 Qualcomm QCOM 74.31 -1.86 Spotify SPOT 144.54 2.68 UPS B UPS 101.20 -1.55
Nasdaq ISE. The list comprises the 1,000 largest companies based on market capitalization. standards Flate filing q-Temporary exemption from Nasdaq	i Exelixis EXEL 23.58 4.14 i Incyte INCY 101.	.12 -0.16 MitsubishiUFJ MUFG 3.82 0.0 .19 1.19 MizuhoFin MFG 2.28 0.0 .51 -0.07 MobileTeleSys MBT 8.02 -0.1	QuestDiag DGX 95.03 -0.37 StanleyBlackDck SWK 110.48 -2.06 US Bancorp USB 34.25 -0.81 Quidel QDEL 109.14 1.27 Starbucks SBUX 75.32 -1.78 UnitedTherap UTHR 106.44 1.82
Underlined quotations are those stocks with large changes in volume compared with the issue's average trading volume. **Trading halted on primary market.**	ExpeditorsIntl EXPD 70.67 -1.07 Ingredion INGR 80.	.43 -0.38 Moderna MRNA 51.69 4.8 .80 0.11 Mohawkinds MHK 76.24 -3.3 .88 0.75 MolinaHealthcare MOH 164.30 -5.5	StateStreet STT 58.18 -0.31 UnivDisplay OLED 140.06 -4.24
Boldfaced quotations highlight those issues whose price changed by 5% or more if their previous closing price was \$2 or higher. "In bankruptcy or receivership or being reorganized under the Bankruptcy Code, or securities assumed by such companies.	ExxonMobil XOM 41.18 -2.04 Insulet PODD 203. F5Networks FFIV 122.66 -1.45 Intel INTC 59.	.98 4.64 MolsonCoorsB TAP 43.49 -0.8 .18 -1.18 Mondelez MDLZ 53.49 0.0	RELA RELA 2-1.5 0.00 Stericycle SRCL 47.03 -1.56 VEREIT VER 4.72 -0.20 RpM RpM 64.37 -1.49 Stericycle STE 157.45 2.48 VF VFC 55.83 -1.67 STE 157.45 STE 157.45 2.48 VF VFC 55.83 -1.67 STE 157.45
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.	FTI Consulting FCN 131.30 -4.71 InterContinentI IHG 43. Facebook FB 178.24 -1.00 IBM IBM 120.	.40 -1.00 MongoDB MDB 160.28 6.0 .18 -0.90 MonolithicPower MPWR 184.23 -1.5 .41 0.29 MonsterBev MNST 61.38 -0.8	RaytheonTech RTX 64.98 1.09 StoneCo STNE 22.43 -1.67 VailResorts MTN 157.93 -4.78 RealPage RP 60.67 0.01 Stryker SYK 194.72 -4.79 Vale VALE 7.99 -0.37 Comptending SMEC 54.00 0.02 VALE 7.99 -0.37 Vale VALE 7.
Monday, April 20, 2020 Net Sym Close Chg Stock Sym Close Chg	Fairlsaac FICO 307.34 -11.92 IntlPaper IP 30. Fastenal FAST 34.92 -1.01 Interpublic IPG 14.	.55 -4.57 Moody's MCO 239.47 0.1 .78 -1.07 MorganStanley MS 38.36 -0.7 .72 -0.34 Morningstar MORN 132.34 -0.1	Readapharm RETA 155.94 6.61 SunComms SUI 118.34 -9.14 VarianMed VAR 112.04 -3.71 RegencyCtrs REG 37.19 -1.47 SunLifeFinancial SLF 32.02 -1.00 I VeevaSystems VEEV 184.40 3.28
Stock Sym Close Chg Ball BLL 68.54 - 1.66 Cintas CTAS 193.91 - 10.25 BancoBilbaoViz BBVA 2.83 - 0.06 CiscoSystems CSCO 42.54 0.06 CiscoSystems	FederalRealty FRT 71.58 -3.78 Intuit INTU 264. FedEx FDX 122.64 -2.21 IntuitiveSurgical ISRG 518. Ferrari RACE 157.01 -3.10 InvitatHomes INVH 22.	.33 -8.00 MotorolaSol MSI 155.38 -2.3	9 RegionsFin RF 9.40 -0.12 Suzano SUZ 6.52 -0.27 VeriSign VRSN 210.90 0.97 5 ReinsGrp RGA 98.23 -1.67 SynchronyFin SYF 15.59 -0.03 VeriskAnalytics VRSK 149.32 -4.47
BancoBradesco BBDO 3.45 -0.09 Citigroup C 44.01 -1.44 ABB ABB 17.50 -0.17 BancodeChile BCH 16.05 -0.68 CitizensFin CFG 20.30 0.43	FiatChrysler FCAU 7.94 -0.11 IonisPharma IONS 55. FidNatIFin FNF 25.47 -1.99 IovanceBiotherap IOVA 36. FidNatIInfo FIS 122.62 -5.34 IQIYI IQ 19. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19.		RelianceSteel RS 85.04 -3.03 SyneosHealth SYNH 50.17 -1.34 Verizon VZ 58.13 -0.33 Verizon VZ 58.13 -0.33 SyneosHealth SYNH 50.17 -1.34 Verizon VZ 58.13 -0.33 Verizon VZ 58.14 -0.38 Verizon VZ 58.15 -0.33 V
AECOM ACM 32.46 -0.39 BcoSantChile BSAC 14.77 -0.67 I ClarivateAnaly CCC 23.74 0.46 AES AES 12.70 -0.42 BancoSantander SAN 2.07 -0.07 Clorox CLX 192.43 -1.07	FifthThirdBncp FITB 16.68 0.05 IronMountain IRM 24. 58.com WUBA 52.00 0.70 ItauUnibanco ITUB 4.	.67 -0.32 NXP Semi NXPI 86.70 -3.4 .25 -0.17 Nasdaq NDAQ 109.78 -1.4	7 Republicsvcs RSG 78.29 -1.99 T U V ViacomCBS B VIAC 15.52 -0.28 ResMed RMD 164.28 -0.88
Aflac AFL 36,15 -0,33 BankofAmerica BAC 22,50 -0.78 I <u>cloudflare</u> NET 26,18 1,53 AGNC Inv ARSS 266,72 2,82 BankofMontreal BMO 48,02 -0,92 Coca-Cola KCO 46,53 -1,53 Anss 266,72 2,82 BankNY Mellon BK 36,41 -0,98 Coca-Cola Euro CEP 40,61 -1,01	5ljob JOBS 71.18 -0.33 FirstAmerFin FAF 41.22 -3.49 FirstIndRIty FR 34.82 -0.75 JBG SMITH Prop JBGS 31.	NationalGrid NGG 55.61 -1.3 NatlInstruments NATI 36.69 -0.3 NatlOilwell NOV 11.50 -0.1	77 RexfordindlRealty REXR 40.49 -1.12 TC Energy TRP 44.86 -0.23 VistraEnergy VST 16.89 -0.65 78 ReynoldsCnsmr REYN 30.38 -0.12 TD Ameritrade AMTD 37.97 0.65 VMware VMW 132.62 -3.86
ASETech ASX 4.24 -0.10 BKNovaScotia BNS 38.75 -0.09 Cognex CGNX 47.97 0.93 ASML ASML 291.58 -4.07 Barclays BCS 4.44 -0.11 CognizantTech CTSH 52.53 -1.26 T3 30.98 -0.25 I BarcickGold GOLD 24.92 0.38 ColgatePain CL 72.16 -1.26	FirstRepBank FRC 10.0.42 0.40 JD.com JD 45. FirstSolar FSLR 41.00 -1.20 JPMorganChase JPM 91.	.20 -0.95 Natura&Co NTCO 12.62 -0.0 .71 -3.47 NetApp NTAP 40.95 -1.2	RingCentrial Rid 233.11 10.00 12 connectivity 12 00.36 0.00 10.00
AbbottLabs	Fisery FISV 97.24 -3.39 JacobsEngg J 80. FiveBelow FIVE 83.61 -2.86 JamesHardie IHX 11.	.70 -3.50 Netease NTES 348.83 0.1	RobertHalf RH 41.19 - 2.05 TJX TJX 47.79 - 1.94 VulcanMatls VMC 108.00 - 4.03 TMUS 89.94 -1.05 TMUS -1.05 TMUS 89.94 -1.05 TMUS -1.05 TMUS -1.05 TMUS -1.05 TMUS -1.05 TMUS -1.
AcceleronPharma XLRN 101.50 3.72 BeiGene BGNE 161.03 3.60 SABESP SBS 7.69 -0.37	Five9	.78 -2.41 NewOrientalEduc EDU 109.37 -3.1 NY CmntyBcp NYCB 9.97 -0.2	1 Roku ROKU 130.04 3.24 TaiwanSemi TSM 52.59 -1.10 Rollins ROL 37.98 -0.98 TakeTwoSoftware TTWO 125.35 0.91
ActivisionBiliz ATVI 66.50 - 0.38 BerkHatthwy B BRK.B 188.75 - 2.45 ConchoRscs CXO 50.57 - 1.37 Adobe ADBE 344.88 0.77 BerkHatthwy A BRK.A 282800-1600.00 ConcooPhillips CXO 34.57 - 0.69 AdvanceAuto AAP 115.40 - 3.46 BerryGlobal BERY 36.47 - 0.47 Confed ED 85.47 - 4.09	FlowersFoods FLO 23.27 0.13 FomentoEconMex FMX 57.02 -1.05 FordMotor F 498 0.14 JuniperNetworks JNPR 23.	.10 0.53 NewMarket NEU 391.57 -10.1	RossStores ROST 86.51 -5.21 TarkedaPharm TAK 16.90 0.10 WEX WEX 109.81 -4.88 RossStores ROST 86.51 -5.21 TarkedaPharm TAK 0.90 0.16 WEX WPX 09.81 -4.88 WPC 60.45 -2.51 TarkedaPharm TAK 16.90 0.16 WEX WPX 09.81 -4.88 WPC 60.45 -2.51 TarkedaPharm TAK 16.90 0.16 WEX WPX 09.81 -4.88 WPC 60.45 -2.51 TarkedaPharm TAK 16.90 0.10 WEX WPX 09.81 -4.88 WPX 09
AdvMicroDevices AMD 56.97 0.37 BestBuy BBY 69.79 -0.61 ConstBrands A STZ 156.62 -6.08 Agon AEG 2.39 -0.06 Beyondmat BYND 79.12 2.21 ConstBrands B STZ.B 171.6 -10.19	Fortinet FTNT 112.35 -0.61 KKR KKR 25. Fortis FTS 38.13 -0.69 KKR KKR 25.	.43 -0.97 .95 -0.97 .30 -4.91 NewsCorp B NWS 9.02 -0.1	1 RoyalBkScotland RBS 2.65 -0.09 TechData TECD 140.00 -0.59 Wabtec WAB 48.89 -0.30 RoyalCaribbean RCL 35.99 -1.40 TeckRscsB TECK 7.49 -0.41 WalterensBootsWBA 42.85 -1.65
AgnicoEagle AEM 53.88 Bio-Techne TECH 207.79 -6.03 Copart CPRT 68.63 -3.47 AirProducts APD 214.37 -7.13 Bio-RadLab A BIO 424.95 -2.26 Coresite COR 118.55 -0.70	FOXA FOXA 26.06 -0.82 KSCitySouthern KSU 131	.28 0.24 NextEraEnergy NEE 237.61 -8.6 NielsenHoldings NLSN 12.77 -0.4	5 RoyalDutchB RDS.B 32.71 -1.72 TeledyneTech TDY 317.69 -0.39 RoyalGold RGLD 111.60 3.79 Teleflex TFX 344.85 -1.83 WasteConnections WCN 86.33 -1.71 WasteConnections
AkamaiTech AKAM 106.24	Franco-Nevada FNV 124.09 -0.39 Kemper KMPR 67. Franklingers RFN 16.28 -0.06 Kemper KMPR 67. KeurigDrPepper KDP 26.	79 -2.16 NiSource NI 25.48 -0.9 .02 -0.13 Nokia NOK 3.44 -0.0	1 Ryanair RYAAY 58.69 -1.07 Ericsson ERIC 8.50 -0.22 Waters WAT 194.33 -3.18 O SAP SAP 122.56 -0.85 TelefonicaBras VIV 9.14 -0.03 Watsco B WSOB 148.41 -4.47
AlexandriaRlEst ARE 150.99 -4.32 BlackKnight BKI 67.40 -0.08 Costco COST 312.08 -5.84 AlexionPharm ALXN 10.67.2 2.64 BlackRock BKI 67.40 -0.08 Coty COTY 5.68 -0.04 Coty	FreeportMcM FCX 8.02 -0.32 KeyCorp KEY 10. FreseniusMed FMS 36.43 0.93 KeySightTechs KEYS 95. Filtran Popular KEY 6.1		SBA Comm SBAC 300.27 -14.56 TelekmIndonesia TLK 19.70 - 0.86 Watsco WSU 147.77 - 0.49 Watsco WSU 147.77 - 0.49 SEI Investments SEIC 49.90 - 0.30 10x5enomics TXG 74.20 3.04 Waisho WB 36.76 - 0.43
AlignTech ALGN 196.71 3.71 Boeing BA 143.61 -10.39 CourismProperties CUZ 30.22 -1.58 Alleghany Y 545.92 -12.60 Booking-lides BKNG 141.63 -59.24 Credicorp BAP 142.87 -1.15	KimberlyClark KMB 139. KinderMorgan KMI 14.	.72 -2.22 NorthernTrust NTRS 79.33 -0.6 .69 -0.28 NorthropGrum NOC 343.91 -12.3	7 SS&C Tech SSNC 51.19 -0.81 TencentMusic TME 11.19 0.30 WellsFargo WFC 27.68 -0.70 SVB Fin SIVB 174.67 0.98 Teradyne TER 62.47 -1.36 Welltower WELL 45.38 -3.72 Welltower WELL 45.38 -
Allegion ALLE 93,95 -3,68 BoozAllen BAH 75,89 -1.37 CreditAcceptance CACC 294,71 -4,65 Clerk 14,949 -2,88 BostonBeer SAM 413.62 9.82 CreditSuisse CS 8.13 -0.11 CreditSuisse CS 8.13 -0	GDS Holdings GDS 59.62 0.62 KirklandLakeGold KL 36. GFLEnvironmental GFL 15.39 0.31 Knight-Swift KNX 36.	72 2.18 Novartis NVS 89.78 0.4 .07 -0.52 NovoNordisk NVO 64.11 1.0	SantanderCons SC 13.34 -0.58 TevaPharm TEW 10.32 0.05 WesternDigital WDC 39.55 -2.77 WesternDigital WDC 39.55 -2.77 WesternUnion WU 19.33 -0.60
Allstate ALL 102.72 - 2.20 BostonProps BXP 91.44 - 4.06 CrownCastle CCI 162.42 - 4.63 [High-rancial ALLY 15.05 - 0.32] BostonSci BSX 37.25 - 1.04 CrownHoldings CCK 61.28 - 1.64 [High-rancial Ally 14.487 6.39] BrightHorizons BFAM 120.0 - 1.51 [Liberart LOBE 25.36 - 0.19]	Galapagos GLPG 215.84 1.93 KoreaElcPwr KEP 8. Gallagher AJG 80.78 -2.82 KraftHeinz KHC 29.	.83 1.71 Novocure NVCR 74.41 1.9 .46 0.20 NuanceComms NUAN 18.97 -0.0 .17 -0.16 Nucor NUE 36.53 -0.8	Schlumberger SLB 15.21 -0.07 Textron TXT 26.67 -1.08 WestpacBanking WBK 9.86 -0.30
Alphabet A GOOGL 126.1.5 - 17.8.5 Bristol-Myers BMY 61.68 1.08 Cummins Cummins GOOG 1266.61 - 16.64 BritishamTob BTI 36.72 - 0.78 CyrusOne 68.87 - 0.08	Garming GRMN 80.05 -2.06 Line LN 48. Gartner IT 104.17 -1.79 LKQ LKQ 20.	.85 -0.30 NVIDIA NVDA 287.05 -5.2	7 ScienceApplicat SAIC 80.60 -1.37 ThomsonReuters TRI 70.82 -1.66 Weyerhaeuser WY 19.18 -0.92 7 ScottsMiradeGro SMG 118.79 0.97 3M MMM 143.67 -2.79 WheatonPrecMet WPM 34.98 0.65
AlticeUSA ATUS 25.91 -0.14 BroadridgeFinl BR 109.79 -0.15 D E F Altria MO 39,07 -1,78 BrookfieldMgt BAM 33.02 -0.76	Generac GNRC 99.37 0.06 L3HarrisTech LHX 194,	.84 -8.66 O P Q	Seagate STX 50.83 -0.64 Toro TTC 63.24 -1.93 Williams WMB 18.49 0.41 6 SealedAir SEE 28.64 -0.86 TorontoDomBkTD 40.30 -0.24 WillisTowers WLTW 188.89 -6.50
Amazon.com AMZN 2393.61 18.61 Brown.eBrown BRO 37.32 -0.78 DTE Energy DTE 100.76 -5.09 Amzer AMZN 2.24 0.02 Brown.eBrown BRB 8.68 61.46 -2.51 Danaher DTR 155.83 -0.70	I GeneralMills GIS 60.76 0.09 LamarAdv LAMR 49. GeneralMotors GM 22.38 -0.10 LambWeston LW 57.	90 -2.66 ONE Gas OGS 83.99 -4.7 ONEOK OKE 28.21 -1.1	7 SempraEnergy SRE 122.57 -1.87 ToyotaMotor TM 121.71 -2.90 Wix.com WIX 130.63 4.39
Amdocs DOX 62.53 -0.54 Brown-Forman A BF.A 56.55 -2.45 Dardren DXR 01.79 -1.356 Amedisys AMED 195.63 -2.94 Bruker BRKR 36.83 -0.70 Datadog DXA 77.52 -0.64 DXA		16 -4.18 OccidentalPetrol OXY 12.59 -1.0 Okta OKTA 152.60 4.5	ServiceCorp SCI 39.22 -0.37 TradeDesk TTD 233.00 4.48 Workday WDAY 15.09 1.60 TradeVeveb TW 52.48 0.85 WynnResorts WYNN 73.29 -5.17
America Aire 73.24 -4.59 BurlingtonStrs BURL 177.16 -5.45 Deere DE 137.30 -1.16 AmericaMovil AMX 10.92 -0.23 CACI Intl CACI 238.58 -5.03 DellTech DELL 40.96 -0.55 CACI Intl CACI 238.58 -5.03 DellTech DelTech 23.64 -0.63	GenuineParts GPC 73.18 -1.47 Leidos LDOS 98.	.60 -0.68 OldDomFreight ODFL 129.89 -6./ OldRepublic ORI 15.69 -0.8 Omegableatheare OHI 20.11 -2.3	6 SherwinWilliams SHW 495.87 - 20.88 TransDigm TDG 316.40 - 21.00 XPO Logistics XPO 58.68 - 0.28 ShinhanFin SHG 22.59 - 0.98 TransUnion TRU 72.85 - 3.33 XcelEnergy XEL 64.35 - 2.80
AmCampus ACI 11.06 -0.51 CDW CDW 105.60 -3.22 DentsplySirona XRAY 41.28 0.42 CF Industries CF 27.55 -0.74 DeutscheBank DB 6.33 -0.13	GlobalPayments GPN 148.21 -6.67	.00 -2.88 OMNICOM OMC 53.92 -0.6 ON Semi ON 13.36 -0.3	7 Sibanye-Stillwater SBSW 7.28 0.39 Trex TREX 85.75 2.11 Xylem XYL 69.26 -0.33
AmerExpress AXP 84.01 -3.38 CGI GBB 95.56 -0.85 Olageo DEO 134.05 -3.28 AmericanFin AFG 67.16 -4.20 CME Group CME 184.62 -7.00 DiamondbkEner FANG 30.86 -0.66	GoDaddy GDDY 67.16 0.34 LibertyBroadbandC LBRDK 124.	.53 -0.26 .41 -0.46 .26 0.03 Oracle ORAN 12.43 0.0	SimonProperty SPG 53.83 -2.29 Trip.com TCOM 23.66 -0.19 YumBrands
AmHomes4Rent AMH 23.28 -1.57 CMS Energy CMS 59.19 -3.98 DigitalRealty DLR 143.72 -5.48 AIG AIG 23.75 -0.75 CNA FIN -1.01 DiscoverFinSvcs DFS 35.22 0.18 CNH Indicated CNH Indicated CNH -0.44 DiscoveryA DISCO 21.70 -0.44	GoldmanSachs GS 180.40 -3.09 LibertyGlobal C LBTYK 17.	.85 0.16 OtisWorldwide OTIS 45.39 -0.7	SlackTech WORK 29.25 1.15 Twitter TWTR 27.01 0.31 I ZaiLab ZLAB 64.90 1.43 Smartsheet SMAR 53.68 3.12 TylerTech TYL 328.05 1.33 ZebraTech ZBRA 202.35 0.63 Smith O O O O O O O O O O O O O O O O O O O
Amerivate Works AWK 126.46 -5.30 CNOOC CEO 108.33 -0.48 DiscoveryC DISCK 19.74 -0.46 CRH 26.80 -1.04 Disney DISCK 19.74 -0.46 CRH 26.80 -1.04 Disney DISCK 19.74 -0.46 CSX CSX 61.00 -1.77 DocuSign DOCU 101.80 1.45	Grifols GRFS 21.00 0.08 LibertySirius C LSXMK 30.	.96 -1.00 OwensCorning OC 37.67 -2.3 PG&E PCG 11.14 -0.2	7 Smith&Nephew SNN 39.30 -0.05 UBS Group UBS 9.67 0.03 Zillow C Z 36.46 0.13 Smucker SJM 121.62 0.04 UDR UDR 36.37 -2.57 Zillow A ZG 35.97 0.09
AmerisourceBrgn ABC 89.62 0.43 CVS Health CVS 62.34 -1.02 DolbyLab DLB 57.59 -0.67 CABDI783.24 8.44 DollarGeneral DG 179.00 -3.11	HCA Healthcare HCA 110.43 -5.23 EliLilly LLY 157. HDFC Bank HDB 41.39 1.42 LincolnElectric LECO 73.	79 0.50 PNC Fin PNC 102.55 1.0 PNC 80 -1.94 POSCO PKX 34.88 -1.2	5 Snap SNAP 12.92 -0.06 UGI UGI 27.15 -1.01 ZimmerBiomet ZBH 117.00 -1.98 SnapOn SNA 114.66 -3.67 Uber UBER 28.19 0.19 ZionsBancoro ZiON 29.27 0.19 SolazeFdoxToch SEDG 03.64 -2.44 Ubiquibi UI 116.47 1.05 ColazeFdoxToch UI
Amphenol APH 81.25 2.97 Cadescull USS 7.84 0.81 DominionEner D 79.11 -2.40 AnalogDevices ADI 10.91 1.89 CaesarsEnt CZR 8.03 -0.10 Domino's DPZ 370.48 7.51	HP HPQ 15.36 -0.16 Linde LIN 185. HSBC 45.52 -0.44 LiveNationEnt LYV 36.	.00 -3.55 .00 -3.55 .66 -1.69 PPL PPL 25.25 -1.1	1 SonocoProducts SON 47.40 -2.45 UnderArmont A UAA 9.65 -2.02 Zscaler ZS 70.51 2.51 SonocoProducts SON 47.40 -2.45 UnderArmont A UAA 9.65 -2.02 Zscaler ZS 70.51 2.51 ZSCALER SON 47.40 -2.45 UnderArmont A UAA 9.65 -2.02 Zscaler ZS 70.51 2.51 ZSCALER SON 47.40 -2.45 UnderArmont A UAA 9.65 -2.02 Zscaler ZS 70.51 2.51 ZSCALER SON 47.40 -2.45 UnderArmont A UAA 9.65 -2.02 Zscaler ZS 70.51 2.51 ZSCALER SON 47.40
AngloGoldAsh AU 22.87 1.11 CandenPolert OPTB 83.34 -4.48 DouglasEmmett DEI 29.50 -1.37 AB InBev BUD 44.59 -1.36 CIBC CM 57.18 -0.49 Dover DOV 85.97 -2.52	Halliburton HAL 7.63 0.05 LockheedMartin LMT 383.	07 -1 17 Paccar PCAR 07.20 -0.4	5
AnnalyCap Anthem Antm 263.20 -4.62 Aon 185.69 -5.12 Aon 185.69 -5.12 AnnalyCap Anthem Antm 263.20 -4.62 Aon 185.69 -5.12 Aon		.30 -0.09 PackagingCpAm PKG 86.12 -4.7 PagSeguroDig PAGS 21.06 -0.5	
Apartmtinv AIV 36.72 -2.43 Canon CAJ 20.65 -0.28 DukeEnergy DUK 86.65 -3.45 ApollocibMgmt APO 37.27 1.60 CanopyGrowth CGC 15.17 0.07 DukeRealty DRE 33.76 -1.16 ApollocibMgmt APO 37.27 2.69 -0.28 DRE 33.76 -1.16	HealthpeakProp PEAK 25.39 -0.87 Lumentum LITE 76. Heico Lyft Lyft 30.	10 0.85 ParkerHannifin PH 134.37 -4.2 Paychex PAYX 66.46 -1.0 Paychex PAYX 6323 34 -3.4	and Nasdag Stock Market stocks that hit a new 52-week intraday high or low in the latest
ApplMaterials AMAT 50.63 -2.57 CardinalHealth CAH 50.74 -0.49 DuPont DD 39.72 1.36 Applargroup ATR 106.94 4.00 Carlisle CSL 122.63 -1.63 Dynatrace DT 26.54 0.84 O.84	HenrySchein HSIC 53.15 -0.49 Herbalife HLF 32.25 0.30 M N	Paylocity PCTY 92.72 -2.1 PayPal PYPL 112.17 0.3	7 Monday, April 20, 2020
Aramark ARMK 20.50 -1.47 CarMax KMX 64.56 -0.66 EOG Rscs EOG 41.17 -0.67 ArcelorMittal MT 9.40 -0.30 Carnival CCL 12.22 -0.34 EPAM Systems EPAM 206.66 -3.28	Hershey HSY 144.58 -1.88 M&T Bank MTB 105. Hess HES 35.93 -1.42 M&T Bank MTB 105. HewlettPackard HPE 9.36 -0.35 MDU Rscs MDU 21.	.60 0.12 Pegasystems PEGA 77.31 -1.5 76 -1.27 Peloton PTON 31.07 -2.4	52-WK % Stock Sym Hi/Lo Chg Stock Sym Hi/Lo Chg Stock Sym Hi/Lo Chg
ArchCapital ACGL 26.70 -0.45 ArcherDaniels ADM 36.34 -0.85 arGEN-X ARCX 146.60 3.08 ARCX 146.60 SARCX 146.60 ARCX 146.60 A	Hill-Rom HRC 111.87 - 1.10 MGM Resorts MGM 13. Hilton HLT 72.28 - 3.34 MKS Instrum MKSI 90. HFC 26.22 - 0.80 MPLX MPLX 14.	.94 -1.80 Pentair PNR 31.36 -0.3 .15 0.10 Penumbra PEN 181.07 3.1	MellanoxTech MLNX 124.80 0.1 ChesapeakeEner CHK 12.30 -0.5 CodorusValleyBncp CVLY 12.15 -7.2
AristaNetworks ANET 211.99 1.97 Caterpillar CAT 114.60 -1.70 eBay EBAY 37.64 0.19 Celanese CE 76.02 -2.14 Ecolab ECL 172.96 -5.79	Hologic	2.44 13.28 PepsiCo PEP 134.55 -3.0	1 AcceleronPharma XLRN 103.60 3.8 Novavax NVAX 53.42 42.7 Covanta CVA 6.90 5.2 0.0 AkmalaTech AKAM 108.25 0.8 NovoNordisk NVO 64.96 1.6 CrossCtyHither CCRN 5.82 -3.9
AspenTech AZPN 97.34 -3.01 CenterPointEner CNP 15.75 -0.78 Edisonint EIX 60.01 -2.05 Assurant AIZ 103.02 -2.79 CentralsElBras EBR 4.84 -0.13 EdwardsLife EW 224.60 -3.81	Honeywell HON 135.70 -2.62 MagnaIntl MGA 35. HorizonTherap HZNP 34.01 0.20 ManulifeFin MFC 12.	.58 -0.67 Perrigo PRGO 50.86 -1.0 .12 -0.25 PetroChina PTR 35.41 -0.7	1 Arvinas ARVN 55.75 7.4 Okade Superscript Street Stree
AstraZeneca AZN 50.44 0.41 CenturyLink CTL 10.14 -0.11 ElancoAnimal ELAN 24.55 0.24 Athene ATH 24.11 -1.35 CerdidanHCM CDA 53.37 -0.21 Elastic ESTC 61.28 -0.09 Atlassian TEAM 152.63 0.38 Cerner CERN 70.25 0.24 ElbitSystems ESLT 121.99 0.79	DR Horton DHI 38.29 -1.59 Markel MKL 927. HostHotels HST 10.80 -0.57 MarketAxess MKTX 430.	.82 -26.57 PetroleoBrasilA PBR.A 6.04 -0.1 .57 0.79 Pfizer PFE 36.08 -0.8	1 Baxterint BAX 95.19 1.31 pinduoduo PDD 51.49 12.7 EagleBulkShip EGLE 1.49 -3.1 Bilibili BIL 30.30 2.3 Qualys QLYS 110.89 1.6 ElectrameccanicaWt SOLOW 0.21 16.7 BirtsOl-MyersRt BMY 4.68 3.5 Qualys QLYS 110.89 1.6 ElectrameccanicaWt SOLOW 0.21 16.7
AtmosEnergy ATO 102.53 8.1.7 CharlesRiverLabs CRL 144.26 -0.72 ElectronicArts EA 115.41 0.26 Autodesk ADSK 177.87 -3.07 CharterComms CHTR 498.67 -0.75 EmersonElec EMR 50.92 0.38 Autohome ATHM 81.43 1.75 CheckPoint CHKP 105.33 -0.79 Ehbridge ENB 29.32 -0.08	HowmetAerospace HWM	.76 -2.78 Phillips66 PSX 58.12 -1.4	O CMX Resources CMX 12.97 2.12 RegenPharm REGN 574.32 -0.1 FormentoEconMex FMX 56.32 -1.8 ChembioDiagn CEMI 14.90 15.7 ReproMedSys KRMD 12.41 4.9 HalladorEnergy HNRG 0.65 -5.3
Autoliv ALV 55.42 -0.83 Chegg CHGG 36.42 -0.33 EncompassHealth EHC 69.53 -1.93 ADP 43.98 -1.26 Chemed CHE 441.78 -9.12 EnelAmericas ENIA 7.84 -0.13	HubSpot HuBS 142.41 -3.67 MarvellTech MRVL 26. Humana HUM 367.33 -6.26 Masco MAS 39. JBHunt JBHT 100.89 -6.69 Masimo MASI 198.	.23 0.28 Pinduoduo PDD 50.11 5.6 0.05 -0.94 PinnacleWest PNW 76.60 -3.3	5 ChemoCentryx CCXI 53.78 4.6 Seature-Greater Settle 149.51 4.1 HoughtonMifflin MMC 1.05 -4.4 Shopify SHOP 64.95 6.7 IRSA Prop IRCP 5.81 3.1 Cladoc Health TDC 183.50 4.7 LIVCapAcqnvt LIVKW 0.20 -9.1
Avalara AVLR 85.32 0.96 ChenlereEnerPtrs CQP 30.70 -0.19 EnergyTransfer ET 6.08 -0.08 Avalonbay AVB 160.51 -9.86 Chevron CVX 83.57 -3.60 EnphaseEnergy ENPH 39.01 0.05	HuntingtonBcshs HBAN 8.14 0.08 Mastercard MA 251. HuntingIngalls HII 192.26 -3.70 MatchGroup MTCH 80.	.73 -8.24 PioneerNatRscs PXD 71.28 -5.3 .03 0.03 PlainsAllAmPipe PAA 7.12 -0.1	5 CitrkSystems CTXS 152.49 0.2 Vereasystems VEXW 167.64 1.0 LongevityAcqnrk LOACR 0.06-29.9 (Coudinare NET 27.59 5.4 Verstem VRTX 276.26 1.0 Naborsindustries NBR 0.26 0.7 Verstem VRTX 276.26 1.0 Naborsindustries NBR 0.26 0.7 Verstem VRTX 276.26 1.0 Naborsindustries NBR 0.26 0.7 Verstem VRTX 133.34 1.7 Naborsindustries NBR 0.26 0.7 Verstem VRTX 134.34 1.7 Naborsindustrie
Avangrid AGR 44.11 1.88 Chewy CHWY 44.72 0.94 Entergis EMTG 51.68 -1.30 Avantor AVTR 13.64 -0.04 ChinaLifelia LFC 10.42 0.04 Entergis ETR 50.68 -1.30 AveryDennison AVY 104.90 -4.46 ChinaMobile CHL 39.01 -0.03 Entergis ETR 50.68 -1.30	HyattHotels H 54.72 -2.34 MaximIntProducts MXIM 51.	.12 -0.77 Pool POOL 191.60 -7.1 .99 4.79 PortlandGenElec POR 47.95 -2.8	/ CyclacelPharmPrid CYCCP 8.07 "WindstonPrecMet WPM" 35.43 1.9 NatlBanksherids NKSH 2.62.5 -7.4 8 DSP Group DSPG 16.87 5.4 Wingston WING 110.76 2.1 NatlBankshers NKSH 2.62.5 -4.5 7 EastStoneRt ESSCR 0.5 9.7 7.31 2.7 1.4 R 6.0 2.3 1.00le NKSH 2.62.5 -4.5
AxaltaCoating AXTA 17.37 - 0.89 ChinaPetrol SNP 49.22 - 1.02 Equifax EFX 125.81 - 2.16 AxonEnterprise AAXN 76.78	ICICI Bank IBN 9.21 -0.32 McDonalds MCD 181. ICU Medical ICU 215.39 -8.66 McKesson MCK 140. IDACORP IDA 92.62 -3.23 MedicalProp MPW 16.	.49 -1.12 PrincipalFin PFG 29.79 -0.7 .55 -0.62 Procter&Gamble PG 120.60 -4.0	0 ESPORTSERTIVE GMBMW 1.27 3.55 50.25
BHP Group BHP 38.77 -1.25 Chipotle CMG 808.73 -11.54 Equitable EQH 15.33 -0.42 BHP Group BBL 31.71 -1.26 Chubb CB 114.64 -4.15 EquityLife ELS 60.56 -2.84	IdexxLab IDXX 267.34 2.18 Medtronic MDT 101. IHS Markit INFO 64.99 -2.18 MelcoResorts MLCO 14.	.54 -1.79 Progressive PGR 81.94 -0.5 23 -0.77 Prologis PLD 88.50 -1.7	6 GeneralMills GIS 61.66 0.1 AkazooWt SONGW 0.12 -32.0 Qualstar QBAK 1.70 -2.9 GenMarkDiagn GMMK 8.44 6.7 Akazoo SONG 1.42 -12.3 SeacorMarine SMH 2.84 -6.3 Akazoo SONG 1.42 -12.3 SeacorMarine SMH 2.84 -6.3 Consequent Marking SMH 2.
BPG BP 2.35 -1.08 ChunghwaTel Art CHT 35.91 0.11 EquityResd=± EVR 65.01 4.18 BWX Tech BWX Tech BWX Tech 10.26 1 Clena CI 18.05 1.25 1.22 1.22 1.22 1.22 1.22 1.22 1.22 2.12 1.22 1.22 2.12 1.22 2.13 1.23 1.24 1.22 2.12 1.24 <td> IPG Photonics IPGP 11.7.94 -1.11 MercadoLibre MELI 601. </td> <td>.10 -0.36 Prudential PRU 94.88 -0.3</td> <td> Incyte I</td>	IPG Photonics IPGP 11.7.94 -1.11 MercadoLibre MELI 601.	.10 -0.36 Prudential PRU 94.88 -0.3	Incyte I
BakerHughes BKR 12.98 -0.05 CincinnatiFin CINF 82.48 -3.32 EsteeLauder EL 167.79 -6.47	lcahnEnterprises IEP 48.43 -0.57 MetLife MET 32.	.55 -0.51 PublicServiceEnt PEG 51.84 -2.7	1 EliLilly LLY 160.20 0.3 I CSI Compressoo CCLP 0.45 - 22.1 TrinityPlace TPHS 1.11 - 15.4 8 LongevityAcqn LOAC 10.65 1.2 Check-Cap CHEK 0.44 - 46.1 UnitedStatesOilFd USO 3.70 - 10.9

Exchange-Traded Portfolios | wsj.com/ETFresearch

Largest 100 exchange-traded funds, latest session	ETF	Closing Chg YTD Symbol Price (%) (%)	Closing Chg YTD ETF Symbol Price (%) (%)	ETF Closing Chg YTD Symbol Price (%) (%)	Closing Chg YTD ETF Symbol Price (%) (%)
Monday, April 20, 2020 Closing Character Symbol Price		MBB 110.15 0.05 1.9 ACWI 66.82 -1.46 -15.7	iShShortTreaBd	Schwab US TIPs SCHP 58.52 -0.20 3.3 SPDR DJIA Tr DIA 236.64 -2.39 -17.0	VangdHlthCr VHT 188.38 -0.49 -1.8 VangdHiDiv VYM 76.37 -1.94 -18.5
closing Crig FTD	iShMSCIEAFE iShMSCIEAFESC	EFA 54.91 -1.49 -20.9 SCZ 46.74 -1.00 -25.0	iSh1-3YTreasuryBd SHY 86.65 2.4 iSh7-10YTreasuryBd IEF 122.07 0.26 10.8	SPDR S&PMdCpTr MDY 278.72 -1.89 -25.7 SPDR S&P 500 SPY 281.59 -1.76 -12.5	VangdIntermBd BIV 91.11 -0.11 4.5 VangdIntrCorpBd VCIT 90.75 -0.36 -0.6
Charlin Discoelaector ALT 110.70 -1.74 11.7	2.01 –30.7 iShMSCIEmgMarke 1.72 –14.1 iShMSCIJapan	ts EEM 35.80 -1.27 -20.2 EWJ 50.04 -1.53 -15.5	iSh20+YTreasuryBd TLT 169.16 0.80 24.9 iShRussellMCGrowth IWP 135.57 -1.24 -11.1	SPDR S&P Div SDY 85.01 -2.23 -21.0 TechSelectSector XLK 87.83 -1.60 -4.2	VangdLC VV 129.85 -1.64 -12.2 VangdMC VO 144.08 -1.97 -19.1
FinSelSectorSPDR XLF 22.00 -1.74 -28.5 IShCoreUSAggBd AGG 117.08 - FTValDivFd FVD 29.02 -2.52 -19.5 IShSelectDividend DVY 77.92 -	0.14 4.2 iShNatlMuniBd	MUB 113.09 -0.37 -0.7 PFF 33.70 -0.47 -10.3	iShUSTreasuryBdETF GOVT 28.16 0.25 8.6 JPM UltShtlncm JPST 50.17 0.04 -0.5	UtilitiesSelSector XLU 58.24 -3.78 -9.9	VangdMBS
	1.03 -14.5 iShRussell1000Gw		PIMCOEnhShMaturity MINT 100.34 0.05 -1.2 SPDR BlmBarcHYBd JNK 98.58 -1.55 -10.0	VanEckGoldMiner GDX 30.74 2.67 5.0 VangdInfoTech VGT 231.66 -1.66 -5.4	VangdS&P500ETF VOO 258.86 -1.80 -12.5 VangdST Bond BSV 82.60 -0.13 2.5
InvscS&P500EW	1.07 -6.6 iShRussell1000Val 1.82 -13.1 iShRussell2000	IWD 106.66 -2.07 -21.8 IWM 120.62 -1.18 -27.2	SPDRBloomBar1-3MTB BIL 91.55 -0.01 0.1 SPDR Gold GLD 159.70 0.71 11.8	VangdSC Val VBR 92.58 -2.48 -32.5 VangdSC Grwth VBK 164.65 -0.41 -17.1	VangdSTCpBd VCSH 80.73 -0.55 -0.4 VangdSC VB 123.10 -1.44 -25.7
iSh3-7YTreasuryBd IEI 133.42 0.08 6.1 iShFloatingRateBd FLOT 49.82 -	0.06 -2.2 iShRussell3000 0.93 11.9 iShRussellMid-Cap	IWV 161.97 -1.69 -14.1 IWR 47.10 -1.96 -21.0	SchwabIntEquity SCHF 26.59 -1.52 -20.9 SchwabUS AggrBd SCHZ 55.57 -0.20 4.0	VangdDivApp VIG 112.13 -2.10 -10.1 VangdFTSEDevMk VEA 34.47 -1.46 -21.8	VangdTotalBd BND 87.42 -0.16 4.2 VangdTotIntlBd BNDX 56.76 -0.19 0.3
iShCoreMSCIEAFE IEFA 51.24 -1.44 -21.5 iShiBoxx\$InvGrCpBd LQD 129.82 -	0.57 1.5 iShRussellMCValue 1.50 -9.2 iShS&P500Growth		SchwabUS BrdMkt SCHB 66.07 -1.67 -14.1 SchwabUS Div SCHD 48.93 -1.94 -15.5	VangdFTSE EM VWO 35.37 -0.73 -20.5 VangdFTSE Europe VGK 44.60 -1.44 -23.9	VangdTotilitiStk VXUS 43.76 -1.44 -21.4 VangdTotalStk VTI 140.82 -1.62 -13.9
iShCoreMSCITotInt IXUS 48.91 -1.19 -21.0 iShIntermCorpBd IGIB 57.50 -	0.21 -0.8 iShS&P500Glowtli 0.63 -13.4 iShShortCpBd	IVE 103.85 -2.06 -20.2 IGSB 53.56 -0.30 -0.1	SchwabUSLC SCHX 67.03 -1.69 -12.7 SchwabUSLC SCHG 88.13 -1.53 -5.1	VangdFTSEAWxUS VEU 42.52 -1.30 -20.9 VangdGrowth VUG 173.73 -1.50 -4.6	VangdTotalStk VT 140.82 -1.02 -13.7 VangdTotlWrld VT 67.09 -1.50 -17.2 VangdValue VTV 96.28 -1.95 -19.7
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N PerA p	42.10 -0.39	10.9 CoreBond	10.71 +0.01	3.6 US	3LgVa	28.23 -0	-0.65-26.5	BluCh	104.19 -	0.77 -3.3	Guggenhei	m Funds	Tru	- City Fullus			BdldxInst	11.57 +0.01	4.9	TotStAdml	68.52 -	1.19-13.6	TotIntBdlxIn	/ 11.36	-0.01 0.7	CorePlusBdIS	11.89 -0.04 N

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China Tests Digital Money

Central bank gives payment system a trial run in four cities after years of study

By Jonathan Cheng

BEIJING-China's central bank has introduced a homegrown digital currency across four cities as part of a pilot program, marking a milestone on the path toward the first electronic payment system by a major central bank.

Internal tests of the digital currency are being conducted in four large **CURRENCIES** cities around

China-Shenzhen, Suzhou, Chengdu and Xiong'an, a satellite city of Beijing-to improve the currency's functionality, the digital currency research institute under the People's Bank of China confirmed Monday, in response to a request for comment.

Chinese domestic and staterun media outlets reported on the trials over the weekend. The trials followed years of research by the central bank dating back to 2014.

The new currency, which doesn't have an official name but is known by its internal shorthand "DC/EP," or "digital currency/electronic payment," will share some features with cryptocurrencies including bitcoin and Facebook Inc.'s Libra, PBOC officials have said. While it won't boast the anonymity that bitcoin and other cryptocurrencies tout, China's central bankers have vowed to protect users' privacy.

The intention, China's central bankers have said, is to replace some of China's monetary base, or cash in circulation. It won't replace other parts of the country's money supply, such as bank deposits and balances held by privately run payment platforms, Yi Gang, the governor of China's central bank, said last year.

The central bank's research institute said Monday that the pilot is being launched on a trial basis, in part to prepare for the 2022 Winter Olympics in Beijing. The research institute added that the digital currency won't be issued nationwide or in large quantities in

the near term and said that the test run wouldn't trigger inflation.

In Xiangcheng, a district in the eastern city of Suzhou, the government will start paying civil servants half of their transport subsidy in the digital currency next month as part of the city's test run, according to a government worker with direct knowledge of the matter.

Government workers were told to begin installing an app on their smartphones this month into which the digital currency would be transferred, the worker said.

Civil servants were told that the new currency could be transferred into their existing bank accounts, or used directly for transactions at some designated merchants, the person

China is ahead of many other countries in preparing the launch of an official digital currency. In recent years, the use of traditional paper bills and cash has declined sharply, and smartphone payments have become so ubiquitous that many Chinese people, particularly younger urban dwellers, no longer carry their wallets or cash for shopping. Instead, they use Tencent **Holdings** Ltd.'s WeChat Pay and Alipay, operated by Ant Financial Services Group, an affiliate of Alibaba Group Holding Ltd.

China's central bank has said that shifting to a governmentrun digital payment system will help combat money laundering. gambling and terrorist financing. It has also hailed digital currencies as a way to improve the efficiency of transactions in its financial system.

China's four biggest staterun banks have joined the central bank in developing the digital currency. Screenshots of the digital currency's wallet app, made by one of the banks, Agricultural Bank of China Ltd., circulated widely online last

The screenshots purported to show a variety of functions, including allowing savers to track transactions of the new currency, manage their accounts and link the wallet to their existing bank accounts.

-Grace Zhu contributed to this article.

Gap between three-month commercial-paper borrowing

The bank, headed by Yoon Jong-won, left, was deemed compliant in '19

South Korean Bank Is Fined After Iran Problem

By Andrew Jeong

Federal and New York authorities fined a South Korean bank over long-running gaps in its defenses against money laundering, after the lender's Manhattan branch was used to launder cash for Iran.

The state-backed **Industrial** Bank of Korea must pay a combined \$86 million for lapses dating back to 2010, which centered on failing to install and maintain an adequate transaction-monitoring system. The New York State Department of Financial Services is fining the bank \$35 million. Separately, federal investigators and the New York State Attorney General's office have required the bank to pay \$51 million. A spokesman for the bank said he had no immediate comment.

Starting in 2011, Kenneth Zong, an Alaskan, conducted more than \$1 billion of illegal transactions on behalf of Tehran using his accounts with the bank, according to law-enforcement officials.

Mr. Zong convinced bank officials that the Iranian government owed him cash for construction materials he had sold to it, according to the Justice Department. Mr. Zong fabricated invoices, contracts, and bills of lading to deceive bankers, prosecutors have said.

The bank then released cash held in one of its Korean won-denominated accounts to Mr. Zong. The Industrial Bank was one of only two in South Korea that Seoul officials had designated in 2010 to conduct permissible trade with Tehran while also complying with U.S. sanctions. Relevant Industrial Bank accounts have been frozen since last year, as the U.S. strengthened its sanctions regime on Tehran, the bank spokesman said.

Mr. Zong then converted the cash into U.S. dollars through the bank, before wiring the money to Iranian officials world-wide. Tehran awarded Mr. Zong with a fee estimated at up to \$17 million for his services, U.S. prosecutors have said.

Mr. Zong has been indicted on 47 counts of violating Iranrelated sanctions in the U.S. He was in South Korean custody as of late 2018, after local courts convicted him of tax law violations, related to the transactions, the Justice Department has said. He hasn't been

permitted to leave South Korea following the convictions, according to the New York Attorney General's office on Monday.

Mr. Zong's son, Mitchell Zong, was also indicted on a charge of conspiring to commit money laundering with his father, and was sentenced to 30 months in federal prison and fined \$10,000 in December 2018. Mitchell Zong laundered about \$980,000 of "Iranian derived funds," according to the Justice Department. The Zongs and their legal representatives couldn't be immediately reached.

New York officials said Industrial Bank had repeatedly failed to set up sufficient compliance systems despite several warnings during and after the Zong family's actions, which lasted until at least 2014. It was only in 2019 that officials deemed its compliance program adequate.

"While the Department applauds the Bank for its ultimate efforts after eight examination cycles of noncompliance, one positive examination report does not equate to a sustainable, safe and sound financial institution," officials said in a New York State Department of

Authorities say lender ignored warnings about compliance issues.

Financial Services document reviewed by The Wall Street

Authorities said the fine was reduced to reflect the bank's substantial cooperation

in the multiyear investigation. Industrial Bank is publicly traded in Seoul, but its majority shareholder is South Korea's finance ministry. It has assets valued at about \$242 billion, while its New York branch held about \$180 million as of June last year.

Senior Trump administration officials have recently brushed aside calls to ease economic sanctions on Tehran due to concern that Iran would use cash for military investments. However, Secretary of State Mike Pompeo has said the U.S. has offered to provide food and other humanitarian aid to Iran, amid the coronavirus pandemic.

Market for Loans Still Stressed

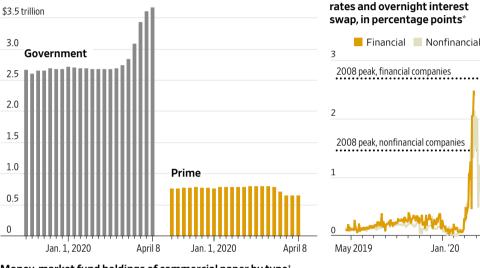
Continued from page B1 you don't have a bid on anything?" said Tim Robey, manager of Eaton Vance's in-house money-market fund, which manages spare cash on behalf of the investment firm's wider group of mutual funds.

Although trading has restarted, commercial-paper borrowing rates remain elevated. In late February, highly rated banks and companies would pay a few tenths of a percentage point more than base interest rates to borrow for three months. Those rates spiked to more than 2 percentage points in March, higher than the 1.5-percentage-point peak in 2008, according to Goldman Sachs analysts. Rates have remained volatile, but as of Friday settled at about 1.1 percentage points.

With commercial-paper markets closed off, companies looked elsewhere for cash. Some raised longer-term debt in the bond markets, which can be more costly. Others, such as **Boeing** Co. and **Anheuser-Busch** InBev SA, drew on credit lines, a form of backup borrowing. The unexpected rush of credit-line borrowing taxed banks' balance sheets, limiting how much they could lend elsewhere.

It also matters for the wider financial system. Banks are paying higher rates on the commercial paper and similar instruments that they use to borrow money short term. This leads directly to high levels of Libor, the London interbank offered rate. the benchmark in setting borrowing costs on trillions of dollars in mortgages, commercial loans and derivatives.

Commercial-paper markets melted down in the 2008 financial crisis, requiring a Fed bailout. Major changes in financial regulation since then, meant to protect investors and the financial system, may have left the Money-market assets by fund type, weekly, Nov. 13, 2019 through April 8



Money-market fund holdings of commercial paper by type¹ \$300 billion Financial company Assets-backed Nonfinancial company

*Through April 13 for nonfinancials and March 26 (latest Federal Reserve data) for financials †Through Jan. 31, most recent data available Sources: Investment Company Institute (money-market assets); Goldman Sachs (qap); Federal Reserve (fund holdings of commercial paper)

market vulnerable.

Regulations that require banks to hold more capital to back their assets made them reluctant to carry inventories of stocks or bonds or commercial paper, even during normal conditions. At times of stress, like last month, they quickly ran out of space to hold even small amounts of inventory, hampering their ability to act as middlemen in the market.

Because trading in commercial paper is a low-margin business, scale matters. That has helped the biggest banks win more market share and means more business is done by fewer institutions, according to investors and bankers involved in the commercial-paper market.

The market has become more concentrated with a smaller number of big dealer banks, including Bank of America Corp., JPMorgan Chase & Co., Citi-

group Inc. and Goldman Sachs; member the events of 2008 and and big fund managers, such as Fidelity Investments and Vanguard Group.

The other big change since the last crisis: In the past. money-market funds reported a fixed \$1-share price, with many investors assuming institutions would stand behind the value no matter what. New regulations came in 2016 that forced moneymarket fund managers to report share prices that went up and down in line with their assets. This was a reaction to the 2008 crisis, when the Reserve Primary Fund became the first to "break the buck," lowering its share price below \$1 after Lehman Brothers commercial paper it held became worthless.

That change may have made commercial-paper money-market funds, also known as prime funds, more susceptible to outflows. Investors may also re-

simply became more wary about the risks of stashing cash in prime money funds. Investors sucked out \$150 billion, or a fifth of assets from prime funds, since late February.

Much of that cash instead flowed into an even safer flavor of money-market funds, which invest solely in short-term Treasury bills and other governmentbacked debt. Those funds have grown by nearly \$1 trillion, increasing their total assets by more than a third.

Those inflows played havoc with short-term Treasury markets, pushing yields on threemonth bills into negative territory on March 26. Fidelity Investments, one of the leading money-market fund managers, closed three of its Treasury-only funds to new investors so it wasn't forced to keep investing in money-losing paper.

Co-Working Startup Struggled Even Before the Pandemic

By Katherine Bindley

The Wing was riding high early last year. The network of women-focused clubs and coworking spaces was rolling out new locations around the U.S. and had secured new funding led by venture-capital powerhouse Sequoia Capital.

Today, the company is reeling, a casualty of the pandemic and, before that, the enormous challenges for a business built on ideals trying to live up to its aspirations.

The nearly four-year-old company, which has raised \$118 million from backers, cited the pandemic's impact in announcing this month that it was laying off or furloughing most of its staff. A spokeswoman later said this included all employees and managers working in Wing spaces in the U.S. and half of those working at headquarters. The Wing went from around 475 active employees to 84.

In addition to closing its 11 locations, it suspended member dues. The company, which boasted over 12,000 members paying at least \$2,100 a vear. lost 95% of its revenue overnight. Asked if the Wing is getting breaks on its rent, the spokeswoman said it is working with its landlords and declined to elaborate. Co-founders Audrey Gelman

and Lauren Kassan said they still hope to reopen as soon as possible. "We'll be back. And we'll be better," they wrote in a blog post announcing the furloughs and layoffs, noting the Wing would continue to engage members online.

Compounding its pre-virus challenges was WeWork; the troubled co-working company, an early investor, sold its Wing stake in January at a reduced valuation, according to news reports of the sale. The Wing spokeswoman declined to comment. A WeWork representative confirmed the sale but didn't comment further.

Kara Nortman, a partner with venture-capital firm Up-



The network of women-focused clubs and co-working spaces marketed itself as a female version of the boys' club.

front Ventures, which is a Wing investor, said the company has "a strong balance sheet and is well-positioned to come out of this crisis stronger."

The Wing won fame with its message of empowerment for women, marketing itself as a female version of the boys' club. Its values-pro-pay equity-appealed to a swath of women who filled wait lists for membership. Investors included Serena Williams.

But as the Wing expanded, discord simmered among members. One point of contention was its decision to allow male guests, amid an investigation into its gender policy by New York City officials, which was resolved after the Wing put a membership policy in writing, a spokeswoman for the New York City Commission on Human Rights said.

The Wing announced the policy to members by saying that

front-desk staff wouldn't make location in May, when a white assumptions about the gender of members or guests, rather than spelling out that men would be allowed in locations.

Alex Qin, a 29-year-old founder of a digital-literacy cooperative in New York, said she was caught by surprise last year when she heard a malesounding voice—apparently someone being given a tour—at the door to the shower room where she was undressed. She said she turned around and saw the door quickly close.

The Wing apologized to Ms. Qin, but she canceled her membership. Some areas are offlimits to nonmembers, the spokeswoman said.

'No new company gets it right 100% of the time," she said. "The right standard is how young companies confront the challenges they encounter and grow stronger from them."

Around the same time, the Wing was dealing with racial tensions stemming from an incident at its West Hollywood

guest allegedly yelled at a black member over a parking space. Other black members guit the Wing, expressing disappointment over the company's response. In September, the Wing sent a note apologizing to members for its handling of the situation. Ms. Gelman apologized in a

February essay for missteps: "Failing to appreciate the complexity of creating a truly diverse and inclusive community...has led to serious stumbles and outright failures."

The Wing around that time publicly outlined some of its planned steps: conducting racial literacy and antibias training for its executives and directors, working on more inclusive hiring, and creating a cultural code of conduct for employees, members and others.

The Wing spokeswoman said neither Ms. Gelman nor Ms. Kassan was available for comment. Sequoia didn't provide comment.

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MARKETS

Energy Stocks Push Dow, S&P Lower

Stocks slid to start another potentially volatile week as investors continued to gauge the extent of the economic damage from the pandemic.

> By Caitlin McCabe, Anna Isaac and Joe Wallace

Major U.S. indexes opened sharply lower, eased their losses midday and then fell to session lows in afternoon trading in conjunction with a historic plunge in oil prices. Energy stocks including Exxon Mobil and Chevron helped pull indexes lower.

The Dow Jones Industrial Average fell 592.05 points, or 2.4%.

MONDAY'S 23650.44. MARKETS

S&P 500 dropped 51.40 points, or 1.8%, to 2823.16. And the Nasdaq Composite lost 89.41 points, or 1%, to finish at 8560.73 after spending much of the day in positive territory.

Investors have been hit with a deluge of economic and health information in recent weeks about the fast-spreading coronavirus, which has shut local economies, forced millions of layoffs and prompted intervention from the Federal Reserve and U.S. government.

For the past two weeks, many have appeared optimistic about an eventual economic recovery, driving the Dow to close Friday with its best twoweek performance since the

That rally, however, paused Monday, as investors looked ahead to a busy week of earnings reports and an uncertain coronavirus landscape. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, said Monday on ABC's "Good Morning America" that the country could set itself back if officials "jump the gun" on reopening the economy.

A plunge in oil prices into



The cruise company's stock fell 7.2% on Monday, bringing its losses to 80% for the year. Its business has been hard hit by the coronavirus.

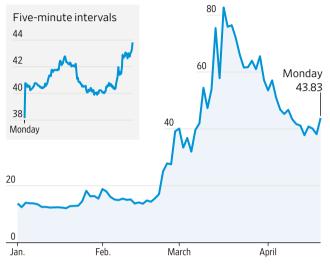
negative territory also exacerbated losses and sent the Cboe Volatility Index, a closely watched measure of turbulence in U.S. stocks, surging.

"In the best-case scenario, this shows you that the oil shock is going to be severe," said Chris Zaccarelli, chief investment officer for Independent Advisor Alliance. "But in the worst-case scenario, that's showing some signs of market dysfunction. Algorithms or human traders don't like to see anomalies like that, and it just adds to the risk-off tone."

Still, there were bright spots amid the stock losses. **Netflix** jumped 3.4% as some technology stocks rallied, increasing the streaming platform's gains to 35% for the year. The S&P 500, in contrast, remains down 13% in 2020.

Biotechnology stocks also surged as companies continue to race to find a vaccine for the virus. Moderna climbed 10% and **Novavax** jumped 25%.

But any gains in the market were largely overshadowed by losses. Boeing, the Dow heavyCboe Volatility Index



weight, lost 6.8% and Norwegian Cruise Line Holdings fell 7.2%, bringing its losses to 80% for the year.

Source: FactSet

Exxon Mobil lost 4.7%, Chevron lost 4.1% and Continental Resources slid 4.5% after the price for a barrel of West Texas Intermediate crude to be delivered in May ended Monday at negative \$37.63. That effectively means that sellers must pay buyers to take barrels off their hands.

A continually rising number of coronavirus cases will do little to help the historic collapse in fuel demand that oil is

'Until we see a peak in cases globally and more clarity on when and how the global economy will reopen, it's too soon to position for a sustainable bull market," said Candice Bangsund, a portfolio manager at Fiera Capital. "There could be plenty of volatility and market gyrations, similar to what we saw a month ago.'

Investors will likely look for clues this week about how coronavirus has affected corporate earnings. Companies in the S&P 500 as a whole are projected to post a 15% drop in earnings for the quarter, according to FactSet.

Nearly a fifth of S&P 500 companies are scheduled to report first-quarter results this week. Airlines and technology companies will be among the first in the limelight.

Still, the results are likely to offer only a limited picture of the fallout, as social-distancing measures weren't widespread until March. As a result, some investors may be looking ahead for any clues that execu-

tives can give about what the long-term impact of the virus may be.

"Markets are an anticipatory animal ... [they] don't discount the same news twice," said Jeff Mortimer, director of investment strategy for BNY Mellon Wealth Management. "If stocks can do OK amidst negative earnings reporting, it might give you some information that a lot of the bad news might have already been priced into" earlier stock losses.

Others, however, cautioned Monday that more stock losses could be ahead.

"The market is underestimating the short-term depth of this, but also how long it will reverberate through the system," said Paul Jackson, head of asset-allocation research at Invesco. "The market is treating this as if it will be a mild recession, but this is going to be something much more akin to the financial cri-

Investors turned their interest to haven assets Monday. The yield on the benchmark 10-year U.S. Treasury note fell to 0.625% from 0.655% Fridav—another sign that investors' risk appetite may be waning. Yields fall when bond prices rise.

In Europe, stocks fared better. The pan-continental Stoxx Europe 600 ended the day up 0.7%. Germany's DAX equity benchmark gained 0.5%, even after the country's central bank said its economy has plunged into a severe recession from which it is unlikely to rebound quickly.

At midday Tuesday in Tokyo, the Nikkei was down 1.6%, Hong Kong's Hang Seng Index was down 2.6%, the Shanghai Composite was down 1.1% and Australia's S&P ASX 200 was off 1.8%. S&P and Dow futures were down less than 1%.

—Chong Koh Ping contributed to this article.

Allure of Tech Shares **Undimmed**

Continued from page B1

ting on the continued success of Netflix Inc. and Amazon, whose shares have recently broken away from the pack and set records last week. Both stocks have risen 30% or more this year and are among the best performers in the S&P

Shares of graphics chip maker Nvidia are also getting a big bounce, up 22% in 2020, thanks to videogame demand. And Tesla has ended 10 of its last 11 trading sessions higher, extending its gains for the year to 78%,, as investors bet on the future of electric vehicles and the vision of CEO Elon

Tesla, along with other momentum stocks, was hit hard during the market rout, losing more than 60% of its value in a month after a meteoric rally to start the year. Investors betting on momentum typically buy shares of companies that have risen the most in the past 12 months, counting on their continued outperformance.

The FANG stocks held up better than other momentum shares during the selloff. Amazon, for one, fell 23% from its February high to its March low. In recent years, momentum bets have often included tech and other growth stocks, which typically look expensive compared with the broader market but offer higher-thanaverage profit growth.

Institutional investors were among those who remained loyal to the big tech stocks during the selloff. Amazon, Microsoft, Facebook and Alphabet sat atop the list of stocks in which hedge funds had invested the most money as of

AUCTION RESULTS

Here are the results of Monday's Treasury auctior All bids are awarded at a single price at the market

	13-Week	26-Week
Applications	\$172,780,719,000	\$157,216,689,900
Accepted bids	\$63,015,023,000	\$53,065,189,900
"noncomp	\$702,648,300	\$446,565,200
" foreign noncomp	\$246,000,000	\$500,000,000
Auction price (rate)	99.968403	99.926694
	(0.125%)	(0.145%)
	0.127%	0.147%
Bids at clearing yield accepted	69.78%	40.29%
	912796WX3	912796257
Both issues are dated mature on July 23, 202 Oct. 22, 2020.		

March 17, according to an RBC analysis of S&P 500 companies. Netflix and Apple ranked in the top 12.

And even in the weeks since, few investors are betting against the stocks. Short interest in Amazon hovered at 1.1% as of April 13, unchanged from a year earlier, according to Goldman Sachs Investment Research.

Some analysts say they expect many of the big tech companies to emerge from the pandemic stronger, in part, because of the potential for permanent behavioral changes in its wake. With consumers shopping online, consuming in-home entertainment and communicating via the internet more often, "it's very hard for me to imagine a scenario where the S&P 500 recovers and Google and Facebook would not," said RBC Capital Markets analyst Mark Mah-

Netflix will be the first of the group to test that theory when it reports results Tuesday. The streaming platform's profit is projected to more than double from a year earlier, while the companies in the S&P 500 as a whole are projected to post a 15% drop in earnings, according to FactSet.

Facebook, Alphabet and Microsoft are also expected to post higher earnings, while profits at Amazon and Apple are expected to decline mod-

Despite the tech giants' recent outperformance, Mr. Larson, the Weiss analyst, cautions that they are vulnerable in a recession—even though their balance sheets remain

Facebook has already said its recent uptick in usage won't protect it from digital advertising declines. Google is expected to face the same problem. Meanwhile, demand for Apple products may fall as unemployment rises, and Amazon could continue to face staffing issues and stretched infrastructure.

"These aren't, in my mind safety names, and in some ways they are still being treated that way," Mr. Larson

"In past bear markets, you tend to have a change in leadership—the stocks that led you into a bear market weren't the kinds that led you out," he said. "Could I tell you off the top of my head what will ultimately lead us out of this? The crystal ball is a little foggy there."

Shopify Benefits From Online Orders

By Alexander Osipovich

One of the stock market's biggest winners during the Covid-19 pandemic has been Shopify Inc., an e-commerce software company that has benefited from surging traffic as vast swaths of the global population have been forced to do more of their shopping online.

Shopify's share price rose 6.7% to \$629.90 on Monday for a record close and its eighth consecutive session of gains. The stock has climbed \bar{g} 82% since hitting a recent low on April 2.

Those gains put the Canada-based company ahead of larger e-commerce players such as Amazon.com Inc., which is up 25% over the same period, and eBay Inc., up 29%. The S&P 500 has risen 12% since April 2 as part of a broad rebound from the depths of the coronavirus selloff.

Shopify sells businesses a variety of tools to make it easier to build, run and market their online stores. The company says it works with more than one million merchants



Surge in e-commerce traffic has helped push the firm's stock higher.

world-wide, including Nestlé SA and Staples Inc. It makes money through a mix of recurring subscription fees and other fees, like payment-processing fees, that grow with transaction volumes.

That has benefited Shopify lockdown measures intended to curtail the coronavirus pandemic have closed bricks-and-mortar storefronts

and upended traditional consumption patterns. Last week, a Shopify executive said on Twitter that it was "now handling Black Friday level traffic every day.'

Still, the company's stock hasn't escaped the broader market's volatility. Shopify shares sold off sharply at the beginning of April after it suspended guidance for this year.

performance, year to date 60%

Share-price and index



Note: Data show the price of Class A shares of Source: FactSet

The stock has also attracted significant interest from short sellers in recent weeks, according to data from S3 Partners, a sign that some investors are betting that Shopify stock is overvalued.

Shopify went public in 2015, listing shares on both the Toronto Stock Exchange and the New York Stock Exchange.

Argentina's Debt Plan Is Turned Down

By Ryan Dube and Matt Wirz

Three of the largest groups of Argentine bondholders on Monday rejected the government's proposal to restructure tens of billions of dollars in foreign debt, raising the likelihood that the country could enter into default as early as next month.

near-simultaneous statements from the committees presents a unified front against the current deal that investors hope will push Argentina to change its terms.

An ad hoc group comprising some of the largest money managers in the world, including BlackRock Inc., said the offer seeks "to place a disproportionate share of Argentina's longer-term adjustment efforts on the shoulders of internabondholders." group controls more than onequarter of bonds Argentina has issued since 2016 and 15% of bonds the country distributed to investors in a previous restructuring, according to an announcement.

On Friday, Argentina presented a proposal to exchange some \$65 billion in foreign bonds into new debt at lower interest rates and with later due dates to avoid another default. The offer involves more than \$40 billion in debt relief, mainly through reduced interest payments. It includes a three-year moratorium on foreign-debt payments, with an average coupon of 2.33% once interest payments resume.

Fund managers in the ad hoc group who oppose the offer include AllianceBernstein Holding, Amundi Asset Management, Ashmore Investment Management, BlueBay Asset Management, Fidelity Management & Research Co., T. Rowe Price Group Inc., Western Asset Management Co. and Wellington Management Co. They represent millions of individual investors and thousands of financial advisers and are being advised by law firm White & Case LLP, acthat includes mutual funds, insurance companies and asset managers-said it hasn't received "substantiated forwardlooking economic and financial information" from President Alberto Fernández's government or seen feasible economic policies. "The ACC has

reviewed Argentina's proposal

and cannot support it," the

group said. "The ACC invites

cording to the announcement.

Committee—another

The Argentina Creditor

group

Argentina to abandon the unilateral route and make time for a meaningful negotiation." A third group of investors that said it controls about 16% of Argentina's previously restructured bonds also an-

nounced it opposes the deal. The government gave bondholders 20 days to review the offer as authorities are also grappling with the economic fallout from a lockdown aimed at slowing the spread of the new coronavirus. The country floated the idea of restructuring its debt last autumn, and bondholders began requesting details of the plan in January but little information was exchanged until recently, people familiar with the matter said.

Argentina faces about \$500 million in debt payments on Wednesday. If the payments are missed, the country could enter into default after a 30day grace period. Argentina has been mired in

financial turmoil since a 2018 currency crisis that forced the government to seek a \$57 billion bailout from the International Monetary Fund.

Mr. Fernández's administration has said it plans to renegotiate its debt with the IMF. Last month, the fund called on private creditors to provide Argentina with "substantial debt relief" to restore debt sustainability.

Meanwhile, U.S. ment bond yields fell Monday in a continuing shift away from risk. The yield of the 10year Treasury fell to 0.625% from 0.655% on Friday, according to data from Tradeweb.

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HEARD ON STREET

FINANCIAL ANALYSIS & COMMENTARY



The airline plans to decommission its entire Airbus A340-600 fleet, which amounts to 17 jets.

Crisis Hurts Jet Repair

Maintenance fees dwindle for companies as airlines retire older planes

The Covid-19 crisis is a severe blow for companies like Boeing that build planes, but it is an even harder one for those that repair

Last week, German airline giant Lufthansa announced that it would decommission its entire Airbus A340-600 fleet, which amounts to 17 jets. Carriers all around the world are accelerating plans to re-tire older aircraft in the face of months—very possibly years—of depressed travel demand. Some decommissioned planes could come back, but the useful life of unpopular four-engines models such as the A340 and the A380 has surely been cut short. This is a problem for manufacturers that make a big chunk of their profits from servicing planes. In the next aerospace cycle, these companies might lack the tailwinds they enjoyed after

Spending on the maintenance, repair and overhaul of planes, jet engines and other parts will amount to \$43 billion globally in 2020, consulting firm Oliver Wyman recently estimated. This is less than half of the figure it forecast in

its February report, before factoring in Covid-19. The impact is expected to be sizable even in 2021.

While airlines are notoriously cyclical businesses, investors typically see aerospace manufacturers as being much more insulated from recessions because of their higher margins and yearslong order books. Yet engine makers such as GE Aviation and Pratt & Whitney don't really make their money in the same way as plane manufacturers **Boeing** and **Airbus**. Often, the engines are priced below cost and the big bucks come from servicing. This means that their revenues suffer when planes are grounded or fleets get younger.

In Europe, Rolls-Royce, Safran, MTU Aero Engines and Meggitt derive more than 30% of their sales from the civil-aerospace aftermarket. Unlike their American counterparts, they also aren't part of more diverse conglomerates.

These aftermarket stocks did as badly as airlines in the fallout from 9/11, which started the current trend toward younger fleets. "A very big surprise at the time was that many U.S. carriers decided not to bring back the 737 Classic," said UBS analyst Celine Fornaro. The crisis hit aftermarket sales for years as financially vulnerable carriers deprioritized maintenance and cannibalized grounded planes to fix others.

Yet aftermarket-reliant stocks went on to recover from 9/11 and then weather the 2008 recession well. They have returned a whopping 340% since the financial crisis. What investors should recognize is that this happened amid an unprec edented aviation supercycle fueled by a boom in demand from Asia's emerging middle class as well as the continuing expansion of nofrills carriers.

Will aviation experience a second golden decade? Covid-19 has prompted many to suspect not. And demand for new planes will likely come even more at the expense of older ones, given the recent focus on environmental concerns and regulations.

After this crisis, the performance of companies that make their money in the aerospace after market might not be so easily repaired. –Jon Sindreu

Among many classic scenes from the "Seinfeld" series is one in

which Jerry and Kramer go to a

Kramer to sit a seat apart. Why?

That could be a reality for

movie theaters when they reopen

There are no firm dates on that so

far, but government officials are

working to prepare their citizens

for an easing of social-distancing

restrictions, as opposed to a full

lift. Hollywood's home-state Gov.

Gavin Newsom last week com-

pared it with a dimmer switch,

noting restaurants will likely have

fewer tables and classrooms will

dents. Gatherings such as concerts

and sporting events are "not in the

have more space between stu-

cards" soon, he added.

movie together, but Jerry asks

"A little buffer zone."

Below-Zero Oil Is Chilling Event

Consequences will be difficult for traders. U.S. producers and shippers

"Unprecedented" feels like a tired word these days, but it is no overstatement when it comes to the

On Monday morning, prices on the expiring May futures contract for U.S. benchmark crude were merely at their lowest this century. Some local spot prices were in the single digits. By the afternoon, though, it was clear that things were getting out of hand as futures prices fell to \$10 and then \$5 and then pennies and finally turned negative for the first time in history.

While motorists won't be paid to fill up their tanks and the new front-month contract is trading normally, there was a dual breakdown Monday—physical and financial—that will leave scars.

Despite the international deal to sharply restrict output reached just over a week ago, it was too little, too late to help the bottom lines of U.S. oil producers. The crucial background is that until four years ago there was virtually no U.S. crude oil being exported abroad. Infrastructure for storage and transportation has struggled to catch up with the shale boom's transformation of the U.S. into the world's top petroleum producer. With the world recently overproducing by some 20 million

barrels a day, there were still some places to send and store oil on other continents but precious few in or near the U.S.

Compared with its creaky infrastructure, the deep and sophisticated U.S. financial market seemed better prepared for a shock, and that made Monday's \$55 drop in the price of an expiring contract so jarring. Commodity futures need to be standardized and tied to a physical delivery point, which in this case was overwhelmed. The consequences will be thorny for traders who had never seen the need to put a minus sign into their risk-management models.

They also will be severe for domestic producers and shippers of oil. In the past, price busts made it financially unpalatable for some highcost producers to keep pumping, but now many will be forced to temporarily shut productive wells that still covered their cash costs. Tellingly, one of the few North American energy companies to do well on Monday was Cabot Oil & Gas, a major natural-gas producer. U.S. oil drillers that also produce associated gas will be forced to stop. That would make pure-play gas producers one of the few winners on a crazy day.

-Spencer Jakab

Crude-oil futures prices, front-month contract



Big-Company Stocks Top Smaller Peers

Global stocks have rallied around 25% from their late-March lows, and the shape of the bounce is becoming more clear: Big is better, and biggest is best.

The largest listed companies in the world are doing far better than smaller stocks. The S&P Global 100 Index is still down around 9% for the year, but that is far better than the S&P Global SmallCap index of more than 8,000 stocks, which is down 23%.

Importantly, the gap isn't just down to a deeper selloff among smaller stocks. It has grown since the late-March nadir for equities.

U.S. tech giants have been the clearest exemplars of the trend, with Amazon, Intel and Microsoft all up for the year. But it isn't just a U.S. phenomenon. Large-cap stocks in Europe, Japan and emerging markets are also beating their smaller peers by a distance, even controlling for investing styles such as growth and value.

The pattern even holds within broad indexes of large stocks. The top five companies in the S&P 500 have never occupied a greater share of the benchmark's total market capitalization.

While the S&P Europe 350 Index is still down by slightly more than 20% year to date, the top 50 stocks in the index by market capitalization have fallen by a more modest 14.6% on average. The largest 10 are down by just less than 7% on the same terms.

Several factors are likely at work. As in most selloffs, the initial drop might have hit smaller stocks harder because of their inferior liquidity and access to finance. The largest companies have the closest relationships with hanks and are best known to investors in both debt and equity markets. Even big-brand companies with similar or worse financial positions than smaller peers might have benefited from name recognition in moments of panic.

Over the medium term, larger firms might also have better access

to-or better knowledge of-the various rescue packages on offer.

It is worth remembering too that companies that are small by the standards of listed equities are still usually large by the standards of the average business. If smallcap stocks are suffering because of more limited access to rescue packages or finance, actual small firms are undoubtedly suffering

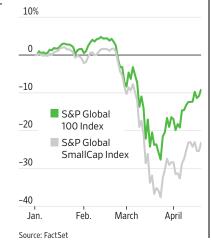
A final factor could be the longest lasting. Recent years have been beneficial to superstar firms. Explanations vary from the benign-that the largest global businesses simply benefit from uncontestable economies of scale—to concerns that some are becoming more monopolistic.

Whichever is true, a severely damaging recession could see the giants extend their dominance. A thinning of the herd means more grass for the survivors next sea-

Unlike differences in access to finance, there is little reason the superstar effect should fizzle out, even if circumstances improve. The gap between the haves and have-nots evident in the current market recovery could be persis-

Total return, year to date

-Mike Bird



OVERHEARD



California Gov. Gavin Newsom

Movie-theater chains are clearly hoping to be lumped in with the former, given that some will be in dire financial straits if their shutdown continues into the summer. But they may be able to accommodate the extra spacing needs. Cinemark Holdings Chief Financial Officer Sean Gamble told investors earlier last week that the chain, which runs nearly 3,000 screens in the U.S., can operate "very profitably" at theater-occupancy levels of 20% to 30%. That would still leave the company room to accommodate practices to encourage social distancing, such as selling only half of available seats, he added.

That will be good news for movie patrons nervous about crowds. Buffer zones do make it harder to share that \$7 tub of popcorn, though.

Muzzled Activists Can Be a Mixed Blessing

The coronavirus shutdowns are forcing companies to cancel dividends and deals and look to governments for help. None of this is good news for activist investors. But boards that don't handle the crisis well could find themselves the next

The start of 2020 was busy for hedge funds that try to generate returns by pushing for corporate change. They deployed \$2.8 billion of capital on average each week in February, including Elliott Management's \$2.5 billion stake in SoftBank **Group** and Third Point's roughly \$2 billion investment in insurer Prudential PLC. But as the Covid-19 outbreak went global in March, the weekly average dropped to \$300 million, according to Lazard's first-quarter review of shareholder activism.

Many campaigns have become redundant almost overnight. Last week. Sherborne Investors abandoned plans to unseat the chief executive of Barclays to allow current management to steer the British

bank through the crisis. Starboard Value withdrew its nominations for eBay's board of directors after the company named a new CEO. And **Xerox** ended its roughly \$30 billion hostile pursuit of HP. Hedge-fund manager Carl Icahn, who holds stakes in both companies, had egged on the debt-heavy deal.

Activists will have a very weak hand in the coming months. Socialdistancing rules make it hard to launch proxy fights or meet with asset managers to get their backing for campaigns. Companies whose stock-market valuations have plunged are racing to put poison pills in place. In the first quarter of the year, 28 U.S. companies introduced measures to stop activists or hostile buyers building large equity stakes, Lazard's report shows.

The primacy of shareholder value may also come into question if governments want equity or other guarantees in return for bailing out companies with taxpayer money. Buybacks, special dividends, and ac-

quisitions funded by debt-demands that activists often make to boost shareholder returns—are off the table for some time. This year, companies need all the cash they can get.

Still, boards shouldn't be complacent. Global deal making dropped 28% in the first quarter of the year compared with the same period last year, Refinitiv data shows, but a mergers-and-acquisitions wave may not be far off.

For those fortunate funds that aren't facing redemptions from their own investors, falling stock markets can be a buying opportunity. Mr. Icahn has already used a 67% drop in Occidental Petro**leum**'s share price so far this year to build his existing stake to just below 10%, from 2.5%.

Company boards can legitimately sideline pushy investors for now, but they need to be careful. Activists will use executives' performance during the crisis as fodder for future campaigns.

-Carol Ryan