

THE WALL STREET JOURNAL.

DOW JONES | News Corp *****

THURSDAY, JULY 13, 2017 ~ VOL. CCLXX NO. 10

WSJ.com

★★★★ \$4.00

DJIA 21532.14 ▲ 123.07 0.6%

NASDAQ 6261.17 ▲ 1.1%

STOXX 600 384.90 ▲ 1.5%

10-YR. TREAS. ▲ 11/32, yield 2.325%

OIL \$45.49 ▲ \$0.45

GOLD \$1,218.10 ▲ \$4.50

EURO \$1.1413

YEN 113.17

What's News

Business & Finance

Banks are grappling with the question of when they will have to pay depositors more to keep them from moving their money as interest rates keep rising. A1

◆ Yellen said she expects forces holding down inflation to fade, allowing the Fed to keep gradually raising rates, but that the central bank could alter its plans if needed. A2

◆ Stocks and government bonds rallied and the dollar fell after Yellen's remarks. The Dow climbed 123.07 points to a record 21532.14. B1, B12

◆ The Bank of Canada raised a key rate, a sign the nation's economy has turned a corner after the oil-price shock. A7

◆ Visa is offering a small group of merchants money for technology upgrades in exchange for a pledge to stop accepting cash. B1

◆ Iran's ambitious agenda for its oil-and-gas sector is running up against the caution of big energy firms. B1

◆ Apple plans to store all cloud data for its China customers with a state-owned firm to comply with the nation's cybersecurity rules. B3

◆ Former White House economic advisers are urging Trump not to impose new steel-import curbs. A2

◆ RBS agreed to pay \$5.5 billion to settle a U.S. probe into precrisis sales of toxic mortgage securities. B11

◆ Berkshire is racing to get Texas regulators to sign off on its takeover of Oncor. B3

◆ Dozens of major online firms launched protests against GOP efforts to roll back net-neutrality rules. B4

World-Wide

◆ Christopher Wray, Trump's pick for FBI chief, told Congress he would be an independent leader who wouldn't let politics sidetrack investigations. A1

◆ Brazil's ex-leader da Silva, the front-runner for next year's presidential election, was sentenced to 9½ years in prison for corruption. A6

◆ McConnell, under pressure to push through a health overhaul, appeared to make little progress in bridging divides within the GOP. A4

◆ Investigators are re-examining conversations detected by U.S. intelligence agencies that captured Russian officials discussing Trump associates. A5

◆ The president sought to refute allegations that Russia tried to help his campaign and damage Clinton's. A5

◆ Trump was set to arrive in Paris Thursday, as he and Macron seek to overcome divisions on trade and climate change. A7

◆ The White House is expected to nominate Russ Behnam, a Senate Democratic aide, to be a commissioner on the CFTC. A4

◆ Germany called on Siemens to explain how gas turbines sold for use at a Russian power plant got diverted to Crimea. B6

◆ The U.S.'s delay of a decision to permanently lift Sudan sanctions could hinder efforts at cooperation. A16

◆ Scientists reported an iceberg nearly the size of Delaware broke off the Antarctic Peninsula. A16

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Brazil Corruption Probe Takes New Turn as Ex-President Convicted



BIG BLOW: Former Brazilian President Luiz Inácio Lula da Silva, the front-runner for next year's elections, was sentenced to almost 10 years in prison for corruption. Detractors celebrated in São Paulo, waving dolls in his likeness and signs reading 'Lula in Jail.' A6

Bank Deposits Don't Pay

BY CHRISTINA REXRODE

Climbing

The Canadian dollar rallied after the Bank of Canada raised its policy rate for the first time in seven years. A7



Note: Scale inverted to show rising Canadian dollar.
Source: FactSet

THE WALL STREET JOURNAL.

Banks are grappling with the question of when they will have to pay depositors more to keep them from moving their money as interest rates keep rising.

For now, most bankers are happy to keep deposit yields at historically low levels, even as the Federal Reserve moves further from near-zero rates.

The Fed has raised rates four times since December 2015. But at most banks, rates for things like savings accounts have barely budged. No one knows how long customers will tolerate that. In previous cycles, banks have often begun to raise rates within six or nine months of the start of a rate-rise cycle.

"Many bank management teams believe we could be one to two hikes away from an increase in retail" deposit rates, John McDonald, a bank analyst at Bernstein, wrote in a recent note. "At the same time, however, we've never quite seen a cycle like this play out before, so it's tough to know for sure."

How banks prepare for any depositor moves is important for their profits, especially given disappointing loan growth this year. For many investors, deposit rates will be top of mind as banks begin reporting earnings this Friday, because increases could maintain pressure on already-low net-interest margins.

The Fed had previously signaled that it expected to raise rates one more time this year, from the current range of between 1% and 1.25%. But Fed Chairwoman Janet Yellen, testifying before Congress on Wednesday, gave no indication about the timing of the next rate increase. She said the Fed could alter its rate-raising plans if the slowdown in global inflation persists.

Democrats and some Republicans have expressed concerns Mr. Trump may have been seeking to alter the trajectory of an investigation into Russia's meddling in the 2016 election by dismissing Mr. Comey, and many of their questions were clearly aimed at assessing whether Mr. Wray would have the backbone to stand up to the White House if necessary.

"I believe to my core that

Please see FBI page A4

Probe's New Turn

- ◆ Russian discussions of Trump associates in 2015 get second look..... A5
- ◆ President speaks in son's defense..... A5

CHINA CAN'T CONTROL RUNAWAY HOME BUYING

Prices climb despite government restrictions; worries of property bubble

BY LINGLING WEI AND DOMINIQUE FONG

GUANGZHOU, China—The more China tries to rein in its roaring housing market, the more obsessed people get about buying.

In February, with this southern megalopolis in the throes of a property frenzy, state banks raised mortgage rates. Then came higher down-payment rules for second homes and limits on owning multiple apartments.

The result: Prices in Guangzhou continue to climb, and the market one town over has heated up.

Pei Zhiyong, a 56-year-old advertising executive, was barred by the new restrictions from buying a third apartment in Guangzhou. One Sunday in April, he drove his BMW SUV to Foshan, an hour away, to check out a new

riverfront high-rise. He figures it's the ideal time to buy.

"The harder the government tries to control the market, the more prices will rise," Mr. Pei said.

With each new policy intended to restrict home purchases, buyers are piling in. Stressed about the prospect of being left behind, many are borrowing heavily, believing prices will continue to rise despite the restrictions and will soar if the government has to lift restrictions to spur economic growth.

Another article of faith is that the Communist Party won't allow housing prices to collapse. "The government will spare no effort to

Please see CHINA page A8

◆ Bond rally is red flag for China..... B12

INSIDE



AIRPORT SECURITY PICKS UP PACE

LIFE & ARTS, A10



WHEN THE OVEN IS ALSO THE CHEF

BUSINESS & FINANCE, B1

Want to Meet Mark Zuckerberg? He'll Be Here in Five Minutes

* * * * *

Facebook's CEO hits the road to meet ordinary folks—with a few conditions

BY REID J. EPSTEIN
AND DEEPA SEETHARAMAN

Mark Zuckerberg is trying to understand America, so he's embarked on a journey to meet people like hockey moms and steelworkers who don't typically cross his path.

But there are rules to abide by if you are an ordinary person about to meet an extraordinary entrepreneur.

Rule One: You probably won't know Mr. Zuckerberg is coming.

Rule Two: If you do know he's coming, keep it to yourself.

Rule Three: Be careful what you reveal about the meeting.

While the Facebook CEO

has built a social network that inspired people around the world to share the most intimate details about their personal lives, his team goes to extraordinary lengths to keep his movements under wraps and control how he is perceived. Midway through a "personal challenge" to travel to 30 states he'd never visited, the 33-year-old aims "to talk to more people about how they're living, working and thinking about the future," he wrote in January on his Facebook page.

Among those people was Kyle McKasson, manager of the Wilton Candy Kitchen, a century-old shop on the town

Please see TRIP page A8

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A \$16,000 Medicine Spurs Pricing Dilemma

BY DENISE ROLAND

Novartis AG recently discovered that a drug it sells for a group of very rare diseases could be used to treat a much more common ailment. There is just one problem: its \$16,000-per-dose price tag.

The drug, called ACZ885, is already sold under the brand name Ilaris for certain rare inflammatory disorders affecting a very small number of people. But a recent clinical trial suggests it could also reduce the risk of serious complications like strokes in people who have suffered a heart attack.

If the drug does pan out with regulators, Novartis would have to drastically cut its price to make it competitive with other cardiovascular drugs. That would mean jettisoning a small, but reliable, revenue stream on an uncertain bet that the drug could become a top seller as a cardiovascular medicine.

"They've got a bit of a puzzle on their hands," said Bernard Munos, a senior fellow at nonprofit FasterCures who previously worked at Eli Lilly & Co.

A Novartis spokesman said it is too early to discuss its pricing strategy.

Rare-disease, or orphan, drugs can command sky-high prices because they are typically the only treatment option available. The small number of patients also limits the overall

Please see DRUG page A7

◆ Leukemia therapy garners support..... B3

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Source: IDC "Worldwide SaaS Enterprise Applications Market Shares, 2015: The Top 15 by Buyer Size," doc #US41913B16, Dec. 2016; Table 4. For the purposes of this report, SaaS enterprise applications include the following application markets: CRM, engineering, ERP, operations and manufacturing, and SCM.

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U.S. NEWS

CAPITAL ACCOUNT | By Greg Ip

Electric Cars Are the Future? Not So Fast



Skepticism of electric cars melts a bit more with each new announcement from the likes of Tesla, which last week launched production of a mass-market vehicle, and Volvo, which days later promised to phase out gasoline-only engines by 2019.

But that progress comes with two big caveats: First, it has relied on extensive public subsidies and, second, it has done little to reduce planet-warming carbon emissions. If electric cars are ever to displace gasoline engines without government's thumb on the scale, they must not only keep innovating but outrun innovation in fossil fuels.

Electric cars have come a long way. They are no longer ugly, impossibly expensive and impractical, thanks to technological advances that have slashed battery storage from \$1,000 per kilowatt-hour in 2010 to \$273 per kWh last year, according to Bloomberg New Energy Finance.

Nonetheless, that means a 75 kWh battery (about 250 miles of range) still adds about \$20,000 to a car's cost. So how do the cars sell? Public largess helps a lot. The federal government offers a tax

credit of up to \$7,500 each for the first 200,000 electric or plug-in hybrid cars a manufacturer sells. Throw in state tax credits, subsidies for recharging infrastructure, relief from gasoline taxes, preferential lanes and parking spots and government fleet purchases, and taxpayers help pay for every electric car on the road.

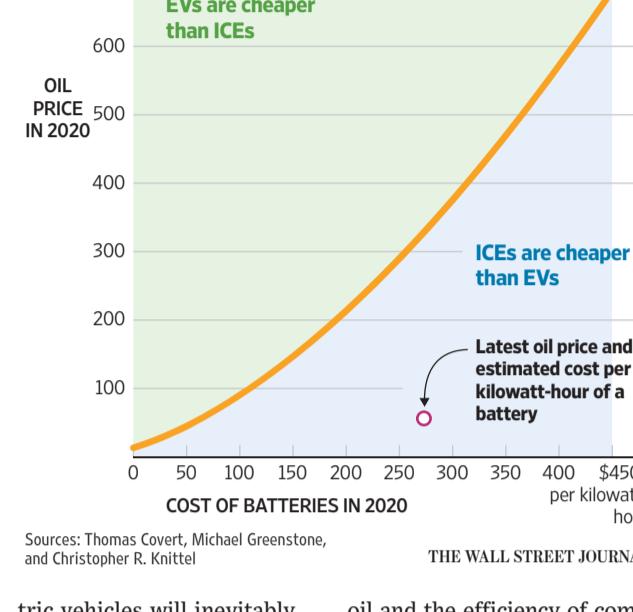
What happens when the credits go away? When Hong Kong slashed a tax break worth roughly \$55,000 for a Tesla in April, its sales ground to a halt. In Georgia, electric vehicle sales plummeted 80% the month after a \$5,000 tax credit was repealed.

Tesla will find plenty of niche buyers for its high-priced cars once it exhausts its credits. But for electric vehicles as a whole, hybrids have a sobering lesson. From 2005 to 2010, some hybrid buyers enjoyed a \$3,500 tax credit. Sales kept rising after the credit expired, peaking at 3.1% of total vehicles in 2013, according to Edmunds.com, when gasoline averaged \$3.51 a gallon. A surge in oil supply caused gas prices to drop to \$2.36 a gallon this year, and hybrids' market share fell to just 2.1%.

Many optimists think falling battery costs mean elec-

The Future Is Not Yet Electric

For electric vehicles (EVs) to displace internal combustion engines (ICEs), it will require some combination of higher oil prices and cheaper battery storage.



Sources: Thomas Covert, Michael Greenstone, and Christopher R. Knittel

THE WALL STREET JOURNAL

tric vehicles will inevitably displace the internal combustion engine (ICE). Last week, Bloomberg predicted electric cars would become "price competitive" in eight years without subsidies.

But such scenarios hinge not just on the cost of batteries but on the price of

oil and the efficiency of competing vehicles. Economists Thomas Covert, Michael Greenstone and Christopher Knittel, in an article for the Journal of Economic Perspectives, estimate that if batteries cost of \$270 per kWh, oil would have to cost more than \$300 a barrel in

2020 to make electric and gasoline equally attractive. If battery costs fall to \$100, as Tesla Founder Elon Musk has targeted, oil would have to average \$90.

That could happen. But optimists "overlook the compensating effect of incumbent technology," says Kevin Book, of ClearView Energy Partners, an advisory firm. He notes, for example, the spectacular decline in natural gas prices that fracking has made possible. And ICE efficiency typically rises 2% a year.

ClearView says that in an optimistic scenario, where battery costs fall 10% a year starting now and gasoline begins at \$5 a gallon, electric vehicles will be competitive in five years. If battery costs fall just 5% a year and gasoline starts at \$2.25, it will take more than 20.

This would still be a step forward for the climate, but by how much depends on other factors. Electric vehicles are meant to be recharged at night. Economists Joshua Graff Zivin, Matthew Kotchen and Erin Mansur note in a 2014 article in the Journal of Economic Behavior and Organization that night is when electricity is most likely to come from coal. They estimate electric vehicles account

for more carbon dioxide per mile than existing cars in the upper Midwest, where coal-fired plants are more prevalent, and more than comparable hybrids in most of the U.S.

Regulators further dilute carbon-reduction impact by giving manufacturers added credit for each electric car, when complying with average fuel efficiency standards.

These subsidies have clearly accomplished one goal: They've accelerated innovation when the private market had little incentive to invest. Yet they may not be the most efficient way to combat carbon emissions. A carbon tax, for example, would incentivize conservation and alternative fuels regardless of oil prices.

Since that's unlikely for now, Mr. Greenstone and Sam Ori, both of the University of Chicago's Energy Policy Institute, and Cass Sunstein, of Harvard University, suggest scrapping the current array of fuel efficiency standards and assigning manufacturers a tradable emissions cap for each vehicle, putting alternatives to electric cars on a level playing field. Just in case electric vehicles don't meet their heady expectations, the world should spread its bets.

Trump Is Urged to Avoid Steel Tariffs

By NICK TIMIRAO

Nearly every living former leader of the White House Council of Economic Advisers is urging President Donald Trump not to impose new steel-import curbs in the name of national security, in a letter sent to the White House on Wednesday.

The Trump administration has been examining the use of steel tariffs, duties or quotas under Section 232 of a 1962 trade law that gives presidents the power to block imports that are determined to threaten national security. The White House had been prepared to review options for implementing the law by the end of June, with action expected soon.

Signatories include every living former CEA leader except for Janet Yellen, who is chairwoman of the Federal Reserve and wasn't asked to participate. In the letter, some 15 economists who advised past presidents of both parties warn that tariffs "would likely do harm" to U.S. relations with major allies that are top sources of steel imports, including Canada, Brazil, South Korea and Mexico.

"The diplomatic costs might be worth it if the tariffs generated economic benefits. But they would not," the economists write. "Additional steel tariffs would actually damage the U.S. economy."

The letter also notes that the U.S. maintains more than 150 countervailing and anti-dumping duties on steel imports, including some as high as 266%.

The national-security justification for trade enforcement actions has been studied 26 times by previous administrations but invoked only twice.

The letter cites the emergency steel tariffs imposed by the George W. Bush administration in underscoring the economists' concerns. Those tariffs did little to boost manufacturing employment and raised costs for consumers and businesses, the economists said.

The signatories include every CEA chairman in that administration, including former Fed Chairman Ben Bernanke. Other signatories include Martin Feldstein, who was chairman of the CEA under President Ronald Reagan, and Alan Greenspan, who held the post for President Gerald Ford. It also includes Nobel laureate Joseph Stiglitz, an adviser to former President Bill Clinton.

Wildfires Scar West



MARIO JOSE SANCHEZ/ASSOCIATED PRESS

DEVASTATION: Evacuees returned to parts of California, including San Jose, hard hit by wildfires to assess the damage. Officials in Nevada and Arizona reported progress in fighting blazes there.

AMTRAK

New Segment Cut From Rail Upgrade

The Federal Railroad Administration on Wednesday released its final version of a \$153 billion plan to speed up service and improve reliability on Amtrak's busy Northeast Corridor, dropping a controversial plan to build a new rail segment through Connecticut and Rhode Island.

The federal agency said its plan will shave off 45 minutes of travel time for Amtrak riders between New York and Boston and 35 minutes from Washington, D.C., to New York. The project for the nation's busiest passenger-rail segment—which stretches 457 miles from Washington to Boston—still needs funding from Congress.

The plan previously included a proposal to build a straighter route that would run for 35 miles between Old Saybrook, Conn., and Kenyon, R.I. Residents and some elected officials objected, saying it would cut through private properties, farms, historic districts and sensitive wetlands.

The opponents to the plan wanted the federal agency to focus on making improvements to the existing 53-mile track in their area.

—Joseph De Avila

MICHIGAN

Kid Rock Hints at U.S. Senate Run

Musician Kid Rock hinted he may run for U.S. Senate in 2018, tweeting an official-looking website with a store of campaign paraphernalia and a slogan of "get in the Senate and try to get someone," a spinoff from one of his songs.

The singer doesn't appear to have registered a candidacy with the Federal Election Commission. Nor does his website contain details, including which state he would campaign in.

Kid Rock, whose given name is Robert James Ritchie, was born in Michigan. He supported Donald Trump's presidential campaign last year.

The musician's publicist Kirt Webster pointed to statements on social media and said, "more soon!"

Sen. Debbie Stabenow (D, Mich.) is up for re-election in 2018. She won re-election in 2012 by double digits.

—Natalie Andrews

RUSSIA

Democrats Push To Lock In Sanctions

House Democrats are increasing pressure on Republicans to

pass a bill punishing Russia for its alleged interference in the U.S. election by introducing their own sanctions bill matching one that the Senate already passed overwhelmingly.

Democrats introduced a bill on Wednesday that duplicates the text of a measure that passed with a bipartisan 98-2 vote in the Senate, House Minority Whip Steny Hoyer (D, Md.) said Wednesday.

The Senate bill has stalled in the House of Representatives over procedural issues. The legislation would impose new sanctions and make it tougher for President Donald Trump to lift sanctions on Russia by inserting a congressional review provision to prevent unilateral action by the White House.

The White House is lobbying against the Senate measure after objecting to the congressional oversight provision

—Natalie Andrews

CORRECTIONS & AMPLIFICATIONS

Americans had almost \$1.44 trillion in student loans outstanding at the end of the first quarter this year, a nearly \$100 billion increase from a year earlier. A U.S. News article Wednesday about student debt incorrectly said the increase was nearly \$100 million.

The last name of Ryan Lumb, an analyst at Green Street Advisors, was misspelled as Lamb in a Property Report article Wednesday about the self-storage industry.

The estimate for the price-earnings ratio of the S&P 500 index for the week ended July

7 was 18.56. The Markets Digest published in the Business & Finance section on Saturday, Monday and Tuesday incorrectly said the P/E estimate was 21.44 because of incorrect data from Birinyi Associates.

Building codes in the U.S. have mostly limited the use of metal composite panels with flammable cores to no higher than 40 feet, even if a building has a sprinkler system. In some editions Tuesday, a U.S. News article about the safety of a Baltimore Marriott hotel that has composite panels omitted the 40-foot guidelines.

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

A photo of a winter-wheat harvest appeared with a Business & Finance article on Tuesday about spring-wheat futures. The caption failed to note that the crop pictured wasn't the same wheat class as the one discussed in the article.

The JBL Charge 3 Bluetooth speaker doesn't float. An Off Duty article on July 1 about waterproof gadgets incorrectly said that it does. Also, a photo of the JBL Flip 4, a similar model, accompanied the article. The article incorrectly implied that the JBL Charge 3 was pictured.

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U.S. NEWS

U.S. Waterways Face Critical Juncture

Underfunded for years, the nation's network of dams and locks is at risk of failure

By KRIS MAHER

CHARLEROI, Pa.—More than a million tons of commodities normally pass through the lock on the Monongahela River here every month. But on a recent day, the steel gates that hold back the river didn't budge.

The 85-year-old structure is undergoing a long-delayed \$2.7 billion makeover, and the lock is closed to river traffic during the week. But it was bustling as crews worked to build a bigger lock chamber. Seven cranes stretched across its length as a diver slipped into the river to inspect an underwater wall.

"Progress is a good thing to see," said Paul Meiningen, the 68-year-old lockmaster in charge of the 24/7 operations at the Charleroi Locks and Dam.

The construction south of Pittsburgh is one of several major projects across the U.S. aimed at improving the nation's vital waterways network of dams and locks that enable more than \$70 billion worth of cargo to be shipped annually, according to the U.S. Army Corps of Engineers. An example of the looming threats from America's crumbling infrastructure, the often unseen system of more than 230 locks along 12,000 miles of river is at risk of failing in places from decades of underinvestment.

President Donald Trump has promised \$1 trillion worth of investments in infrastructure, but his proposed 2018 budget didn't include funding for the Lower Monongahela River Project in southwest Pennsylvania.

The project, which will upgrade locks near the towns of Charleroi and Braddock and remove a third lock in Elizabeth, is the second-highest priority for the Army Corps, behind another locks project

on the Ohio River near Cairo, Ill. The system of 23 locks spread over 200 miles of the Allegheny, Ohio and Monongahela rivers near Pittsburgh is among the oldest, largest and most fatigued of the nation's inland waterways system, according to the agency.

One Army Corps study shows that a failure of one of the two locks now being rebuilt would result in \$200 million in economic losses to the region, which covers parts of Pennsylvania, Ohio and West Virginia.

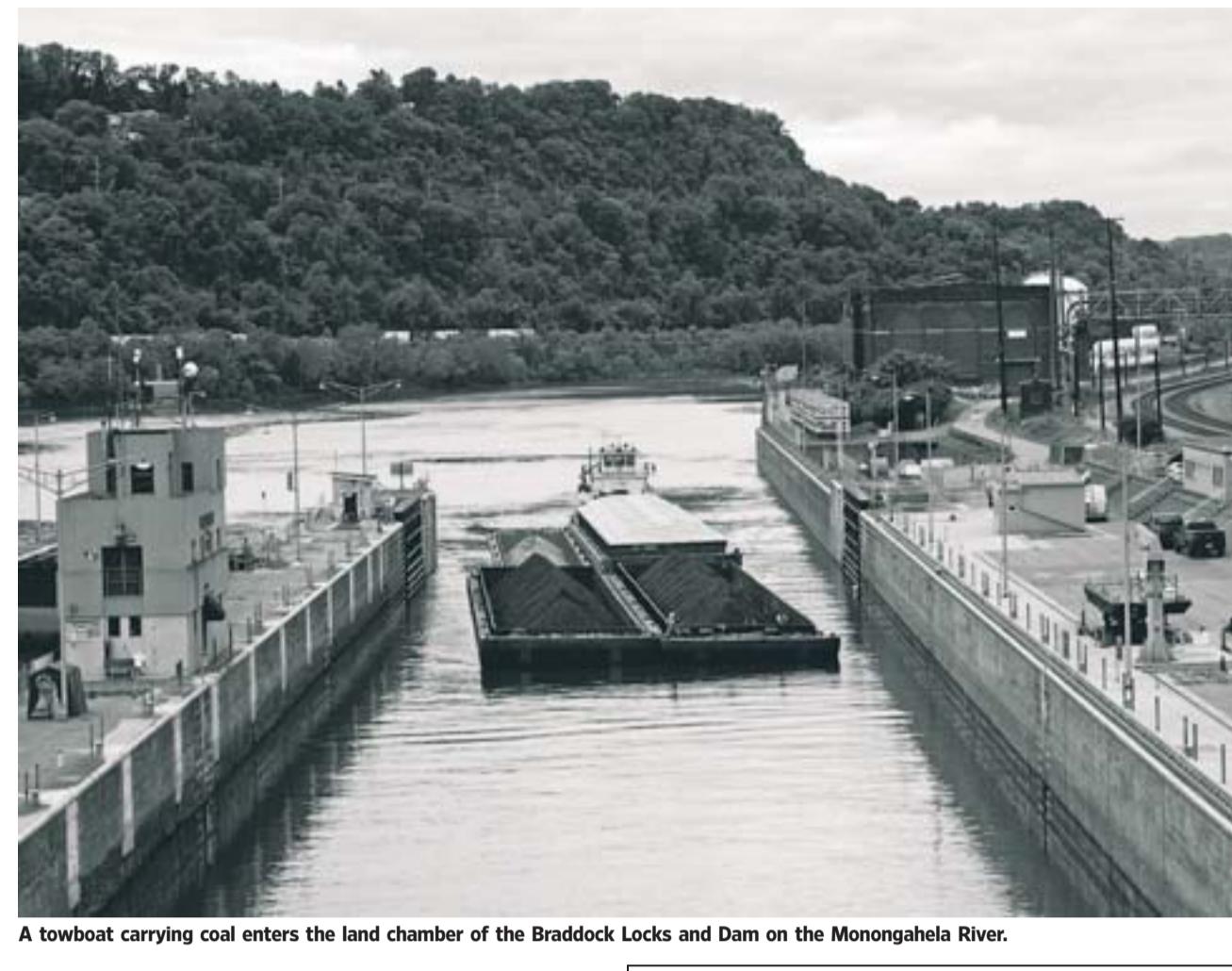
"People don't know they're getting a \$200 million benefit each year moving through these locks and dams on the Monongahela River," said U.S. Army Corps of Engineers project manager Stephen Fritz.

The Lower Mon Project is an example of upgrades needed across the nation, Mr. Fritz said. "The infrastructure has reached the end of its useful life," he said.

Begun in 1994, the project was originally scheduled to be completed by 2004. But it suffered delays as the Ohio River project used up most available federal funds. The Army Corps now says it will complete the project in a scaled-down form, providing 90% of the original plan's benefits by 2023 but with only one new lock instead of two, leaving many with mixed emotions.

"We're getting a brand-new, reliable lock, which is great. But it's disappointing that we're not getting both," said Mary Ann Bucci, executive director of the Port of Pittsburgh Commission.

"It will cut costs and improve the tonnage movement."



A towboat carrying coal enters the land chamber of the Braddock Locks and Dam on the Monongahela River.

this part of the river, allowing towing companies to haul nine barges throughout the region.

"You streamline the system," said Michael Somales, president of Murray American Transportation Inc., a subsidiary of Murray Energy Corp. "It will cut costs and improve the tonnage movement."

Overall, transporting commodities by barge costs about half of what it does to ship by rail and one-tenth of the cost of trucking goods.

On a recent day, a Murray American towboat named the John L. Rozance pushed nine barges loaded with 10,000 tons of coal 10 miles up the Monongahela River. Delivering the same 10,000 tons of coal

by land would have required 100 railcars or 443 trucks.

Brian Loring, port captain for Murray American, said that until recently he felt secure working on the river. But the drop in coal use and long delays in lock upgrades have caused him to worry.

"Years ago, when I started decking, I had a captain tell me all the time, 'Brian, this river is not going anywhere,'" he said. "It just makes you nervous."

ON THE RIVER



Experience 360° views of the Monongahela River, and more, at wsj.com/us

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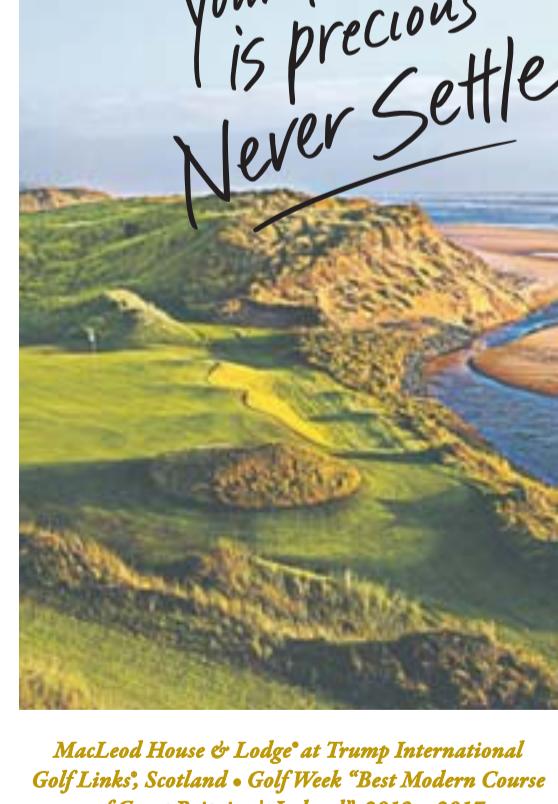
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Report Faults Prisons' Use of Solitary

By BETH REINHARD

Federal prisons keep some mentally ill inmates in solitary confinement for at least 22 hours a day, sometimes for years, according to an audit released Wednesday by the in-house watchdog for the Justice Department.

The report by the Office of the Inspector General comes 18 months after the Obama administration hailed new restrictions on the use of solitary confinement for federal inmates, including the mentally ill, as a model for state

correctional facilities. Former President Barack Obama barred solitary confinement for juveniles in federal prison and called the excessive or unnecessary isolation of adult inmates "an affront to our common humanity."

But federal-government investigators found a disconnect between policy and practice. Cumulative time in solitary confinement isn't tracked, and many mentally ill inmates are receiving insufficient or no treatment, the report said.

One prison psychologist described solitary confinement to

investigators this way: "You have no contact, you don't speak to anybody and it's a form of torture, on some level."

In response to a draft of the report, federal prison officials, without directly addressing the problems, agreed with all 15 of the audit's recommendations, which include clear policies for solitary confinement, tracking of cumulative time in single cells and careful monitoring of the mentally ill.

A number of states have reduced their use of solitary confinement. Colorado, Maine and Pennsylvania have barred the

practice for inmates with serious mental illness in their state prisons. In New Jersey, Republican Gov. Chris Christie vetoed legislation last year that would have allowed solitary confinement only as a last resort and not at all for the mentally ill.

State prisons house more than half of the 2.2 million people incarcerated in the U.S.

In one of the audit's most notable findings about federal inmates, only 3% receive regular treatment for mental illness, though a recent government study said the proportion with a history of mental-health problems is about 19%.

The Obama administration raised the standards for treating mentally ill inmates in 2014, but the number of inmates receiving regular mental-health treatment dropped more than 30% the following year, according to the audit. The government's investigators concluded that prisons downgraded inmates' mental-illness assessments because they didn't have the resources to meet the higher standards.

About 7% of the 154,082 inmates in government-run prisons are in restrictive housing. For 22 hours a day or more, they are separated from the general prison population—sometimes alone in a single cell—because of disciplinary problems or for their own protection. Most of the inmates currently in restrictive housing have been there 90 days or less.



An inmate in solitary confinement in a psychiatric hospital at a Los Angeles correctional facility.

'Bridgegate' Mastermind Gets Probation

By CORINNE RAMEY

NEWARK, N.J.—David Wildstein, the confessed architect of the George Washington Bridge lane closures that created a political scandal derailing Gov. Chris Christie's national ambitions, was sentenced Wednesday to three years probation.

In sentencing Mr. Wildstein, who pleaded guilty in 2015 to two felony counts, U.S. District Judge Susan Wigenton said his conduct was inexcusable, but noted he had cooperated extensively with federal prosecutors. "You, and only you, had at least made an attempt to rectify some of the wrongs, un-

like some of the others in this case," she said in federal court.

Judge Wigenton also ordered Mr. Wildstein to pay some \$24,000 in restitution and fines and serve 500 hours of community service.

The lane closures, which created five days of traffic jams in Fort Lee, N.J., were intended as political payback for a decision by the borough's Democratic mayor, Mark Sokolich, not to endorse Mr. Christie's re-election bid, Mr. Wildstein said during the trial last year.

Though Mr. Christie, a Republican, wasn't accused of wrongdoing, the ensuing political scandal and questions of

what he knew and when he knew it haunted his 2016 presidential campaign and potential opportunities with the Trump administration.

Mr. Wildstein, who confessed to devising the lane-closure plan, said in court on Wednesday that he deeply regretted his actions. "It was stupid and it was wrong," he said.

Federal prosecutors praised Mr. Wildstein's "extraordinary cooperation" and said the information he provided led to the convictions of Bridget Kelly, a former aide to Mr. Christie, and Bill Baroni, a former executive at the Port Authority of New York and New Jersey.

During the trial, Mr. Wildstein described brazen political behavior by himself and his co-conspirators, which he said was intended solely to support the career of the governor they called their "one constituent."

Both Ms. Kelly, who was sentenced to 18 months in prison, and Mr. Baroni, who was sentenced to two years, are appealing.

On Wednesday, a spokesman for Mr. Christie said: Mr. Wildstein "is a liar who admitted throughout his testimony that he fabricated evidence of a relationship with the governor that never existed to enhance people's perception of his power."

U.S. NEWS

Pressure Mounts On McConnell Over Health Law

Senate Majority Leader Mitch McConnell (R., Ky.) faced intensifying pressure Wednesday from President Donald Trump, conservative lawmakers and outside groups to push through a health-care overhaul next week, but he appeared to make little progress in bridging the deep divides imperiling his party's seven-year quest to topple the Affordable Care Act.

By Stephanie Armour,
Kristina Peterson
and Louise Radnofsky

Senate Republicans plan to unveil Thursday the text of their latest version of the bill to repeal most of the ACA and set up a new system based on steep cuts to Medicaid, expanded use of health-savings accounts, and tax credits to consumers who buy insurance on their own.

But GOP leaders continued to wrestle with internal squabbling among Senate Republicans that could leave the bill short of the 50 votes it needs to pass. Conservatives are signaling they would blame such a legislative collapse largely on Mr. McConnell, and Mr. Trump said Wednesday that he would not be pleased.

"I will be very angry about it and a lot of people will be very upset," Mr. Trump said in an interview on the Christian Broadcasting Network Wednesday. "Mitch has to pull it off."

Mr. McConnell has struggled for weeks to win back the 10 Senate Republicans who have publicly opposed the bill, but so far none of the defectors has flipped.

"As far as I can tell, the new bill is like the old bill, except it spends more money," said Sen. Rand Paul (R., Ky.). "I don't see anything in here remotely resembling repeal [of the ACA]. I've said for a long time now the bill needs to look more like repeal to get my vote."

The revised bill is expected to include \$45 billion more to combat the opioid epidemic, allow people to use funds from their health-savings accounts to pay insurance premiums, and retain the ACA's two taxes on high-income households.

Mr. McConnell responded Wednesday by warning Republicans about the perils of not coming together to pass a bill. "If we sit on our hands, families will continue to suffer," he said on the Senate floor.

He also delivered a warning to conservatives who are threatening to oppose the bill in a procedural vote next week, saying that would prevent lawmakers from considering any amendments, including those conservatives support.

Among Mr. McConnell's challenges is that conservative lawmakers have rallied around a contentious proposal from Sen. Ted Cruz (R., Texas) that would let insurers sell plans



A contentious proposal from Sen. Ted Cruz is among the issues complicating the GOP effort in the Senate to pass a health-care bill.

that don't comply with ACA regulations if they also sell policies that do.

Mr. Cruz says that will lower premiums for many Americans, but centrists say it would raise them for the elderly and less-healthy population.

GOP aides said it wasn't clear if a version of the bill text released Thursday would include Mr. Cruz's idea.

Mr. McConnell also faces resistance from centrists who had hoped to see changes to the bill's cuts to federal Medicaid funding. Republican lawmakers and aides said they were not expecting any such changes to be included in the version coming out Thursday.

Bipartisan Efforts Get More Attention

As Republicans face uncertain odds of passing their health bill next week, some lawmakers on Capitol Hill have begun discussing the possibility of striking a bipartisan compromise if the GOP effort should fail.

More than half a dozen Republican and Democratic senators are looking at ways to stabilize the Affordable Care Act's embattled marketplaces, for example. But any bipartisan push faces stiff challenges, notably

from some Republicans who view any tweaking of the ACA as an abdication of the party's seven-year pledge to uproot it.

While Democrats are determined to protect their party's signature health-care achievement, many Democratic lawmakers say they recognize that the law's marketplaces have failed to entice a sufficient number of young, healthy customers, leading to rising premiums and deductibles. And some Republicans say that should their party's effort fail, the markets would need to be bolstered.

A group of House Democrats on Wednesday offered a

proposal they pitched as the basis for bipartisan negotiations. It would create a \$15 billion annual reinsurance program and authorize permanent funding for the ACA's cost-sharing subsidies.

Sen. Lindsey Graham (R., S.C.) said on Tuesday he is working on an alternative health-care bill that he characterized as a potential breakthrough.

A spokesman for Mr. Graham said the senator hopes to unveil the measure Thursday with buy-in from a "cadre" of other GOP lawmakers and possibly some Democrats.

—Michelle Hackman

White House to Tap Senate Aide as CFTC Commissioner

By GABRIEL T. RUBIN
AND ANDREW ACKERMAN

WASHINGTON—The White House is expected to nominate Russ Behnam, a Senate Democratic aide, to be a commissioner on the Commodity Futures Trading Commission as early as this week, people familiar with the matter said.

Mr. Behnam serves as an aide to Sen. Debbie Stabenow (D., Mich.). She is the top Democrat on the Senate Agriculture Committee, which has

jurisdiction over the CFTC. Mr. Behnam didn't respond to requests for comment. The White House declined to comment.

The CFTC currently has just two members—acting Chairman J. Christopher Giancarlo and Democratic Commissioner Sharon Bowen. Mr. Giancarlo's nomination to be permanent chairman passed the Senate Agriculture Committee by a 16-5 vote in June, though the full Senate has yet to vote on his approval. Ms. Bowen re-

cently announced her intent to step down in the coming months, citing her desire for a full slate of new commissioners as one of the reasons for her decision.

Ms. Bowen said her departure date was partly contingent upon nomination proceedings, and said she could step down even earlier if it would "inspire" the White House and Senate Republicans to "confirm" four nominees as soon as possible.

Two other Republicans have

been nominated as commissioners: Dawn Stump, a former derivatives lobbyist and former staffer on the Senate Agriculture Committee, and Brian Quintenz, a former House aide.

Nominations to the CFTC typically move through the Senate in Republican-Democratic pairing to preserve bipartisanship. Senate Agriculture Committee Chairman Pat Roberts (R., Kan.) told reporters in June that he wanted to put forward a full slate of nomi-

nees at once, preferably before Congress's August recess.

"We're going to have to shake the tree at the White House to get the other nominees forward. If we can do that right after the July break...that would be very helpful," Mr. Roberts said at the time, referring to the July 4 recess.

Republican administrations typically defer to Democratic leadership in the Senate when deciding how to fill Democratic regulatory vacancies.

Filling the open seats is crucial for Mr. Giancarlo to advance an ambitious agenda that includes easing the agency's swaps-trading requirements that he says have sent trading business overseas, as well as other major rule-making efforts.

The commission has continued work on less contentious issues, such as a plan to foster innovation in financial technology and an initiative to simplify compliance with existing rules.

FBI

Continued from Page One
there's only one right way to do this job, and that is with strict independence, by the book, playing it straight...without fear, without favoritism and, certainly, without regard to any partisan political influence," Mr. Wray said.

Pressed on how he would respond if the president issued an unlawful or unethical order, Mr. Wray said, "First, I would try to talk him out of it. And if that failed, I would resign."

Accompanied by his wife and children, Mr. Wray appeared to win bipartisan support as he provided measured opinions on topics ranging from terrorism and torture to encryption and the Russian probe. The Senate is expected to take up his nomination before its recess on Aug. 12, and confirmation appears likely.

The smooth hearing was unusual for such a high-profile nominee during a political period that Mr. Wray conceded is among the most contentious in U.S. history. The hearing's lack of partisan rancor highlighted in part the fact that Mr. Trump, after a somewhat tumultuous search process, selected an experienced prosecutor to lead the FBI—a more traditional choice than some other candidates. Mr. Wray was an assistant U.S. attorney and served in top Justice Department posts from 2001 through 2005, and since leaving the department he has been a top partner at the law firm King & Spalding in Atlanta.

He also benefited from not being saddled with spearheading the politically charged investigation into Moscow's campaign meddling. That inquiry has now been taken over by Special Counsel Robert Mueller, who was appointed soon after Mr. Comey's firing.



Christopher Wray testified that as FBI director he would work independently of the White House.

Mr. Wray worked with Mr. Mueller in various top Justice Department posts and said he would provide the special counsel whatever resources he needs for his probe. Speaking highly of Mr. Mueller's character, Mr. Wray said he didn't believe the special counsel was on a "witch hunt," a term Mr. Trump has used to characterize the Russia inquiry.

Mr. Trump has said the probe into Russian interference was on his mind when he dismissed Mr. Comey, and the former FBI director testified before Congress that he felt the president was pressuring him to drop an investigation into former national security adviser Michael Flynn, something Mr. Trump has denied.

The hearing came as Washington continued to digest new revelations about the Trump campaign's contacts with Russia last year. The president's eldest son, Donald Trump Jr., released emails Tuesday that showed he attended a meeting last June to discuss allegedly incriminating

information about Democrat Hillary Clinton, which was being offered as part of what was described as the Russian government's support for his father's candidacy. Donald Trump Jr. said no such information was provided.

Mr. Wray said he hadn't had time to read news accounts of the emails, but he agreed with

'No one asked me for any kind of loyalty oath. I sure as heck didn't offer one.'

the suggestion of Sen. Lindsey Graham (R., S.C.) that campaign officials should call the FBI if they are contacted by a foreign government seeking to hurt an opponent. "Any threat or effort to interfere with our election, from any nation state or nonstate actor, is the kind of thing the FBI would want to know," he said.

Sen. Patrick Leahy (D., Vt.) asked Mr. Wray whether anyone from the White House had pressed him for his loyalty. Mr. Comey testified last month before Congress that Mr. Trump had sought such a pledge from him, an assertion the president has dismissed.

"No one asked me for any kind of loyalty oath," Mr. Wray said. "I sure as heck didn't offer one."

Senators of both parties expressed support for his nomination and his answers on difficult topics. Sen. Committee Chairman Chuck Grassley (R., Iowa) said it is "vitally important for the FBI director to be independent" and that "in reviewing his record, I've seen Mr. Wray's commitment to independence."

Sen. Dianne Feinstein (D., Calif.), who led a Senate probe into the Central Intelligence Agency's use of enhanced interrogation techniques, praised Mr. Wray's testimony that in his view, "torture is wrong, unacceptable, illegal and ineffective."

Fight Over Nominees Heats Up in Senate

By BRENT KENDALL
AND NATALIE ANDREWS

WASHINGTON—A congressional battle over President Donald Trump's nominations for a range of influential positions is escalating and becoming more acrimonious, creating additional uncertainty over when some notable government vacancies might be filled.

Mr. Trump has been slower than recent presidents to roll out nominees. But for an array of people the president has selected, Senate Democrats are using procedural tactics to slow the confirmation process to a crawl—at least in part to object to the lack of open hearings on health-care legislation, Democratic leaders say.

More than 30 nominees are sitting on the sidelines while they await a final Senate confirmation vote. They include several picks for the Justice and Treasury departments, as well as new commissioners for a federal energy regulator that has been unable to conduct official business because of vacancies.

If the current pattern holds, many of these people may not be confirmed for their jobs before the Senate takes a break in mid-August. Senate Minority Leader Chuck Schumer (D., N.Y.) in most circumstances has been invoking Senate procedures to require up to 30 hours of debate per nominee, an amount of Senate floor time that means lawmakers can't confirm more than a handful of nominees each week.

The minority party often waives a requirement for lengthy debate, but Democrats are generally declining to do so. In response to GOP complaints, they cite what they call Republican obstructionism under President Barack Obama,

including Republicans' refusal to hold a hearing or vote on Mr. Obama's Supreme Court nominee, Merrick Garland.

In the current environment, even noncontroversial nominees can take up several days of Senate time. For example, the Senate spent much of the first part of the week considering the nomination of David Nye to be a federal judge in Idaho. Mr. Nye was originally nominated by Mr. Obama and Mr. Trump renominated him.

Senators took a procedural vote Monday on Mr. Nye, but he wasn't confirmed until Wednesday afternoon, on a 100-0 vote.

Raw feelings on both sides of the aisle erupted this week. Republicans accused Democrats of unprecedented obstruction.

White House legislative affairs director Marc Short on Monday accused Mr. Schumer of being an irresponsible champion of the "resist" movement.

On the Senate floor Wednesday, Majority Leader Mitch McConnell (R., Ky.) said Democrats were "bound and determined to impede the president from making appointments, and they're willing to go to increasingly absurd lengths to further that goal."

Democrats dismiss such characterizations given what they see as unprecedented Republican tactics toward Mr. Obama's nominees.

Democrats also note that Mr. Trump has yet to name people for hundreds of vacancies and say there have been paperwork problems with a number of people he has chosen.

"Our Republican friends, when they're worried about the slow pace of nominations, ought to look in the mirror," Mr. Schumer said on the Senate floor on Tuesday.

U.S. NEWS

Trump Speaks in Son's Defense

BY MICHAEL C. BENDER
AND PETER NICHOLAS

President Donald Trump on Wednesday sought to refute allegations that the Russian government tried to help his presidential campaign and damage that of Hillary Clinton, arguing that his policies run counter to the Kremlin's interests.

"There are many things that I do that are the exact opposite" of what Russian President Vladimir Putin would want, Mr. Trump said in a television interview. "So what I keep hearing about that he [Mr. Putin] would have rather had Trump, I think—probably not."

The comments to the Christian Broadcasting Network came a day after the president's son Donald Trump Jr. released documents showing he accepted a meeting to discuss an alleged Russian government offer of help damaging Mrs. Clinton's presidential campaign. Donald Trump Jr. said the meeting was a waste of time and nothing came of it. He and two other senior campaign aides—his brother-in-law Jared Kushner and Paul Manafort, then the campaign chairman—met with a Russian lawyer at Trump Tower in New York last June.

Mr. Trump told Reuters on Wednesday that he didn't know of the meeting at the time and only learned about it in recent days. The president also defended his son: "I think many people would have held that meeting," Mr. Trump said.

On Wednesday, Sen. Chuck Grassley, the Republican chairman of the Judiciary Committee, said he would be inviting Mr. Manafort to a hearing he is organizing on the issue of foreign lobbying and influence in the U.S. Mr. Grassley said Mr. Manafort's attendance at the meeting with the Russian lawyer would be a topic of conversation.

Earlier, President Trump, on Twitter, defended his son, praising an interview he did with Fox News. "He was open, transparent and innocent. This is the greatest Witch Hunt in political history. Sad."

In his comments to CBN, the President suggested that Mr. Putin would have preferred that Mrs. Clinton, a former secretary of state and the Democratic nominee, win the 2016 election. Mr. Trump alleged her stances on military and energy policy would have been more helpful to Moscow.

The president's first six months in office have been dominated by investigations into possible collusion between Trump campaign aides and Russia during the election.

The U.S. intelligence community has concluded that Russia interfered in the race, and was trying to tilt the election to favor Mr. Trump.

The Kremlin has denied meddling in the U.S. election, while Mr. Trump routinely dismisses the matter as a witch hunt and has suggested other countries besides Russia could have been behind the interference.

Surveillance From 2015 Revisited

BY SHANE HARRIS

WASHINGTON—Investigators are re-examining conversations detected by U.S. intelligence agencies in spring 2015 that captured Russian government officials discussing associates of Donald Trump, according to current and former U.S. officials, a move prompted by revelations that the president's eldest son met with a Russian lawyer last year.

In some cases, the Russians in the overheard conversations talked about meetings held outside the U.S. involving Russian government officials and Trump business associates or advisers, these people said.

Russian officials are routinely monitored by U.S. intelligence agencies and it wouldn't be unusual for them to discuss people who have business interests in Russia.

Mr. Trump held the 2013 Miss Universe pageant in Moscow, was a globally recognized celebrity and sold properties to Russians. The intelligence gathering wasn't aimed at Mr. Trump or people in his circle, and it isn't clear which Trump advisers or associates the Russians referred to, or whether they had any connection to his presidential aspirations.

The 2015 conversations were detected several months before Mr. Trump declared his candidacy for the White House. The conversations have been in investigators' possession for some time, but officials said the Donald Trump Jr. news this week prompted them to look at them again.



JEWEL SAMAD/AGENCE FRANCE PRESSE/GTY IMAGES

Donald Trump with Donald Trump Jr. in September. Investigators are re-examining reports of 2015 conversations in which Russian officials talked about meetings with Trump associates.

Now, in light of the release of emails Tuesday by the president's eldest son, describing a 2016 meeting with a Russian lawyer, investigators are going back to those early reports.

They are seeking new leads as they probe whether the Trump campaign colluded in what several U.S. intelligence agencies say was a Russian government-sponsored effort to meddle in the election to benefit Mr. Trump.

Mr. Trump has denied any collusion and called the probes a "witch hunt."

The meeting Donald Jr. ar-

ranged in June 2016—as his father was on the verge of clinching the Republican nomination—involved a Kremlin-connected lawyer to discuss allegedly incriminating information about Democratic candidate Hillary Clinton obtained by the Russian government.

Donald Jr. and the Russian lawyer said no information on Mrs. Clinton was disclosed in the meeting. But the emails offer the first clear public evidence that senior officials in Mr. Trump's camp were open to offers of assistance from

Russia in his quest for the presidency.

In the spring of 2016, U.S. intelligence officials' suspicions about Russian meddling in the election grew after their counterparts in Europe warned that Russian money might be flowing into the presidential election, according to officials with knowledge of the warning. It remains unknown if or whether those funds were funneled to a particular campaign or to others to spend it on behalf of candidates.

In June 2016, officials at the Democratic National Committee revealed that their computer networks had been penetrated by hackers, whom the FBI and intelligence agencies later determined worked for the Russian intelligence services. Emails taken in those incursions subsequently were published by WikiLeaks, and in October, the site released emails that had been stolen from Mrs. Clinton's campaign chairman, John Podesta.

At that point, intelligence officials had little doubt that the Russian government was attempting to interfere in the election. By the end of 2016, they concluded publicly that the Russian hacking campaign was meant to undermine Mrs. Clinton and help Mr. Trump.

Now, the Federal Bureau of Investigation and several congressional committees are probing Mr. Trump's ties to Russia over the years, as is special counsel Robert Mueller.

House GOP Renews Push for Border Wall

BY LAURA MECKLER AND KRISTINA PETERSON

WASHINGTON—House Republicans will try again to provide money for President Donald Trump's promised border wall with Mexico, but the project faces the same stiff resistance from Democrats as it always has and prospects remain doubtful.

House Republicans are including \$1.6 billion to construct a physical barrier along the southwest border as part of the Homeland Security spending bill for the fiscal year 2018. The proposal, released this week, sets up a new round of battle on the issue after lawmakers balked at funding the wall's construction in a spending bill that passed Congress in early May.

This spending is popular with many Republicans but faces a high hurdle in the Senate, where Democratic votes will be needed. Democratic Party leaders have been clear they oppose paying for the construction of a physical wall, which Mr. Trump as a candidate promised would be funded by Mexico.

Anticipating that funding will eventually come through, the Department of Homeland Security said it would soon choose four to eight designs from among proposals submitted earlier this year and would build prototypes in San Diego by September.

Mr. Trump has voiced support for a design with solar panels on it, but the acting deputy commissioner of the Customs and Border Protection agency, Ronald Vitiello, said the president's view



The House proposal calls for \$1.6 billion to fund construction of about 74 miles of new or replacement barriers along the U.S. border.

"hasn't impacted the planning."

The proposed \$1.6 billion for next year would pay for a total of about 74 miles of new or replacement barriers, for an average cost of about \$21 million a mile. That includes 32 miles of new border wall and 28 miles of a new levee wall in the Rio Grande Valley in Texas, and 14 miles of replacement secondary fencing in San Diego.

"These miles will help con-

nnect existing segments of wall ...and fill critical gaps," Mr. Vitiello told reporters last week.

House Republicans said this week they were ready to push again for the funding.

"One of the principal issues that drove the last four elections was the promise to secure our borders, and the wall is an important part of that promise," Rep. Tom McClintock (R., Calif.) said Wednesday.

The House budget bill also

includes increased funding for deportation of people in the U.S. illegally, including money for nearly 4,700 additional detention beds, for 1,000 more Immigration and Customs Enforcement officers and 500 new Border Patrol agents.

Immigrant advocates oppose these ideas, but congressional Democrats have been particularly vocal about the border wall. That sets up a shutdown fight this fall when the government's current

funding expires on Oct. 1.

In late June, Senate Democratic leaders sent a letter to Senate GOP leaders urging them to exclude funding for a "very expensive, ineffective new wall along the southern border with Mexico."

Some Republicans are also opposed or neutral, with those representing the areas along the border among the skeptics. But conservatives said it was important to try to push the funding through.

BANKS

Continued from Page One

depositors, but a number of psychological and technological factors make rising rates different this time. A decade of near-zero rates, more competition from online firms, less customer loyalty and new capital rules are among the factors making preparations more difficult.

"We've never really seen this movie before," Marianne Lake, chief financial officer of J.P. Morgan Chase & Co., told investors recently.

Banks don't want to raise deposit rates until they have to. Though they tend to raise certain loan rates as soon as the Fed makes a move, they prefer to let deposit rates lag, bolstering profits.

And when they do raise rates, it is often because competition has forced them. "Nobody wants to be first," said Greg Carmichael, chief executive of Fifth Third Bancorp. "But nobody wants to lose deposits."

Banks haven't been under much pressure to raise deposit rates concurrently. Bank of America is a case in point. Its cost for U.S. interest-bearing deposits in the first quarter was just 0.09%—unchanged from the prior quarter and the lowest among its peers.

Talking with analysts recently, finance chief Paul Donofrio said it seemed unlikely that customers would leave the bank to chase rates because many had their primary checking accounts there.

Officers at some banks believe it will take another one or two Fed rate increases before they have to start raising deposit rates. Others will start to demand higher deposit rates now that the Fed rate has crossed the visually important 1% threshold.

"The first Fed increase, people are like, 'Oh, it's still so small, who cares?'" said William H.W. Crawford IV, chief executive of United Financial Bancorp Inc., a community bank based in Glastonbury, Conn.

Given that, many customers have come to view banks in

In the Vault

Total deposits at U.S. commercial banks



Source: Federal Reserve

THE WALL STREET JOURNAL

Conn. "By the fourth or fifth increase, people care."

Or at least they used to care. A complicating factor is that depositors haven't thought of bank accounts as income-producing instruments in nearly a decade, thanks to the Fed's near-zero interest-rate policies.

Given that, many customers have come to view banks in

terms of the services they offer, such as mobile banking, rather than the rates they pay.

Another difference: Banks are awash in deposits. At the end of June, total deposits at U.S. commercial banks equaled \$11.72 trillion, only slightly below an all-time high reached in May, according to Fed data.

What's more, loan growth has slowed this year, so that the 4.7% average rate of deposit growth during the first half of 2017 was ahead of the 4.5% average rate of loan growth, Fed data show. Loans at U.S. commercial banks are equal to just 79% of total deposits, meaning even if banks saw some deposit outflows, many would still have plenty of room to keep lending.

Fitch Ratings analysts said in a recent report that they expect banks will be able to keep deposit rates low throughout 2017 even if the Fed raises rates again, and they won't meaningfully increase their rates until loan demand picks up.

Yet banks can't ignore de-

positors if they start to make moves. There are regulatory concerns, for example.

In certain tests related to a bank's liquid assets on hand, consumer deposits are more valuable than commercial deposits. That could prompt some banks to act quickly if customers get itchy.

Meanwhile, technology has made it much easier for depositors to quickly shift funds and to use multiple banks.

Andrew Bain doesn't think much of the rates at J.P. Morgan Chase & Co., which generally pays customers with savings accounts from 0.01% to 0.08%. But he likes the bank's QuickPay system, which lets him pay for his children's daycare easily and without a fee.

So Mr. Bain, who works in corporate finance in Portland, Ore., found a workaround. He keeps enough money at J.P. Morgan to pay some bills and spreads the rest between a credit union and an online bank, both of which pay him more than 1%.

A number of online-focused

banks, like Ally Financial Inc. and Synchrony Financial, are able to pay higher rates because they are less encumbered by brick-and-mortar expenses. An even-newer competitor, Goldman Sachs Group Inc., has been driving rates higher to draw deposits to its new consumer bank. It currently offers 1.2% interest on online savings accounts.

All those factors combined raise the prospect that when consumers do decide to move, banks may be forced to raise rates at a faster pace than investors might be expecting.

Nelson Bonilla is part of the threat. His savings account at Synchrony pays about 1.15% interest. But Mr. Bonilla, a software developer in San Francisco, is on the lookout for institutions that might pay more.

Though he has already moved his savings account twice in recent years, he said he is open to being wooed away a third time. "I wouldn't hesitate to switch again," Mr. Bonilla said.

WORLD NEWS

Brazilian Ex-President Convicted

Lula da Silva gets 9½ years for corruption, putting his legacy and re-election bid at risk

BY SAMANTHA PEARSON
AND LUCIANA MAGALHÃES

SÃO PAULO—Former President Luiz Inácio Lula da Silva, the front-runner for next year's presidential election, was sentenced to almost a decade in prison for corruption, dealing a heavy blow to his leftist Workers' Party and its chances of regaining control over Latin America's biggest country.

Sergio Moro, the crusading judge at the head of Brazil's vast Car Wash graft investigation, found Mr. da Silva guilty on Wednesday of corruption and money laundering, sentencing the 71-year-old to 9½ years in prison, according to a court document.

"The responsibility of a President of the Republic is enormous and, consequently, so is the guilt when he commits crimes," Mr. Moro ruled.

Under Brazilian law, Mr. da Silva can stay out of jail while he appeals. If he loses the appeal—a process that could take up to a year—he would be expected to go to prison and be barred from public office.

The conviction throws Brazilian politics into further turmoil, coming less than a year after the impeachment of former President Dilma Rousseff, who succeeded her mentor Mr. da Silva, for covering up the country's growing budget gap. The country's current president, Michel Temer, has been charged with corruption, too, and could also be ousted in coming weeks. The sprawling corruption probe known as Car Wash has also put scores of other leading politicians and captains of industry behind bars, and delayed the country's economic recovery.

The ruling is a remarkable turn of events for a man whom



Former President Luiz Inácio Lula da Silva arriving amid supporters at a court building in Curitiba, Brazil, for a hearing in May.

former President Barack Obama in 2009 hailed as "the most popular politician on earth." Mr. da Silva, who rose from a union activist to president on his fourth try, raised Brazil's profile both economically and

But a grinding recession—and then corruption allegations that tarnished him and much of his party—have throttled his legacy. Many of the companies he championed in office, such as construction firm Odebrecht, have admitted they paid hundreds of millions of dollars in bribes to secure contracts in Brazil and elsewhere.

"It's a terrible outcome for his legacy and not just for Lula the person," said Andrea Murta, a deputy director at the Atlantic Council, a think tank.

Mr. Moro ruled that Mr. da Silva received about \$700,000 from construction group OAS and laundered money by trying to hide his ownership of a luxury beachside apartment in São Paulo that the company built. Prosecutors had accused the former president of accepting

the apartment and its costly renovation in exchange for securing contracts with state-owned oil company Petrobras, or Petrobras, as part of the Car Wash scheme.

The former president has repeatedly denied any wrongdoing, saying he is the victim of a political witch-hunt. His lawyers rejected the verdict in a televised news conference late Wednesday. "The sentence is merely speculative...it disregards the evidence of his innocence," said defense lawyer Cristiano Zanin.

Wednesday's ruling, the highest-profile sentence yet in the Car Wash case, is the first verdict to emerge from five graft-related charges against Mr. da Silva.

Brazil's currency and stocks extended their gains after the

sentence as traders bet the move would make it harder for Mr. da Silva and his Workers' Party to return to power.

"The market's view is that a candidacy by ex-President Lula could put many uncertainties regarding economic and fiscal policy on the horizon," said Pedro Paulo Silveira, an economist at Nova Futura brokerage in São Paulo.

Despite being accused by prosecutors of masterminding Brazil's multibillion-dollar bribery-and-kickback scheme, Mr. da Silva still ranks as the country's most popular politician.

The Workers' Party has said it has no "Plan B" for winning in 2018 other than with Mr. da Silva as candidate.

—Jeffrey T. Lewis
and Paul Kiernan
contributed to this article.

The conviction of the popular politician throws Brazil politics into further turmoil.

diplomatically. His government secured both the Olympics and soccer's World Cup, and embarked on a state lending spree that helped Brazil's largest companies take on their global rivals.



Results May Vary

Can the GOP force a health-care bill through the Senate?

Senate Republicans are still working to find a way to modify and replace the current Affordable Care Act. Get critical analysis of what new legislation could mean for patients, insurers and the health-care industry as a whole.

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WORLD NEWS

Canada Lifts Key Rate as View Brightens

By PAUL VIEIRA

OTTAWA—In the surest signal yet that the Canadian economy has turned a corner after the oil-price shock, the Bank of Canada on Wednesday raised its policy rate by a quarter percentage point, to 0.75%, its first increase in seven years.

Bank of Canada Gov. Stephen Poloz said rock-bottom rates are no longer necessary amid the bank's expectations of slightly stronger economic growth this year and next, at 2.8% and 2% respectively, than previously forecast.

The improving economy has soaked up unused labor and production capacity at a "significant" pace, the bank said, and a string of improving indicators measuring employment,

exports and business-investment intentions suggest the time has come for a rate rise.

"The most important thing here is the economy clearly no longer needs as much stimulus as we have been giving it," Mr. Poloz said at a news conference in Ottawa. "The accumulation of evidence, and the growth in our confidence that the economy is on a solid trajectory, should be good news for everyone."

Mr. Poloz added a rate rise would also "reinforce efforts" among Canadian authorities to take some steam out of the housing market. (See related article on page B11.)

Frothy pockets in the Toronto and Vancouver real-estate markets pose a top vulnerability to financial stability, the Bank of Canada and others have warned.

The Bank of Canada is now the second central bank in the Group of Seven leading nations, after the Federal Reserve, to raise rates in response to stronger economic activity.

Signals from the Bank of England and European Central Bank indicate they, too, are considering the withdrawal of the extraordinary stimulus put in place to help their economies recover and adjust following the 2008-09 financial crisis.

Canada's economy is a top performer among the G-7, leading the pack in first-quarter growth, with a 3.7% annualized gain. The Bank of Canada now forecasts 3% growth in the second quarter before activity moderates in the second half.

"And so the tide begins to turn," said Douglas Porter, chief economist at BMO Capital Markets, on the central bank's move. "The initial indications are that the bank fully expects to follow through with another rate hike."

His firm expects the Bank of Canada's policy rate to hit 1.5% by the end of the year.

As the Bank of Canada delivered its first rate increase since 2010, Fed Chairwoman Janet Yellen was testifying on Capitol Hill. She told lawmakers she expects consumer prices will allow the central bank to keep gradually raising interest rates.

She added the Fed would alter its plans if weak inflation proved more persistent. Stocks and government bonds rallied on the news.

At his news conference, Mr. Poloz played down concerns over low inflation, which in May was 1.3%, or well below the Bank of Canada's 2% target. The bank said this was largely due to temporary factors, related to the cost of energy and automobiles.

He said the Bank of Canada's job is to target "future" inflation. Its forecast has price increases returning close to 2% by mid-2018, as temporary factors fade and the price of food picks up steam.

Because it can take 18 to 24 months before low rates can influence inflation, "reacting only to the latest inflation data would be akin to driving while looking in the rear view mirror," he said.

—David George-Cosh contributed to this article

Heading Higher

Bank of Canada raises policy rate for first time in seven years.



Source: Bank of Canada
THE WALL STREET JOURNAL.

Germany Raises Hurdles to Bids By Foreign Firms

By ANDREA THOMAS

BERLIN—Germany is putting up barriers to protect its technology from Chinese suitors.

The government adopted new legislation Wednesday that will make it easier for it to veto takeovers of strategically important companies, a move that effectively—though not nominally—targets China's attempt to acquire key technology.

The new rules will apply mainly to targets in the defense sector and developers of critical software powering financial and telecommunications services, public transport or power grids.

Under the new rules, Berlin will be allowed to impose reporting obligations on investors and request longer review periods for deals.

"We remain one of the most open economies in the world, but we also watch out for fair competition. We owe this to our companies," said Economics Minister Brigitte Zypries as she outlined the plan.

China is the main concern. Last year, Chinese firms, often backed by government money, bought German competitors at a rate of one a week, a push an-

alysts believe reflects the Chinese government's plans to dominate advanced manufacturing by 2025.

"German companies are certainly a flashpoint because it's all about high-tech industries and China catching up," said Jan Gaspers, researcher at the Mercator Institute for China Studies in Berlin.

"[Germany] is a natural target," he said.

Overall, the number of German companies under Chinese control rose to 270 in 2014 from 153 in 2009, according to the most recent German government statistics available.

Chinese investments in Germany reached \$10.8 billion in 2016, from \$500 million in 2015, while total investment in Europe was \$97.8 billion, more than three times the level of 2015, according to data provider Dealogic. Figures available so far for 2017 suggest waning appetite, with the value of acquisitions in Germany reaching \$2.6 billion and \$31.7 billion in Europe, according to the firm.

◆ Apple eases its control over Chinese customers' data..... B3

Tillerson Speaks With Saudi King, but No Qatar Breakthrough Emerges



SHUTTLE DIPLOMACY: U.S. Secretary of State Rex Tillerson, left, met with Saudi King Salman, right, in Jeddah on Wednesday, but talks with the monarch and officials from other anti-Qatar countries have so far failed to settle the entrenched Middle East dispute.

U.S. STATE DEPARTMENT/ASSOCIATED PRESS

Trump to Meet With Macron in Paris

By REBECCA BALLHAUS
AND WILLIAM HOROBIN

PARIS—President Donald Trump was set to arrive in Paris Thursday morning for a whirlwind visit amid a political storm at home over revelations that his son welcomed incriminating information on Democrat Hillary Clinton he was told came from the Russian government.

French President Emmanuel Macron is set to treat Mr. Trump to fine dining and a front-row seat at the Bastille Day military parade, as the leaders seek to overcome deep divisions on trade and climate change. Both men see advantage in bolstering ties, as Mr. Macron looks to raise his global profile and Mr. Trump finds himself increasingly isolated abroad.

White House officials described the French leader in flattering terms before the

trip, while French officials say the two men don't hesitate to discuss their disagreements.

"It's a working relationship that has been extremely open, frank and direct, but also constructive," a French official said.

Mr. Trump's relationship-building efforts abroad this week are unlikely to break through in Washington, which has been rocked by the revelation that Donald Trump Jr. in June 2016 met with a Russian lawyer after being promised damaging information about Mrs. Clinton that he was told had been gathered as part of a Russian government effort to boost Mr. Trump.

Congressional investigators have called for the younger Mr. Trump to testify, as a special counsel appointed by the Justice Department this year probes whether the president's campaign associates colluded with Moscow to interfere in the 2016 U.S. election.

The two leaders are set to hold a news conference Thursday evening, likely the first time Mr. Trump will face questions in such a forum about his son's meeting with the Russian lawyer. The president is also set to speak in public for the first time since he returned from the Group of 20 summit in Hamburg on Saturday. On Wednesday morning, he tweeted in defense of his son and his administration, saying: "The W.H. is functioning perfectly."

After touching down Thursday morning, Mr. Trump is set to hold a working lunch with Gen. Joe Dunford, the chairman of the Joint Chiefs of Staff, and other U.S. military officials, while Mr. Macron meets separately with German Chancellor Angela Merkel.

After military ceremonies with Mr. Macron to commemorate the 100th anniversary of the U.S. entry into World War

I, Messrs. Trump and Macron will hold a bilateral meeting, scheduled to last an hour and 15 minutes, that is expected to focus on Syria and counterterrorism efforts.

The White House said the two leaders could also discuss trade and climate change—two areas where they have opposing views. Mr. Macron has been a vocal critic of Mr. Trump's decision to pull out of the Paris Accord and launched a website to lure researchers and investors in renewable energy to emigrate to France. The initiative, dubbed "Make Our Planet Great Again," parodies Mr. Trump's campaign slogan.

French officials say they won't make any changes to the Paris Accord to suit U.S. demands, but will continue to push for Mr. Trump to rejoin.

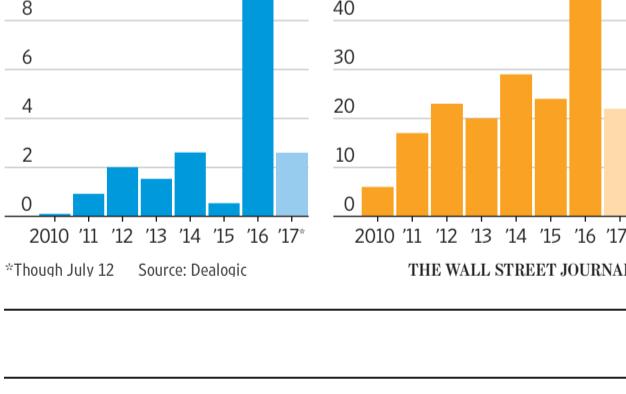
◆ Investors jump aboard a chugging euro..... B13

Grabbing German Know-How

China's shopping spree took off in the past year...

China's acquisitions in Germany

\$12 billion



*Though July 12 Source: Dealogic

...with an average of one company per week changing hands

Number of deals

60

50

40

30

20

10

0

0

2010

'11

'12

'13

'14

'15

'16

'17*

THE WALL STREET JOURNAL.

DRUG

Continued from Page One
bill to the health-care system.

That isn't the case for drugs for common ailments. If approved for use in patients recovering from a heart attack, ACZ885's potential market would skyrocket: Around 615,000 people in the U.S. survive a heart attack every year, according to the American Heart Association. Novartis estimates that the drug, which helps patients who also suffer from inflammation in the arteries, could be suitable in around 40% of those cases.

Novartis's revenue from ACZ885, at \$283 million last year, is modest. Adding heart-attack patients, even at a vastly reduced price, could bring that figure to as much as \$3.6 billion, according to Jef-feries analysts. Credit Suisse analysts put the peak sales estimate at closer to \$1.5 billion.

On paper, that seems an obvious gamble to take. But because of the way drugs are priced in the U.S., Novartis would have to drop the price it

charges rare-disease patients as well, giving up most of that revenue stream. Once the price of a drug is cut, raising it again would likely damage the company's reputation. Ilaris is sold in more than 70 countries.

And there is no guarantee that the drug will be widely used if the price comes down. Cardiologists can be reluctant to put their patients—especially those already on several medications—onto new drugs. That problem has dogged several recently launched heart drugs, including Novartis's own Entresto.

Another potential problem: ACZ885 is already late in its patent cycle, making it uncertain whether Novartis could

really get all that additional business if it dropped the price now. ACZ885 is to lose patent protection in 2024, at which point lower-cost versions can enter the market and sharply erode sales.

To keep a lid on costs, insurers also tend to impose higher copays or complex approval processes for patients to get access to new, pricey drugs for common conditions. One example: insurance plans are curbing access to a new class of choles-

terol-lowering drugs that cost around \$14,500 a year before rebates or discounts, in a bid to keep all but patients with the most serious cases on pennies-per-day statins, which work well for the majority of people.

ACZ885—dosed every three months at its current pricing before rebates and discounts—would cost around \$64,000 a year for heart-attack patients. Novartis may need to drop the price by more than 90% "to get close to palatable," according to Craig Granowitz, chief medical officer at Amarin Corp., a small pharmaceutical company that focuses on cardiovascular medicine.

Ilaris came on the market in 2009 to treat a group of rare inherited conditions called cryopyrin-associated periodic syndromes, whose sufferers have a genetic mutation that causes the body to overproduce an inflammatory protein.

Novartis has since won further approvals for a few other rare diseases, but hasn't altered the price as a result.

In 2011, Novartis hoped a positive result in a gout trial would sharply broaden the market for Ilaris, but the drug

was denied approval by the U.S. Food and Drug Administration over safety concerns in these patients. At the time, the company's then-head of drug development Trevor Mundel acknowledged if the drug had won approval in gout, it would have had to lower the price to win coverage from insurers.

Novartis's spokesman said the trial that tested ACZ885 in

heart-attack patients "wasn't designed with any commercial implications in mind at the time" and that its main purpose was to discover whether inflammation played a role in cardiovascular disease.

A big hurdle is how U.S. drugs are priced for federal programs. Drugmakers must sell drugs to Medicaid at the lowest price they have offered to any private insurer. And they must sell their medicines to Medicare at the average selling price, plus 4%, Mr. Schoonveld said.

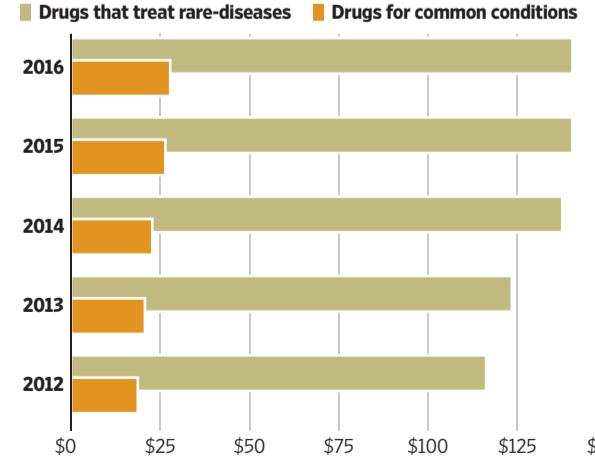
Under current legislation, there is no room to vary the price of a drug based on its application. The lowest price would have to apply to all uses, Mr. Schoonveld said. Such dynamics could discourage companies from investigating whether an approved rare-disease drug could have a much broader application, he said.

"Should you keep [a rare-disease drug] off the market because it treats common disease?" said Marlene Haffner, a consultant and former director of orphan-drug development at the FDA. "Everybody would say no."

FROM PAGE ONE

Scarcity Value

Drugs for rare diseases command much higher prices than those for more common ailments.



Setting a single price that holds for every use of the drug discourages companies from exploring new disease areas for their medicines, said Ed Schoonveld, a pricing and market-access expert at consultancy ZS Associates.

Novartis's spokesman said the trial that tested ACZ885 in

IN DEPTH

CHINA

Continued from Page One

make sure there are no big swings in the property market," says Ni Pengfei, a housing expert at the Chinese Academy of Social Sciences, a government think tank.

The desperate home buyers are exposing Beijing's inability to control a housing market it has been relying on for economic growth. A decade ago, the real-estate sector, including construction and home furnishings, accounted for about 10% of China's gross domestic product, according to Moody's Investors Service. It now accounts for almost one-third, reflecting both a dearth of other investment options and the pattering out of manufacturing growth.

With Chinese companies staggering under debt levels pegged by UBS analysts 164% of GDP, the government has turned to less-indebted corners of the economy to keep growth going.

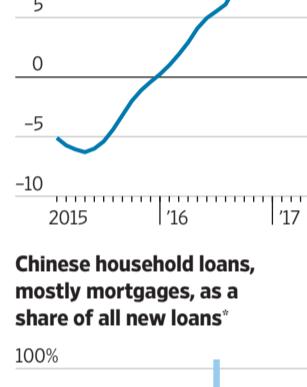


Apartment buildings in the city of Shenzhen, China, where the average home sells for 44 times average annual household income.

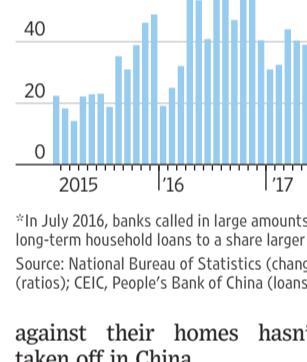
China's Property Frenzy

As home prices have surged in China, buyers have had to borrow more, pushing up household-debt levels.

Year-over-year change in home prices in 70 Chinese cities



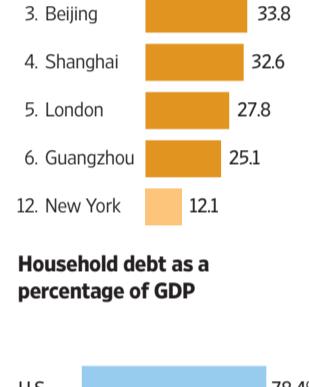
Chinese household loans, mostly mortgages, as a share of all new loans*



*In July 2016, banks called in large amounts of corporate debt, propelling long-term household loans to a share larger than 100% of net new loans.

Source: National Bureau of Statistics (change in prices); Chinese Academy of Social Sciences (ratios); CEIC, People's Bank of China (loans); THE WALL STREET JOURNAL.

Home-price-to-income ratio in 2016



Household debt as a percentage of GDP



zhou, a polluted industrial hub at the edge of the Gobi Desert, the housing market is booming. Homes for sale are packed with would-be buyers, including small-business owners who think property is a better bet than shops or factories.

Cracking down

Prices started to take off in September, just as Beijing took its first steps to crack down. By December, Lanzhou's prices were 27% higher than a year earlier. In April, Lanzhou also cracked down with higher minimum down payments and limits on second- and third-home purchases in the city center.

"The housing market in Lanzhou is too heated," Gao Jia, deputy director of Lanzhou's housing authority, said in an April interview as he leaned back in his chair and smoked a cigarette. "The government needs to make sure the housing price is going up steadily, not too fast."

In Foshan, a city of seven million dotted with factories making refrigerators, television sets and other household appliances, home prices have risen 18% in recent months as buyers poured in after property controls were imposed in Guangzhou.

Mr. Pei, the advertising executive, was one of many Guangzhou buyers signing contracts in April for apartments at the Master Work high-rise overlooking the Desheng River in Foshan. He intended to pay for a three-bedroom apartment partly with the proceeds from a studio in Guangzhou he and his wife had just sold. He said it had gone up in price more than 50-fold since they bought it 13 years ago.

"No other investment is as profitable as property," he said. "Stocks are too risky."

One middle-aged homemaker was so eager to snag an apart-

ment in a Foshan shopping-mall complex that she asked a broker to wait in line all night when sales started in May. "Foshan to Guangzhou is just like Brooklyn to Manhattan," she said. All 300 apartments sold out within 60 hours, according to the broker, Huang Kai.

The boom in Foshan hasn't cooled things off in Guangzhou. Sales agents for the Blessed and Colorful Apartments, a new high-rise complex in the southern part of the city, say that prices for the units have risen nearly 30% since they went on sale in January.

Zhang Ying, a 27-year-old web designer who makes about \$1,500 a month, bought a two-bedroom apartment in another

Policies intended to restrict home purchases prompt buyers to pile in.

development in January. Her mortgage payments amount to nearly 80% of her income. "I'm essentially a slave to this property now," she says.

In some smaller cities, the property boom is helping to reduce a housing glut produced by earlier overbuilding—a goal of the central government.

Tangshan, a heavy-manufacturing city two hours east of Beijing, had benefited from home buyers driven out by new restrictions in the capital. Many buyers appear to be investors who don't intend to move to the city or work there. In late May, Tangshan authorities raised down-payment requirements to discourage speculative buying.

The housing rally in Lanzhou, the central China industrial city, also was driven by buyers from outside the area,

according to Mr. Gao, the housing official.

Zhang Xiaoqi, a retired accountant, was eyeing an apartment for her son. She was prepared to put 20% down on an apartment early this year. When Lanzhou raised the down-payment requirement to 30%, she gave up. "Originally I could afford a home, but now it's too much," she said. She contends prices shot up because of the restrictions.

At the end of last year, real estate accounted for 68.8% of China's household assets, Moody's says. In the U.S., it is less than 60%.

Mr. Ni, the housing expert at the Chinese Academy of Social Sciences, estimates that as much as 50% of China's home sales today are for investment, a situation that worries the Communist Party leadership.

"Houses are for living in, not for speculation," President Xi Jinping said at a December meeting that set main economic goals for 2017.

Nonetheless, the government has stopped short of imposing a property tax, which would discourage people from buying homes as an investment and leaving them empty by making it more expensive to own a home. Beijing has shown little political will to force a move that would raise costs for already stretched homeowners.

Releasing more land for development is another way to take the pressure out of the property bubble. But local governments rely on land sales to fund their programs and have an incentive to sit on land as it appreciates and sell it to developers in small increments.

The new rules instituted to tame the housing frenzy in Beijing and Shanghai have angered some buyers and sellers.

On a recent weekend, hundreds of people marched down a busy Shanghai shopping street to air grievances over deals thrown into jeopardy. Videos circulating on social media showed protesters clashing with police and some being dragged away—unrest highly unwelcome in a year of a major Communist Party conclave expected to consolidate Mr. Xi's power. Shanghai promptly eased some restrictions on developers and buyers.

Among protesters in front of Beijing's municipal hall one weekend in May was Cui Meng, a 30-year-old saleswoman. Earlier this year, she put up her apartment for sale and borrowed 900,000 yuan (about \$132,000) from a friend to buy a three-bedroom home costing 4 million yuan.

After new property restrictions took effect in March, the buyer of her apartment pulled out and asked for the deposit back. Without the ability to sell her old home, Ms. Cui found herself unable to repay her friend and facing a mortgage bill representing about 65% of her and her husband's combined income. "It's too much pressure," she said.

—Pei Li contributed to this article

TRIP

Continued from Page One

square in Wilton, Iowa.

He was at work one Monday afternoon in June when two men and a woman dressed in jeans and button-down shirts entered the store, which is a regular stop on Iowa's presidential campaign circuit.

The three said they were

from California on a business trip on their way to Chicago and asked Mr. McKasson for a tour of the store and its museum of the history of Wilton, population 2,800. They didn't tell their names, he said, and he thought it impolite to ask.

Four days later, the same

three people returned to the

candy store, and one of his new

customers revealed their true

mission: "Mark Zuckerberg will be here in five minutes."

A started Mr. McKasson, 54, asked: "What do I need to do?" he recalled, and was told: "Nothing."

Mr. Zuckerberg walked through the red-and-white store door. He ordered a \$5.75 chocolate malt. An assistant paid the world's fifth-richest man's tab with a debit card. The tech titan chatted with the cashier and Mr. McKasson.

Members of Mr. Zuckerberg's team plan his visits with secrecy, but there are rare instances of the Facebook CEO's cover being blown. The result: chaos.

When someone let slip he'd

be at the Kusanya Café on Chicago's South Side, Renée Banks,

a barista, said she had to fetch extra chairs for the 100 people who showed up.

Amy Dudley, a spokeswoman for the Chan Zuckerberg Initiative LLC, an entity formed in 2015 by Mr. Zuckerberg and his wife, Priscilla Chan, which is helping to arrange the CEO's tour, said the design of "these visits is to have the most honest and candid interactions and discussions as possible, without the additional attention that's likely to come as a result of word getting out ahead of time."

For nearly a decade, Mr. Zuckerberg has started every year with a "personal challenge." In 2009, this meant wearing a tie every day. Another year, he swore only to eat meat that he had personally slaughtered. "I just killed a pig and a goat," he boasted in a Facebook post in 2011.

Chinese government data

show that prices across 70 Chi-

nese cities were 9.7% higher in

May than a year earlier, a larger year-over-year increase than the 9.3% last September, when the current round of housing controls were instituted.

In some big cities, the frenzy has moderated somewhat. In Shanghai, the year-over-year increase was 31% in May, compared with 50% last September. Beijing posted a 22% annual increase in May, down from 33% in April.

Halfway across China in Lan-

zhou, a polluted industrial hub at the edge of the Gobi Desert, the housing market is booming. Homes for sale are packed with would-be buyers, including small-business owners who think property is a better bet than shops or factories.

Prices started to take off in September, just as Beijing took its first steps to crack down. By December, Lanzhou's prices were 27% higher than a year earlier. In April, Lanzhou also cracked down with higher minimum down payments and limits on second- and third-home purchases in the city center.

"The boom in Foshan hasn't cooled things off in Guangzhou. Sales agents for the Blessed and Colorful Apartments, a new high-rise complex in the southern part of the city, say that prices for the units have risen nearly 30% since they went on sale in January.

Zhang Ying, a 27-year-old web designer who makes about \$1,500 a month, bought a two-bedroom apartment in another

development in January. Her mortgage payments amount to nearly 80% of her income. "I'm essentially a slave to this property now," she says.

In some smaller cities, the property boom is helping to reduce a housing glut produced by earlier overbuilding—a goal of the central government.

Tangshan, a heavy-manufacturing city two hours east of Beijing, had benefited from home buyers driven out by new restrictions in the capital. Many buyers appear to be investors who don't intend to move to the city or work there. In late May, Tangshan authorities raised down-payment requirements to discourage speculative buying.

The housing rally in Lanzhou, the central China industrial city, also was driven by buyers from outside the area,

against their homes hasn't taken off in China.

In Shenzhen, the average home sells for 44 times average annual household income, compared with around 12 times for homes in New York City, according to an analysis by Zhang Ming, a senior economist at the Chinese Academy of Social Sciences.

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TAYLOR TOWNS

Mark Zuckerberg volunteering in Dallas during the first stop on his American tour in January.

Mr. Kragthorpe said he was told that Mr. Zuckerberg would like to visit with hockey families a couple of days later. He said Mr. Eby told him not to tell anyone the Facebook CEO was coming and asked that people at the rink not photograph the CEO.

The Zuckerberg entourage, which can be up to eight people, includes a professional photographer. His aides said there is no prohibition against others snapping pictures.

In Newton Falls, Ohio, Dan Moore got a call in April from Jimmy Dahman, a former presidential campaign field organizer for Hillary Clinton in Ohio. Mr. Dahman doesn't work for Mr. Zuckerberg's organization, but was acting as a volunteer, he said.

He wanted to know if Mr. Moore, a Democratic union steelworker who was a volunteer for Donald Trump

GREATER NEW YORK

Extra Buses During Penn Work Curtailed

MTA cancels temporary Grand Central service as disrupted LIRR riders tend to stick with trains

By PAUL BERGER

Faced with a lack of demand, the Metropolitan Transportation Authority is scaling back its temporary bus service for Long Island Rail Road commuters disrupted by this summer's track work at New York Penn Station.

The MTA, which runs the LIRR, hasn't released ridership numbers for the buses. But three days into what New York Gov. Andrew Cuomo warned would be "a summer of hell," the LIRR's train services have mostly operated smoothly.

The LIRR canceled or diverted more than two dozen rush-hour trains through Sept. 1 while Amtrak repairs tracks and switches at Penn Station following three derailments there this year.

Most disrupted commuters have switched to surviving services carrying additional railcars into Penn Station and to diverted trains to stations in Brooklyn and Queens where



A shuttle bus scheduled for Long Island outside of Grand Central.

they transfer to the subway.

That has left many empty seats on the 200 buses that the MTA organized from park-and-rides scattered across Long Island.

On Thursday the MTA will close three park-and-rides, at North Hempstead Beach Park, Roosevelt Field Mall and Bethpage State Park, reducing the number of parking spaces to 1,100 from 2,500. Five park-and-rides for buses will remain open.

Mitchell Pally, chairman of

the MTA's Long Island Rail Road committee, said he wasn't surprised that bus ridership has been low because the train is generally quicker.

But he added that with capacity into Penn Station reduced by 20% for the next eight weeks, the buses as well as a ferry service to Manhattan from Glen Cove add a level of redundancy if there are problems on the rails.

"If we get a thunderstorm and mother nature decides she doesn't like the LIRR today

and she is going to knock out a signal, the ferry may look like a good alternate or maybe the bus," Mr. Pally said.

Ridership on the ferry service has also been low. About 100 seats on the 150-seat ferry were empty on the 4:30 p.m. boat from Wall Street to Glen Cove on Tuesday.

The MTA said its scaled-down bus service will operate only to and from Penn Station. The authority has canceled its bus service to Grand Central Terminal.

On Monday morning, The Wall Street Journal found one bus at the terminal that had driven from Long Island with no passengers and a second bus that had one passenger.

That same morning, the MTA saw train ridership into Penn Station drop by 7,000 to 79,000 passengers.

At the same time, MTA figures show, LIRR train ridership to outer-borough stations with transfers to the subway rose. Passenger numbers to Hunterspoint Avenue in Queens increased by 90% to 6,000 commuters. Ridership to Atlantic Terminal in Brooklyn rose 67% to 18,000 commuters.

—Mariana Alfaro contributed to this article.

Cuomo Takes Hit On Transit Woes

Governor gets poor marks for handling of subways and commuter trains in new poll

start of the year, and has spent the past several weeks defending his handling of the MTA.

In a television interview with NY1 this week, he called criticisms that the MTA has been improperly funded "baloney."

"New York state has put more money in the capital plan for the MTA than ever before," he said.

He recently appointed former MTA Chairman Joseph Lhota to help oversee the MTA again amid a surge in delays, derailments and other problems.

Democratic Sens. Chuck Schumer and Kirsten Gillibrand also saw their approval ratings fall since a March Quinnipiac poll. Mr. Schumer's fell from 58% in March to 55% in the new poll; Ms. Gillibrand's went from 56% to 50%.

President Donald Trump, a Republican, stayed flat between March and Wednesday, at a 29% approval rating in the predominantly Democratic New York, but his disapproval rating fell from 67% to 63%.

The poll of 1,137 voters was conducted from July 5 to July 10 and has a margin of error of plus or minus 3.9 percentage points.

—Mike Vilensky

Newark Recalls Deadly Riots 50 Years Later

By KATE KING
AND MARIA ARMENTAL

NEWARK—James Smith on Wednesday stood outside the police precinct where, 50 years earlier, police officers dragged his bloodied older brother inside, sparking five days of violence that killed 26 people in New Jersey's largest city.

John William Smith's treatment by police—he was hospitalized and later testified that officers punched, kicked and hit him with their batons and the butts of their guns—was the catalyst for the 1967 Newark riots.

A year later, the damage to private property was tallied at more than \$10 million.

The elder Mr. Smith, who appeared on the cover of Time magazine in the summer of 1967, became one of the symbols of racial troubles that gripped many U.S. cities around the country that year. But he swiftly fell out of the public eye and died in 2002.

"My brother should be more than a footnote," said James Smith. "I could almost put my fist in his ribs from where he received that toe of the boot from one of the cops."

John William Smith, or J.W. to his family, was a 40-year-old jazz trumpet player and cab driver in Newark when he was pulled over on 15th Avenue in the Central Ward neighborhood on July 12, 1967.

After onlookers saw police dragging him, bloodied, into a nearby precinct, a false rumor began circulating that he had been beaten to death. Violence and looting broke out shortly afterward.

Lawrence Hamm, founder and head of the People's Organization for Progress, a Newark-based advocacy group, was 12-years-old at the time and watched the fighting from his second-story porch.

"John Smith comes to symbolize how black people have been brutalized," Mr. Hamm said. "He is a symbol of oppressed people, but he is also a symbol of resistance."

His brother, James Smith, grew up in segregated North Carolina and was 11 years old



Demonstrators faced armed soldiers in Newark on July 17, 1967, during riots that erupted after police mistreatment of a cab driver.



James Smith attended the memorial march Wednesday in Newark. His brother is seen on the Time magazine cover behind him.

at the time of the riots. After he was contacted by a reporter, he decided to attend Wednesday's memorial march in Newark, which commemorated the uprising and its victims.

James Smith brought his brother's obituary in his backpack and carried a trumpet

because he planned to later head to rehearsal in Manhattan. He spotted a marcher with a poster that displayed the Time magazine cover that featured J.W. Smith. "I don't know what he would have thought of all this," he said. "I think he would have liked it."

The brothers occasionally discussed J.W. Smith's beating

J.W. Smith was the eldest of seven children, and a 28-year gap separated him from James. He served with the U.S. Army during World War II and the Korean War before moving north to pursue a career in jazz in New York and New Jersey.

James Smith said he remembered his brother visiting the family home in Salisbury, N.C., dressed in zoot suits and with an Afro-hair style. "He was always sharp...and, oh my god, the ladies just be going crazy, man," he said.

J.W. Smith would bring his trumpet during his visits, and hearing him play sparked James Smith's passion for jazz.

Years later, it was James who moved north, settling in Brooklyn, and making a career playing music with the likes of two-time Grammy Award-winning reggae band Burning Spear and Big Band-era style Harlem Renaissance Orchestra.

The brothers occasionally

discussed J.W. Smith's beating

by the police, which James Smith said left his sibling disillusioned with law enforcement and the judicial system. "It shook him up in the head. It was a raw deal and he became bitter," he said.

J.W. Smith moved back to North Carolina shortly after the riots and continued his jazz career, while performing odd jobs. "It was kind of difficult because white folks down there were afraid. Everybody knew his story," James Smith said.

J.W. Smith would bring his trumpet during his visits, and hearing him play sparked James Smith's passion for jazz.

Years later, it was James who moved north, settling in Brooklyn, and making a career playing music with the likes of two-time Grammy Award-winning reggae band Burning Spear and Big Band-era style Harlem Renaissance Orchestra.

The brothers occasionally

discussed J.W. Smith's beating

New Plan Hatched To Rid City Of Rats

By MARIANA ALFARO

Mayor Bill de Blasio declared war on rats Wednesday, unveiling a \$32 million initiative that he said would sharply reduce the population of rodents roaming the city.

Much of the plan is focused on limiting rats' food supply by using so-called smart trash cans in neighborhoods thought to have a high concentration of rodents. At \$7,000 each, the trash cans are expensive but worth the investment, city officials said.

The initiatives come months after a Bronx man died from an infection caused by a rare disease spread by rat urine.

"I don't know any New Yorker who likes rats," Mr. de Blasio said. "That doesn't matter what community you're in, everybody wants to get rid of rats."



City officials said they planned to cut the rat population by 70%.

Officials also intend to use dry ice to kill some rats, putting the ice into burrows where the rodents live. They said the technique had been used successfully in the city before.

The plan targets areas Mr. de Blasio said have the biggest rat problems in the city: the Lower East Side, Chinatown, the East Village, the Bronx's Grand Concourse area and the Bushwick and Bedford-Stuyvesant neighborhoods in Brooklyn.

—Mara Gay contributed to this article.

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GREATER NEW YORK

U.S. Backs New Jersey On Curbs For Anglers

BY KATE KING

New Jersey has won its month-long battle against a stricter fishing quota for summer flounder.

U.S. Secretary of Commerce Wilbur Ross approved New Jersey's rules for summer flounder fishing, which state environmental officials implemented earlier this year in defiance of a quota by the Atlantic States Marine Fisheries Commission, according to government officials. It marked the first time under the 1993 Atlantic Coastal Fisheries Cooperative Management Act that the U.S. secretary has ruled against the commission, which regulates fishing in state waters.

New Jersey environmental officials, who were informed of Mr. Ross's decision late Tuesday, said it was good news for the state's \$1.5 billion recreational fishing industry.

"New Jersey is fully committed to employing science and public education to conserve a species that is critical to the fishing culture and economy of the state," Bob Martin, commissioner of the New Jersey De-

Demand is strong and skyline is growing as new market forces reshape the 'seventh borough'

BY JOSH BARBANEL

Nine years after the last condominium craze faded away in Jersey City, condos are staging a comeback.

Two new tall condo projects with more than 670 apartments are launching sales this week.

The development 10 Provost Street, a 28-story tower, is rising on a new cobblestone public square. Park and Shore is a two-building development including a 38-story tower near the waterfront in the Newport Center neighborhood.

"The demand for high-quality condos in Jersey City is strong," said Henry L. Waller, vice president of Toll Brothers City Living, which is developing 10 Provost in Jersey City's Powerhouse Arts District.

"We have created a development that will represent the pinnacle of quality residential development in Jersey City," said Ning Yuan, president of China Construction America, which is developing Park and Shore through its investment arm, Strategic Capital. China Construction America is a subsidiary of **China State Construction Engineering Corp. Ltd.**, one of the world's largest investment and construction groups.

Even before the formal launch of a showroom this week, the building was showcased for buyers in China. Well over 20% of the apartments are in contract, according to Phillip Gesue, chief development officer of Strategic Capital.

When the condominium market collapsed in the wake of the 2008 financial crisis, it left Jersey City with a large excess of unsold apartments that took years to work



John Mandeville looks at what will be Provost Square in Jersey City, where a condo tower is being built.

through.

Thousands of apartments have since been added in Jersey City in tall apartment towers dotting the skyline across from lower Manhattan, but nearly all were rentals. In addition, developers have more than 8,000 rental units in the pipeline.

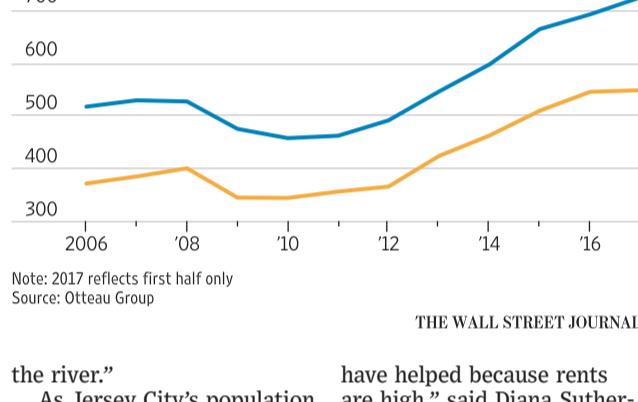
Brokers and analysts said the return of condo development reflects new market forces in a revitalized Jersey City, driven by high demand and rising prices. In Jersey City there is a 2.2-month supply of condominiums at the current sales pace, and in neighboring Hoboken there is a 1.7-month supply.

"Jersey City has arrived as the seventh borough, behind the other five and Hoboken," said Jeffrey Otteau, an appraiser and president of Otteau Group Inc. "It is now an appendage of Manhattan, and is experiencing a Brooklyn-like trend on the west side of

Going Up

Average condo price per square foot in Jersey City and Hoboken

■ Jersey City ■ Hoboken



Note: 2017 reflects first half only

Source: Otteau Group

PETER FOLEY FOR THE WALL STREET JOURNAL

thousands more renters coming in."

The first of a new wave of condos arrived last year with the opening of the Oakman, a 14-story, industrial-style condo building with 159 apartments, a block from 10 Provost Street.

Ms. Sutherland is now overseeing marketing of the long-delayed second phase of a condo development known as Gull's Cove in Paulus Hook in Jersey City. The first phase opened in 2008, but construction of the second phase with 107 units stalled before it was restarted last year.

Overall condo prices in Jersey City are far above 2008 levels, though they still lag behind those of Hoboken next door. A condo in Jersey City sold for an average of \$548 a square foot during the first half of 2017, or roughly \$438,000 for an 800-square-foot one-bedroom apartment.

The condo development at 10 Provost Street is the second stage of a planned three-building complex, including a 550-seat theater to be built behind the facade of an old warehouse.

Mr. Waller of Toll Brothers said the first building, known as The Morgan at Provost Square, opened with 417 rental units in 2015, when Toll Brothers and other developers were only doing rentals.

At one point, 10 Provost was going to be part rental and part condo, but with "so much pent-up demand," the developers switched back to all condos, he said.

Prices for the 242 apartments range from well under \$500,000 to more than \$1.3 million.

Park and Shore consists of two buildings with shared amenities. Prices for one-bedroom condos at both buildings start at \$640,000.

PROPERTY WATCH

QUEENS

Rental Mini City Nears Completion

The three huge glass apartment towers rising in Long Island City near the Ed Koch Queensboro Bridge will share a clubhouse and a 1.6-acre private park, creating a mini city of rental units with lavish amenities in the once-gritty industrial neighborhood.

The development, named Jackson Park, is moving toward completion, with the first of 1,800 market-rate apartments due to begin leasing in the fall.

The first tenants are due to move in before the end of the

year, said Erik Rose, managing director for residential development at Tishman Speyer, the developer. The towers will be 53, 44 and 42 stories tall.

The development is rising on nearly a full block of space along Queens Plaza South. The private park will include a grassy field, walkways, a children's play area and a dog run. Most amenities for the project would be located in a separate four-story building, with a rooftop pool, a basketball court and gym.

Jackson Park is across the street from the JACX, a commercial project being developed by Tishman Speyer, with two 26-story towers and 1.2 million square feet of office and retail

space. Tishman Speyer said more than 70% of the commercial space has been leased to fashion and tech companies.

—Josh Barbanel

MANHATTAN

Landlords Offer Deals to Renters

Manhattan renters preparing to sign an apartment lease might want to ask the landlord to cut a deal first.

Although the market usually tightens during the peak spring and summer seasons, landlords are offering more concessions even as rents remain high, market reports show.



TISHMAN SPEYER
A rendering of Jackson Park

from 22% in May, and represented the highest percentage for June since 2009, when 54% of signed leases included concessions.

The median Manhattan rent was \$3,500 a month, according to a report from Douglas Elliman Real Estate, up 1.6% from June 2016.

Renters have a lot more choices and are looking at more apartments before making a decision, said Hal D. Gavzie, executive manager of leasing at Douglas Elliman.

"This is a very good time for customers to be in the rental market," he said, adding that "landlords are also finding success in pricing apartments aggressively."

—Josh Barbanel

Uma Thurman Lands Lead Role on Broadway

BY CHARLES PASSY

Uma Thurman is Broadway bound.

The Oscar-nominated film star, whose credits include such pictures as "Pulp Fiction" and the "Kill Bill" series, will make her Broadway debut in "The Parisian Woman" on Nov. 30 at a theater to be announced, the show's publicist said Wednesday.

The play is by Beau Willimon, who is best known as the creator of the Netflix political drama "House of Cards." Mr. Willimon is a newcomer to Broadway as well.

Set in Washington, D.C., "The Parisian Woman" is billed as being steeped in politics. Ms. Thurman will portray Chloe, a character described in a press release as a "socialite armed with charm and wit" who is "coming to terms with politics, her past, her marriage and an uncertain future."

Ms. Thurman couldn't be reached for comment.

"The power of Uma on stage is unparalleled," said Tom Viertel, one of the show's producers. He declined to reveal the show's budget.

The production continues the trend of Broadway shows casting Hollywood names in lead roles.

The approach can pay off in a big way. But there have been instances where it has back-

fired. For example, a revival this past season of Tennessee Williams's "The Glass Menagerie" that starred Oscar winner Sally Field failed to garner strong ticket sales and closed ahead of schedule.

Still, expectations are high among Broadway observers because of Ms. Thurman and the "House of Cards" connections. "I think the combination would make it a rather big draw," said Christopher McKittrick, an editor with DailyActor.com, a website that covers film and theater news.

ANGELA WEISS/AGENCE FRANCE PRESSE/GETTY IMAGES



Hollywood star Uma Thurman

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LIFE & ARTS



HEALTH & WELLNESS

A Virtual Approach to Real Pain

For some patients, immersive experiences provide a measure of relief

CLOCKWISE FROM TOP: JON KRAUSE (ILLUSTRATION); CEDARS-SINAI; WALTER URIE; APPLIEDVR; STEPHANIE KLEINMAN/USC

BY LUCETTE LAGNADO

IN A LOS ANGELES hospital a short drive from Hollywood, some patients are tapping into virtual reality. But at Cedars-Sinai Medical Center, 3D technology is there not for entertainment but pain relief.

Patients in chronic or acute pain have put on special goggles and traveled virtually through Iceland's waterfalls and valleys, floated among dolphins or meditated beside an idyllic coastline.

Brennan Spiegel, a Cedars-Sinai researcher, says a virtual-reality experience can reduce pain by 24% or more, according to clinical trials he conducted in the past two years. VR eased different types of pain, from cancer to orthopedic injuries to abdominal discomfort.

An immersive virtual-reality experience can commandeer a patient's brain so it no longer focuses on pain, says Dr. Spiegel, a gastroenterologist and professor of medicine. "It doesn't work on everybody, but when it works, it really, really works."

At a time when doctors are scrambling to curb the use of addictive painkillers, he and others say VR could be an effective alternative or complementary treatment.

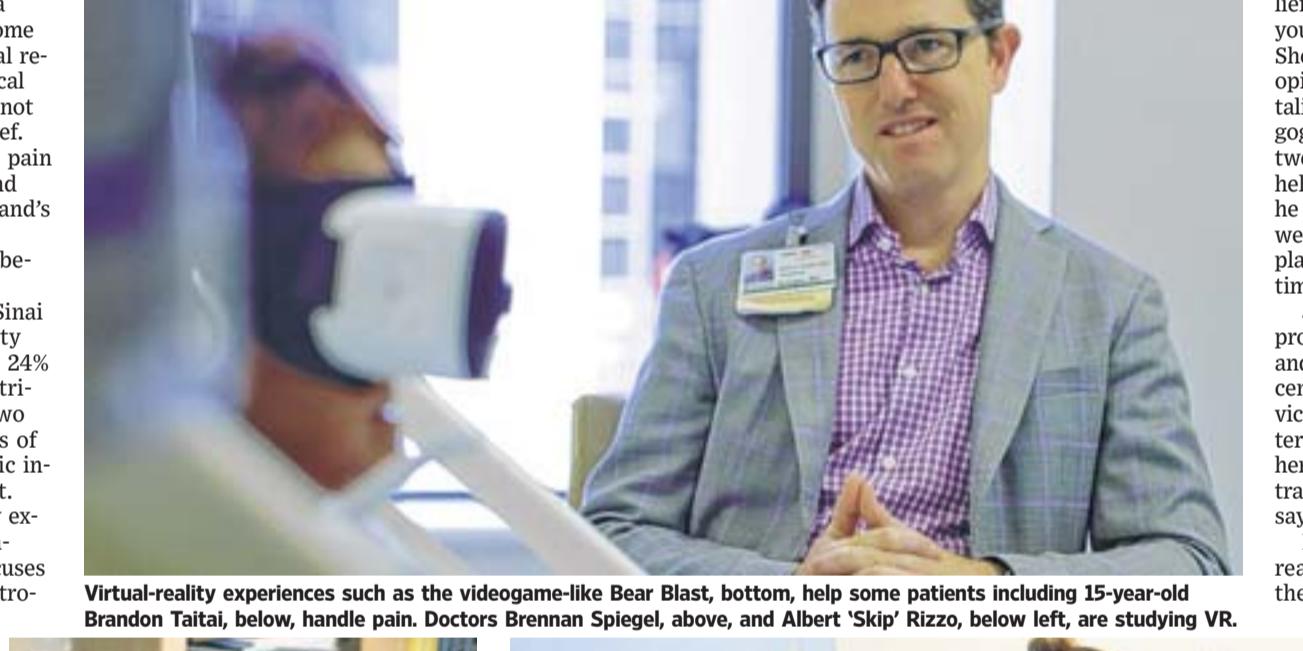
Virtual-reality technology engages a person in a 360-degree visual experience. It has been used in medical research for more than two decades, to treat trauma, anxiety and even burn pain. The fact that it can now be accessed with headsets and mobile phones is fueling hospitals' interest.

Researchers at the Children's Hospital Los Angeles and Boston Children's Hospital are using virtual reality in studies on pain and anxiety in youngsters and adolescents. NewYork-Presbyterian/Weill Cornell Medical Center in Manhattan recently launched a VR study on patients in its burn center.

AppliedVR, Inc., a private company headquartered in Los Angeles, says it is contributing and lending equipment or funding studies in four hospitals around the country to determine if virtual reality can ease pain and anxiety. The company also has sold virtual-reality equipment to about 100 hospitals. Chief Executive Matthew Stoudt says the firm has created or acquired a library of more than 20 experiences, as the VR scenarios are called.

Virtual reality holds promise in alleviating psychological and physical pain, says Albert "Skip" Rizzo, a psychologist who has run his own virtual-reality laboratory at the University of Southern California in Los Angeles since the 1990s.

"I don't think we have any illusions that you are going to have open-heart surgery and you are going to slap on the headset and do it without anesthesia," says Dr. Rizzo, a research professor in USC's psy-



Virtual-reality experiences such as the videogame-like Bear Blast, bottom, help some patients including 15-year-old Brandon Taitai, below, handle pain. Doctors Brennan Spiegel, above, and Albert 'Skip' Rizzo, below left, are studying VR.



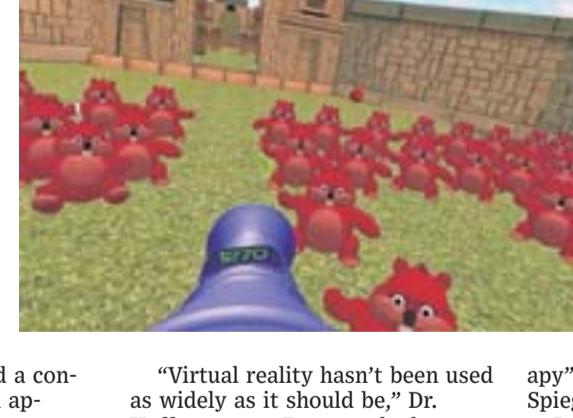
chiatry department.

But virtual reality can have "dramatic effects" on reducing pain, he says. Years back, it was hard even to get funding. "A lot of the agencies thought it was 'Star Trek,'" he recalls. But the landscape has changed dramatically in the past year or two, and he believes that "clinical virtual reality" will be used more broadly in patient care.

In 2015, Dr. Rizzo received a consulting fee of \$1,200 from appliedVR.

"It is Christmas time for virtual reality researchers," says Hunter Hoffman, a VR pioneer and research scientist at the University of Washington in Seattle, who has used virtual reality to help burn victims for the past 20 years.

Once upon a time, it was a costly research niche. "We used \$90,000 computers and the helmet weighed 8 pounds," Dr. Hoffman remembers. Yet it was effective, and he and a research partner, Dr. David Patterson, used it to ease the pain burn victims felt. They designed a VR experience known as SnowWorld which was "the antithesis of fire," and used colors such as white and blue.



"Virtual reality hasn't been used as widely as it should be," Dr. Hoffman says. But now, he believes, "we are at the transition phase between research and clinical practice."

At Cedars-Sinai, patients in Dr. Spiegel's trials used an \$800 kit consisting of a Samsung headset and a Galaxy phone to access VR "experiences." The gear was provided by appliedVR, in partnership with Samsung.

For some of the studies, the experiences included a tour of Iceland's terrain and a game called Bear Blast, where participants shoot balls at animated teddy bears.

A study published in March about a group of 50 Cedars-Sinai patients who were offered the vir-

has endured considerable pain related to Crohn's disease, took part in a trial last spring and found relief with virtual reality. "It distracts your mind completely," he says. Mr. Shearer, who says he was on the opioid drug Dilaudid while hospitalized, says he would reach for the goggles during rough stretches between doses of the painkiller. "It helps you get through the hump," he says. Playing Bear Blast was a welcome distraction. "Once, I played the game and forgot it was time for my pain medicine."

JoAnn Difede, a psychologist and professor at NewYork-Presbyterian and Weill-Cornell Medicine, recently began testing VR on burn victims having staples removed after surgery. AppliedVR is funding her pilot study. "Burn pain is extraordinarily difficult to control," says Dr. Difede, even using opiates.

Dr. Difede, who has used virtual reality to treat trauma victims of the 9/11 attack and in the military, believes in its potential.

At Children's Hospital Los Angeles, a trial led by Jeffrey Gold, a pediatric psychologist, offered patients a VR experience—playing Bear Blast—while they had their blood drawn. This simple procedure can be distressing for children who have complex diseases such as cancer. "They have been stuck numerous times and every needle poke is another trauma," Dr. Gold says. The study involved more than 100 patients ages 13 to 21, some of whom were offered VR, while others were given the

usual care. The trial was funded by appliedVR. Dr. Gold says he has been an unpaid scientific adviser to the company and is negotiating to acquire options in it.

Brandon Taitai has leukemia and has been a Children's Hospital patient since 2014. The 15-year-old says he isn't afraid of needles or having his blood drawn but enjoyed the VR experience. While playing Bear Blast he was "a lot more focused on the game" than on the blood test.

Boston Children's Hospital has been using virtual reality to help calm children before they receive medicine intravenously or undergo endoscopies or colonoscopies. Kate Donovan, the hospital's Innovation Technology Coordinator, says children like the goggles. "It is a new toy for them," Dr. Donovan says. While the headsets aren't intended for anyone under 13, Boston Children's has offered them to patients as young as 8 whose parents have consented. The hospital is investing in more headsets from appliedVR and wants to study if VR can reduce reliance on pain medicine.

To Dr. Spiegel of Cedars-Sinai one big advantage of virtual reality is that it has no side-effects other than possible dizziness. "The worst that happens is they [the patients] are entertained, but there is very little risk."

LIFE & ARTS



THE MIDDLE SEAT | By Scott McCartney

Hope for Faster Airport Security



TSA is testing CT scanners in Phoenix, top, and new types of bins in Denver, above. The hope is to speed up airport security lines and possibly eliminate longstanding rules like the carry-on ban on more than 3 ounces of a liquid.

TWO DIFFERENT airport-screening changes—one high-tech, one very low—show promise at speeding up security lines and improving accuracy at finding weapons.

The Transportation Security Administration, airports, airlines and manufacturers are gearing up for a major effort to replace X-ray machines at checkpoints with computed tomography scanners—CT scanners similar to what hospitals use. They can give a clean, 3-D look inside cluttered bags, which have become a big problem for TSA.

These machines could eliminate calls for cabin laptop bans because they can look inside electronics and find explosive material. They could someday do away with 3-ounce, quart bag restrictions on liquids, since they can measure the density of any liquid and determine if it's explosive. And they can boost the number of people screened at a checkpoint each hour, reducing lines.

"When and if we go to deploy these systems...the intent would be that laptops and liquids stay in" bags, says Steve Karoly, TSA acting assistant administrator.

At the other end of the technology spectrum, bins with an ID tag visible on an X-ray screen are being tested at select checkpoints in Denver, New York LaGuardia, Indianapolis and Ontario, Calif. It's as low-tech as you can get, but it's showing it can speed up screening, at least according to data collected by the manufacturer.

A metal plate with a three-character ID stencil is attached to a corner of a bin, reducing incidents where screeners end up with the wrong bag for a hand check and screening gets halted until the suspicious bag is found. Those mistakes are infrequent but disruptive.

Taken together, the two innovations show how years of research by manufacturers and TSA into ways to improve screening are finally starting to affect checkpoints.

In the past, many screening efforts failed, like shoe scanners, or had limited impact, like liquids scanners. Body scanners have been criticized as invasive. And past changes to reduce screening failures have led to long lines.

These innovations could ultimately disappoint, too. But offi-

cials say the CT machines in particular could be revolutionary. Airlines and airports are so excited about it they are willing to pay for machines themselves until TSA can get funding from Congress.

The technology has already been in TSA use for several years: It scans checked luggage in baggage sorting systems. But those machines were too big, too expensive—at about \$1 million each—and too slow to replace the 2,200 X-ray machines that scan hand baggage in the U.S.

A CT scanner rotates around the bag, taking visual X-ray slices from all angles to create a detailed three-

dimensional picture. Specific items can be isolated for close study. Software analyzes images for screeners and distinguishes between safe and dangerous materials.

Several manufacturers have come up with ways to shrink the machines, lower the cost and speed them up for checkpoint use. Machines have now been made small enough to fit into existing checkpoint screening lanes and light enough to not require reinforcement of floors. The cost has come down to about \$250,000.

TSA has certified two models for use and is close to signing off on two others. One, made by L3

Security and Detection Systems, is in use at Phoenix Sky Harbor International Airport Terminal 4. Another, made by Integrated Defense & Security Solutions, is being tested in Terminal E in Boston. American Airlines has struck a deal for the first eight Analogic machines to be used in American hubs in the U.S. and Europe.

Analogic expects to roll out machines in late summer or early fall.

One reason airlines are eager to see checkpoint screening improvements: baggage fees. Airlines collected \$4 billion in checked baggage fees in 2016, but the higher volume of carry-on bags from pas-

sengers trying to avoid fees has made screening more difficult. That's led to worries that the government might force airlines to roll back baggage fees to ease the screening strain.

The other possible screening change shows that sometimes simple can be pretty smart.

SecurityPoint Media, a St. Petersburg, Fla., company that provides bins with advertising inside to 38 airports for TSA checkpoints, saw an opportunity to solve a nagging problem: Sometimes it's hard for TSA screeners to identify the right bin.

Screeners working X-ray machines identify shapes and patterns in a bin to make sure they are sending the right one off for a hand check. Sometimes the screener doing the hand check ends up with the wrong bag, creating a scramble to find the suspicious one. The lane gets shut down and lines grow.

"We have access control issues that happen," TSA's Mr. Karoly says. "What this will do is guarantee that when you see it on the X-ray and it shows you A25, and you just pulled that bin that says A25 now you know that you've got the right bag."

TSA tested new bins in Denver, which has two main checkpoints in the heart of its terminal. The south checkpoint got the new bins. The north kept using existing bins.

Research sponsored by SecurityPoint showed a 21% increase in passengers screened per hour at the south checkpoint. Analysts attributed some of that to a redesigned bin with more surface area and lower sides. That shape encourages less stacking of items in a tray, making X-rays easier to read.

But most of the increase in passengers per hour resulted in an 83% drop in bad bag handoffs. The south checkpoint had just one bad-bag handoff in a two-month study period.

Similar results are showing up at other airports testing the bins, says Joe Ambrefe, SecurityPoint's chief executive.

TSA says it's too early to verify claims of speeding up lanes—it hasn't done a full test yet. The agency is also working on alternatives, such as systems that would automatically divert a bin with a possible threat.

FROM TOP: TRANSPORTATION SECURITY ADMINISTRATION; RYAN DAVID BROWN FOR THE WALL STREET JOURNAL

ART REVIEW

WHERE VIDEO MEETS ART HISTORY

BY A.J. GOLDMANN

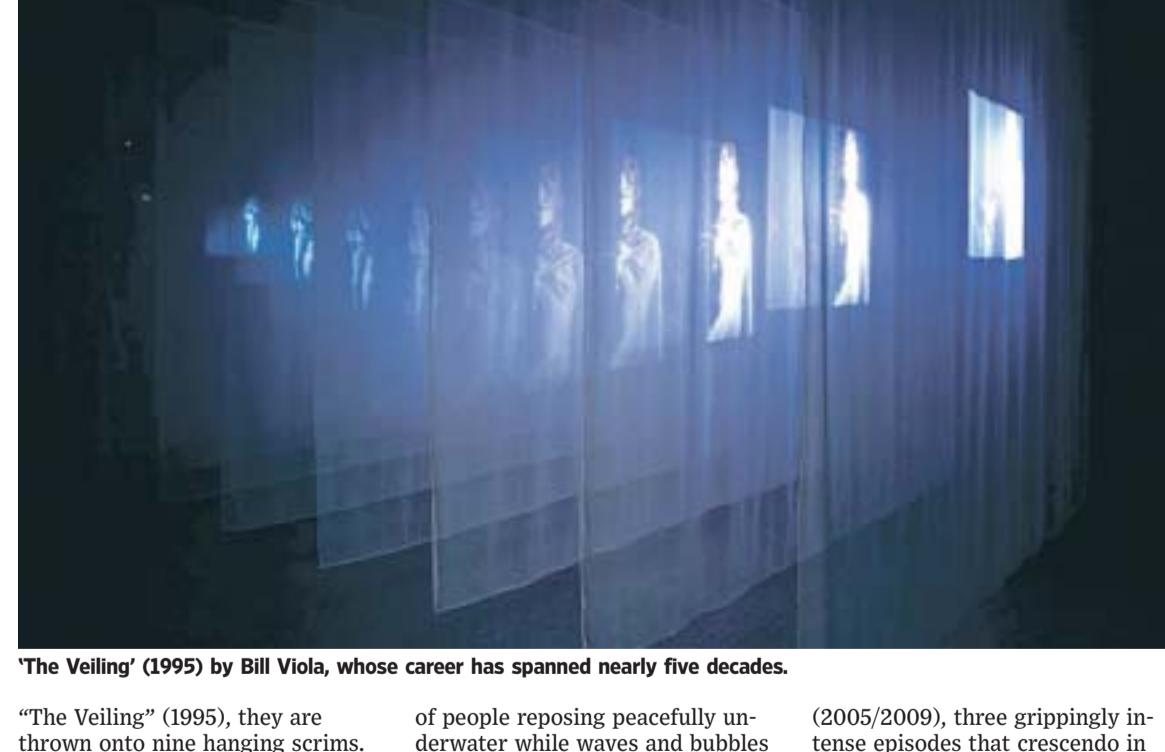
Bilbao, Spain

TO KICK OFF the 20th-anniversary celebrations of Frank Gehry's titanium-clad Guggenheim, the museum has mounted a retrospective of the American video artist Bill Viola. Curated by the Guggenheim Bilbao's Lucia Aguirre and elegantly arranged in rough chronological order, it runs the gamut from his early experimental videos (the earliest work is 1976's "Four Songs") to his high-definition meditations on time and the elements.

Mr. Viola's work has been seen in churches and such secular sacred spaces as opera houses and concert halls. Viewed singly in, say, an oratory in Venice or a cathedral in England, his videos appear as startling interventions that can transfigure their surroundings; lining them up inside Gehry's temple for contemporary art can blunt their meditative intensity.

Mr. Viola, at age 66, is the world's most famous video artist. His career has spanned nearly five decades, but the majority of the videos at the Guggenheim date from after 2000, with luminous high-definition images crowding out the grainy experimental videotapes from the 1970s.

Viewers most familiar with Mr. Viola's recent work will be surprised to find him working in modes he would later abandon. In "Heaven and Earth" (1992), two suspended TV monitors face each other, projecting images of birth and death. In "Slowly Turning Narrative" (1992), the images are projected onto a rotating screen. In



'The Veiling' (1995) by Bill Viola, whose career has spanned nearly five decades.

"The Veiling" (1995), they are thrown onto nine hanging scrims.

Mr. Viola's videos are largely non-narrative but often take on a cinematic quality. Especially since 2000, the attention he lavishes on slowness and texture, his graceful pans and zooms bring to mind the indelible images of Andrei Tarkovsky. The intensity of the work sometimes makes it seem in danger of collapsing under the burden of being transcendent and transformative. I'm not sure the composed stillness of "The Dreamers" (2013), seven large plasma screens

of people reposing peacefully underwater while waves and bubbles ripple across them, generates much more than a cool effect.

Mr. Viola's most ambitious and arresting work to date is arguably his video (four hours' worth!) made to accompany a production of "Tristan und Isolde" in Paris, a 2005 collaboration with the director Peter Sellars. Among the Tristan-derived works in the exhibit are "Fire Woman" (2005), "Tristan's Ascension (The Sound of a Mountain Under a Waterfall)" (2005) and "Night Vigil"

(2005/2009), three grippingly intense episodes that crescendo in explosions of fire and water.

Digital video has been a mixed blessing to Tim Burton, Terry Gilliam and Peter Greenaway, often bringing their singular cinematic visions to life with an irritating slickness. Mr. Viola's recent work, much of it done in studios, undeniably has flair, but the results—with their commercial-grade production values—sometimes come dangerously close to kitsch. Yet in his strongest work, Mr. Viola manages to avoid or transcend this danger

by showing himself to be an artificer of searingly original visions that combine formal rigor and spiritual mystery.

There is also a generous helping of art history. Despite his cutting-edge aesthetic, Mr. Viola works in a stringently classical mold, appropriating major themes of Western art. The most explicit art-historical quote here is "The Greeting" (1995), a slow-motion, vertical work inspired by a Mannerist masterpiece, Pontormo's "The Visitation" (1528-29). "Going Forth by Day" (2002), which wraps around one of the exhibition's largest rooms, borrows motifs from Giotto and Signorelli fresco cycles.

While the 23 works on display provide a solid overview of Mr. Viola's technical development and expressive range, the show could benefit from a more creative arrangement, such as the one chosen by Kira Perov, Mr. Viola's wife and longtime collaborator, for his monumental 2014 Paris show built around existential questions at the heart of his work. And it would have been nice to find new work created for the show.

Admiring the Gehry building's dynamic swirls after several hours in the dark with Mr. Viola's striking images leaves a sense of what is lacking in so much of the video artist's work: spontaneity, and a lightness of touch to temper the severe artistic vision.

Bill Viola: A Retrospective
Guggenheim Museum Bilbao, through Nov. 9

Mr. Goldmann writes about European arts and culture.

LIFE & ARTS

TELEVISION

FANS GEEK OUT ON 'GAME OF THRONES'

'GOT' lovers crunch statistics and write computer code to keep track of plot twists, deaths and reappearances

BY JOHN JURGENSEN

SOME PEOPLE express their passion for "Game of Thrones" by binge watching the HBO series, posting plot theories online or perhaps dressing up as mother of dragons Daenerys Targaryen. Others write code.

Joakim Skoog built an application programming interface using quantified and structured data for every character and clan in that fictional world. His "API of Ice and Fire" is designed to help other programmers translate the sea of information about the series into "Game of Thrones" apps of their own invention.

Inspired by a similar project someone created for the "Star Wars" universe, Mr. Skoog, of Borås, Sweden, spent two weeks cleaning and organizing the data he pulled from various encyclopedic sites. The 26-year-old "Game of Thrones" obsessive wanted to contribute to the fan community and try out new technology. As a bonus, the project also helped in the interview for his current job as a software engineer for an online fashion retailer, Nelly.com.

Based on novels by George R.R. Martin, "Game of Thrones" starts its seventh (and second-to-last) season on HBO Sunday as one of TV's most popular, most-discussed, and most-pirated series. It is also the most exhaustively analyzed by a subset of international fans who crunch statistics from the fantasy series with the rigor of baseball nerds tracking hits, strikeouts and stolen bases.

Among their many efforts: Charting the hundreds of deaths depicted in the series by time, location, method, and perpetrator; logging screen time for every character and using it to study gender balance; mapping relationships between characters based on dialogue; graphing betrayals; charting character connections as a social network; creating statistical analyses of major battles; and using machine learning tools to predict which characters will die.

In the spirit of such fantasy analytics, picture a Venn diagram with a circle representing lovers of "Game of Thrones" and data science, respectively.

"I think there's quite a healthy intersect between the two. The books and the show are really popular, and especially popular among the people who like to do statistics for fun," says Myles O'Neill, a designer at Kaggle, an online community for data analysis that

was recently acquired by Google.

Mr. O'Neill uploaded several "Game of Thrones" data sets that he discovered on the web, including a compendium of character deaths. Dozens of Kaggle members have used them as grist for coding projects.

Unlike sports, politics and other worlds where hard statistics are widely available, narrative fiction is a challenging realm for data jockeys. But the epic scale and complexity of "Game of Thrones" calls out for a census. So far, the story spans 60 episodes of television, with details that have increasingly diverged from Mr. Martin's "A Song of Ice and Fire" book series, which itself fills five hefty novels (with at least two more to come, fans pray). There are deep family dynasties, far-flung kingdoms, shifting alliances and double-crossing, historic wars and many, many characters, not all of them human.

For casual readers and viewers, it is a challenge to keep it all straight. For data geeks, it is an opportunity for tools used to better understand the real world.

Sometimes that involves writing programs to automatically scrape raw information from the user-generated wiki sites where fans compile character bios and other facts from the books and TV series. In other cases, the data mining is more labor intensive. One anonymous grunt



HBO (6)

Kit Harington and Liam Cunningham, above. Below from left, Lena Headey, Emilia Clarke, Nikolaj Coster-Waldau, Peter Dinklage, and Kristofer Hivju.

(identified only as "ninemwheels0") used an iPhone stopwatch to log how much time characters in the TV series (195 of them and counting) appear on screen, then uploaded the findings, and encouraged others to crunch the stats as they wish.

"It's rare that you find a fictional world that can stand up to this level of scrutiny," says Daniel Mintz, whose title is

Chief Data Evangelist at Looker, an analytics company that helps companies like BuzzFeed make sense of audience activity.

In the run-up to "Game of Thrones" season 7, Looker used ninewheels0's screen time stats and other data sets to create charts on factors ranging from character popularity to body count per episode. (Season finales have grown increasingly bloody.)

As it turns out, "Game of Thrones" data doubles as a popular tool for marketing. Companies like Looker use it to make charts, infographics and videos to grab some of the attention that cool stuff related to the series reliably gets online.

Not every stat crunched is a super fan. Shail Deliwala, a 27-year-old data scientist at an artificial intelligence consulting firm in Ahmedabad, India, had never read Mr. Martin's books or watched the HBO show before diving into an analysis. That gave him an unbiased view of the facts from the fantasy world, he says. He found an inverse correlation between the size of an attacker's army and its odds of victory in battle, and discovered that characters with lots of dead relatives are less likely to survive.

Mr. Deliwala used this work as the basis for a paper featured at a recent conference, titled "Exploratory and Predictive Data Analysis Using Machine Learning Tools and Techniques." He has since embarked on season 1 of the HBO series, but is having second thoughts: "I'm afraid I'm going to get addicted."



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SPORTS



BY JARED DIAMOND

THIS SEASON, researchers at the University of California, Berkeley have embarked on an ambitious experiment in an effort to solve one of the deepest mysteries in sports. They received permission from the San Francisco Giants to put GoPro cameras in the dugout of the franchise's San Jose minor-league affiliate. With that access, they will monitor players' interactions, expressions and behavior during games to determine how they relate to production.

The study is part of a growing push to understand and quantify one of the most elusive and tantalizing concepts not just in baseball, but in workplaces everywhere: the true effect of team chemistry.

There was a time in baseball's not-too-distant past when the game's brightest minds dismissed the very notion of chemistry. The analytics revolution of the early 2000s valued only what could be proven with empirical evidence and cast aside anything predicated on intangible qualities as a charming anachronism evangelized by out-of-touch old-timers.

Fast forward nearly two decades, and the thinking has changed. In a sweeping shift, many of the industry's wonkiest stat-heads now acknowledge that how players get along with each other likely can affect how they perform on the field over a six-month season.

"Chemistry is absolutely critical, but very few teams or managers or general managers know how to create it or even have any idea how to create it," said Houston Astros general manager Jeff Luhnow, the leader of perhaps the major's most data-driven front office.

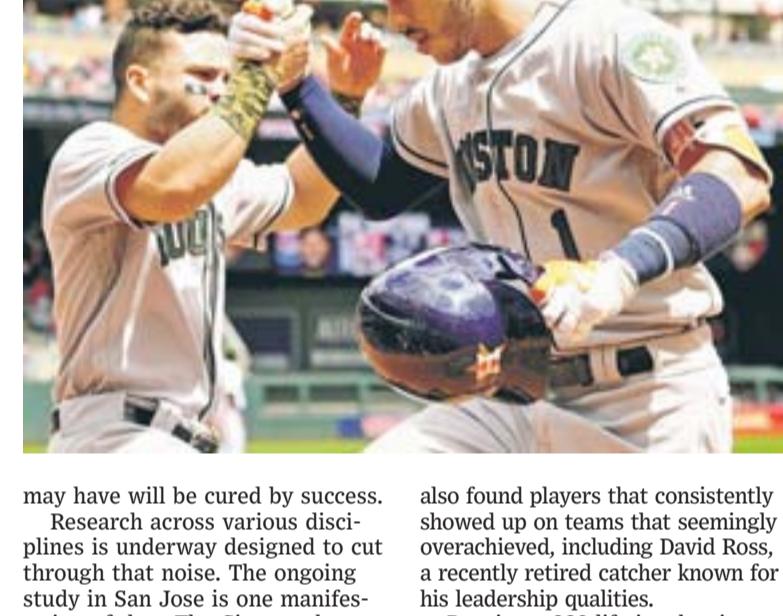
But what if they did? Corporate managers and armies of consultants have wrestled with this question for decades, and now baseball is tackling it head-on: Can something as nebulous as "chemistry" be quantified like on-base percentage or ERA, and if so, can it be weaponized?

Increasingly, forward-thinking franchises think it's possible not only to measure the impact of chemistry, but to cultivate positive chemistry in an intentional and systematic fashion. That belief has sparked an information arms race in an area often discussed but rarely analyzed in a scientific way.

Whoever solves the riddle first will have earned a competitive edge over peers that could come with far-reaching ramifications.

The problem with trying to comprehend chemistry is the inherent challenge of separating it from talent. Teams that win have chemistry. Teams that lose don't. It's easy to assume that the best way to generate chemistry in a clubhouse is simply to fill that room with the best baseball players possible. Any differences they

have will be cured by success.



Many of baseball's wonkiest stat-heads now acknowledge that how players get along likely can affect how they perform on the field.

that's brought to a team and how you put that in the formula to building a good team," said Ross, now an ESPN analyst.

When the Cubs opened a new home clubhouse at Wrigley Field last season, they built the locker room in a circular formation as opposed to the typical rectangle in part to encourage interaction among players. Their manager, Joe Maddon, is steadfast in his belief that chemistry matters. The Cubs recently parted ways with catcher Miguel Montero, despite a strong .805 on-base-plus-slugging percentage, after he publicly criticized a teammate.

"Because we lack an organized understanding of this issue does not mean that we have zero knowledge or zero understanding in this area," Bill James, the godfather of statistical analysis in baseball, said in an email. "A lot of the stuff that Joe Maddon does that people think of as stunts and jokes is actually a very sophisticated way of managing the chemistry of his locker room."

Where quantifying chemistry can help a team is on the fringes of the roster—players like Ross, for instance. When teams look for their final pieces, they are often picking from a vast pool of players with relatively similar ability.

But if a team knows, with hard data, that one of those players elevates his teammates with his clubhouse presence—and the rest of the league lacks the ability to recognize it—that team has an enormous advantage. Astros manager A.J. Hinch said that a theoretical chemistry quotient statistic would be "a great tiebreaker."

also found players that consistently showed up on teams that seemingly overachieved, including David Ross, a recently retired catcher known for his leadership qualities.

Despite a .229 lifetime batting average, Ross lasted 15 years in the major leagues, consistently finding work because of his perceived—but unquantifiable—clubhouse presence. He appeared in the postseason five times between 2010 and 2016.

"It suggests if there are other guys like him and teams can identify them, there is a competitive advantage for them," said Scott A. Brave, who authored the paper with R. Andrew Butters and Kevin Roberts.

Brave and his colleagues decided to investigate this subject as a way to understand the reigning champion Chicago Cubs, who put an unusually heavy emphasis on chemistry and character.

"That is the next thing that everyone is trying to measure, how

WIMBLEDON

PATH CLEARS FOR FEDERER

BY MATTHEW FUTTERMAN

LONDON—Father Time remains undefeated in every sport but he's having a devil of a match against 35-year-old Roger Federer.

Federer, the seven-time Wimbledon champion, will be the lone member of the Big Four in the semifinals after knocking off Milos Raonic on Wednesday.

Novak Djokovic, who turned 30 this year, retired with an aching shoulder two games into the second set of his match against Tomas Berdych, while Andy Murray, hobbled with a bad hip, lost in five sets to American Sam Querrey. Murray, also 30, lost 12 of the final 14 games as his body abandoned him down the stretch. Rafael Nadal got knocked out Monday.

"At a certain point in your career, you are going to experience these things," said Djokovic, who has been battling a bad shoulder for 18 months. "It's hard to swallow."

In the other quarterfinal, Marin Cilic of Croatia bested Luxembourg's Gilles Muller in five sets. He will face Querrey Friday.

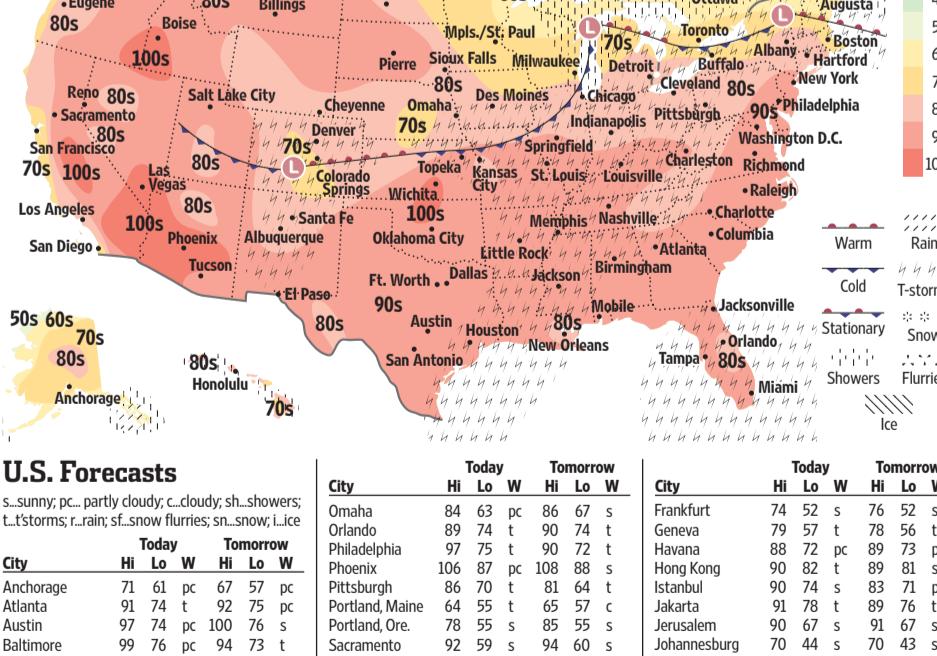
Federer easily handled the Canadian Raonic, who, despite a big serve, had few answers for Federer's seemingly ageless touch. Raonic held a 3-0 lead in a third-set tiebreaker before Federer won seven of the next eight points with a series of baseline winners, cut volleys and dazzling serves to finish the match.

Federer said after struggling with injuries last year and taking some much-needed breaks, he is "a normal tennis player again. I can focus on tactics."

Federer, who has won 18 grand slam titles, is anything but "normal." He is 18-6 vs. Berdych lifetime, but don't hand him the trophy yet. He's been known to flail against players other than his main rivals when opportunity beckoned. Cilic whipped him in the 2014 U.S. Open semifinal, though this year Federer skipped the clay court season to prepare for Wimbledon's grass.

"The idea was second week of Wimbledon I would feel my best," he said. "It's coming along nicely."

Weather



U.S. Forecasts

s=sunny; pc=partly cloudy; c=cloudy; sh=showers;

t=tstorms; r=rain; sf=snow; flr=flurries; sn=snow; lce=ice

Today Hi Lo W Tomorrow Hi Lo W

City Hi Lo W Today Hi

OPINION

Trump Teaches Western Civ



WONDER
LAND
*By Daniel
Henninger*

If Donald Trump recited "The Star-Spangled Banner" before a baseball game, it would be criticized as an alt-right dog whistle. So naturally spring-loaded opinions rained down in Poland after he delivered a defense of Western values.

Only this particular American president could say, "Let us all fight like the Poles—for family, for freedom, for country, and for God," and elicit attacks from the left as sending subliminal messages to his isolated rural supporters, and from the anti-Trump right as a fake speech because he gave it. We live in a cynical age.

Angela Stent, a professor at Georgetown University, provided the *reductio ad absurdum* analysis: "He wants to show at least his domestic base that he's true to all of the principles that he enunciated during the election campaign."

The Trump "base"? It's still out there, isn't it?

It was conventional during the presidential campaign to think of the Trump candidacy as a beat-up bus caravan of marginalized American citizens, who someone called the deplorables. In the event, about half the total U.S. electorate somehow voted for the man who in Warsaw gave a speech that his opponent, Hillary Clinton—or any current Democrat—would never give.

To simplify: One side of this debate will never be caught in anything it considers polite

company using that phrase of oppression—"the West." Ugh.

For an enjoyably trenchant takedown of the left's revolution at the Trump speech, I recommend Robert Merry's essay in the American Conservative, "Trump's Warsaw Speech Threw Down the Gauntlet on Western Civilization." As Mr. Merry says, this is a big, worthy debate, and one I think the Trump "base" instinctively understood in 2016.

In fact, that Warsaw speech on Western Civ was really about the current edition of the Democratic Party and its two-term leader, Barack Obama. Mr. Trump momentarily suppressed the urge to call out his opposition, so allow me.

The Trump "base" knew the 2016 presidential election—the contest between Mr. Obama's successor and whoever would run against her—wasn't just another election. It was a crucial event, deciding whether America would go on in the Western tradition as it had developed in the U.S. or continue its steady drift away from those ideas.

Progressives have an interest in ridiculing the Trump speech as a stalking horse for the heretofore obscure and microscopic alt-right because it deflects from their own political values—on view and in power the past eight years.

If there is one controlling Western idea developed across centuries in Europe, including by resort to war, it is that the individual person deserves formalized protection from the weight of arbitrary political authority, whether kings, clergy or dictators.

Bernard Bailyn, the great historian of the pre-revolution politics of the U.S. colonies, showed through a deep reading of colonial pamphleteering that the early Americans were ardently resentful of distant, central authority.

The Founders were obsessed with this idea—and for that see Jefferson's "He has" bill of particulars against King George in the Declaration of Independence. They designed

departments, towns and local school systems. The Obama Labor Department did the same to coerce private employers; its secretary, Tom Perez, now leads the Democratic National Committee.

No more settled part of the West's tradition exists than due process and presumption of innocence, which are embedded in the Universal Declaration of Human Rights. Believing this Western tradition impeded sexual abuse allegations at colleges, the Obama Education Department issued "guidance" that reversed due process and legitimized the presumption of guilt.

Eventually, the "base" somehow intuited that a permanent reformulation of their political traditions was happening here.

The progressive alternative to the Western experience extends to culture, especially religion. When Donald Trump, of all people, says the Poles in Victory Square chanted "We want God" in 1979, it was like nails on a blackboard to postmodern progressives.

One way to understand American politics today is to think of our divisions as resonant of the decade before the Revolutionary War, when rebellion's trigger was King George and his Parliament in London.

In our time, the struggle is about an aggressive elevation of central authority over the smaller units of American life. The progressive Democrats are the new King George, ruling 50 postcolonial states from distant Washington. The "base" objects.

Write henninger@wsj.com.

It was a speech about values that neither Hillary Clinton nor any Democrat would give.

a government explicitly to protect smaller units—individuals, local governments—from being overwhelmed by too-powerful political authority.

The American left has never been altogether comfortable with the U.S.'s decentralized, "difficult" political system. Once it identifies a universal political good, it is impatient to put it in place.

One of the first American ideas resisted by the left was federalism: The states, they believe, can't be trusted to do the right thing.

In the 1950s and '60s, this had to do with remedies for racial discrimination. With Mr. Obama, the federalist disdain accelerated. His Environmental Protection Agency imposed regulations on behalf of universal climate claims. The Eric Holder Justice Department filed lawsuits alleging racial disparities against police

and political authority.

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Troubled Times for 10 Senate Democrats

By Karl Rove

The 25 Democratic senators who face re-election in 2018 are already gearing up for a fight. Their latest quarterly fundraising reports, released over the past two weeks, show impressive totals, ranging up to \$3.1 million. But for the 10 Democrats from states carried by President Trump, a well-stuffed war chest may not be enough.

This is especially true for six senators in states where Mr. Trump's victory last November was huge. He won Joe Manchin's West Virginia by an astonishing 42 points; Heidi Heitkamp's North Dakota by 36 points; Jon Tester's Montana by 20; Joe Donnelly's Indiana and Claire McCaskill's Missouri by 19, and Sherrod Brown's Ohio by 8.

Four other Democrats—Michigan's Debbie Stabenow, Pennsylvania's Bob Casey, Wisconsin's Tammy Baldwin and Florida's Bill Nelson—are in states where Mr. Trump's margin of victory ranged from 0.2% to 1.2%. None of them can take re-election for granted.

They must all keep an eye on the president's favorability ratings. On Election Day, Mr. Trump was viewed favorably by 37.5% of voters and unfavorably by 58.5%, according to the RealClearPolitics average. As of this Wednesday, his ratings stood at 40.4% favorable and 53.6% unfavorable.

Mr. Trump is likely to be more popular in states he won than his national average: The larger his margin in those states last November, the better he stands now. If this trend holds through 2018, Democrats in states Mr. Trump won by double or nearly double digits could face stiff re-election contests.

They face re-election in states Trump won. Will they cozy up or join the 'resistance'?

Though many endangered Democrats are now making bipartisan or even pro-Trump noises, voters won't forget these incumbents' loyal support for President Obama's agenda. They can try hiding from their voting records but can't escape them.

Furthermore, these Democrats are highly partisan. For example, Mr. Tester once led the Democratic Senatorial Campaign Committee, and Ms. McCaskill can't restrain herself from making needless partisan jabs. All eagerly campaigned for Hillary Clinton. Even Mr. Manchin personally pushed her last fall to make an appearance in West Virginia.

Cozying up now to Mr. Trump doesn't square with the Democrats' "resistance" agenda. For example, after

hyping rumors that she might be named Mr. Trump's agriculture secretary, Ms. Heitkamp voted to sustain an Obama administration regulation on methane emissions that North Dakota's energy industry strongly opposed. She was trying to dampen opposition from the Democratic left, which was angry at her for playing footsie with the new president.

Consider also Indiana's Mr. Donnelly. The Washington Examiner reports that he emphasized his strong support for ObamaCare in a fundraising email on June 21—the same day news broke that two of the four insurers remaining in Indiana's health exchanges were pulling out. Another fundraising appeal a few days later claimed that Sen. Donnelly was "fighting back against Trump's extreme agenda," complicating his effort to look like a bipartisan moderate. Facing similar balancing acts, all these Democrats could easily fall off the beam.

Republicans do have their own 2018 challenges. Sen. Jeff Flake must play defense in Arizona (which Mr. Trump won by 3.5%) while Sen. Dean Heller is fighting an uphill battle in Nevada (which Mr. Trump lost by 2.4%). It doesn't help that Mr. Heller has stumbled by threatening to scuttle his party's plan to replace ObamaCare. Both seats are crucial to keeping the GOP's Senate majority.

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Since several of these Democrats are better-than-average campaigners, Republicans must also recruit strong challengers. The GOP can't beat something without something better. Screaming "liberal, liberal, liberal" won't work either. Republicans must show voters that these Democrats say one thing during elections and something else in between them.

The greater key to Republican success, however, is getting things done now in the halls of Congress. That's why Majority Leader Mitch McConnell's decision to keep the Senate working for two weeks in August rather than breaking for recess is so vital. If Republicans don't repeal and replace ObamaCare and reform the tax code, the party's grass roots will lose enthusiasm, donors will shut their pocketbooks, and Republicans will lose.

But if the GOP Congress can get things done, 2018's unusual mix—25 Democrats up for re-election versus only nine Republicans—could make it one of the 20% of midterm elections in the past century in which the party holding the White House actually picks up seats.

Mr. Rove helped organize the political-action committee American Crossroads and is the author of "The Triumph of William McKinley" (Simon & Schuster, 2015).

Don't Hold Fast to This Surgical Rule

By Hakim Bouzamondo

Imagine you're heading into surgery for a hip fracture. You might be anxious about how it will go and nervous about starting rehab. You also probably are hungry and thirsty. For decades, patients have been told to fast before surgery. Eight in 10 say their doctors instructed them to, according to a 2017 survey commissioned by my company, Abbott, and conducted by Clarus Research.

The practice dates back to the 1850s, when physicians worried that patients who ate before receiving anesthetics might be at risk of regurgitating and choking. But today's technology makes this outcome unlikely. The latest research shows that drinking a carbohydrate beverage—Abbott makes one version—up to two hours before an operation can ease some of the most common side effects of

anesthesia and surgery, like nausea, pain or vomiting. Proper nutrition before and after an operation can reduce the chance of infection, too.

Studies show it's safer to have a nutritious drink before an operation.

Surgery may seem like a passive activity. How taxing, after all, can lying on an operating table be? But in reality, a body undergoing surgery works vigorously due to metabolic stress—with results that are similar to running a marathon. A 200-pound person can burn about 3,000 calories and lose a significant amount of muscle glycogen, a stored form of carbohydrates, during an operation. Would you tell an athlete not to eat or drink

after midnight before the big race?

Hospitals in Europe have long allowed carbohydrate-rich drinks before surgery, with positive outcomes. A protocol in effect across Europe called ERAS, or Enhanced Recovery After Surgery, emphasizes good nutrition—specifically the consumption of fluids and carbohydrates—and has helped shorten hospital stays and reduce complications for some surgeries by 50%.

As similar guidelines are being adopted in the U.S., hospitals are accumulating more proof that they work. At the University of Michigan, implementing a pre-operative program that included nutrition and exercise was shown to get patients out of the hospital two days faster and cut patient costs by 28%.

A study published in May by *JAMA Surgery* examined a comprehensive recovery program put in place at 20 Kaiser

Permanente medical centers. The study, which included more than 15,000 patients, concluded that the program was associated with a one-third reduction in complication rates, decreased mortality and shortened hospital stays.

Implementing similar enhanced-recovery programs across the country would not only quicken and improve surgical results, it would save money. After all, a day in an average U.S. hospital runs about \$2,000.

Virtually every American will undergo a surgical procedure someday. Encouraging patients to load up on the right nutrients, like marathoners prepping for a race, could make those procedures safer and help patients bounce back stronger.

Dr. Bouzamondo is a physician and divisional vice president of global research and development for Abbott's nutrition division.

BOOKSHELF | By Bryan Burrough

In Good Company

The End of Loyalty

By Rick Wartzman
(PublicAffairs, 418 pages, \$30)

America is an angry country these days. Me, I blame the 1950s. Think about it. So many of the ideas and ideals that came to define the postwar American Dream became ingrained in the national psyche during those "Happy Days": the nuclear family, home ownership, upward mobility, social conformity, keeping up with the Joneses. Much of the rage in the land, it could be argued, revolves around the loss of these prized notions.

Few of such fraying ideals have proved more wrenching than the unraveling of the social contract between American corporations and their employees, a 60-year arc of events that Rick Wartzman expertly traces in *"The End of Loyalty: The Rise and Fall of Good Jobs in America."* That subtitle, by the way, is a bit misleading; there are plenty of good jobs in 2017 America. It's the loyalty part that this book is really about.

A better subtitle, in fact, might have been, "The Rise and Fall of the Corporate Welfare State," because that's the story Mr. Wartzman, a former reporter for the Journal and now a director at the Drucker Institute in Claremont, Calif., tells by chronicling the history of labor relations at four 20th-century leviathans: Coca-Cola, General Motors, General Electric and Kodak.

For an idea so enduring, "loyalty" between employer and employee is actually a newish concept. If it hadn't fixed itself so deeply in the American way of life, you could almost call it a 1950s-era fad. The push to draw companies and workers closer dates to the 1910s, when GM and others began doling out benefits that would have had the muckraking journalist Ida Tarbell's head spinning: insurance, health care, pensions.

That some of it was driven by a cynical corporate desire to discourage union membership is beside the point. By the Great Depression, when many companies shed benefits out of necessity, workers at the largest American companies had nevertheless come to expect them. This new thinking was enshrined by a wartime organization called the Industrial Advisory Board of the Committee for Economic Development, a group of corporate executives convened by the Roosevelt administration in 1942 to ponder the question of how to keep the 58 million or so war workers employed once the war ended.

The CED, as it was called, packed with executives from GM, GE and other large American companies, crusaded for full employment and saw benefits as the way to make it happen. Industry should "lend a helping hand to its workers," as GM's Alfred Sloan put it, protecting them "against the vicissitudes of life."

Mr. Wartzman does a nice job of illustrating how fat and happy American companies got in the postwar years: the corporate gyms and golf courses, the wage dividends, the ample medical insurance and pensions, the free meals—even, as at Coke, for retirees. Workers at Kodak had it so good during the 1950s, Mr. Wartzman writes, that some began calling Rochester, N.Y., the company's home, "Smugtown, USA."

GM's Alfred Sloan once argued that industry should 'lend a helping hand' to workers and protect them 'against the vicissitudes of life.'

Pushback wasn't something that began in the 1980s. In fact, it was almost immediate. Unions, which emerged as stalwart defenders of not just wages but benefits, became a target for corporations eager to trim. Anti-union crusaders such as GE's Lem Boulware saw how much all this generosity cost—American wages rose an astonishing 54% during the '50s—and argued hard for reigning in organized labor.

As Mr. Wartzman demonstrates, the first major rollbacks of corporate benefits came with a recession in 1958. They rolled back further during the Arab oil embargo in 1973, with Japan and Germany catching up to the U.S. economically, beginning a two-decade stretch in which productivity gains at US companies were less than half of what they had been after World War II.

You know the rest. Led by "Neutron Jack" Welch at GE, the Fortune 500 announced open season on employees. Between 1980 and 1990 the number of workers at Fortune 500 companies fell from nearly 16 million to just under 12.5 million. More and more jobs began moving overseas. In 1965, Mr. Wartzman writes, U.S. businesses invested less than \$50 billion in foreign factories and offices; by 1980, 15 years later, it was more than \$210 billion. Full employment, which the CED had once compared to "liberty" and "justice" as a "goal of democratic government," had become, in barely 30 years, "utterly unthinkable," Mr. Wartzman writes.

At the root of all this is a simple question: What are corporations for? Are they primarily vehicles for employment or investment? Mr. Wartzman, a reporter at heart, mostly dodges the politics, preferring to tell the story straight. But what killed "loyalty" was a dramatic shift in legal and philosophical thinking away from the former to the latter.

While Mr. Wartzman deftly unpacks important court cases, the book could be faulted for failing to explicate the change in management theory during the 1970s that issued in the era of shareholder-versus-worker debate. Having noted that the shareholder-versus-worker debate harks back decades, Mr. Wartzman simply notes that "as the US economy languished" during the 1970s, "the old debate about the proper role of business reigned." Surely Milton Friedman, Michael Jensen and others who "extolled the cool rationality of the marketplace" came from somewhere.

It's understandable that many today would yearn for the halcyon days of the 1950s and the security that so many companies offered. But in a world defined by profits, it's not reasonable. During 150 years or so of American industrialization, as Mr. Wartzman shows, such eras have been the exception rather than the rule. Whatever its origins, and however controversial its legacy, it seems inarguable that the post-1970s-era crusade to "maximize shareholder value" was badly needed. By almost any measure, American companies had become bloated, lazy underperformers. Yes, it's sad that making them more competitive often means layoffs and the loss of loyalty. But as long as this remains a capitalist nation, it's the American way.

Mr. Burrough is the author, most recently, of "Days of Rage: America's Radical Underground, the FBI, and the Forgotten Age of Revolutionary Violence."

OPINION

REVIEW & OUTLOOK

ObamaCare Freedom and Failure Options

Senate Republicans will roll out a revised health-care bill as soon as Thursday, and then begin a final drive to a vote this month. So this is a moment to take stock of some of the larger political dimensions of the ObamaCare debate.

Legislative progress has been slower and more difficult than it might have been for a party that ran for seven years on a repeal-and-replace agenda. The benefit is that Senate Republicans are better educated about health-care substance and prepared to make hard governing choices—if they can persuade the remaining Bartlebys.

* * *

One remaining debate is over Ted Cruz's "freedom option." The Texas Senator's amendment says that any insurer that offers at least one ObamaCare-compliant plan could also sell other types of coverage off the exchanges. The expectation is that a more competitive and dynamic insurance market will emerge outside of ObamaCare. Released from federal mandates and price controls, insurers could offer many more innovative products designed for individuals, rather than standardized coverage planned in Washington.

Mr. Cruz acknowledges that insurance markets could "segment," meaning that younger and healthier people would gravitate to the Cruz option, where premiums are likely to be much cheaper. Older people with more health expenses would remain on ObamaCare, which bars insurers from charging higher premiums based on health risks and bans exclusions for pre-existing conditions.

ObamaCare's logic is that low-cost people must be charged more in order to charge high-cost people less. But these transfers aren't a good value for low-cost people, which is why enrollment in ObamaCare has been so disappointing. This in turn has led to a cycle of higher premiums and less enrollment.

The logic of the Cruz proposal is that there is a rough consensus among Republicans that government should guarantee access to coverage for people with pre-existing conditions. In that case, government should pay for this guarantee, in the form of a de facto high-risk insurance pool, rather than hiding the cost in cross-subsidies imposed on private citizens.

The virtue of this approach is transparency and honesty. In a bifurcated market, premiums would be much higher for ObamaCare plans. But they'd be offset for consumers by much higher federal subsidies that rise with premiums, and the Senate bill also includes at least \$50 billion for market stabilization and probably more once this exercise concludes. Federal spending might be higher as a result, but at least the taxes to pay it aren't indirect and unfairly distributed.

One danger is that the Cruz amendment could precipitate a wave of market failures, where the ObamaCare side becomes so expensive that insurers quit even if they have to quit the deregulated side too. People whose incomes are too high to qualify for ObamaCare subsidies and then develop medical problems would also get a worse deal.

Richard Cordray's Financial Damage

President Trump still hasn't dismissed Consumer Financial Protection Bureau director Richard Cordray despite several removable offenses. But Mr. Cordray is all but begging to be fired with his mandatory arbitration ban that brazenly flouts the law.

The CFPB on Monday finalized a rule forbidding class-action waivers in arbitration agreements. Dodd-Frank prohibited mandatory arbitration in most residential mortgage contracts and directed the bureau to study their use in other consumer financial services. Congress allowed the CFPB to "prohibit or impose conditions or limitations on the use of" arbitration if it finds doing so "is in the public interest and for the protection of consumers."

In 2015 the CFPB released a 148-page study that is more political than scientific. Like the agency's enforcement actions, the study engages in misdirection and obfuscation. The bureau avoids apples-to-apples comparisons and has stonewalled requests by the House Financial Services Committee for its raw data. But the evidence still suggests that consumers derive greater benefits from arbitration than they do from class-action lawsuits.

Of the 562 class actions the CFPB studied, none went to trial. Most were dismissed by a judge, withdrawn by the plaintiffs or settled out of class. The putative class victims received benefits in fewer than 20% of cases, and the average cash recovery was—wait for it—\$32. Lawyers took an average 24% cut of the cash payments (about \$424 million) in cases that settled.

Meanwhile, consumers were awarded relief in 32 of the 158 arbitration disputes the bureau examined, and rewards averaged \$5,389—or about 57% of every dollar claimed. Consumers who used arbitration received relief on average in two months after filing claims. Class-action members had to wait two years.

Yet the CFPB has determined that class actions are necessary to protect consumers, even though state Attorneys General and federal agencies can do the job. The rule would apply

Ted Cruz's idea is good policy, but is it a political hill to die on?

The political disadvantage is reopening the emotional pre-existing conditions brawl, which the GOP doesn't want to fight. But under the Cruz plan, they could point out that ObamaCare protections would remain in place while adding more options for people who want them.

Mr. Cruz's amendment has the makings of a sensible political compromise between conservatives and moderates—i.e., free-market prices in health care, with subsidies for those who can't afford free-market prices. But if moderates make the Cruz plan a red line, conservatives will have to decide if they want to insist on it. Is the freedom option worth losing the other gains of the overbill bill, including the first major Medicaid reform since 1965, repealing the individual and employer mandates, reversing a chunk of ObamaCare's tax hikes and other types of deregulation such as state waivers?

* * *

Meanwhile, some GOP centrists are still pretending that if the bill dies, both parties will come together and pass some glorious compromise. This ignores the vast philosophic differences between conservatives and liberals on health care and the role of government, and it assumes that Chuck Schumer and the Democrats who have pledged total resistance to Donald Trump will negotiate in good faith. There will be no such mercy.

GOP moderates have already moved the health bill toward the political center and earned zero Democratic interest in return—not even from Joe Manchin, though Mr. Trump carried West Virginia by 42 points, or Heidi Heitkamp, though Mr. Trump won North Dakota by 36. On Monday Mr. Schumer sent a letter laying out his price to start negotiations, citing four bills as the basis for his "bipartisan" terms—all sponsored by Democrats alone.

Politically, a grand bargain would throw a lifeline to the likes of Missouri Democrat Claire McCaskill, whose home state is facing an exodus of ObamaCare insurers. She'll claim she voted to solve a problem Republicans caused, even if the practical effects are nil.

Republicans running for re-election in 2018 will see no similar upside, because no deal the GOP could cut with Democrats can repair the ObamaCare exchanges before the election while their pro-repeal voters will be demoralized. The trade Mr. Schumer is offering is political insulation for Democrats while inviting Republicans to accept the blame for surging premiums and diminishing coverage.

* * *

Once Senators have time to inspect the new bill, better to vote for the motion to proceed and bring the legislation to the floor. That will start a robust debate and the amendment process. Every idea will get a vote and the public can see which command a majority.

Republicans are fast approaching a binary choice. They can either repeal and replace ObamaCare with a center-right reform, or they can collapse in failure and throw power to Mr. Schumer. Republicans who issue ultimatums over this or that detail are supporting the failure option.

The CFPB imposes a rule that contradicts its own factual findings. Congress should nix it.

to nearly all purveyors of consumer financial services save government agencies. That could include colleges that make loans to students.

Mr. Cordray says that "mandatory arbitration clauses force consumers either to give up or to go it alone." But consumers can usually arbitrate disputes by phone or online without an attorney. Arbitration industry rules require that companies pay almost all of the filing, administrative and arbitrator costs. Individual costs are capped at between \$200 and \$250, which most companies cover.

The main beneficiaries of the rule will be trial attorneys who use the threat of class actions to extract fat settlements. Yet most disputes can't be resolved on a class basis, and companies will likely stop using arbitration if they have to spend millions to defend class actions.

The Office of the Comptroller of the Currency this week raised concerns that the resulting increased cost of litigation could adversely affect the safety and soundness of the federal banking system. Community and mid-sized banks would have to hold greater reserves because of future expected litigation expenses, which could reduce lending.

Mr. Cordray has clearly violated Congress's directions to the bureau and the Administrative Procedure Act by promulgating a rule that contradicts the bureau's own administrative record. Republicans could repeal the rule during the next 60 legislative days with a simple majority using the Congressional Review Act, though Mr. Cordray is probably hoping that they will be too distracted by health care, presidential nominations and tax reform.

Or perhaps he's eager to launch his campaign for Governor in Ohio. President Trump could have blocked the class-action rule had he fired Mr. Cordray upon taking office. But he can still dismiss him now for "inefficiency, neglect of duty, or malfeasance in office," and his conduct surely constitutes all of the above. For everyone's sake, Mr. Trump should grant Mr. Cordray's apparent wish to be fired.

LETTERS TO THE EDITOR

Saving Charlie Gard and Ohio's Medicaid

You are quick to blame Britain's single-payer health-care system for a recent court decision that denies experimental treatment and removal from the hospital of a terminally ill infant ("Saving Charlie Gard," Review & Outlook, July 8). Yet these same types of decisions are made in this country under our fractured, fragmented, patchwork-quilt system of health care. Usually these decisions are made by nameless bureaucrats working deep in the bowels of insurance companies to deny new/experimental (read costly) treatments for very sick or terminally ill patients. In addition, from time to time, U.S. courts pass judgment in equally wrenching cases regarding ending treatment for patients or removing them from life support.

TERRY McNAIR
Framingham, Mass.

We can fight to save the Piping Plovers, baby blue whales and most any species except baby humans.

U.K. judges direct the plug to be pulled on baby Charlie Gard against the wishes of his parents and international supporters. U.K. "universal" health-care doctors say his disease is terminal. The European Court of Human Rights refuses to take the case. Pope Francis weighs in. Many contributors raise almost \$2 million for experimental treatment. A New York hospital offers to send an experimental drug to the U.K. Two New York hospitals and doctors agree to treat

Charlie. President Trump tweets, we would be "delighted" to help. He will intercede with British Prime Minister Theresa May.

St. Mother Teresa has the last word: "In the final analysis, it is between you and God. It was never between you and them anyway."

Do it anyway.

MICHAEL VELSMID
Nantucket, Mass.

You chide Ohio Gov. John Kasich for opposing "Medicaid reform" to control spiraling medical costs ("John Kasich's Medicaid Lecture," Review & Outlook, July 8) and on the same page implicitly chide Britain for opposing (not paying for) "experimental treatments" for Charlie Gard's rare genetic disease that British health officials say won't work. So which is it: control medical costs (John Kasich) or expand them (Charlie Gard)? Oh, and spare us the thin rationale that Charlie's parents are "willing to pay," as only millionaires or patients who become cause célèbres have the wherewithal to pay for experimental treatments a continent away.

This cost/benefit dilemma is bigger than Charlie Gard's tragic case and is repeated daily in our health system, particularly with end-of-life treatment (i.e., overtreatment) decisions. You can knock Gov. Kasich for being on the wrong side, but at least he is not straddling both sides.

J. ROBB CRUSER
Johns Creek, Ga.

Subsidizing Solar Power Makes Good Sense

Regarding your editorial "Nevada's Solar Subsidy Resurrection" (June 26): I must respectfully say you miss the forest for the trees. As a former four-term congressman from South Carolina, I saw firsthand the real impacts of subsidizing expensive energy infrastructure. Right now in my home state roughly \$27, or about 20% of an average customer's monthly electric bill, goes to subsidizing the construction of two nuclear reactors. The reactors have already cost customers more than \$1 billion to date and may never produce a single kilowatt of electricity.

On the other hand, homeowners who make investments in rooftop solar provide benefits to the entire en-

ergy grid. By employing their personal capital they facilitate a lower cost, more reliable modern infrastructure that increases energy security. Innovations in rooftop solar paired with home storage will help us avoid unnecessary utility expenditures and support the grid when it needs power at critical times.

There are more than 260,000 Americans working in the solar industry, with strong demand from consumers for rooftop solar in every state. Solar isn't going away anytime soon. We should embrace this technology as part of the diversified energy portfolio.

GRESHAM BARRETT
Westminster, S.C.

'Takings' Meant Something Different at First

Two letters under the heading "Takings: Constitution Protects Owner's Loss" (July 6) neglect an overarching point as they blithely suggest that there's an obligation of the government to pay just compensation when a regulation compromises an owner's land value. "Regulatory takings" weren't part of the "original meaning" of the Fifth Amendment Takings Clause of the Constitution. Quoting a footnote from the Supreme Court's 1992 *Lucas v. South Carolina Coastal Council* opinion: "early constitutional theorists did not believe the Takings Clause embraced regulations of property at all." It was more than a century-and-a-quarter later (in 1922) that the court first "discovered" that a regulation—as contrasted with a physical intrusion or taking of legal title—could implicate the Takings Clause.

Shouldn't this original meaning be relevant? In a regulatory takings controversy, the all-important first issue is whether the regulation at issue results in a violation of the Takings Clause. On this issue, the question of "whether the land regulation was reasonable" is indeed relevant. Of the three considerations in the court's so-called balancing test on whether a

taking is caused by the regulation, the 2005 *Lingle v. Chevron* opinion pointed out that "the 'character of the governmental action,' for instance whether it amounts to a physical invasion or instead merely affects property interests through 'some public program adjusting the benefits and burdens of economic life to promote the common good,' may be relevant in discerning whether a taking has occurred." The letters are counting the money prematurely. Nearly all regulations adversely impact the value of property to some degree. There would be no end to the litigation if the position of these writers were accepted.

GERALD A. FISHER
Clarkston, Mich.

The Canny Gen. Eisenhower And Open Interstate Roads

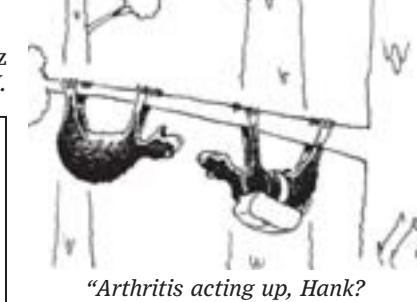
Joel Engel is a bit starry-eyed when he links President Eisenhower's early support for the Interstate Highway System with America's supposed wanderlust and Jack Kerouac's Beat novel "On the Road" ("California's Rise and Fall, From One Gov. Brown to Another," Cross Country, July 1).

Reading Gen. Eisenhower's "Crusade in Europe" reminds one that Ike and his pal George Patton were constantly frustrated by the narrow European roads as they maneuvered tanks and artillery toward the German enemy. It's more likely that President Eisenhower wanted a uniformly wide-open autobahn-like system for the U.S. in case America ever had to fight at home.

STEPHEN DAVIS
Milton, Mass.

Pepper ... And Salt

THE WALL STREET JOURNAL



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OPINION

The CEOs Who Didn't Deserve the Boot

By Jeffrey A. Sonnenfeld

Soaring CEO compensation can make it hard to feel sorry for the boss, especially when eye-popping pay packets are not matched by performance. While Uber founder Travis Kalanick's questionable conduct got him ousted, anxious corporate boards facing short-term investor pressures recently have sent unprecedented numbers of virtuous and transformational CEOs packing well before their times.

The Wall Street Journal reported last week that 13 companies with market capitalizations greater than \$40 billion replaced their CEOs during the first five months of 2017.

From Ford to DuPont to Honeywell, leaders are being punished unfairly for long-term thinking.

This list includes Ford, General Electric, U.S. Steel, Buffalo Wild Wings, CSX, AIG, Yahoo and Arconic. Many fell victim to a short-term mind-set fueled by activist hedge funds. Meantime, some top-performing CEOs—such as Michael Dell, Whole Foods founder John Mackey and Panera Bread's Ron Shaich—have led their companies away from short-term financial markets to focus on long-term business investments.

Today's corporate bosses aren't the robber barons or country-club networkers of yesteryear. Modern CEOs are generally smart, diligent and committed to their jobs. They can easily travel hundreds of thousands

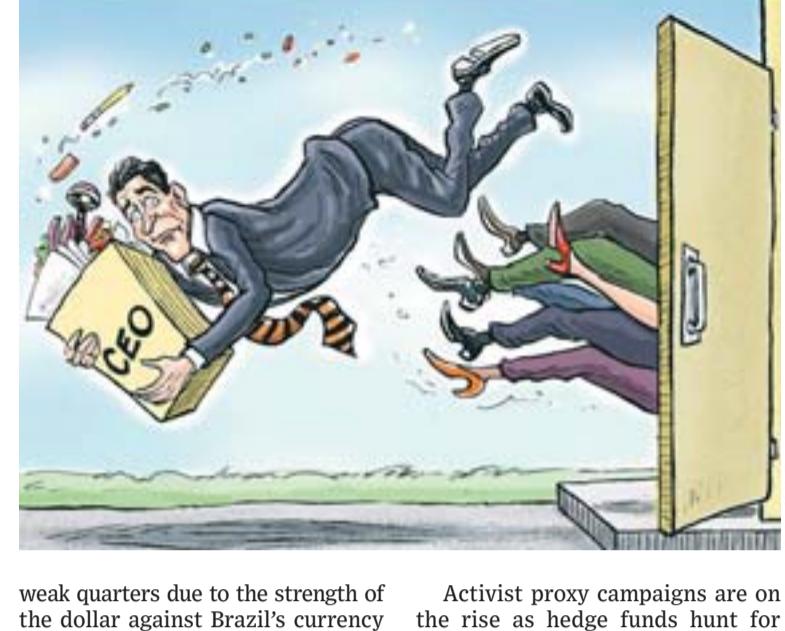
of miles a year. Eighty-hour weeks are the norm. Many report that the professional demands are so intense that they have little time for family or personal friendships.

Mark Fields worked for the Ford Motor Co. for 28 years, rising to become its CEO in 2014. During his three-year tenure at the helm of America's second-largest auto maker, the company was profitable. Ford's recent success was due in part to the popularity of the redesigned F-150 truck, which became America's best-selling vehicle on Mr. Fields's watch, and to other major product relaunches, including the legendary Mustang. In 2015, the company enjoyed the best earnings year in its 113-year history.

But since Mr. Fields took the reins, Ford's stock price had plummeted by 36%. He had warned investors that the pace of technological change meant Ford needed to sink some of its recent profits into long-term research and development. Ultimately the company's family-controlled board decided it could no longer resist pressure from investors to reinflate the stock price. Mr. Fields was let go in May.

Board panic is a feature of the current corporate environment. The board of retail giant J.C. Penney fell victim to activist pressure and pushed out the highly successful CEO Myron Ullman in 2011. Two years later they sheepishly had to lure him back.

Ellen Kullman's brilliant six-year reign at DuPont produced a 266% total shareholder return. In early 2015, she beat back a challenge from an activist hedge fund with a 2.7% stake in the chemical manufacturer. But while Ms. Kullman survived that battle, she couldn't hang on for long. Later that year DuPont suffered two



were three times as likely to be replaced within 12 months after activists joined the board.

All of this activist agitation hasn't translated into soaring performance. According to a 2015 Fortune magazine study, activist funds beat the S&P 500 index in only three of the previous eight years. Preqin's Hedge Fund Spotlight found that 100% of the institutional investors it surveyed were disappointed with their activist hedge fund investments.

The hedge funds are not the only ones to blame for the short-termism stalking corporate America's corner offices. Institutional investors such as public pension funds and university endowments fuel the activists' war chests. Eager to make up for faltering performance and lacking the resources for in-depth research on targeted companies, hundreds of such funds delegate their judgment to proxy raters and activists solely focused on short-term share price.

Some institutional investors have begun to push back. Companies targeted by activists have seen high rates of management turnover and communities devastated by large-scale job losses. Behemoth funds such as Calpers, BlackRock and Vanguard have begun to see how contrary these trends are to their own investors' longer-term interests.

Corporate boards need backbone, something that is unfortunately in short supply. Without it, many more quality CEOs will fall victim to the terror of short-termism.

Mr. Sonnenfeld is senior associate dean and a professor of leadership practice at the Yale School of Management.

weak quarters due to the strength of the dollar against Brazil's currency and a downturn in Chinese demand for agricultural chemicals. Before the company could recover from this modest setback, the board panicked and let Ms. Kullman go. A subsequent decision to merge with Dow Chemical has cost jobs, destroyed shareholder value, and ruined the reputation of this 215-year-old global icon.

Honeywell's Dave Cote left a proud legacy when he retired this spring in a classic internal succession. In a decade at the helm, Mr. Cote grew the Morris Plains, N.J.-based conglomerate's global market share and spurred a stock-price gain of nearly 200%. During the same period, the Standard & Poor's 500 index gained only 63%. Yet two months into the reign of successor Darius Adamczyk, activist investor Dan Loeb pushed for change. So much for a honeymoon at Honeywell.

Activist proxy campaigns are on the rise as hedge funds hunt for short-term stock returns. In the 1960s investors held stocks on average for eight years. Now the average is eight months. Fearing the cost of engaging in proxy battles, not to mention the bad press, directors often wrongly settle with activists, just as many settled with the leveraged-buyout artists of the 1980s. Corporate boards settled 45% of proxy battles in 2016, with many settlements involving invitations to activists to join the board. Fifteen years ago only 17.5% of proxy battles were settled in this way.

These settlements often lead to disproportionate activist representation on corporate boards. It's not unusual for a 4% ownership stake to net an activist as much as a third of the seats on a board. The research and consulting firm FTI looked at 300 activist campaigns between 2012 and 2015 and found that CEOs

Trump Gives Beijing a Lesson in the Art of the Deal

By Michael Auslin

With only six months in office, President Trump has put his signature on America's China policy. A strategy that may appear capricious to his critics in fact has a logic consistent with Mr. Trump's guiding beliefs. He sought a deal with China, then concluded he would not get one, and so acted in what he believes is America's best interest.

Mr. Trump's approach is undoubtedly transactional, but it's surprisingly realistic given China's kid-glove treatment by most U.S. presidents. In potentially putting Beijing and Washington at loggerheads, it is also undeniably risky.

In June, the White House delivered three blows to China. First, it imposed sanctions on a Chinese bank and two individuals for abetting North Korea's financial transactions. Second, it listed China in the category of worst offenders in human trafficking. Finally, it announced a \$1.4 billion arms sale to Taiwan.

The Trump administration also made several lesser-order jabs, among them calling for more freedom in Hong Kong and conducting another freedom-of-navigation operation near the contested Spratly Islands in the South China Sea. It did all this as Chinese President Xi Jinping tried to celebrate the 20th anniversary of the return of Hong Kong to China from Britain.

Any one of these actions would normally be enough to rock Sino-U.S. relations, at least for a while. Taken together, they constitute a significant break from the past two decades of diplomatic engagement between the two powers. Is this an enduring shift on the part of the Trump administration? Or simply shots across Beijing's bow to get China to cooperate more with Washington and behave better abroad?

To Mr. Trump's critics, the moves represent a recognition of his initial naivete regarding China. When the president tweeted on June 20 that China's efforts to help on North Korea had not worked out, he was derided

for his apparent faith in Beijing's promises and for flipping his opinion so quickly. The latest turnaround was seen as part of a pattern stretching back to the campaign and transition, when candidate and President-elect Trump warned that he would not

The president's moves are neither capricious nor naive, though they lack a certain diplomatic finesse.

shrink from putting economic and political pressure on China. Then, soon after taking office, the president radically shifted to a far more cooperative stance, going so far as to host Mr. Xi at Mar-a-Lago for a family-style summit.

But Mr. Trump's moves are neither capricious nor naive, even if they do lack a certain diplomatic finesse. His interest has always been in the bottom line, and diplomatic

necessities of the kind that have suffused Sino-U.S. relations since Richard Nixon's epochal 1972 visit to Beijing are useful to him only if progress is being made.

Last month's actions put Beijing on notice that Mr. Trump's transactional approach is real, and so are the potential consequences for failing to make a deal. Moreover, each move serves some larger U.S. purpose, whether strategic (Taiwan) or tactical (North Korea). Chinese leaders have long been accustomed to strong words and no action from Washington; now they will have to consider how far the Trump administration may go.

By publicly calling out China, Mr. Trump risks chipping away at Beijing's carefully polished image as a global leader and contributor to stability. Beijing, already upset by criticism leveled by Defense Secretary Jim Mattis about China's militarization of the South China Sea islands, lashed back at the administration's moves, especially the arms sale to Taiwan.

With a critical Communist Party Congress coming up in the fall, Mr. Xi will be loath to be seen as unable or unwilling to combat an activist U.S. policy in Asia. He may look for ways to check Mr. Trump's recent moves, such as ratcheting up economic and diplomatic pressure on U.S. allies like South Korea, which is already in Beijing's doghouse for accepting a new U.S. missile defense system. Mr. Xi may also try to regain some standing by challenging the U.S. Navy in the South China Sea.

Mr. Trump has made clear that he means what he says about deal-making. China said it would help and did not. That's enough for Mr. Trump to put the world's two most powerful countries on a potential collision course. He might be bluffing or he might be in earnest. Either way, the American president's sharp dose of realism has the potential to reshape the world's most important relationship.

Mr. Auslin is a fellow at the Hoover Institution, Stanford University.

Racial Division, Made Possible by Viewers Like You

By Howard Husock

After the Trump administration proposed eliminating federal funding for public broadcasting, the Democratic Congressional Campaign Committee cited the plan in a fundraising pitch. The DCCC quickly backed off its position—a partisan appeal doesn't help public broadcasting's cause—but the incident is telling. It's no secret that NPR and PBS lean liberal. Less appreciated is the extent to which Corporation for Public Broadcasting (CPB) grants are organized around an idea central to the modern Democratic Party: identity politics.

The CPB annually receives a \$445 million federal appropriation to support public television and public radio. Most of this money goes to local stations, which pay dues to PBS and NPR for programming rights. Yet some \$97 million of the federal money

is distributed as direct programming grants, much of it to independent producers. This money is meant to support TV and radio programming, as well as educational projects that otherwise might not be commercially viable. Note that individual grants are not approved by the corporation's board, which is made up of presidential appointees.

Much of this money goes to the children's programming that makes PBS popular. But millions go to non-fiction documentary programming made by independent producers, and that's where the focus on identity politics becomes clear. The corporation provides grant support to five so-called minority consortia, including African-American, Latino, Asian and Pacific Islander groups, as well as Alaska natives.

Additional support is directed toward the Independent Television Service, which funds independent film

producers. ITVS maintains a "diversity development fund," which has supported projects such as a feminist examination of cheerleading and a videogame that introduces players to the hardships and perils of crossing the Sonoran Desert as a migrant.

Current-affairs programming funded by the CPB can reflect a similar sensibility. "The Talk," a PBS documentary, reduces the complexities of police-minority relations to advice minority parents are said to give their children about how to behave around cops. The program's website advises that "one's never too young to get woke about race." Identity politics also pervade radio. NPR's "Code Switch" deals with the "overlapping themes of race, ethnicity and culture."

Many of these projects are well-done and affecting. As a public-television producer, I once produced a series about racial violence in changing Boston neighborhoods and a film about affirmative action in a selective public high school. But organizing

program grants around specific identity groups isn't good for America—or the groups being represented. There are other ways to reflect the full range of Americans in public-broadcasting programming.

The Corporation for Public Broadcasting is pushing identity politics—except at pledge time.

Those who commission such programs are committed to a deeply embedded ideology. They see American history, politics and culture predominantly through a prism of race and gender. Millions of Americans share this view, but millions more look at the country's past and present in an entirely different way.

One need not set out to make programs about women and minorities for them to appear on television

and radio. Letting this occur organically tends to lead to better programming. Focusing on identity politics and its euphemistic cousin, "diversity," often leads to tiny audiences. It's notable that during on-air fundraising periods, PBS stations typically shelf such offerings in favor of music specials aimed at baby boomers. A federal stamp of approval on programming organized around identity groups is also itself a political statement—one the government has no business making.

If Congress does decide to continue to provide federal support for "public media," the criteria by which funds are distributed should be re-examined. Far better for public broadcasting, whether funded publicly or privately, to be a unifying force in America rather than a divisive one.

Mr. Husock, research vice president at the Manhattan Institute, is a member of the Corporation for Public Broadcasting board of directors.

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Notable & Quotable: Riots, Then and Now

From "Still Living With the Riot Effect," 50 Years Later" by Jason L. Riley, WSJ.com, July 11:

Today's black leaders and their liberal sympathizers in the media like to attribute a political consciousness to ghetto rioters, but a previous generation of black activists had a less romantic view. In his 1968 book, "The Unheavenly City," Edward Banfield writes: "Most civil rights leaders dismissed the idea that the riots were conscious protests; that was not merely an after-the-fact rationalization, Kenneth B. Clark said, it was an 'independent of the fact' one."

Bayard Rustin saw more opportunism than activism on display in the rioting: "They riot either out of sheer cussedness or for criminal reasons, and in some instances because mob action seems to be taking on the aspects of a fad. . . . Bedevil the police, strip stores, shout and yell, crush anyone who opposes you . . . and if the police try to stop it, just yell 'brutality.' This is the pattern."

That pattern persists today, and it's countenanced by groups like Black Lives Matter, the media and others on the political left who lack the honesty and courage of a Bayard Rustin. They are not doing the

black underclass any favors. The racial gap in average earnings among male workers was narrowing in the 1940s, '50s and '60s—even though racism was more prevalent and blacks had little political clout—but that trend has slowed significantly since 1970 as black males have left the labor force.

Inner-city residents have legitimate grievances today—the quality of public schools, for example—just as they did when Newark exploded a half-century ago. But arson and looting in the guise of protest is a form of self-sabotage that consigns yet another generation of blacks to society's margins.

WORLD NEWS

Risky Test of Wills Unfolds Over Baltic Sea

Adversarial flights, close intercepts raise concern of escalation between Russia, NATO

NATO and Russian pilots are reviving a Cold War contest of nerves, increasing the risk that airborne close encounters could accidentally spark a conflict.

By Nathan Hodge in Moscow and Julian E. Barnes in Brussels

Over the past three years, the number of adversarial flights near the other side's planes and ships has increased significantly. The tactic, usually meant as a show of force or used to test tactics, revives a dormant game of chicken long played by Soviet and North Atlantic Treaty Organization pilots.

It was a risky game: Aircraft sometimes narrowly avoided midair collisions, and opposing ships occasionally collided at sea. NATO officials now worry about a new phase of reckless gamesmanship and its consequences.

Concerns have risen to the point where they now figure large in conversations between NATO and Russia. The NATO-Russia Council, a body established in 2002 to encourage cooperation and consultation between Moscow and the alliance, is set to meet Thursday to discuss large-scale Russian exercises in September. Western officials worry the exercises could lead to a new surge in midair incidents.

The Baltic Sea has become the focus for this new white-knuckle geopolitical tussle. Rhetoric is rising in the region, where newer NATO members on Russia's border are nervous and Russia's military has shown a willingness to use intercepts as political messages.

NATO and U.S. officials believe an accidental air-to-air collision, or a plane crashing into a ship, is one of the most



MASTER SGT. CHARLES LARKIN SR./US AIR FORCE/ASSOCIATED PRESS

dangerous threats facing the alliance. A deadly mishap could engender an escalation—with each side accusing the other of provocation.

"What we see in the Baltic Sea is increased military activity—we see it on land, at sea and in the air, and that just underlines the importance of transparency and predictability to prevent incidents and accidents," NATO Secretary General Jens Stoltenberg said. "And if they happen, it is important to make sure they don't spiral out of control and create dangerous situations."

Allies are expected to raise the issue of the intercepts at Thursday's meeting, officials said. Allied officials said risk reduction in the Baltic Sea is a

concern, in particular in light of what one NATO official called "unsafe and unprofessional behaviors by Russian pilots."

The air-safety issue has been discussed before but is taking on renewed urgency because of the coming exercises and several close calls this year.

Global Zero, a research and advocacy group that opposes nuclear weapons, analyzed 97 midair confrontations between Western and Russian military aircraft over the Baltic between March 2014 and April 2017, more than two-thirds the global total of air intercepts in that period. Such confrontations were rarer in the decade before Russia annexed Crimea in early 2014.

The U.S. recently accused a Russian Su-27 jet fighter of

unsafely intercepting an American reconnaissance plane on June 19 and flying erratically just yards away from it.

Two days later, Russian television footage appeared to show a Polish F-16 approaching a plane with the Russian defense minister on board. A Russian Su-27 fighter zooms into the picture, performing what the Russians described as a warning maneuver before flying away. The channel quoted military expert Alexander Zhilin as saying the allied pilots "are conducting themselves simply like bandits."

Poland has said its plane was on a NATO patrol mission when it intercepted the Russian jet. NATO officials have said there was nothing unprofessional about the intercept.

Western officials and the Global Zero report say it is Russian pilots who more often undertake unsafe intercepts. Some, they say, are accidents, some negligence, and others intentional shows of force.

Lukasz Kulesa, research director at the European Leadership Network, London think tank, said some incidents "seem to be connected to sending a message to the other side."

He said Russian aircraft approached U.S. spy planes over the Baltic shortly after a confrontation between the U.S.-led coalition and the Syrian regime led to U.S. aircraft shooting down a pro-regime drone and Syrian warplane.

"It's a way to say that we, the Russians, are displeased with your behavior," Mr. Kulesa said.

Tensions in the Sky Recall 'Top Gun' Era

Aerial daredevilry between Russian and American pilots has a history.

Ward Carroll, a former F-14 Tomcat radar intercept officer, recalled that in the Top Gun-era game of chicken in the 1980s, slow-flying Soviet warplanes would lumber past U.S. aircraft carriers.

A carrier would launch fighters to intercept them, with Mr. Carroll and his fellow naval aviators flying high-speed passes over Soviet ships as a show of force.

The aerial maneuvers had a serious purpose during what one Russian-language aviation history described as the "hot skies of the Cold War." Both militaries could test the other's tactics, assessing the range and capabilities of ships and aircraft.

The Soviets wanted to score propaganda points by capturing images of their planes buzzing U.S. carriers. The Americans intercepting them wanted to take close-up photos of the antennae and telltale bumps on the fuselage of the Soviet aircraft that could reveal vital intelligence about their capabilities.

"Anytime they took a picture of a carrier, you wanted a Tomcat in the picture," Mr. Carroll recalled. "It was photobombing. That was our job, to photobomb the Russians as they flew past the carrier."

The game of nerves had lighter moments, underscoring a sort of camaraderie among aviators.

Mr. Carroll recalled flashing copies of Playboy magazines at the Soviet pilots, and he and his colleagues removing their helmets and putting on Ronald Reagan masks to spoil Russian photographs.

—Nathan Hodge

WORLD WATCH

INDONESIA

Jakarta Gets Power To Disband Radicals

Indonesia said President Joko Widodo had signed a decree giving his government the power to disband radical organizations, following months of sectarian tensions in the predominantly Muslim nation.

Chief security minister Gen. Wiranto said the decree, signed Monday, aimed to protect the country's pluralist traditions.

The most likely target of the decree is the international group Hizbut Tahrir, which argues Indonesia should adopt Islamic Shariah laws and become part of a transnational caliphate.

—James Hookway

UNITED KINGDOM

Divorce 'Bill' Is an EU Priority, Barnier Says

Britain must stand by its spending commitments if it wants to discuss a future trade deal in Brexit talks, the European Union's chief negotiator said.

With the second round of Brexit talks set to start on Monday, Michel Barnier on Wednesday urged the U.K. government to present position papers on all priority issues in the talks, including a bill for spending commitments it has made that the EU says must be paid upon leaving.

That issue, citizens' rights and the status of Northern Ireland are indivisible," Mr. Barnier said.

—Laurence Norman

EUROZONE

Economic Upturn Picks Up Steam

Output at the eurozone's factories, mines and utilities rose at the fastest annual pace in more than five years in May, a fresh indication that the area's economic recovery picked up in the second quarter.

The European Union's official statistics agency said output was up 1.3% from April, and 4% from May 2016. The annual rate of increase was the fastest since August 2011. That performance was stronger than expected.

—Paul Hannon

Huge Iceberg Splits Off Antarctic Peninsula

By DANIELA HERNANDEZ

Scientists reported Wednesday that a 1 trillion-ton iceberg nearly the size of the state of Delaware broke off the Antarctic Peninsula, changing the continent's landscape in one of the largest such "calving" events in recent history.

Experts say the new iceberg—at 2,240 square miles, or 12% of the total ice shelf from which it came—won't lead to rising sea levels because the same amount of mass was already submerged in the water.

But they worry about what it means for the floating ice shelf from which it came, called Larsen C, and whether the calving might herald a growing vulnerability to the warmer temperatures associated with climate change.

"Antarctica has lost area by a huge amount," said Martin O'Leary, a scientist at Swansea University in the U.K. who is part of a European project focused on studying Western Antarctica.

Two ice shelves, Larsen A

and Larsen B, have previously collapsed. Larsen C could be next, according to scientists.

In 2000, a larger chunk splintered off the Ross Ice Shelf on the Western edge of Antarctica to the south of the Larseens.

It is unclear whether climate change contributed to the rift that developed recently in Larsen C and the eventual calving of the new iceberg.

"People are pretty hesitant to say this is for sure related to climate change," said Kelly Brunt, a glaciologist at the University of Maryland and the NASA Goddard Space Flight Center.

While it is "way outside" the average size of other observed calving events, scientists haven't observed telltale signs of warming-induced changes, like melt ponds, she said.

Still, there is concern. If "there's less of it, smaller [environmental] changes can have larger effects," Dr. O'Leary said. "Big ice shelves tend to be more stable."

Collapse of an entire ice shelf generally can be more problematic for sea levels be-



BRITISH ANTARCTIC SURVEY/ASSOCIATED PRESS

cause the shelves help prevent ice from the continent's interior creeping toward the edge and into the sea, scientists say.

Dr. Brunt said the glaciers held back by Larsen C originate from a mountain range and are relatively small. So in this case,

she said, the potential effects on sea-level rise from ice accelerating toward the ocean would be "nothing to lose sleep over" should Larsen C collapse.

Other scientists are less sanguine. "In the next decades, we will likely see more

icebergs from Larsen C and eventually it will reach a point of no return, break up in a domino effect and unleash massive discharge of land ice into the ocean," said Eric Rignot, a scientist at the University of California, Irvine.

U.S. Delay on Sudan Relief Puts Cooperation at Risk

By MATINA STEVIS

KHARTOUM, Sudan—The Trump administration's move to delay a decision to permanently lift sanctions on Sudan leaves the country an international pariah and could hinder efforts to cooperate on intelligence, counterterrorism and aid to South Sudan.

The State Department on Tuesday said despite progress by the strategically important nation of 40 million, it would put off until mid-October the widely expected ratification of an Obama-era policy that would bring the country back into the global fold.

Senior administration officials played down the extension on Wednesday, saying, "the stated intent is to lift the sanctions," which have been in place since 1998.

Sudan's presidency then pledged to suspend talks with the U.S. for the same period.



ASHRAF SHAZLY/AGENCE FRANCE PRESSE/GETTY IMAGES

"We believe we don't have more to do," Foreign Minister Ibrahim Ghandour said in an interview. "All the stakeholders from CIA to FBI to the State Department showed on various occasions their satis-

faction with the progress."

Western diplomats in Khartoum said experts and civil servants working on five areas in which the U.S. was demanding changes from Sudan had recommended sanctions be

lifted. These included opening humanitarian corridors, intelligence sharing and ending conflicts in parts of the country.

"It was the president who made the final decision," the senior administration official involved in the assessment said.

For President Omar al-Bashir—the world's only sitting head of state wanted for war crimes by the International Criminal Court—the Washington-led sanctions have changed little: He is firmly ensconced in power and has responded brutally to any protests against his 27-year rule.

Sudan was first placed on the list of state sponsors of terrorism in 1993, when it harbored Osama bin Laden and other terrorists in Khartoum, and was placed under comprehensive economic sanctions in 1998 by the Clinton administration after the bombings of the U.S. embassies in Nairobi and Dar es Salaam.

The sanctions were bolstered further in 2007 by President George W. Bush in response to worsening fighting in Darfur. Over the years, the government has been accused of fighting bloody wars against its people there and other peripheral regions of the country. The government has said those conflicts have ceased.

The Obama administration in January began taking steps to lift the trade embargo with Sudan as well as to unblock Sudanese government assets that have been frozen in various sanctions measures taken against the country.

The Trump administration faced a July 12 deadline to decide whether to make that relief permanent or not, and said late Tuesday it would delay the decision for three months but that the initial steps to ease sanctions would remain in place.

BUSINESS & FINANCE

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THE WALL STREET JOURNAL.

Thursday, July 13, 2017 | B1

S&P 2443.25 ▲ 0.73%

S&P FIN ▲ 0.11%

S&PIT ▲ 1.31%

DJ TRANS ▲ 1.22%

WSJ \$IDX ▼ 0.25%

LIBOR 3M 1.304

NIKKEI (Midday) 20128.88 ▲ 0.15%

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Dow Hits Record on Rate Signals

Clues from the world's largest central banks on their next moves buoy sentiment

BY AMRITH RAMKUMAR
AND RIVA GOLD

Stocks and government bonds rallied and the dollar fell after Federal Reserve Chairwoman Janet Yellen addressed a slowdown in inflation.

Wednesday's moves were the latest swings caused by signals from the world's largest central banks. Many investors and analysts have been closely watching for clues about how quickly they plan to scale back the monetary stimulus that has been in place since the financial crisis, with global economic growth showing signs of improvement recently.

In testimony on Capitol Hill, Ms. Yellen said she expects consumer prices to allow the central bank to keep gradually raising interest rates, but the Fed would alter its plans if weak inflation proved more persistent.

Inflation has slowed in recent months, and some analysts and investors said Ms. Yellen's comments suggested that the Fed might be more cautious with future rate increases.

"People heard what they wanted to hear," said Rob Bernstein, a managing director in equity trading at Credit Suisse Group.

The Dow Jones Industrial Average climbed 123.07 points, or 0.6%, to a record of

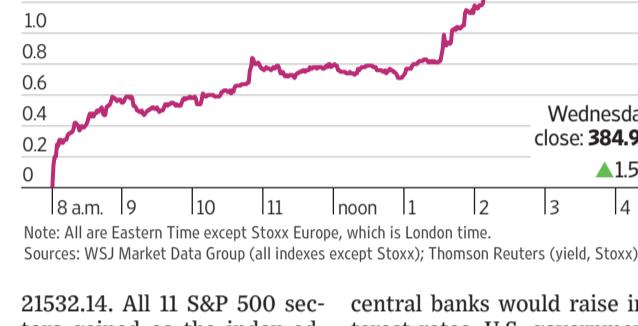
Wings of the Dove

Remarks from Federal Reserve Chairwoman Janet Yellen sent stocks higher and Treasury yields and the dollar lower, as investors gleaned a go-slow approach to raising interest rates.

Stock-index performance



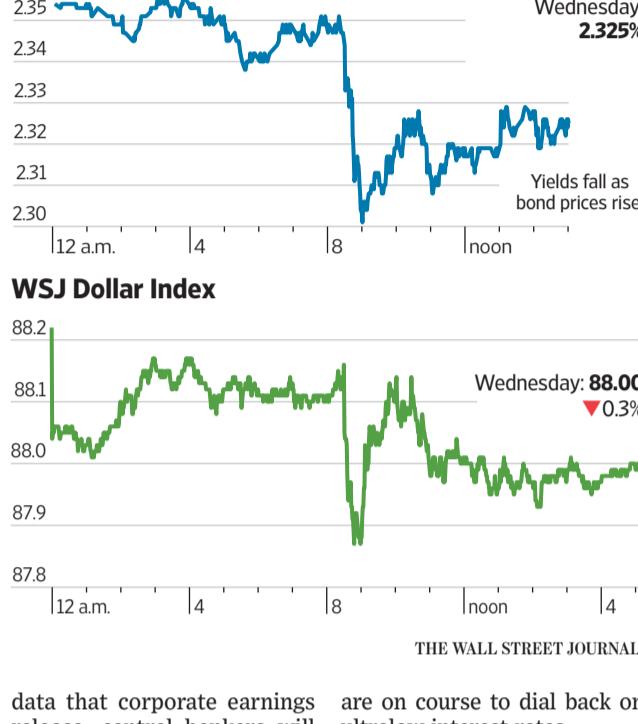
Stoxx Europe 600 performance



Note: All are Eastern Time except Stoxx Europe, which is London time.

Sources: WSJ Market Data Group (all indexes except Stoxx); Thomson Reuters (yield, Stoxx)

Yield on the 10-year Treasury note



WSJ Dollar Index



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21532.14. All 11 S&P 500 sectors gained as the index advanced 17.72 points, or 0.7%, to 2443.25, while the Nasdaq Composite rose 67.87 points, or 1.1%, to 6261.17—the biggest one-day gains for both indexes since June 28.

Bonds have steadied in recent days after a two-week selloff that was driven by concerns about how quickly global

central banks would raise interest rates. U.S. government bonds strengthened Wednesday, with the yield on the 10-year Treasury note falling to 2.325% from 2.362% on Tuesday. The WSJ Dollar Index, which tracks the currency against a basket of 16 others, edged down 0.3%, extending declines from a day earlier.

"In the absence of the micro

data that corporate earnings release, central bankers will continue to be a great point of emphasis for investors," said Eric Wiegand, portfolio manager at the Private Client Reserve at U.S. Bank.

The Bank of Canada raised interest rates for the first time in seven years Wednesday, joining a growing group of global central bankers signaling they

are on course to dial back on ultralow interest rates.

The Stoxx Europe 600 bounced back from an 11-week low, rising 1.5% for its biggest one-day gain since April 24. Early Thursday, Japan's Nikkei was up 0.2% and Hong Kong's Hang Seng Index was up 1.1%.

◆ Treasuries advance after Fed chief's comments B12

PERSONAL TECHNOLOGY

By Geoffrey A. Fowler

An Oven That Cooks Your Dinner All by Itself

Attention, people too tuckered out to make dinner and anyone who eats way too much Chipotle: There's now an oven that will cook you a fresh meal—pretty much on its own.

Tovala, launching this week, aims to reinvent the TV dinner. Instead of lurking in the freezer aisle, these \$12-a-person meals are shipped to your door, chilled in ready-to-cook packs. Instead of a microwave, the meals cook in a special \$400 steam oven. And since this is 2017, of course that oven connects to the internet.

The verdict, after two weeks of cuisine à la robot-chef: Tovala turns out super-fast, consistent restaurant-quality meals, making it the first connected kitchen device with real mass appeal.

But before I buy in, Tovala has to prove it can turn its razor-and-blades model into a sustainable business.

Ever since a colleague and I began testing two Tovala ovens, our insta-meals have been the subject of fascination, and considerable ribbing, by family and colleagues. Some couldn't believe mankind had slipped to this new level of laziness.

The rest wanted to know where they could buy one.

Internet food shopping still hasn't gone mainstream, but millions of Americans are going online for "meal kits." They remove the hassle of planning and shopping by shipping selected recipes' necessary ingredients to your doorstep. Meal-kit pioneer Blue Apron faces dozens of competitors, with prices that range as high as \$18 a person. There's even a Tom Brady meal kit.

Tovala's subscription kits, with meals costing \$2 a per-



THE WALL STREET JOURNAL.

A diamond mine in Lesotho, which has seen a surge in activity as miners deal with a shortage

Mining for Diamonds in the Rough

BY ALEXANDRA WEXLER

LETSENG-LA-TERAE, Lesotho—A looming global diamond shortage is driving a small band of adventurous miners to brave bone-chilling winds at the world's highest mines to extract stones that are worth as much as 20 times the global average.

The excavation is extremely challenging. The diamond-bearing kimberlite formations in the 11,000-foot-high Maluti mountains had for years been

largely untouched by mining companies due to the difficulty and cost involved in extracting the stones from such heights. The mines—which see temperatures dip 30 degrees below zero with wind chill—lie through landlocked and impoverished Lesotho's steep, narrow, winding mountain passes and past one of southern Africa's two ski resorts.

Recently, active mines in the area have been on the rise, with more mines slated to come online soon, as strong

demand for high-end diamonds encourages nimble miners to brave the craggy area known as the Roof of Africa to dig up some of the earth's most valuable stones.

The Letseng mine, majority-owned by U.K.-based Gem Diamonds, has a tiny yield, but produces diamonds whose price—roughly \$2,000 a carat on average based on 2015 and 2016 prices—far surpassing the global average of just over \$100 a carat.

Since Gem took over the

mine in 2006, Letseng has produced four of the 20 largest diamonds ever found. That is excluding the 601-carat "Lesotho Brown," which was discovered at Letseng by a local woman in 1967. One diamond cut from that stone is said to have ended up in Jackie Kennedy's engagement ring from Aristotle Onassis.

"It's a mine that mines a jewelry box," says Clifford Elphick, Gem's chief executive, quoting a favorite quip from

Please see MINING page B2

Big Oil Remains Wary of Iran Dealings

BY BOENOT FAUCON

ISTANBUL—Iran's ambitious agenda for its oil-and-gas industry is running up against the caution of big energy companies.

At a major energy conference here, Iranian officials said French oil giant Total SA's commitment of \$1 billion toward a gas project this month marked a new chapter in the country's energy business since the end of Western sanctions. Iranian officials promised 10 contracts like it in the next year and said they were seeking \$92 billion in foreign investment to raise oil production by a third and gas exports by 15-fold by 2021.

"Our hands are full," Iranian Deputy Oil Minister Amir Hossein Zamaninia told reporters in Istanbul at the World Petroleum Congress, saying 25 contracts were being negotiated with foreign companies. "We think that the situation is nor-

mal enough now for major international oil business to get engaged in Iran," he said.

Other big oil companies have been more reticent than Total about wading into Iran, even with its huge reserves.

Western companies are wary of running afoul of remaining

U.S. sanctions on Iran tied to weapons, human rights and terrorism allegations. Overall, the industry is still smarting from an oil-price downturn that isn't letting up in its third year, making companies cautious on new spending.

Speaking at the same conference here, BP PLC Chief Executive Bob Dudley said he was looking outside Iran for now, as the company had already committed to \$15 billion in spending elsewhere this year.

"We have a full plate," Mr. Dudley said at a news briefing. "We have to stay on a capital diet."

U.S. companies such as Exxon Mobil Corp. and Chevron Corp. are barred from doing business in Iran, but European companies like London-based BP can still try to make a deal work. One factor slowing things down: U.S. President Donald Trump has criticized the deal over Iran's nuclear program and threatened to pull out or tighten sanctions.

"BP's decision to be cautious on Iran [was] a ripple effect" of U.S. pressure against doing business in Iran, Mr. Zamaninia said.

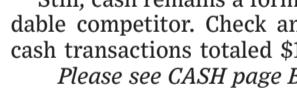
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INSIDE



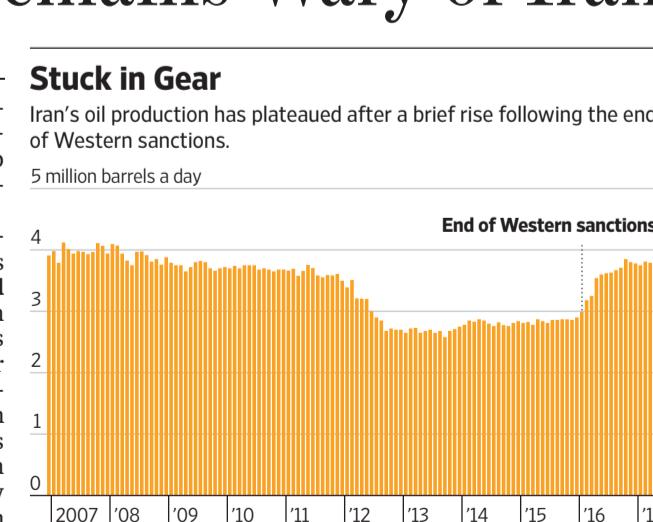
ACTIVISION BUILDS LEAGUE OF ITS OWN

ESPORTS, B4



OPEC OPENS SPIGOT TO SKEPTICISM

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U.S. sanctions on Iran tied to weapons, human rights and terrorism allegations. Overall, the industry is still smarting from an oil-price downturn that isn't letting up in its third year, making companies cautious on new spending.

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IRAN

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A BP spokesman declined to comment.

Total's commitment in Iran is evidence that oil companies have concluded "the return of sanctions is very unlikely, if not impossible," Mr. Zamaninia said. Total said it was in compliance with all sanctions.

Mr. Zamaninia has tried to use the World Petroleum Congress as a sort of coming-out party for Iranian energy opportunities after the Total deal. He cracked jokes while sharing a panel with Mr. Dudley and Barry Worthington, executive director of the U.S. Energy Association, an industry

body that advocates for American oil companies.

The panel also underscored Iran's challenges. While Messrs. Dudley and Zamaninia talked before the panel, Mr. Dudley said they only discussed its topics—not any potential business.

Mr. Dudley, a U.S. citizen, didn't elaborate, but Washington's sanctions bar Americans from discussing oil deals with Iran.

Mr. Dudley called Total's deal a "very good sign for the industry" but said he hadn't seen its terms. Total and Iranian officials have said the 20-year contract was longer than deals Iran permitted in the past and allowed the company more flexibility to recoup costs.

Total Chief Executive Pat-

rick Pouyanne said the company and its partners were already preparing tenders to contractors in the project. Total's partners include China

National Petroleum Corp. and an Iranian company.

Royal Dutch Shell PLC signed a preliminary agreement to explore opportunities in Iranian oil fields late last year. The Anglo-Dutch company held meetings in Tehran

and Dubai in the two past months with National Iranian Oil Co. and Chinese state-run China Petroleum & Chemical Corp. to work together on an oil field called Yadavaran, said a person familiar with the discussions.

People who work with the company said it is concerned about its exposure to the U.S. and is more selective in the choice of its banks than Total.

A Shell spokeswoman said "Shell is interested in exploring the role it can play in developing Iran's energy potential. We have been engaging with Iranian officials, but it is still too early to discuss potential Shell investment in any project."

Oil companies are closely watching a political debate playing out in Iran since the

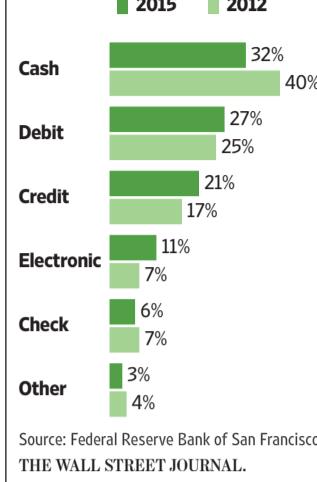
total deal. On Wednesday, Iranian Oil Minister Bijan Zanganeh was grilled in the country's parliament over what some hard-liners said was a sweet deal for Total. Some lawmakers threatened to block it, though they relented.

Iran is also working against a persistent chill in oil investments globally. While global oil and gas investments are set to increase 3% this year, most of it is flowing to U.S. shale oil, according to the International Energy Agency, an adviser to governments on energy issues.

Iran's old oil fields are a challenge, requiring "patience and high technology," Laszlo Varro, the IEA's chief economist, said.

VISA EXPANDS WAR ON CASH

Share of U.S. consumer transactions by payment type



Source: Federal Reserve Bank of San Francisco
THE WALL STREET JOURNAL.

CASH

Continued from the prior page trillion world-wide in 2016, up about 2% from a year prior,

according to Visa.

Cards have made headway but cash remains the most widely used means of payment among Americans, accounting for 32% of all consumer transactions in 2015, according to a November report by the Federal Reserve Bank of San Francisco. By comparison, debit cards accounted for 27% and credit cards 21%.

To gain share, Visa in the U.S. is targeting spending categories, such as parking and rent, that have been entrenched in cash and check payments for decades. Abroad, it is partnering with governments to move more payments onto its network, including a recent agreement to help Poland move toward a cashless system.

Some merchants have already stopped taking cash. In New York, Filipino taqueria 2nd City hasn't accepted cash since it opened its doors in 2016. Michael Ryan, the co-owner and co-founder, said he never ordered cash drawers or a safe. He estimates that by not having to count cash, visit a bank or arrange for change, the manager on duty saves about 23 hours a week.

However, many merchants prefer sticking with cash because of the fees. Credit-card interchange fees, which networks like Visa set and that merchants pay to the banks that issue their cards, are on average around 2% of the transaction amount, according to the National Retail Federation, the largest trade group that represents merchants in the U.S.

"The idea that merchants don't want to accept cash is a myth," said Mallory Duncan, senior vice president and general counsel at the National Retail Federation.

MINING

Continued from the prior page his former boss, gold and diamond magnate Harry Oppenheimer.

Mr. Elphick recalls how the late Mr. Oppenheimer, who served as chairman of mining behemoth Anglo American PLC and diamond giant De Beers from the late 1950s to early 1980s, would often point to the mountains of Lesotho while flying over them on his way from Johannesburg to Durban, South Africa. "He said it produced the most beautiful of all the diamonds," Mr. Elphick says.

De Beers—which operated Letseng for a decade until a market downturn in the early 1980s—reaped the rare type-IIa stones, known during colonial times as "gin-and-tonic diamonds" because they are the color of a freshly poured G&T. Gem bought 76% of the mine from the Lesotho government in 2006 and currently owns 70%.

Since Gem's successful reboot of the flagship Letseng mine about a decade ago, Lesotho—a tiny nation encircled by South Africa that ranks 160 out of 188 on the United Nations' Human Development Index—has made a fresh push to promote its mineral wealth.

It is taking advantage of the impending closure of older mines around the world and the lure of high-end stones, whose prices have held even as revenues from lower-grade ones softened in recent years.

The newest mine to come into production—Firestone



Diamond-bearing rock ore, called kimberlite, is processed at the Letseng mine in Lesotho.

Diamonds PLC's Lihobong mine, located in the same Maluti mountains as Letseng—was completed end of last year.

In February, Firestone held its first auction of diamonds from the mine, selling all 75,936 carats offered. A single 37-carat diamond was sold for over \$1 million.

Lihobong "has raised a lot of eyebrows and very well could result in a recurrence of interest in terms of diamond exploration in Lesotho," said Patrick Morton, a metals-and-mining analyst at Macquarie

Group.

In May, Australia's Lucapa Diamond Co. said it had raised 19 million Australian dollars (US\$14.5 million) to develop the neighboring Mothae mine. Lucapa says it expects to get an average price of well over \$1,000 a carat after the mine comes into production in early 2018.

There are obstacles, however, to turning Lesotho into an African diamond hub.

Since a bloodless attempted coup in 2014, Lesotho has changed government twice, most recently after it held

elections on June 3. The political upheaval has deterred long-term investment.

Lack of skilled workers was a big reason for Lucara Diamond Corp. to turn back its 75% stake in the Mothae diamond mine to the government of Lesotho; the mine is now operated by Lucapa.

The challenge for Lesotho has been getting these skilled workers to return and remain in country with limited opportunities due to the small number of active mining operations," said William Lamb, chief executive of Lucapa.

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BUSINESS NEWS

Apple Eases Its Grip on Chinese Data

BY ALYSSA ABKOWITZ
AND EVA DOU

BEIJING—To comply with tough new cybersecurity rules, Apple Inc. will begin storing all cloud data for its China customers with a government-owned company—a move that means relinquishing some control over its Chinese data.

Apple will build its first Chinese data center in the southern province of Guizhou to house data for customers of its iCloud service. The data include photos, documents, messages, apps and videos uploaded by Apple users throughout the mainland, the company said Wednesday.

The center will be operated by a company owned by the

people pulls some iCloud data for Chinese users from servers in the U.S.

Apple said it made the latest change to comply with China's new rules on data storage and cloud-services operation that went into effect June 1 as part of sweeping new regulations aimed at improving cybersecurity. It also said the new data center would improve speed and reliability for customers in China.

The Silicon Valley company has been one of the technology industry's strongest advocates for fending off government incursions into user data. In a statement, Apple said it has "strong data privacy and security protections in place and no backdoors will be created into any of our systems."

The latest move comes as Apple has been facing increasing regulatory headwinds in China. Last year, for example, its online book-and-movie service was shut down by authorities, who didn't give specific reasons for the closing.

China has ramped up pressure on foreign cloud-service providers over the past year to comply with longstanding rules that require them to partner with local firms. Microsoft Corp. and Amazon.com Inc. already have local partners.

"It's clear that this is now being enforced across the board," said Chris DeAngelis, Beijing-based general manager of consultancy Alliance Development Group. "Any cloud-based company coming into China has to have a local operating partner."

Under the agreement, Apple will retain control over encryption keys at the data center. It wasn't clear if it would have access to any of the data itself, which would be overseen by its Guizhou partner.

In addition, Apple wouldn't be able to transfer data from Chinese customers to the U.S., in compliance with China's new cross-border data guidelines that were also part of the latest cybersecurity rules.

The announcement significantly expands a concession Apple made to appease Chinese authorities in 2014, when it started storing some data at facilities owned by state-owned China Telecom to dispel security concerns. At the time, Apple said the move would improve performance for Chinese customers.

Apple didn't clarify which data was being stored under that previous agreement, but under the new arrangement all of the iCloud data for its customers in China will be stored in the country. Currently, Ap-

It is the first time iCloud has been co-branded. The transition will occur over the next several years while the \$1 billion data project is developed.

—Tripp Mickle

in San Francisco contributed to this article.

Chinese Influence

Apple's quarterly revenue and share from China



Source: the company

Berkshire Pushes Texas to Clear Oncor Bid in Fight With Elliott

BY PEG BRICKLEY

Berkshire Hathaway Energy Co. is racing to get Texas regulators to sign off on its takeover of Oncor in an effort to outpace Elliott Management Corp., a hedge fund with its own designs on the energy-grid business.

Time is of the essence in the duel between the two contenders for Oncor, one of the largest power-transmission systems in the country. Berkshire Hathaway Energy, the energy unit of Warren Buffett's Berkshire Hathaway Inc., signed a \$9 billion cash deal last week but needs approval from the Public Utility Commission of Texas as well as from a bankruptcy judge to finalize the buyout.

Instead of the recovery of 80 cents on the dollar they were expecting under an earlier Energy Future plan, junior bondholders calculate they will receive only 24 cents for every dollar of debt they own, said

to 90 days, said Chad Husnick, lawyer for Energy Future Holdings Corp., which owns 80% of Oncor, at a hearing Wednesday in U.S. Bankruptcy Court in Wilmington, Del.

The goal is for Berkshire to show up in bankruptcy court in October, he said, to win confirmation of an Energy Future bankruptcy restructuring plan that will cement Berkshire's acquisition of Oncor.

Meanwhile, Elliott, Energy Future's biggest bondholder, is lining up financing for a counteroffer that is picking up support from other junior bondholders who believe the Berkshire buyout will leave them shortchanged.

Instead of the recovery of 80 cents on the dollar they were expecting under an earlier Energy Future plan, junior bondholders calculate they will receive only 24 cents for every dollar of debt they own, said

The Robot in the Pin-Striped Suit Discusses Future of Humanity



REAL TALK: Han the Robot, a creation of Hanson Robotics, engaged in a wide-ranging conversation with another robot Wednesday at the RISE Technology Conference in Hong Kong, where artificial intelligence was one of the topics of discussion.

Leukemia Therapy Garners Support

BY DENISE ROLAND
AND JOSEPH WALKER

A group of cancer experts voted unanimously on Wednesday to support U.S. regulatory approval for a first-of-its-kind gene therapy targeting an aggressive form of leukemia that occurs in children and young adults.

The treatment, called CTL019 and developed by Swiss drug company Novartis AG, works by modifying a patient's own immune cells to make them more effective at hunting down and killing tumor cells. It involves removing some of the patient's blood

and genetically modifying the T-cells, a type of immune cell, before re-infusion.

A Food and Drug Administration advisory committee, which comprises a group of cancer experts from across the U.S., voted 10 to 0 that the therapy had a favorable risk-benefit balance, meaning that its positive effects outweigh its safety risks. The question of risk-benefit balance is widely seen as a proxy for whether the FDA should approve the treatment.

"This is a major advance and is ushering in a new era of treating children with" severe leukemia, said committee

member Malcolm A. Smith, who is associate branch chief for pediatric oncology at the National Cancer Institute.

The FDA isn't required to follow the advice of such advisory panels, but it generally does so. Analysts expect the FDA to issue a final decision by the end of September.

The therapy holds out the promise of a significant advance in the treatment of children and young adults with a form of blood cancer known as B-cell acute lymphoblastic leukemia. It is also the first in a series of new treatments facing FDA review that use genetically modified T-cells.

For Novartis, FDA approval would open a potentially big, new revenue stream. Jefferies analysts estimate the drug could bring in \$850 million in annual sales by 2021.

Novartis has said that in a clinical trial, 52 of 63 participants who received the treatment were cancer-free after three months. The patients in the study had either failed to respond to standard therapies, or relapsed.

Most children and young adults with this form of leukemia are treated using existing methods such as chemotherapy, radiotherapy and bone-marrow transplants.

NRG to Sell Assets Amid Activist Pressure

BY RUSSELL GOLD

Buckling to pressure from activist investors, NRG Energy Inc. said Wednesday that it would sell up to \$4 billion in assets, slash costs and lower its debt as part of a "transformation plan."

NRG, which owns and operates power plants, said it would sell \$2.5 billion to \$4 billion in assets, including possibly all of its interest in NRG Yield Inc., a dividend-generating company with renewable energy holdings.

The moves are the final steps to undo a bold, but unsuccessful plan, under a previous NRG chief executive to diversify away from coal and gas into wind and solar. The strategy turned out to be a drag on earnings and depressed the share price.

Wednesday, shares of NRG jumped 29% to \$21.09, the stock's highest close in nearly two years.

The company began working on the plan in February, a month after activist hedge fund Elliott Associates LP teamed with Bluescape Energy Partners LLC to buy a combined 9.4% stake in NRG. In a letter in January, Elliott said



The energy company will slash costs, lower its debt and raise up to \$4 billion from asset sales.

NRG's stock was currently "deeply undervalued," but could be boosted with operational and financial changes.

The company shuffled its board of directors in February, adding three new members with ties to the activist investors.

Jeff Rosenbaum, portfolio manager at Elliott Management, said that he was

"pleased that this process has delivered such a strong plan for shareholders."

NRG and other independent power producers have been hurt by low electricity prices and weak power demand. Last month, NRG subsidiary GenOn Energy Inc. filed for chapter 11 bankruptcy to cut \$1.8 billion in debt.

NRG said it would attempt to slash its costs to make it better able to generate profits despite a sustained low wholesale price. The company said it hoped to reduce its generating costs by 25%. The company said it would lay off an unspecified number of workers and increase use of outsourcing to lower expenses.

Berkshire Pushes Texas to Clear Oncor Bid in Fight With Elliott

BY PEG BRICKLEY

Berkshire Hathaway Energy Co. is racing to get Texas regulators to sign off on its takeover of Oncor in an effort to outpace Elliott Management Corp., a hedge fund with its own designs on the energy-grid business.

Time is of the essence in the duel between the two contenders for Oncor, one of the largest power-transmission systems in the country. Berkshire Hathaway Energy, the energy unit of Warren Buffett's Berkshire Hathaway Inc., signed a \$9 billion cash deal last week but needs approval from the Public Utility Commission of Texas as well as from a bankruptcy judge to finalize the buyout.

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Turkey Discover the potential

Turkey is collaborating with its cultural cousin, Azerbaijan, on the Trans Anatolian Natural Gas Pipeline (TANAP), which began construction in March 2015 and is set for completion in 2018/2019.



Pipe Stream

Turkey is set to establish its position as a regional energy transport powerhouse with the construction of the Trans Anatolian Natural Gas Pipeline (TANAP), a core component of the European Commission's overarching Southern Gas Corridor initiative

One of the most rapidly developing economies in the world, Turkey's rising population and expanding industrial zones are driving a growth in energy demand that is second only to that of China. According to the International Energy Agency, 38.6 per cent of the country's electricity generation is fuelled by natural gas, for which Turkey is largely dependent on imports from Russia, Iran, and Azerbaijan. Despite Turkey's historical challenges faced in meeting its own energy needs through domestic production, it maintains aspirations to leverage its strategic geographic position to become a key gas transit state and regional energy hub.

Working towards this aim, Turkey is collaborating with its cultural cousin, Azerbaijan, on the Trans Anatolian Natural Gas Pipeline (TANAP), which began construction in March 2015 and is set for completion in 2018/2019. The TANAP is an ambitious energy megaproject that will lay a 1,850km gas pipeline across Turkey from its Georgian border in the east to its border with Greece in the west. The TANAP will transport an estimated 16bcm per year from Azerbaijan's Shah Deniz Stage 2 gas field, 6bcm of which will supply Turkey while the remaining 10bcm will continue on to the markets of Europe. That annual supply figure is projected to reach 23bcm by 2023 and 31bcm by 2026.

One of the key strengths of the estimated \$7-10 billion TANAP project is the structure of its capital financing. The project was established as a closed joint stock company, with Turkey's state-owned energy transport company BOTAS holding a 30 per cent stake in the joint venture, while BP owns 12 per cent of the equity. The remaining 58 per cent of the JV is owned by Azerbaijan's national oil company, SOCAR, which is in turn supported by Azerbaijan's \$34 billion State Oil Fund. Together with the South Caucasus Pipeline (SCP), which connects the Shah Deniz field with Turkey via Georgia, and the Trans Adriatic Pipeline (TAP), which will connect Turkey to Italy via Greece and Albania, the TANAP constitutes the backbone of the European Commission's larger Southern Gas Corridor (SGC) initiative to secure the long-term stability of energy supply to the European Union.

The world's future longest pipeline

Turkey will no doubt reap many benefits from the TANAP, which once completed will be the world's longest gas pipeline and the most complex gas value chain along the SGC's 3,500km-long path to Europe, running through



1,850 KM

TANAP will run 1,850km across Turkey

15,000

direct jobs created by TANAP

16 bcm

initial annual transport capacity

20 of Turkey's cities and 67 of its districts along the way.

Construction of the TANAP will occupy around 70 million sqm of land with an average width of 36m. This undertaking will profit a number of companies in Turkey's energy infrastructure, engineering, and construction sectors, which together stand to earn \$5-6 bil-

lion in remuneration for the completion of the pipeline. The project is expected to create more than 15,000 direct jobs while indirectly generating thousands of additional employment opportunities.

The call for the SGC by the European Commission comes amid longstanding disquiet of Europe's leaders regarding a lack of sufficient diversification of the EU's energy supply. As the longest segment of the SGC project, the TANAP will play a central role in meeting the initiative's aspirations while contributing around 3 per cent to EU gas imports. Furthermore, with the TANAP in place, Turkey will not only secure its own long-term domestic energy supply, but it will also significantly boost its strategic positioning as a major player in this most cost-efficient transmission scheme for supplying Azerbaijani gas to European countries, with the potential to incorporate supplementary connections to Central Asian countries via the proposed Trans-Caspian Pipeline (TCP). The significance of the SGC as a foundation for alternate sourcing of key energy resources for the EU also carries immediate potential for the economies of the Caspian region. Beyond the framework of the SGC, consolidating links between Italy and the rest of the European gas markets will largely influence the long-term impact of the SGC and TANAP on EU energy policy. *

TURKEY HAS DISTINCT BENEFITS FOR INVESTORS

The economic potential of Turkey is being lauded by numerous foreign investors due to the country's many advantages.

There is individual business, and there are macroeconomic factors, and both elements have to be balanced to provide a framework for success and growth. In the case of Turkey, the country's highly diversified economic structure provides fertile ground for many different businesses endeavours, but it is the favourable meta-environment that holds everything together.

The size of its economy

Turkey's economy is not only strong, it is also impressively big. Turkey is ranked as the 17th largest economy in the world. As such, the country is also a member of the G20 economies, which gives it even more weight as a trading partner. It is also a member of the OECD and, just as importantly, the EU Customs Union. The nominal GDP per capita close to \$10,000 puts Turkey in the upper third of the global rankings, a sign of solid purchasing power among the population.

Its strategic importance

Turkey's strategically advantageous location at the crossroads of two continents, and as a link between Europe, the Middle East and Asia, cannot be underestimated. It is not only important for trade, but also because of the fact that important energy trade routes from the Middle East, Central Asia and Russia to European markets are crossing the country. Apart from the energy sector, the unique location of Turkey also has advantages for companies in the logistics and manufacturing sectors, as well as in tourism. Turkish Airlines has grown into the airline with the most international destinations and the highest number of countries served globally, namely 236 international destinations in 115 countries as per 2016, dwarfing other big airlines such as Lufthansa, British Airways, Air France, Delta and even busy Gulf airlines such as Etihad and Qatar Airways. Istanbul's new airport, currently under construction, will serve 200 million passengers when fully operational as planned before 2030, making it the largest airport in the world.

A foreign investment hub

Foreign direct investment (FDI) inflow into Turkey is widely unabated and has reached an average of about \$15 billion annually, with the strongest sectors for FDI being industry and manufacturing, as well as professional services and trade, while the significance of the financial and insurance sectors is rising. The lion's share of FDI, more than 75 per cent, comes from Europe, while most of the rest originates from the Middle East and other Asian countries, as well as the United States. In the past, adding to FDI was foreign capital inflow into the stock market and into share buying amid a privatization wave of public enterprises, the sale of certain private banks to foreigners and growth in foreign loans, bringing foreign capital inflow into Turkey in the decade ahead of 2015 to an average of \$37.3 annually, central bank data shows. *

Turkey is also a member of the G20 economies, which gives it even more weight as a trading partner.



BUSINESS NEWS

China's LeEco Runs Into More Trouble

Vizio lawsuits claim failed \$2 billion deal was a ruse to bolster buyer's financial profile

BY DAN STRUMPF

HONG KONG—The troubles roiling once-soaring technology company **LeEco Holdings** deepened after U.S. television maker **Vizio Inc.** sued the Chinese firm over a failed \$2 billion acquisition, arguing that the deal was a ruse to boost the buyer's financial standing.

LeEco's plan to acquire Vizio, potentially seeking a foothold in the U.S. for its electronics, fell through earlier this year, but as recently as April the two sides expressed hope that they would find ways to work together.

Since then, LeEco has faced a cash crunch and other problems. Last week, a Shanghai



Jia Yueling recently resigned as chairman of LeEco's listed unit.

court froze more than \$2.3 billion of shares in the company and \$181 million in assets owned by founder Jia Yueling.

Mr. Jia subsequently resigned as chairman from the listed unit of LeEco, **Leshi Internet Information & Technology Corp.**

Vizio filed twin lawsuits in both California federal and state court on Tuesday seeking a total of \$60 million in unpaid deal-termination fees from LeEco.

The lawsuits level a series of allegations about LeEco's behavior surrounding the deal,

alleging that the Chinese company misled Vizio about its financial well-being and sought to use the acquisition to bolster its financial credibility.

Moreover, the lawsuits argue that LeEco sought to use the deal as a way to obtain access to confidential information about Vizio's customers. According to the suits, during negotiations, LeEco had access to details about Vizio customers, such as their contact information, account history and contract terms, and the Chinese company used that information "strictly for its own purposes." Representatives for LeEco didn't respond to requests for comment.

Mr. Jia built LeEco into an empire with holdings in video content, smartphones, home electronics and electric cars. The entrepreneur's overseas ambitions included backing the U.S. electric-car venture **Faraday Future Inc.**, a bet

that earned LeEco comparables with Tesla Inc.

But LeEco has stumbled with those plans, too. Nevada had promised \$200 million in incentives to Faraday to build a \$1 billion electric-car plant in the state. This week Faraday said it is pulling the plug on its Nevada factory, citing a shift in business strategy, according to the Associated Press.

Vizio's lawsuits offer a picture of deepening financial pressures at LeEco.

According to the lawsuits, LeEco officials represented the company as "financially healthy" and able to complete the \$2 billion acquisition. Yet the lawsuits contend that LeEco was experiencing "severe cash flow and financial problems," and allege that the proposed acquisition was a way "to create a widespread and dramatic public impression of their own financial

health and well-being."

LeEco's proposal to acquire Vizio, based in Irvine, Calif., contained a \$100 million deal-termination fee. According to the lawsuits, as problems with the acquisition set in, LeEco offered to set up a joint venture to distribute Vizio electronics through LeEco sales channels in China in lieu of the half termination fee.

Both sides agreed to the joint venture, though Vizio said LeEco didn't follow through with the deal. Ultimately, LeEco paid Vizio only \$40 million of the \$100 million termination fee, according to the lawsuits.

Vizio later sent payment requests for the deal-termination fees that went unanswered by LeEco, according to the lawsuits. The U.S. company said the joint-venture offer was merely a tactic by LeEco to avoid paying the termination fees.

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BANKRUPTCIES

UNITED STATES BANKRUPTCY COURT, SOUTHERN DISTRICT OF NEW YORK
In re: Oi Brasil Holdings Coöperatief U.A., Chapter 15
Debtor in a Foreign Proceeding. Case No. 17-11888 (SHL)
In re: Oi Brasil Holdings Coöperatief U.A., Chapter 15
Debtor in a Foreign Proceeding. Case No. 16-11794 (SHL)
In re: Oi S.A., et al., Chapter 15
Debtors in a Foreign Proceeding. Case No. 16-11791 (SHL) (Jointly Administered)

NOTICE OF HEARING ON VOLUNTARY PETITION FOR RECOGNITION OF A FOREIGN MAIN PROCEEDING UNDER CHAPTER 15 OF THE UNITED STATES BANKRUPTCY CODE AND RELATED MOTION

PLEASE TAKE NOTICE that on July 7, 2017, Jasper R. Berkenbosch, solely in his capacity under Dutch law as the duly appointed trustee (curator) of the "Insolvency Trustee" of Oi Brasil Holdings Coöperatief U.A. ("Coop") in its bankruptcy proceeding, Case No. F.13/17/163 (the "Dutch Bankruptcy Proceeding"), pending before the District Court of Amsterdam (the "Dutch Court") pursuant to the Dutch Insolvency Act (*Faillissementswet*), the "Dutch Insolvency Act"), caused to be filed (a) a petition for relief (the "Voluntary Petition"), under chapter 15 of title 11 of the United States Code (the "Bankruptcy Code"), and (b) the related Verified Petition and Motion for an Order (I) Recognizing the Dutch Bankruptcy Proceeding as the Foreign Main Proceeding for Oi Brasil Holdings Coöperatief U.A.; (II) Recognizing the Insolvency Trustee as the Foreign Representative; (III) Modifying the Prior Recognition Order; (IV) Modifying the Prior Joint Administration Order and (V) Granting Certain Related Relief (the "Verified Petition and Motion"), in the United States Bankruptcy Court for the Southern District of New York (the "Bankruptcy Court").

PLEASE TAKE FURTHER NOTICE that the Voluntary Petition and the Verified Petition and Motion seek an order: (a) modifying the prior order of the Bankruptcy Court granting recognition of the foreign main proceeding of Oi S.A. and its affiliates (the "Brazilian RJ Proceeding") in the *Ta Vara Empresarial do Rio de Janeiro Seventh Business Court* of the *Poder de Juizamento da Capital* of the Brazilian RJ Proceeding for Coop and the current foreign representative for Coop; (b) recognizing the Insolvency Trustee as the foreign representative for Coop in that proceeding; (c) recognizing the Insolvency Trustee as the foreign representative for Coop; (d) modifying the prior order of the Bankruptcy Court jointly administering the chapter 15 proceeding of Coop with that of Oi S.A. and its affiliates; and (e) granting related relief, all as more fully described in the Verified Petition and Motion.

PLEASE TAKE FURTHER NOTICE that pursuant to the *Order Scheduling Hearing and Specifying the Form and Manner of Service of Notice*, entered on July 7, 2017 (Case No. 17-11888) (the "Scheduling Order"), the Bankruptcy Court has scheduled a hearing before the Honorable Sean H. Lane in Room 701 of the United States Bankruptcy Court for the Southern District of New York, One Bowling Green, New York, New York 10004-1408, on **August 1, 2017 at 11:00 a.m. (Eastern Time)** to consider approval of the Voluntary Petition and the relief requested in the Verified Petition and Motion (the "Recognition Hearing").

PLEASE TAKE FURTHER NOTICE that at the Recognition Hearing, the Bankruptcy Court may order the scheduling of a hearing or management conference to consider the efficient administration of this chapter 15 proceeding. A proposed order granting the relief sought by the Verified Petition and Motion is attached as Exhibit A to the Verified Petition and Motion (the "Proposed Recognition Order").

PLEASE TAKE FURTHER NOTICE that copies of the Verified Petition and Motion and all accompanying documentation are available to parties in interest through the Electronic Case Filing System of the Bankruptcy Court, which may be accessed from the Bankruptcy Court's website at <http://www.nysb.uscourts.gov> (a PACER login and password are required to retrieve a document) or upon written request to the Insolvency Trustee's counsel (including by email) addressed to: Jones Day, 250 Vesey Street, New York, New York 10281, Tel: (212) 755-7306, Attn: Bryan M. Kotliar, Esq. (bkotliar@jonesday.com), Anna Kordas, Esq. (akordas@jonesday.com), Charles Wittmann-Todd, Esq. (cwittmann@jonesday.com). Copies of this Notice, the Voluntary Petition and the Verified Petition and Motion (including all accompanying documentation) and all other pleadings in this Notice will also be available free of charge on the Insolvency Trustee's website at <http://obrasilholdingscop-administration.com/>.

PLEASE TAKE FURTHER NOTICE that any party in interest wishing to submit a response or objection to the Voluntary Petition and the Verified Petition and Motion must do so in accordance with the Bankruptcy Code and the Local and Federal Rules of Bankruptcy Procedure in writing and setting forth the basis therefore with specificity and the nature and extent of the respondent's interests in Coop's estate, and such response or objection must be filed with the Office of the Clerk of the Court, One Bowling Green, New York, New York 10004-1408, and served on Jones Day, 250 Vesey Street, New York, NY 10281-1047 (Attn: Corinne Ball, Esq. (cball@jonesday.com) and Bryan M. Kotliar, Esq. (bkotliar@jonesday.com)).

PLEASE TAKE FURTHER NOTICE that the Recognition Hearing also may be adjourned from time to time without further notice other than an announcement in open court at such hearing of the adjourned date or dates or any further adjourned hearing.

PLEASE TAKE FURTHER NOTICE that, if no response or objection is timely filed and served as provided above, the Bankruptcy Court may grant the relief requested in the Voluntary Petition and the Verified Petition and Motion and enter a final judgment in favor of the relief sought.

Dated July 7, 2017, New York, New York, 10281. Telefax: (212) 326-3939. Facsimile: (212) 755-7306, Corinne Ball, Esq., Bryan M. Kotliar, Esq., Anna Kordas, Esq., Attorneys for Jasper R. Berkenbosch, as Insolvency Trustee and putative Foreign Representative of Oi Brasil Holdings Coöperatief U.A.

¹ The debtors in the chapter 15 cases that currently are jointly administered and the four identifying digits of the tax number of each are: Oi S.A. (5.764); Telemar Norte Leste S.A. (0.118); Oi Brasil Holdings Coöperatief U.A. (8518); and Oi Móvel S.A. (3.963).

INTERNATIONAL NOTICES

INTERNATIONAL NOTICES

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THE HIGH COURT OF IRELAND COMMERCIAL Record No. 2017/244 COS

IN THE MATTER OF BANK OF IRELAND GROUP PLC

AND IN THE MATTER OF THE COMPANIES ACT 2014

AND IN THE MATTER OF A PROPOSED REDUCTION OF CAPITAL PURSUANT TO SECTIONS 84 TO 86 OF THE COMPANIES ACT 2014

NOTICE IS HEREBY GIVEN that an Originating Notice of Motion issued out of the High Court of Ireland on 5 July 2017, seeking the High Court of Ireland's confirmation of a special resolution of Bank of Ireland Group plc (the "Company") reducing the company capital by way of a reduction in the undenominated capital account of the Company in the sum of €5,394,142,155.20, and a reduction in the share premium account of the Company in the sum of €105,857,844.80, is directed to be heard in the Commercial List of the High Court of Ireland, sitting at the Four Courts, Inns Quay, Dublin 7, Ireland, at 11:00 a.m. (Irish time) on 27 July 2017 (the "Hearing").

Any interested party 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 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 a company. An Interested Party failing 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 24 July 2017, 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 24 July 2017.

ARTHUR COX For the Company

Dublin 2 D02 T380 Ireland

(Ref: CMCD/DTB)

THE WALL STREET JOURNAL.

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The German government on Wednesday called on **Siemens AG**, one of the country's biggest corporations, to explain how gas turbines it sold for use at a Russian power plant got diverted to Crimea, possibly violating European Union sanctions tied to Russia's annexation of the Black Sea peninsula from Ukraine.

Siemens filed a lawsuit in Moscow this week against Technopromexport, a subsidiary of Russia's state-owned **Rostec State Corp.**, after learning that two turbines it had sold to Technopromexport for a power plant to be built in Taman, southern Russia, ended up in Russian-occupied Crimea.

The European Union imposed sanctions on Russia after its annexation of Crimea in March 2014.

The German government, which under EU law is responsible for determining whether the shipment violated sanctions,

said it was monitoring efforts to determine what happened and said it expected quick answers from the company.

"It is above all now up to Siemens," government spokesman Steffen Seibert told reporters on Wednesday. He said the government was discussing how to respond to the "completely unacceptable" actions.

"The transaction itself is not in violation of any sanctions," a Siemens spokesman said, adding that the terms of the contract with Technopromexport included clauses prohibiting delivery of the turbines to any third parties without the express permission of Siemens, a standard provision to prevent circumventing sanctions. Siemens declined to comment on Mr. Seibert's remarks.

The company said it received the contract for four turbines in March 2015 for use in a power station to be built in Taman. The turbines were delivered as agreed with the buyer to a warehouse in St. Petersburg in June 2016, the

company said.

Weeks later, Siemens began to doubt that Technopromexport was abiding by the contract, a spokesman said. By September, Siemens had indications that the turbines had not arrived in Taman. Evidence cited by the company included a lack of activity at the site where the power plant was supposedly under construction. Siemens says it believes the turbines were delivered instead to the port of Sebastopol.

Media reports first raised suspicions two years ago that the Russian buyer, a contractor with close ties to the Kremlin, might have other plans for the turbines. But at the time Siemens said there was no evidence they were destined for Crimea.

Siemens said it had repeatedly sought assurances from Technopromexport that the turbines would be installed as agreed. On Monday, Siemens said it believed that the equipment had been diverted. "Siemens has received information

from reliable sources that at least two of the four gas turbine sets... have been moved to Crimea against our will," it said in a statement.

Technopromexport didn't respond to a request for comment.

After Siemens' statement on Monday, Kremlin spokesman Dmitry Peskov declined to comment, saying, "We do not deal with turbines in the presidential administration," the news agency TASS reported.

German companies have opposed economic sanctions against Russia for its annexation of Crimea. Stephen Szabo, executive director of the trans-Atlantic Academy think tank, said the apparent end-run around the EU's sanctions to provide power for Russia-occupied Crimea was a "slap in the face" for Chancellor Angela Merkel, a staunch opponent of Russia's expansionist policies in Eastern Europe.

—Zeke Turner and Nathan Hodge contributed to this article.

Siemens Deal in Russia Creates Stir

BY WILLIAM BOSTON AND WILLIAM WILKES

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"Our news operations have been somewhat like an elegant and rather gorgeous stately home, whose owners have steadily augmented and renovated, rewiring every now and then, adding a new plumbing system, repainting, refurbishing," Mr. Baker said. "But eventually it's time to tear down the old structure and build a new one."

The Journal's current deputy editor in chief, Matt Murray, will become executive editor with an expanded role in day-to-day news decisions. Editor in Chief Gerard Baker will continue to oversee news coverage and drive strategy.

In a memo to staff, Mr. Baker said the "far-reaching reorganization" wasn't a "job-cutting exercise" and that the newsroom's head count of about 1,300 would remain "roughly stable."

As resources dramatically shift toward digital and mobile initiatives, some existing roles could be eliminated, forcing some people to find other positions within the company.

A Letter from the CEO

Rudy Adolf, CEO, Focus Financial Partners

The leading partnership of independent, fiduciary wealth management advisors



Dear Partners, Friends and Clients of Focus Financial Partners,

Last week marked a momentous event for Focus: we added our 50th partner firm and finalized a significant investment in Focus by Stone Point Capital and KKR.

This is not just a milestone for us – it is an affirmation of the strength of the independent fiduciary wealth management industry. It has become clear that the winning model in wealth management is objective, independent, fiduciary advice delivered by Registered Investment Advisers (RIAs), a very distinct approach vs. traditional brokerages and banks.

Now is the moment to offer a heartfelt “Thank You” to the many people who believed in our vision: we are grateful for your insights, support and trust!

It is also a time to reaffirm the principles that have made Focus’ journey possible:

- Our mission is to be the best partner and investor for successful, entrepreneurial RIAs and advisors who have decided to transition from brokerage firms or banks.
- Our duty is to help our partners serve their clients by preserving their independence, providing them with access to best practices, and offering them the resources they need to be the best wealth stewards for their clients.

- To accomplish this, we must ensure that our partners lead their firms as empowered entrepreneurs, that we support them in a consultative way, and that we remain a crucial source of capital for growth.

At the core of our mission is our belief that entrepreneurship and boutique financial advisors under the fiduciary standard deliver better outcomes for clients – through closer relationships, nimbleness, and the uncompromising ethics and personalization that only independent businesses can provide. Our fifty independent partner firms in the U.S., U.K., Australia and Canada epitomize these principles.

With this milestone we are even better equipped as an investor, industry enabler and catalyst. Again, we thank our many supporters who have made this journey possible!



Rudy Adolf
Founder and CEO

Partner Firms

CA BFSG (Benefit Financial Services Group)

CA Bordeaux Wealth Advisors

CA Fortem Financial

CA Gelfand Rennert & Feldman

CA HoyleCohen

CA WESPAC Advisors

CO Carnick & Kubik

CO IFAM Capital

CT Beirne Wealth Consulting

CT Coastal Bridge Advisors

CT GYL Financial Synergies

CT Resnick Advisors

GA Gratus Capital

GA Patton Albertson & Miller

GA The Fiduciary Group

IL Kovitz Investment Group

IL Relative Value Partners

IL Strategic Wealth Partners

IL Vester Capital

IN Pettinga Financial Advisors

LA Summit Financial Wealth Advisors

MA Atlas Private Wealth Management

MA Crestwood Advisors

MA GW & Wade

MA Lake Street Advisors

MA One Charles Private Wealth

MA SCS Financial

MA Sentinel Benefits & Financial Group

MA The Colony Group

MD Bridgewater Wealth Management

MD XML Financial Group

MI LaFleur & Godfrey

MI Telemus Capital

MO Buckingham Strategic Wealth

NY Douglas C. Lane & Associates

NY Joel Isaacson & Co.

NY LVW Flynn

NY Portfolio Strategy Group

OR Sapient Private Wealth Management

PA Fort Pitt Capital Group

PA JFS Wealth Advisors

PA Quadrant Private Wealth

RI StrategicPoint Investment Advisors

TN Waddell & Associates

TX Brownlie & Braden

TX CFO4Life

VA Campbell Deegan Financial

VA Lara, May & Associates

WA Merriman Wealth Management

Australia MW Lomax

Canada Dorchester Wealth Management

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ON STATEN ISLAND**

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FEED OUR
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Hey New York, nearly 1.4 million people in our city face hunger.
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MARKETS DIGEST

EQUITIES

Dow Jones Industrial Average

21532.14 ▲ 123.07, or 0.57%
High, low, open and close for each trading day of the past three months.



Bars measure the point change from session's open

Current divisor 0.14602128057775

Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.

S&P 500 Index

2443.25 ▲ 17.72, or 0.73%
High, low, open and close for each trading day of the past three months.



Bars measure the point change from session's open

Current divisor 0.14602128057775

Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.

Nasdaq Composite Index

6261.17 ▲ 67.87, or 1.10%
High, low, open and close for each trading day of the past three months.



Major U.S. Stock-Market Indexes

	Dow Jones		Latest		52-Week		YTD		% chg	
	High	Low	Close	Net chg	% chg	High	Low	% chg	3-yr. ann.	
Industrial Average	21580.79	21467.93	21532.14	123.07	0.57	21532.14	17888.28	17.2	9.0	8.3
Transportation Avg	9727.62	9647.02	9716.32	116.89	1.22	9716.32	7648.44	22.5	7.4	5.6
Utility Average	708.77	705.32	705.49	4.25	0.61	737.51	625.44	-0.9	7.0	8.0
Total Stock Market	25349.53	25251.19	25320.05	186.10	0.74	25399.65	21514.15	14.0	8.8	7.2
Barron's 400	653.70	649.64	651.59	4.92	0.76	651.59	521.59	20.5	8.3	7.0

Nasdaq Stock Market

Nasdaq Composite	6265.64	6236.82	6261.17	67.87	1.10	6321.76	5005.73	25.1	16.3	12.3
Nasdaq 100	5785.00	5749.65	5778.95	69.15	1.21	5885.30	4565.77	26.6	18.8	14.0

Standard & Poor's

500 Index	2445.76	2435.75	2443.25	17.72	0.73	2453.46	2085.18	13.5	9.1	7.5
MidCap 400	1766.19	1753.30	1757.34	11.99	0.69	1769.34	1476.68	14.1	5.8	7.6
SmallCap 600	862.78	855.79	857.94	6.59	0.77	866.07	703.64	16.1	2.4	8.7

Other Indexes

Russell 2000	1431.34	1414.34	1424.32	11.27	0.80	1426.68	1156.89	18.6	5.0	7.1
NYSE Composite	11846.00	11794.43	11825.90	81.13	0.69	11835.72	10289.35	10.2	7.0	2.6
Value Line	526.15	520.24	523.91	3.67	0.71	529.13	455.65	10.0	3.5	1.8
NYSE Arca Biotech	3902.36	3866.65	3895.03	28.38	0.73	4016.86	2834.14	24.5	26.7	11.7
NYSE Arca Pharma	536.37	528.68	533.44	4.76	0.90	554.66	463.78	-1.6	10.8	0.7
KBW Bank	96.57	95.87	96.37	-0.07	-0.07	99.33	66.12	45.7	5.0	10.7
PHLX® Gold/Silver	81.67	80.23	80.53	0.10	0.12	112.86	73.03	-25.8	2.1	-8.2
PHLX® Oil Service	132.74	128.85	129.89	-0.13	-0.10	192.66	126.75	-23.3	-29.3	-24.4
PHLX® Semiconductor	1095.24	1082.52	1092.86	17.44	1.62	1138.25	718.90	52.0	20.6	19.3
CBOE Volatility	10.85	10.08	10.30	-0.59	-5.42	22.51	9.75	-21.0	-26.6	-5.2

\$Philadelphia Stock Exchange

Sources: SIX Financial Information; WSJ Market Data Group

Late Trading

Most-active and biggest movers among NYSE, NYSE Arca, NYSE Mkt 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 5,000 shares.

Most-active issues in late trading

Company	Symbol	Volume (000)	Last	Net chg	After Hours % chg	High	Low
SPDR S&P 500	SPY	12,111.6	243.96	-0.05	-0.02	244.10	242.16
NRG Energy	NRG	8,093.7	21.17	0.08	0.38	21.22	16.30
General Electric	GE	6,899.9	26.64	0.06	0.23	26.65	26.38
Ford Motor	F	4,547.2	11.48	0.01	0.09	11.52	11.38
Reynolds American	RAI	4,372.9	64.85	0.01	0.02	64.86	64.00
iShares MSCI Emdg Markets	EEM	3,730.6	42.69	0.02	0.05	42.76	42.43
iShares MSCI Germany ETF	EWG	2,611.4	30.86	0.01	0.03	30.87	30.84
Van Eck Vectors Gold Miner	GDX	2,584.3	21.75	0.01	0.05	21.82	21.74

Percentage gainers...

Cobalt Intl Energy	CIE	91.8	2.80	0.51	22.27	3.10	2.31
Ocular Therapeutix	OCUL	33.2	7.00	0.33	4.95	7.10	6.63
Juno Therapeutics	JUNO	10.2	29.07	1.04	3.71	29.07	27.92
Cenovus Energy	CVE	5.8	7.47	0.24	3.32	7.47	7.23
Westmoreland Coal	WLB	5.4	4.38	0.11	2.58	4.38	4.27

...And losers

Amicus Therapeutics	FOLD
<td

COMMODITIES

WSJ.com/commodities

Futures Contracts

Metal & Petroleum Futures

	Contract						Open	High	Low	Settle	Chg	Open interest
Copper-High (CMX) -25,000 lbs.; \$ per lb.	2,6700	2,6865	2,6675	2,6770	0.0125	3,187						
July	2,6700	2,6865	2,6675	2,6770	0.0125	3,187						
Sept	2,6750	2,6985	2,6720	2,6840	0.0120	133,940						
Gold (CMX) -100 troy oz.; \$ per troy oz.	1218.30	1219.40	1217.90	1218.10	4.50	83						
July	1218.30	1219.40	1217.90	1218.10	4.50	83						
Aug	1216.50	1225.20	1212.50	1219.10	4.40	264,620						
Oct	1220.00	1228.50	1216.40	1222.70	4.40	20,704						
Dec	1223.50	1232.20	1219.90	1226.30	4.40	146,444						
Feb'18	1228.00	1234.40	1227.00	1229.90	4.40	13,259						
Jun	1236.50	1239.40	1234.30	1236.90	4.30	8,465						
Palladium (NYM) -50 troy oz.; \$ per troy oz.	837.90	837.90	837.90	872.65	14.70	7						
July	837.90	837.90	837.90	872.65	14.70	7						
Aug	848.70	856.40	847.00	867.00	14.70	4						
Sept	848.25	865.70	848.25	861.55	14.70	29,827						
Dec	850.00	861.60	849.30	858.45	15.55	3,106						
Platinum (NYM) -50 troy oz.; \$ per troy oz.	901.90	915.30	901.40	916.30	20.30	46						
July	901.90	915.30	901.40	916.30	20.30	46						
Oct	903.70	924.30	902.50	919.00	20.30	70,135						
Silver (CMX) -5,000 troy oz.; \$ per troy oz.	15.70	15.875	15.760	15.839	0.142	247						
Sept	15.810	15.995	15.710	15.887	0.142	155,925						
Crude Oil, Light Sweet (NYM) -1,000 bbls.; \$ per bbl.	45.74	46.48	45.11	45.49	0.45	319,208						
Aug	45.90	46.65	45.28	45.66	0.43	446,510						
Oct	46.08	46.79	45.45	45.81	0.41	140,633						
Dec	46.56	47.23	45.90	46.24	0.32	322,454						
June'18	47.71	48.21	47.03	47.22	0.09	116,582						
Dec	48.62	49.02	47.89	48.02	-0.05	164,048						
NY Harbor USLD (NYM) -42,000 gal.; \$ per gal.	1,4989	1,5053	1,4683	1,4737	-0.026	92,213						
Sept	1,4933	1,5100	1,4732	1,4791	-0.014	91,196						
Gasoline-NY RBOB (NYM) -42,000 gal.; \$ per gal.	1,5294	1,5485	1,5156	1,5208	0.025	97,391						
Sept	1,5119	1,5274	1,4944	1,4995	0.004	91,345						
Natural Gas (NYM) -10,000 MMBtu's; \$ per MMBtu.	3,035	3,043	2,970	2,985	-0.062	218,568						
Sept	3,023	3,031	2,957	2,975	-0.063	213,963						
Oct	3,054	3,057	2,988	3,006	-0.060	188,860						
Jan'18	3,353	3,355	3,301	3,319	-0.048	112,592						
March	3,269	3,271	3,227	3,244	-0.043	82,588						
April	2,862	2,866	2,847	2,856	-0.023	97,460						

Agriculture Futures

	Contract						Open	High	Low	Settle	Chg	Open interest
Corn (CBT) -5,000 bu.; cents per bu.	390.50	391.25	376.00	376.25	-16.00	982						
July	390.50	391.25	376.00	376.25	-16.00	982						
Sept	400.00	400.75	384.50	385.50	-16.25	585,417						
Oats (CBT) -5,000 bu.; cents per bu.	1023.00	1024.25	1010.75	1016.75	-8.50	428						
July	1023.00	1024.25	1010.75	1016.75	-8.50	428						
Nov	1040.50	1044.75	1023.75	1034.00	-9.25	353,407						
Soybeans (CBT) -5,000 tons; \$ per ton.	334.80	337.50	330.00	334.40	-2.40	431						
July	334.80	337.50	330.00	334.40	-2.40	431						
Dec	345.70	347.60	338.90	343.30	-2.90	160,941						
Rough Rice (CBT) -2,000 cwt.; \$ per cwt.	117.90	117.90	115.50	115.70	-24.00	105						
July	117.90	117.90	115.50	115.70	-24.00	105						
Sept	1206.50	1217.00	1177.00	1183.50	-23.50	8,264						
Wheat (CBT) -5,000 bu.; cents per bu.	535.50	534.25	521.50	522.50	-13.00	201						
July	535.50	534.25	521.50	522.50	-13.00	201						
Sept	548.75	552.25	534.75	537.00	-16.00	207,783						
Wheat (KC) -5,000 bu.; cents per bu.	537.50	537.50	527.00	528.00	-13.00	185						
Sept	552.75	556.75	538.75	544.00	-13.50	136,089						
Wheat (MPLS) -5,000 bu.; cents per bu.	799.50	799.50	760.00	782.00	-14.75	4						
Sept	793.50	799.50	776.50	782.75	-14.00	33,509						
Cattle-Feeder (CME) -50,000 lbs.; cents per lb.	148,000	151,750	147,200	151,750	4,500	27,189						
Sept	147,950	151,675	147,275	151,675	4,500	14,475						
Cattle-Live (CME) -40,000 lbs.; cents per lb.	115,925	117,875	114,475	117,875	3,000	121,215						
Oct	115,175	117,825	114,400	117,825	3,000	139,220						
Hogs-Lean (CME) -40,000 lbs.; cents per lb.	92,500	92,650	92,375	92,575	.425	11,741						
Oct	69,700	70,300	69,100	69,275	.100	91,175	</					

BIGGEST 1,000 STOCKS

WSJ.com/stocks

How to Read the Stock Tables

The following explanations apply to NYSE, NYSE Arca, NYSE MKT and Nasdaq Stock Market listed securities. Prices are composite quotations that include primary market trades as well as trades reported by Nasdaq OMX BXSM (formerly Boston), Chicago Stock Exchange, CBSE, National Stock Exchange, ISE and BATS.

The list comprises the 1,000 largest companies based on market capitalization.

Underlined quotations are those stocks with large changes in volume compared with the issue's average trading volume.

Boldfaced quotations highlight those issues whose price changed by 5% or more if their previous closing price was \$2 or higher.

Wall Street Journal stock tables reflect composite regular trading as of 4 p.m. and changes in the closing prices from 4 p.m. the previous day.

Wednesday, July 12, 2017		Net		Stock Sym Close Chg		Stock Sym Close Chg		Stock Sym Close Chg		Stock Sym Close Chg		Stock Sym Close Chg		Stock Sym Close Chg		Stock Sym Close Chg		Stock Sym Close Chg		Stock Sym Close Chg			
NYSE																							
ABB	ABB	25.26	0.40	AmdarPetrol	APC	43.82	0.18	Barkley	BRK	19.61	0.17	BarrickGold	ABX	15.86	-0.04	BaxterInt'l	BAX	61.28	0.05	BectonDix	BDX	19.15	0.14
AES	AES	11.10	0.17	AB Inv	AFV	77.65	0.01	Bechtel	BID	12.51	0.14	Berkley	WVR	69.11	0.14	Bethco	BK	19.21	0.17	Bethco	BK	19.21	0.17
Aflac	AFL	99.61	-0.14	BentleyMtn	AM	32.72	0.27	Bethco	BK	19.21	0.17	Bethco	BK	19.21	0.17	Bethco	BK	19.21	0.17	Bethco	BK	19.21	0.17
AT&T	T	36.83	0.23	AnterResources	AR	21.64	0.13	Bio-RadLab	A BIO	226.94	1.15	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AbbottLabs	ABT	48.43	0.53	Anthrenus	ANTM	193.54	1.44	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AbbVie	ABBV	71.88	0.68	AnterResources	AR	130.46	0.51	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Accenture	ACN	125.47	1.64	Arco	ARO	134.66	0.51	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AcuityBrands	ABY	198.18	-1.23	ArcherDaniels	ADM	40.90	0.61	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Adient	ADNT	68.69	-0.23	ArcherDaniels	ADM	40.90	0.61	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AdvanceAuto	AAU	100.94	0.69	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AdvSemInsng	ASX	6.45	0.39	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Aegon	AEG	5.42	-0.08	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Accap	AER	47.50	0.38	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Acterna	AET	154.60	0.56	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AffiliatedMtrs	AMG	174.03	2.28	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AgileTech	AH	60.73	0.93	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AgnicoEagle	AGM	44.64	-0.17	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Agricultral	AGU	95.45	-0.34	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Alaris	ALR	47.50	0.38	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AlaskaAir	ALK	94.63	0.30	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Albermarle	ALB	116.59	3.59	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Alcoa	AA	34.40	-0.60	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AlexanderReal	ARE	119.00	1.21	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Alibaba	BABA	149.00	1.64	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Allegany	ALY	59.99	3.49	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Allergan	ALL	81.99	0.59	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Allergen	AGN	45.59	3.47	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AllianceData	ADS	260.97	0.59	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
AllianzBerstein	AB	24.25	0.25	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80
Allstate	ALL	82.20	0.26	ArgoGloballift	AGP	27.01	-0.08	Bio-RadLab	B BIO	224.50	-0.80	Bio-RadLab	B BIO	224.50	-0.80	B							

BANKING & FINANCE

Move Is Afoot To Halt CFPB Arbitration Rule

BY YUKA HAYASHI

WASHINGTON—Opponents are gearing up to pursue several ways to thwart an Obama-appointed regulator who earlier this week removed a barrier for consumers to join class-action lawsuits against financial-services companies.

The Consumer Financial Protection Bureau, still under the leadership of Director Richard Cordray, completed a regulation Monday barring financial companies from requiring that aggrieved customers go to arbitration, rather than to court, to resolve disputes over credit cards, bank accounts, private student loans and auto loans.

Financial companies and Republican lawmakers stepped up their opposition, saying they would look at legislative, legal and regulatory avenues to stop the rule.

Opponents say it will increase companies' compliance costs and litigation expenses, while benefiting trial lawyers who bring class-action cases. Consumer advocates say requiring arbitration limits legal protections for consumers against corporate greed.

Sen. Tom Cotton (R., Ark.) on Tuesday said he "started the process" of rescinding the rule under the Congressional Review Act, a legislative tool used to overturn newly introduced federal regulations.

"The last thing Americans need is more antibusiness regulation that will prompt frivolous lawsuits while hurting consumers," he said.

Other steps under consideration include opponents suing the CFPB to stop the rule and Trump administration officials in other parts of the government working to delay the rule using the authority of the Financial Stability Oversight Council, a body of top regulators that monitors the stability of the financial system.

All of them come with challenges.

A Congressional Review Act resolution—likely the most imminent of such steps—must compete for lawmakers' attention with high-priority matters such as health-care and tax legislation.

Analysts say the House is likely to pass a measure to undo the rule. But the Senate might not follow suit.

"The fate of the arbitration rule will be determined by public perception in the coming weeks," said Issac Boltansky, an analyst with Compass Point Research & Trading LLC. He put the odds of the rule being reversed by Congress at "slightly less than 50%" because of the busy congressional calendar.

"The CFPB is taking a gamble that Congress and the administration will be too preoccupied with other hot issues between now and the next summer," said Quyen Truong, a former CFPB official who is now a partner at Stroock & Stroock & Lavan LLP.

Consumer advocates who backed the CFPB rule will press lawmakers to leave the rule alone.

"We are very optimistic and expect the rule to prevail and be implemented," said Michael Calhoun, president of the Center for Responsible Lending.

Industry groups such as the U.S. Chamber of Commerce may file lawsuits, a process that would take months or years with an uncertain outcome.

The rule also could be challenged by other regulators that make up the FSOC if they could prove the rule poses a threat to the broader financial stability, a high hurdle. Acting Comptroller of the Currency Keith Noreika criticized the new rule and asked the CFPB to provide to the OCC data supporting the rule. Mr. Noreika also is an FSOC member.



Bank of Canada Gov. Stephen Poloz. The move to raise rates will help banks' lending margins, but it could stir default worries.

Rate Rise Cuts Both Ways

BY VIPAL MONGA

A rate increase from the Bank of Canada will give the country's banks a long-awaited boost in lending margins, but analysts say it could trigger concerns about a rise in defaults down the road.

The rate increase by Canada's central bank on Wednesday was the first in seven years, and it is likely to boost lending margins—a key profit driver for banks—which have been falling steadily during the postcrisis era of ultralow rates in Canada, the U.S. and elsewhere.

But the six Canadian banks that dominate the financial system are also vulnerable to consumers who are piling on historic amounts of debt, say analysts and investors. An extended cycle of rising rates could cause many to default on their credit cards, car loans or mortgages.

Residential mortgages made up 22% of the banks' combined assets in the second quarter, ended April 30. Personal and

credit-card debt made up about 11%, according to filings. Those levels are down just slightly from 23% and 12%, respectively, from two years ago.

At U.S. banks, which tend to securitize more of their loans and move them off their balance sheets, mortgages make up roughly 13% of assets, according to the most recent

Canada's top six banks are vulnerable to consumers who are piling on more debt.

Federal Reserve data.

The rate increase comes amid a strong run for Canada's banks, which have been bolstered by the country's recent pickup in economic growth and high demand for mortgages in markets like Toronto and Vancouver. Royal Bank of Canada, Toronto-Dominion Bank, Bank of Montreal, Ca-

nadian Imperial Bank of Commerce, Bank of Nova Scotia and National Bank of Canada increased earnings by an average of 11% in the second quarter, according to Credit Suisse Group AG.

Net interest margins, which measure the difference between their cost of borrowing and the money they make from lending, averaged 2.46%, down 0.04 percentage point from the end of 2015. A rate rise should help boost those numbers, helping increase earnings further, analysts say.

The banks have already begun to raise mortgage-lending rates. RBC, TD, Bank of Montreal and CIBC raised rates early in July by as much as 0.20 point for five-year mortgages.

But some observers have already sent up cautionary flares. Moody's Investors Service in May downgraded the top five banks, citing their vulnerability to debt. Household debt totaled 175.9% of disposable income at the end of 2016, according to the Organization

for Economic Cooperation and Development. That compares with 152.3% in the U.K. in 2016 and a U.S. ratio of 112% in 2015, the most recent year for which data were available.

"Canadian consumers and the Canadian banking system haven't been tested at such high levels of leverage," said David Beattie, a Toronto-based analyst for the ratings service. "We don't know what the shocks to the system will be, but we do know it's harder for the system to respond when we get to these levels."

Canadian officials have signaled they are concerned. They have imposed measures to cool housing markets in Toronto and Vancouver, and last week said they are weighing tighter rules for mortgage issuance.

"The fear in Canada is that you have that consumer borrower who finally turns," said Brian Klock, an analyst with Keefe, Bruyette & Woods. "If they are having problems with their car loans, do they default? Will that cause an issue with their mortgage?"

RBS to Pay \$5.5 Billion Penalty

BY MAX COLCHESTER

LONDON—Royal Bank of Scotland Group PLC on Wednesday agreed to pay \$5.5 billion to the Federal Housing Finance Agency to settle a U.S. probe into its sale of toxic mortgage-backed securities in the run-up to the financial crisis.

The settlement clears one of several obstacles the U.K. government-controlled bank faces before it can resume dividend payments and continue its return to private hands. RBS said in a statement that it had already set aside funds to cover most of the cost of the settlement. The bank will book an additional charge of \$196 million for its results due out in August.

In settling, RBS becomes the 17th bank to strike a deal with the FHFA over the sale of sub-prime mortgages to Fannie Mae and Freddie Mac. The settlement came in higher than investors expected, tempering the idea that U.S. agencies would soften their approach to foreign banks under the Trump administration.

More pain could be in store. Before the FHFA settlement, RBS had set aside \$8.3 billion to cover the full range of allegations it faced over its role in packaging and selling subprime mortgages before the financial



The Royal Bank of Scotland is working through U.S. allegations stemming from the global meltdown.

crisis. The bank still faces probes from several U.S. agencies including criminal and civil investigations by the U.S. Department of Justice. RBS warned Wednesday that "further substantial provisions and costs may be recognized...depending upon the final outcomes." So far, the bank hasn't had meaningful discussions with the Justice Department over any settlement, said RBS Chief Financial Officer Ewen Stevenson.

That could slow the already grinding process of returning

RBS to private hands. U.K. Treasury officials have said they won't sell the government's 71% stake until there is clarity on the size of the fines RBS may face.

Under the FHFA settlement, RBS will pay the \$5.5 billion but is eligible for a \$754 million reimbursement under indemnification agreements. Mr. Stevenson acknowledged that the deal was "at the high end of the other settlements" but said it wasn't an indicator for potential settlements with the Justice Department.

RBS is involved in another

FHFA case as a co-defendant with Japanese bank Nomura.

The FHFA settlement "is a stark reminder of what happened to this bank before the financial crisis, and the heavy price paid for its pursuit of global ambitions," RBS Chief Executive Ross McEwan said.

The bank, which was bailed out in 2008, has shed a chunk of its bond-trading operations in the U.S. as it retreats to its U.K. base.

—Razak Musah Baba contributed to this article

As Trial Starts, Bitcoin Investors Still Waiting

BY TAKASHI MOCHIZUKI

TOKYO—More than three years after bitcoin exchange Mt. Gox collapsed, its former head went on trial this week as customers continued to wait for a clear answer on how exactly the company lost virtual currency valued in the hundreds of millions of dollars.

Mark Karpeles, who was arrested in 2015 and released the following year pending trial, is charged with embezzlement and creation of unauthorized records at his company. Prosecutors at the Tokyo District Court said Tuesday that Mr. Karpeles wrongfully spent ¥340 million (\$3 million) of customers' money for his personal use. They also said he altered the company's books to inflate the amount of dollars and bitcoins held by customers.

Mr. Karpeles denied all wrongdoing at the hearing. "I have never manipulated the exchange's data or used customer money for my own benefit," he said. "I am innocent."

He repeated his contention that the exchange's collapse was caused by hackers, and he said he regretted that he was unable to prevent the losses suffered by customers.

Mr. Karpeles said he was willing to cooperate with a trustee handling Mt. Gox's bankruptcy and authorities in trying to locate the lost bitcoins.

The 32-year-old Frenchman, who works as an engineer in Japan, said the exchange had been profitable and the money he had spent on personal items came from his own funds, not customers' accounts. He said the accounting moves cited by prosecutors had been part of the exchange platform's normal operations.

The amount at the center of the case represents a fraction of the money involved when Mt. Gox, once the world's largest bitcoin exchange, filed for bankruptcy in February 2014.

At the time, Mr. Karpeles said 750,000 bitcoins held by customers as well as 100,000 of Mt. Gox's own bitcoins had been stolen by hackers. Together, the lost virtual currency was then valued at some \$500 million, although the exchange later said it had discovered 200,000 of the missing bitcoins.

The court-appointed trustee in charge of the exchange's liquidation, Nobuaki Kobayashi, has been investigating the whereabouts of the lost currency, but he has yet to release any conclusions. A representative of Mr. Kobayashi said he wasn't available to comment.

The exchange has a list of about 127,000 creditors. Many have said they don't expect to get their money back. "I moved on," said Hiroki Mine-matsu, an owner of technology companies in Nagasaki who deposited 70 bitcoins at Mt. Gox. "It would be nice if they find out what had exactly happened to serve my curiosity, but I threw away my hope for my investment a long time ago."

Mt. Gox was among several virtual-currency exchanges that collapsed. However, other exchanges have since sprung up and regulations have begun to define more clearly how bitcoin should be handled.



Swiss Resolve on Franc Ceiling Raised Doubts

BY BRIAN BLACKSTONE

Doubts in financial markets had already crept in about the Swiss National Bank's commitment to the franc ceiling even before the SNB unexpectedly jettisoned the policy in January 2015, according to a paper by the Bank for International Settlements.

The paper, released Wednesday, sheds light on one of the biggest events to roil currency markets in many years. On Jan. 15, 2015, the SNB abandoned its commitment to cap the value of the franc without warning, send-

ing the Swiss currency soaring against the euro and other currencies.

Less than a month earlier, SNB Chairman Thomas Jordan had called the cap "the key instrument" for the central bank and that the SNB would enforce it "with the utmost determination."

By examining the prices of currency options from one-month to 12-month maturities in the run-up to the SNB's move, the paper's authors concluded that while the commitment was seen as generally credible when it was in place from 2011 until early 2015, in-

some degree as the spot exchange rate approached the lower bound of 1.20 Swiss franc per euro," they wrote.

The euro remains considerably below the 1.20 level 2½ years after the floor was dropped, and the SNB has spent vast sums intervening to keep the franc from strengthening too much. However, the euro has risen against the franc in recent months amid a brighter outlook for the European economy.

On Monday, the euro broke

above 1.10 francs to a one-year

high, and it fetched 1.1016 late

Wednesday in New York.

MARKETS

OPEC Output Climbed in June

Production increases in Libya, Nigeria, Angola, Iraq, Saudi Arabia led the way

OPEC produced more crude oil in June despite efforts to curb output, the group said,

By Christopher Alessi
in Frankfurt
and Benoit Faucon
in Istanbul

flagging that rising production elsewhere could complicate its ability to control the global oil market.

The Organization of the Petroleum Exporting Countries' output rose 1.4% to 32.61 million barrels a day in June, compared

COMMODITIES with May, led mainly by production

increases in Libya, Nigeria, Angola, Iraq and Saudi Arabia, according to the group's monthly market report.

The report comes amid heightened skepticism of OPEC's efforts to influence the oil market. The group comprises 14 countries that control about 40% of the world's crude-oil production, but its power has been tempered by the rise of U.S. shale producers that have flooded the



ABDULLAH DOMA/AGENCE FRANCE PRESSE/GETTY IMAGES

An oil facility in Libya. An increase in production by OPEC members is hurting efforts to ease a glut.

world with new supplies of petroleum.

OPEC's members and 10 producers outside the group agreed last November and December to cap production at about 1.8 million barrels a day lower than October 2016 levels.

The goal was to drain a global oversupply that has depressed prices, but the market

has remained subdued as U.S. production keeps increasing.

Brent, the international benchmark, and West Texas Intermediate, the U.S. benchmark, both rose Wednesday but are still trading below \$48 a barrel.

"It will be a very difficult six months for the oil industry," including OPEC, said

Fatih Birol, chief of the International Energy Agency, at a conference in Istanbul.

Highlighting the pressures on the group, senior OPEC national representatives—known as OPEC governors—are being summoned to its Vienna headquarters for a special meeting Monday, said people familiar with the matter. The people

said the rare gathering was for "administrative matters."

OPEC's report Wednesday highlighted non-OPEC oil supply, which is projected to increase by 1.14 million barrels a day in 2018, to an average of 58.96 million barrels a day. That up-tick is expected to be driven by production in the U.S., Brazil, Canada, Russia, Kazakhstan, the Democratic Republic of the Congo and the U.K.

An increase in the non-OPEC supply could meet much of the world's demand for oil, while directly undercutting the group's efforts to stem the glut and allow prices to rise. Russia and Kazakhstan are among the 10 producers that agreed to join the group in limiting production, so predictions that they will increase output potentially undermines OPEC's efforts to manage global oil supplies.

OPEC output remained lower than the record levels reached last year, but its numbers showed the strain some producers are under to keep limiting their supplies during the summer season.

Saudi Arabia, OPEC's biggest producer and the world's largest crude exporter, told OPEC that its output was 10.07 million barrels a day in June, the first time it has exceeded the 10.058 million barrels a day limit it agreed to last year.

Treasurys Rise After Fed Chief's Remarks

BY SAM GOLDFARB

U.S. government-bond prices strengthened Wednesday as Federal Reserve Chairwoman Janet Yellen signaled

CREDIT MARKETS the central bank would take a cautious approach to tightening monetary policy in the face of an uncertain inflation outlook.

Appearing before the House Financial Services Committee, Ms. Yellen said Fed officials still expect inflation to reach their 2% target but also noted they were watching the data "very closely" and were prepared to adjust their policy if inflation doesn't pick up.

Ms. Yellen's concern about a run of soft inflation data exceeded that shown in other recent public appearances, some analysts said, a change in tone that sent investors rushing to buy bonds. Inflation is a main focus for bond investors because it erodes the purchasing power of their fixed returns and can lead to higher interest rates, which also hurts prices for outstanding bonds.

Wednesday's rally followed a recent bout of weakness in bonds. Fearing a broad shift by global central banks away from their longstanding stimulus policies, investors had dumped government debt in recent weeks, lifting the yield on the benchmark 10-year Treasury note to nearly 2.4% from below 2.2%. On Wednesday, the yield settled at 2.325%, a drop from 2.362% Tuesday and 2.393% at the end of last week. It was the yield's largest one-day decline in nearly a month.

Helping to offset some of the demand for bonds was an auction of 10-year Treasury notes, which got a somewhat weak reception after yields had declined earlier in the day.

AUCTION RESULTS

Here are the results of Wednesday's Treasury auction. All bids are awarded at a single price at the market-clearing yield. Rates are determined by the difference between that price and the face value.

NINE-YEAR, 10-MONTH NOTES

Applications	\$49,416,256,500
Accepted bids	\$20,456,565,100
"noncompeting"	\$11,744,900
"nonconcurrently"	\$0
Auction price (rate)	100.034016 (2.325%)
Interest rate	2.375%
Bids at clearing yield accepted	5.42%
Cusip number	912828X8

The notes, dated July 17, 2017, mature on May 15, 2027.

Bond Rally Is Red Flag For China

BY SHEN HONG

SHANGHAI—A Chinese bond rally—bucking the recent global sell-off in government debt—is narrowing the yield gap with U.S. bonds, a potential complication for Beijing.

Prices in the world's third-largest bond market have recovered in recent weeks as Chinese regulators back off from efforts to discourage risky loans and cool debt-fueled speculation. That has sent yields falling—to 3.54% on the 10-year government bond, from a two-year high of 3.69% in early May.

Meanwhile, yields on U.S. Treasurys and German bonds are up recently as central banks signal that their loose-money policies are nearing an end.

The result: The yield gap, or spread, between the 10-year Chinese bond and its U.S. counterpart has shrunk to 1.19 percentage points, a 20% narrowing since early June, when it was at its widest in nearly two years.

A smaller edge for Chinese assets could make U.S. assets, including bonds, more attractive to Chinese investors, tempting them to send their money out of the country, a flow Beijing has managed to slow in recent months by tightening capital controls.

In turn, that could deepen Chinese authorities' policy "trilemma," economists' term for the impossibility of keeping independent control over a currency, interest rates and the capital account at the same time.

A Way to Bet Against Battered Retail Stocks

BY CHRIS DIETERICH

New ETFs are in the works to allow traders to profit from the struggles of brick-and-mortar retailers.

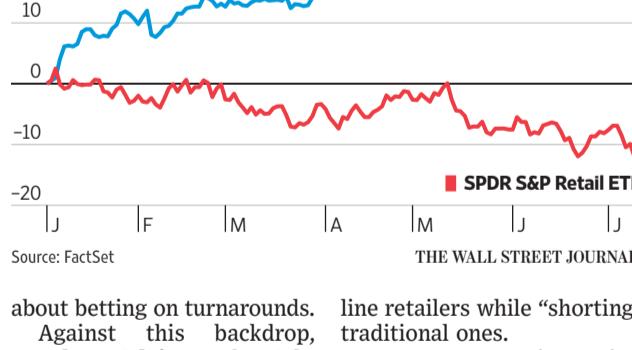
Contrarians, take note.

Such niche launches of exchange-traded funds have regularly presaged turning points in their respective markets.

On the surface, now would seem like a fertile time to launch ETFs designed to bet against traditional retailers. The SPDR S&P Retail ETF is down 11% so far in 2017 to its lowest price in a year, driven by a steady stream of bad news. Amazon.com Inc.'s \$13.7 billion bid last month for Whole Foods Market sent traditional supermarkets' shares into a tailspin.

Divergent

Shares of Amazon.com have surged by more than 30% this year, while the broader retail sector has floundered.



about betting on turnarounds.

Against this backdrop, ProShare Advisors, the 10th-largest ETF provider by assets, filed plans with securities regulators last week for new double- and triple-levered ETFs designed to rise on days that retail stocks fall. Also coming is an ETF that goes "long" on-

line retailers while "shorting" traditional ones.

Investors sometimes view new ETFs as contrary market signals because of the amount of time it can take to turn an idea for a new fund into reality. Because such products must meet a series of regulatory and exchange-specific re-

quirements, it typically takes months, and sometimes years, for an idea to go from preliminary filing to tradable ETF. In some cases, fund companies register for ETFs and wait for a ripe time to debut.

That means that a once-popular trade will sometimes already have started to lose its luster by the time an ETF hits the market.

With the benefit of hindsight, the debut of the Market Vectors Rare Earth/Strategic Metals ETF in late 2010 marked the peak of a speculative frenzy in producers of materials such as yttrium, which is used in products ranging from electronics to auto parts.

And don't forget "yieldcos," public companies spun off by parents in the renewable-energy industry, including Terraform Power, which was shaved off from SunEdison in 2014. The Global X YieldCo Index ETF hit the market in May 2015, reached its high four days later and has fallen

22% since.

New leveraged or inverse ETFs often arrive in pairs, with "bullish" and "bearish" iterations hitting at the same time. In these cases, the presence of new products can signal simply that a long-term trend might be due to reverse.

Still, the coming launch of ETFs that allow traders to wager on the decline of brick-and-mortar retailers is a sign of one-way sentiment if ever there was one. Jared Dillian, a former ETF trader who now publishes a financial newsletter, wrote this week that the bearish retail ETF filings are one of few signals that "maybe it is time to put on your distressed hat and look around some of these names for value."

In other words, retail bears might want to brace for the scenario, however unlikely, that the debut of bearish retail ETFs could signal that the beaten-down industry is due to rebound.

Companies That Sponsor Pro Sports Get an ETF

BY AMRITH RAMKUMAR

There were already exchange-traded funds for everything from whiskey to drones to 3-D printing. Now, investors have an option to choose companies that partner with professional sports leagues.

SportsETFs LLC on Tuesday launched the Pro Sports Sponsors ETF, trading under the ticker FANZ. The fund tracks an index of corporate sponsors of the four biggest professional American leagues: the National Football League, Major League Baseball, National Basketball Association

and National Hockey League.

Unlike other thematic funds, which often track specific industries, the new equal-weighted sports ETF made its debut with 66 names in a variety of sectors, including consumer discretionary, information technology, financials, energy and health care.

The ETF doesn't include companies that sponsor only specific teams, instead focusing on stocks such as Anheuser-Busch InBev SA, owner of big beer brands. In 2015, Anheuser-Busch paid \$1.4 billion to extend Bud Light's sponsorship of the NFL

through the 2022 Super Bowl.

Among other companies in the fund are Amazon.com Inc., Bank of America Corp., Coca-Cola Co. and Microsoft Corp. Wall Street Journal parent News Corp. is also included.

The fund is the first created by SportsETFs, which says companies with enough cash flow to afford a league sponsorship or broadcasting rights make good options for investors. In a 2016 report cited by SportsETFs, PricewaterhouseCooper estimated that media rights to sporting events would grow to \$21.3 billion in 2020, a 5.5% compounded annual growth

rate from 2015. Sports sponsorships are projected to have a compound annual growth rate of almost 4% from 2015 through 2020 and to reach \$18.7 billion.

"We are looking at the revenue growth of the leagues and trying to capture a slice of that growth," said Nick Fullerton, president and co-founder of SportsETFs, in an email.

Mr. Fullerton said "no one partner is more valuable than another" in the index since leagues don't disclose the financial economics of their partnerships, with the exception of broadcast partners.

Tuesday's ETF launch came

as corporate sponsorships have an increasing presence in sports.

Jersey sponsorship patches will begin appearing on NBA uniforms in the 2017-18 season, a move that is expected to generate \$100 million in additional revenue for the league.

However, McKinsey wrote in a 2014 report that connecting a company's sales directly to sports sponsorships "is typically challenging."

After debuting at \$20.05 on Tuesday morning, the Pro Sports Sponsors ETF closed at \$20.04 on Tuesday and \$20.17 Wednesday.

MARKETS

Investors Jump Aboard a Chugging Euro

Currency climbs as the risk of a eurozone breakup eases and economy improves

By MIKE BIRD

Once dubbed a crisis currency, the euro has outperformed its peers against the dollar, and investors are betting there are gains to come.

The euro is up 8.5% against the greenback this year, as the eurozone economy rebounds and the threat from populist politicians calling for the currency bloc's demise recedes.

With the risk of breakup fading, analysts are trying to determine whether the currency can reclaim some of the global standing it held before 2009 and the sovereign-debt crisis, not least as central banks place more of the currency into their reserves.

Several indicators suggest that investors are more positive about the euro than in many years. Late Wednesday in New York, the euro edged down to \$1.1413, after hitting a 52-week high the day before.

"Political threats to the euro have definitely reduced its status, and from a historical perspective the rest of the world is underweight Europe," said Carl Hammer, head of global macro and foreign-exchange research at Swedish bank Skandinaviska Enskilda Banken AB.

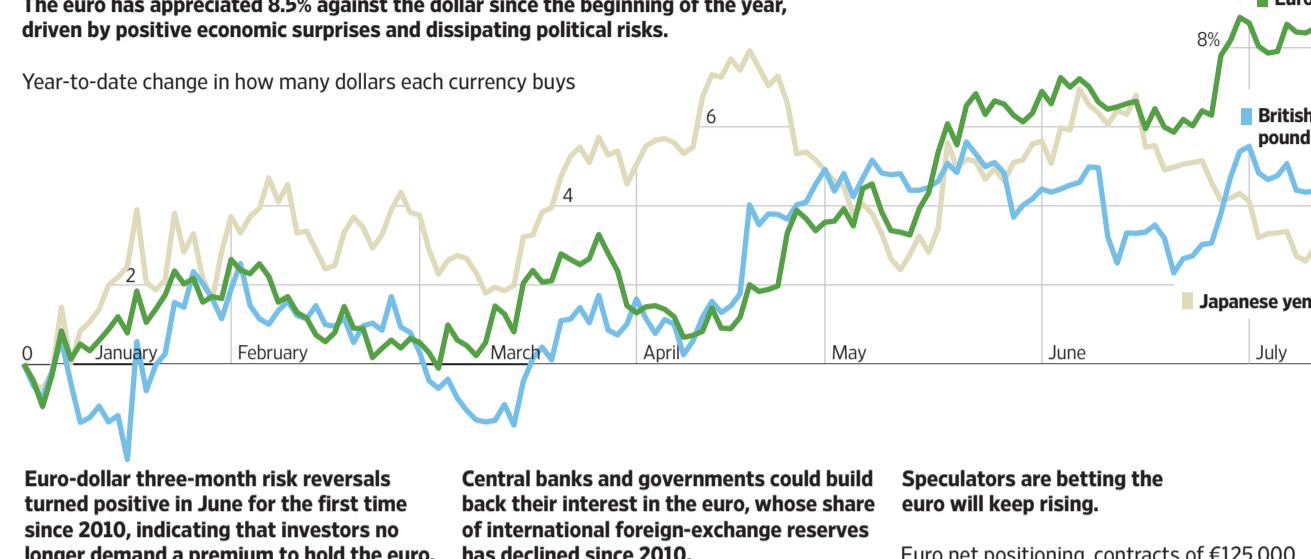
Three-month euro-dollar risk reversals, which measure the cost of hedging against drops in currencies, broke into positive territory at the end of June for the first time since at least 2010. A positive figure suggests investors are no longer asking to be paid a premium to hold euros, a sharp change from the recent past.

Investors also have a net long position in the euro—a bet that the currency will appreciate—for the first time in

Back in Favor Sentiment is more positive about the euro than at any time in years.

The euro has appreciated 8.5% against the dollar since the beginning of the year, driven by positive economic surprises and dissipating political risks.

Year-to-date change in how many dollars each currency buys

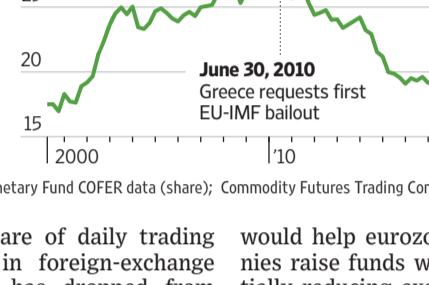


Euro-dollar three-month risk reversals turned positive in June for the first time since 2010, indicating that investors no longer demand a premium to hold the euro.

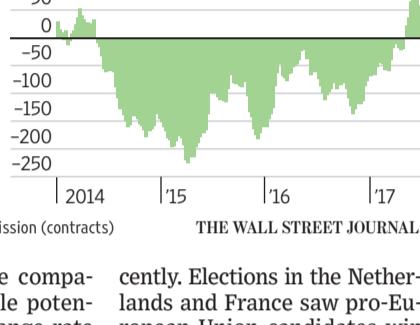


Sources: WSJ Market Data Group (currency); International Monetary Fund COFER data (share); Commodity Futures Trading Commission (contracts)

Central banks and governments could build back their interest in the euro, whose share of international foreign-exchange reserves has declined since 2010.



Speculators are betting the euro will keep rising.



THE WALL STREET JOURNAL.

three years. U.S. Commodity Futures Trading Commission data show investors held 77,464 more long than short contracts on the euro in the week to July 3. A short position is a wager that an asset will fall in value.

The European Union has long hankered for a greater role in global markets. As far back as the 1960s, Valéry Giscard d'Estaing, France's then-finance minister, complained of the U.S. dollar's "exorbitant privilege" as the pre-eminent reserve currency. Following its launch 18 years ago, the single currency reached a high of about \$1.60 in 2008.

But the currency has lost ground even since the sovereign-debt crisis ended in 2012.

Its share of daily trading volume in foreign-exchange markets has dropped from 39% in 2010 to 31% in 2016, according to the Bank for International Settlements.

The European Central Bank estimates that the share of international bonds denominated in euros has declined from as high as 29% in 2004 to 22% at the end of last year.

In the first quarter of the year, slightly less than 20% of global official foreign-exchange reserves were held in euros, according to the International Monetary Fund. At its peak in 2009, the euro's share of international reserves reached nearly 28%.

Aside from prestige, a greater international role

would help eurozone companies raise funds while potentially reducing exchange-rate volatility. The dollar's role as the most important global reserve currency has been seen as a boon for the U.S.

The lingering risk that the currency won't survive has reduced the euro's position in foreign-currency reserves held by governments and central banks while putting off some investors.

"If you're a reserve manager, say in Asia, you would think twice about investing over the very long term in a currency that might not exist in five years," said Dhaval Joshi, chief European strategist at BCA Research.

That risk has abated re-

cently. Elections in the Netherlands and France saw pro-European Union candidates win convincingly, and support for Germany's main anti-euro party has dwindled.

Expectations that a country will leave the eurozone have fallen. Investors assign an 8.6% chance to a country exiting from the eurozone in the next 12 months, against over 25% early in the year, according to the Sentix euro breakup index, which polls investors on expectations for the bloc.

To be sure, factors such as less monetary stimulus and a brighter economy could end up hurting the euro if the pace of both disappoint. The region's anti-euro politicians could also stage a comeback.

Still, the brighter outlook for regional growth, which has recently outstripped the U.S., helps the euro on several fronts. It reduces the risk of breakup by helping to bolster the weaker southern European economies, whose debts and stagnant growth helped to fuel the sovereign-debt crisis. It makes the region more attractive for outside investors.

It also means the ECB will be quicker to jettison the bond-buying and negative interest-rate policies that have capped the currency's gains. Such quantitative easing, or QE, policies keep bond yields low, reducing long-term returns for investors and stemming the flow of foreign exchange that would boost the euro.

It may even see other central banks stock up their reserves. "It could be that the first quarter represents something close to the low in the euro's share of reserves," said Stephen Saywell, head of foreign-exchange strategy at BNP Paribas SA.

The prospect of higher interest rates and other factors have already led many analysts to raise their forecasts for the euro in the short term.

Earlier this year, Deutsche Bank AG and Morgan Stanley expected the euro to drop below parity with the dollar. Both have raised their projections by 21 cents to \$1.16 and \$1.18, respectively. HSBC Holdings PLC analysts who began the year with a \$1.10 forecast now believe their current \$1.20 projection may be a conservative estimate.

"Before Europe started the QE program, we were comfortably above \$1.20, so if that's going to be withdrawn, you've got to ask why the euro can't go much higher by this time next year," said Steve Jefferies, head of currencies and emerging markets in Europe, the Middle East and Africa at J.P. Morgan Chase & Co.

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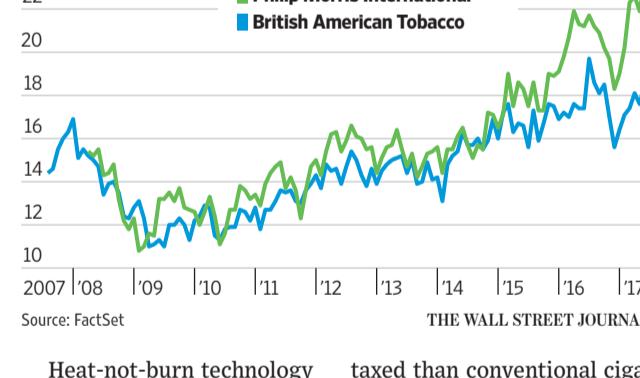
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Past Flop May Help Big Tobacco

Burn-out?

Forward price/earnings multiples



Heat-not-burn technology was a costly flop when pioneered in the 1980s by Reynolds, yet it sowed a seed that under Reynolds's rival Philip Morris has grown into a credible product: IQOS. Released in Japan in 2014, IQOS accounted for 7% of cigarettes sold in the country in the first quarter.

Crucially, PMI gains even if IQOS replaces Marlboro, because heat-not-burn smokes are more lightly

taxed than conventional cigarettes in most countries. Citigroup estimates that a pack of IQOS generates 30% more revenue for PMI in Japan than a pack of Marlboros, even at similar prices.

The brokerage is penciling in 8% organic sales growth at PMI this year, at least double what can be expected at consumer-products groups. They earn higher margins than vaping products.

Buying PMI stock is the

obvious way to play this theme. A smarter bet could be London-listed **British American Tobacco**. BAT's valuation gap to PMI is near its widest in at least a decade; investors are excited about IQOS but give BAT no credit for its challenger product, glo. BAT's lower margins also suggest potential for cost cutting, particularly given its merger with Reynolds, due to complete later this year.

Buying PMI stock at 23 times prospective earnings amounts to an uncertain wager that IQOS finds converts beyond Japan. Japan's consumer culture can be insular, and smokers in the country like lighter menthol cigarettes, for which IQOS is a good substitute. It may be harder to win over those used to stronger smokes.

At less than 18 times earnings, well below not just PMI but also consumer-goods peers, BAT stock should prove a safe investment—whether or not heat-not-burn lives up to its early promise.

—Stephen Wilmot

OVERHEARD

Central bankers can't avoid dealing with numbers. But numbers can be tricky things.

So it is with the U.K. The good news: Unemployment has fallen to 4.5%, the lowest since 1975.

But for the Bank of England, it raises questions: It was only in February that the central bank cut its estimate of the unemployment rate that increases wage-inflation pressures to 4.5% from 5%. It thought unemployment would remain around 4.75%, keeping rate increases off the agenda. Wage growth, however, remains weak, though the latest data were slightly better than expected.

The BOE has been here before: In 2013, with unemployment at 7.8%, the central bank said it wouldn't even think about raising interest rates until joblessness fell to 7%.

When the BOE made that pledge, it thought that might not happen for three years. It took just eight months. Some moving targets are easy to hit.

A Slow Tack May Not Be Right for Fed

The word of the day at the Federal Reserve is "gradual." It might not be the word of tomorrow.

In congressional testimony Wednesday, Fed Chairwoman Janet Yellen noted that the central bank has "gradually" tightened policy this year, that "additional gradual rate hikes" are likely in the years to come and that policy makers intend to "gradually reduce" the Fed's bondholdings.

Gradual is the stuff of central banker dreams, but up until late last year the Fed struggled to realize them. Whether it was the 2013 taper tantrum or the global credit worries that hit early last year, the Fed's plans were repeatedly thwarted.

With the U.S. and global economies on better footing, it is unlikely the Fed will be forced to delay its tightening efforts. The bigger risk is that falling unemployment will force the Fed to raise rates faster than either it or investors expect. If the unemployment rate were to drift lower from its current 4.4%, the Fed might stick to its gradual guns to find out what the right rate is.

The problem is unemployment is nearly a half point lower than it was at the start of the year, and could fall below 4% by January. That would put the Fed in a situation where it had to guess whether the labor market was overheating.

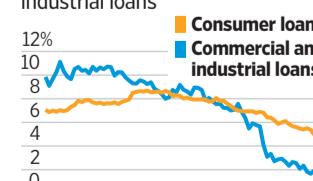
The consequences of guessing would be dangerous. The Fed would then need to raise rates sharply, risking a recession. Instead of running that risk, the Fed would probably raise rates faster than it now has mapped out. Investors' surprise at this would not be gradual.

—Justin Lahart

The Favorites to Win in Second-Quarter Bank Earnings

Consumer Surplus

Change from year earlier in total consumer loans, commercial and industrial loans



ond-quarter earnings on Friday, with other major financial firms reporting next week. The big universal banks look better positioned than both regional lenders

and Wall Street brokers.

The lending slowdown that began late last year hasn't abated. At the end of June, total loans and leases by commercial banks in the U.S. were up just 3.3% from a year earlier, compared with 6.4% for all of 2016, according to Federal Reserve data. Commercial and industrial loans were up just 1.9% at the end of June. In the first quarter, this trend hit regional banks hardest, along with Wells Fargo, whose business profile is similar to a regional lender.

Executives at multiple banks also publicly warned during the quarter that trading volumes were down around 15% from a year earlier. Investors at multiple banks also publicly warned during the quarter that trading volumes were down around 15% from a year earlier. Goldman blamed low oil-market volatility.

A late-quarter bump up in rates could boost profits in the second or, more likely, third quarter for big universal banks with strong footprints in so-called macro products like interest rates and currencies, says UBS analyst Brennan Hawken. In the U.S., that would be J.P. Morgan and Citigroup.

Goldman Sachs's trading results could disappoint yet again because of its large exposure to commodities, Mr. Hawken notes. Last quarter, its trading revenue was basically flat, compared with double-digit increases for its rivals. Among other factors, Goldman blamed low oil-market volatility.

Unfortunately for Goldman, this continued in the second quarter. The firm's own analysts said recently that commodity volatility was down by around one-third in the second quarter.

Goldman and Morgan Stanley are most exposed to weak M&A. Total world-wide revenue from realized M&A deals was down 9.2% from last year's second quarter, according to Dealogic.

Rising interest rates and more flexibility to pay out capital are powerful levers that could keep pushing the whole sector higher. The biggest gains, though, will likely come from the biggest banks.

—Aaron Back

J.P. Morgan Chase, Citi-group, Wells Fargo and PNC Financial will kick off sec-



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