THE WALL STREET JOURNAL.

DOW JONES | News Corp ****** TUESDAY, APRIL 25, 2017 ~ VOL. CCLXIX NO. 95 WSJ.com ★★★★ $3.00

DJIA 20763.89 ▲ 216.13 1.1% NASDAQ 5983.82 ▲ 1.2% STOXX 600 386.09 ▲ 2.1% 10-YR. TREAS. ▼ 12/32, yield 2.275% OIL $49.23 ▼ $0.39 GOLD $1,275.80 ▼ $11.60 EURO $1.0868 YEN 109.76

What's News

Business & Finance

The Trump administration is moving to impose a 20% tariff on softwood lumber from Canada, an action resulting from a decades-old trade dispute. **A1**

◆ **Trump has ordered** aides to draft a tax plan that slashes the corporate tax rate to 15%, even if that means a loss of revenue. **A4**

◆ **Aramco officials** working on an IPO say the state-owned oil firm is likely worth at least $500 billion less than the Saudi government previously suggested. **A1**

◆ **Stocks and the euro** rallied on Macron's victory in the first round of France's presidential vote. The Dow rose 216.13 points to end at 20763.89. **A1, B11, B12**

◆ **ECB policy makers** could scale back their stimulus program if Macron is elected. **B1**

◆ **Apple plans** to use senior engineers in road tests for its self-driving cars, suggesting the firm is still in the early phase of testing. **B1**

◆ **Amazon has created** a team focused on driverless-vehicle technology to help the firm navigate the shake-up in transportation. **B4**

◆ **The Supreme Court** rejected GM's request to limit the fallout from its ignition-switch defect. **B1**

◆ **PPG raised** its offer for Akzo to $26.4 billion, the U.S. firm's third takeover bid for the Dutch paint rival. **B3**

◆ **Samsung said** it would roll out two fixes for its Galaxy S8 smartphone this week. **B4**

◆ **JAB Holding** plans to put shoemakers Jimmy Choo and Bally up for sale. **B3**

World-Wide

◆ **France's Macron** is the favorite to win the presidency May 7, but he will have to secure a parliamentary majority to implement policies. **A6**

◆ **Pro-Kremlin hackers** have tried to access Macron's campaign email accounts, a cybersecurity firm said. **A6**

◆ **The EU executive** sided with Macron, breaking a tradition of not taking sides in national party politics. **A6**

◆ **Trump is open** to waiting to secure funding for a border wall, White House officials said, a shift that could clear the way for a deal to avoid a government shutdown. **A2**

◆ **The president told** visiting U.N. diplomats that the Security Council must adopt new and stronger sanctions on North Korea. **A7**

◆ **The FCC's chairman** on Wednesday is expected to outline his strategy for rolling back Obama-era net-neutrality rules. **A4**

◆ **The Senate confirmed** ex-Georgia Gov. Perdue as agriculture secretary, ending a three-month vacancy. **A5**

◆ **Obama said** his priority is encouraging a new generation of political leaders, as he broke his postinauguration silence in a Chicago speech. **A5**

◆ **Arkansas put** two men to death Monday night in the first double execution by a state since 2000. **A3**

◆ **Crimes by migrants** surged 52.7% in Germany last year, highlighting a challenge facing Merkel. **A7**

◆ **A panel of scientists** has questioned the efficacy of a vaccine against Ebola. **A7**

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U.S. Readies Canada Lumber Tariff

By Peter Nicholas And Paul Vieira

The Trump administration is taking retaliatory action against Canada over a decades-old trade dispute, moving to impose a 20% tariff on softwood lumber that is typically used to build single-family homes, Commerce Secretary Wilbur Ross said Monday in an interview.

Mr. Ross said the tariff would be applied retroactively and imposed on Canadian exports to the U.S. of about $5 billion a year. He said the dispute centers on Canadian provinces that have been allegedly allowing loggers to cut trees down at improperly subsidized costs and sell them at lower prices.

The decision is preliminary and the Commerce Department will need to make a final determination. After that, the U.S. International Trade Commission will also need to find that the U.S. industry has suffered injury before any tariff is levied. But even a preliminary decision has immediate real-world consequences, by discouraging importers from buying lumber from Canada.

"We tried to negotiate a settlement but we were unable," Mr. Ross said, adding that the Trump administration had notified Canada of its decision.

The Canadian government said it "disagrees strongly" with the Commerce Department's decision, arguing the reasoning was based on "baseless and unfounded" allegations from the U.S. lumber industry.

In a joint statement from Canadian Foreign Minister Chrystia Freeland and Resources Minister Jim Carr, the Liberal government said it would defend the country's lumber interests, including through litigation, and press the Trump administration to "rescind this unfair and unwarranted trade action."

President Donald Trump's heightened rhetoric over Canadian treatment of U.S. lumber and dairy producers in recent days marked a sharp pivot for the president on America's northern neighbor and second-

Please see TARIFF page A5

Big Break

President Trump orders up plan to slash corporate tax rate to 15%, A4

Israel Remembers Those Who Died in the Holocaust

ABIR SULTAN/EUROPEAN PRESSPHOTO AGENCY

MEMORIAL: Holocaust survivor Bella Avner, with the help of her son, placed a flower at the Yad Vashem Holocaust Memorial museum in Jerusalem in memory of a family that didn't survive. Israel on Monday marked Holocaust Remembrance Day across the country. **A9**

Aramco Insiders Question Valuation

RIYADH—Officials at Saudi Arabian Oil Co. have told their superiors there is a hitch in the plans to take the state-owned oil company public: It is likely worth at least $500 billion less than the government previously suggested.

By Summer Said, Bradley Hope and Justin Scheck

The country's deputy crown prince, who is leading a push to overhaul the economy, has pegged the value of the company known as Saudi Aramco at $2 trillion. But officials working on the deal have struggled to come up with a scenario under which Saudi Aramco is worth more than $1.5 trillion, according to people familiar with the matter, even after factoring in a recent tax cut and other tools the government has to make it more attractive investors.

By selling up to 5% of shares in an initial public offering targeted for next year, the government plans to raise billions of dollars that it can use to invest in other industries as part of a plan to reduce its dependence on oil.

The valuation discrepancy raises new challenges for a deal that is already fraught with complexity and facing opposition within the ranks of the kingdom's government bureaucracy, according to people familiar with the matter.

About two dozen employees have been working since last year to try and figure how to take Aramco public, and have been exploring ways to restructure Aramco to maximize its value, say people familiar with the process.

According to internal documents reviewed by The Wall

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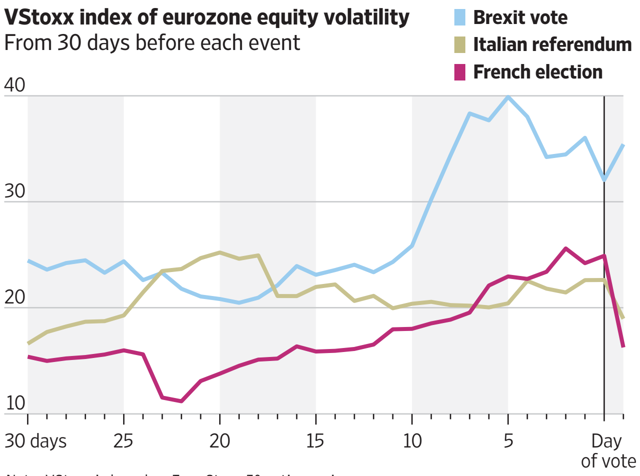
French Vote Fuels Hopes for Growth

Calming Down

Results from the first round of the French election have soothed investor fears that large price swings were ahead, sending measures of volatility to lower levels than in previous political episodes

VStoxx index of eurozone equity volatility
From 30 days before each event



Note: VStoxx is based on Euro Stoxx 50 options prices
Source: Thomson Reuters
THE WALL STREET JOURNAL.

The ascension of centrist Emmanuel Macron as the heavy favorite in France's presidential race spurred investors to set aside the political worries that have long plagued European markets and to make new bets on economic growth.

By Mike Bird, Jon Sindreu and Marcus Walker

Mr. Macron is now seen as the leader in May 7's runoff against second-place finisher Marine Le Pen, whose pledge to dismantle the euro had damped prices of euro assets and the common currency itself.

The former investment banker's good showing sent stocks and the euro sharply higher while triggering a sharp selloff in German government bonds, which investors had bought as a haven from populist politicians such as Ms. Le Pen. Mr. Macron won the first round with 24% of the vote, according to an official tally, ahead of Ms. Le Pen with 21.3%.

From Europe's trading floors to its chancelleries, hopes are rising that the continent can emerge from nearly a decade of crises.

The euro currency zone has struggled more than any other world region to recover from the global financial crisis. It was still emerging from its long slump when a major migration wave further boosted antiestablishment politicians such as Ms. Le Pen who want

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◆ Challenges for front-runner... A6
◆ Hackers target Macron........ A6
◆ Prospects for ECB shift........ B1
◆ More on markets... B1, B11, B12

PARENTS ARE DROWNING IN COLLEGE-LOAN DEBT

Over 330,000 in U.S. program haven't made a payment in at least a year

By Josh Mitchell

Millions of U.S. parents have taken out loans from the government to help their children pay for college. Now a crushing bill is coming due.

Hundreds of thousands have tumbled into delinquency and default. In the process, many have delayed retirement, put off health expenses and lost portions of Social Security checks and tax refunds to their lender, the federal government.

Student loans made through parents come from an Education Department program called Parent Plus, which has loans outstanding to more than three million Americans. The problem is the government asks almost nothing about borrowers' incomes, existing debts, savings, credit scores or ability to repay. Then it extends loans that are nearly impossible to extinguish in bankruptcy if borrowers fall on hard times.

As of September 2015, more than 330,000

Please see LOANS page A10

U.S. Says Russia Is Arming Taliban

JONATHAN ERNST/REUTERS

ON GUARD: U.S. military officials say they have seen a rising number of Russian-made small arms in the hands of Taliban fighters. Defense Secretary James Mattis made a surprise visit to Kabul on Monday. **A9**

INSIDE

THE FUTURE OF FINANCIAL REGULATION

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CELEBRATING ELLA FITZGERALD

LIFE & ARTS, A13

Who Loves Failed, Disgraced Banks? Ex-Employees

* * *

WaMu, IndyMac alums hold reunions, share treasured mementos

By Kirsten Grind

Thousands of employees lost their jobs when IndyMac Bank collapsed almost nine years ago under the weight of mortgages derided as "liar loans." Some of those ex-employees are still yearning for the good old days.

"The bank may have failed, but its employees were winners," says Bonnie Ensor, 48 years old, who was laid off from IndyMac's underwriting department a few months before regulators seized the Pasadena, Calif., mortgage lender.

Its demise only deepened the fondness she felt for her co-workers. "I have wonderful, lifelong friends because of that," says Ms. Ensor, who now works at another lender.

More than 400 banks and savings institutions in the U.S. failed from 2007 to 2011 as a fall in housing prices and surge in loan defaults mushroomed into the financial crisis. Some employees are still having trouble letting go.

Former bankers lovingly keep alive their memories through Facebook pages, re-

Please see BANKS page A10

U.S. NEWS

Trump Now Open to Delay in Wall Funding

By Kristina Peterson And Rebecca Ballhaus

WASHINGTON—President Donald Trump is open to waiting until later this year to secure funding for a wall along the border with Mexico, White House officials said Monday night, in a shift that could clear the way for lawmakers to strike a deal to avoid a government shutdown on Saturday.

Mr. Trump and top administration officials previously indicated the president wanted to include money to begin building a wall along the southern border in the bill to keep the government running after its current funding expires at 12:01 a.m. Saturday, which is also the president's 100th day in office.

The president addressed the issue at a reception with conservative media at the White House on Monday night. The president's new flexibility over whether the wall is funded in this spending bill or one that will be needed in late September could remove one of the last remaining hurdles facing congressional Democrats and Republicans hammering out the five-month bill they must pass this week to avoid a partial government shutdown.

The House GOP debate over a health-care bill, meanwhile, is likely to be pushed to the back burner for now to help avert a shutdown, Republican lawmakers and aides said.

Without the debate over the border wall, lawmakers may be able to come to an agreement on the spending bill relatively quickly. Both Democrats and Republicans had signaled they were willing to increase money for the military and for broader border security before administration officials last week indicated that Mr. Trump would press for money to begin building the wall.

JIM WATSON/AGENCE FRANCE-PRESSE/GETTY IMAGES

A man on the Mexican side of a fence along the California border.

There had been little appetite among Republicans on Capitol Hill to demand funding now for the border wall specifically, rather than offer a general boost for tighter border security. Democrats, whose votes will be needed to pass the spending legislation in the Senate, had said they would oppose a spending bill that included money to start building the border wall.

"It's good for the country that President Trump is taking the wall off the table in these negotiations," Senate Minority Leader Chuck Schumer said in a statement Monday night. Earlier Monday, Mr. Schumer had said the wall was a "nonstarter" for Democrats.

Democratic votes will be needed, because Republicans hold just 52 seats in the Senate, where spending bills need 60 votes to clear procedural hurdles. House GOP leaders will also likely have to rely on some Democratic help, since some conservative Republicans are expected to oppose it.

"Border security's the main issue—whether that includes a wall or technology, drones, or repairing what we have," Sen. Shelley Moore Capito (R., W. Va.) said Monday evening. Ms. Capito said she wasn't interested in risking a shutdown over the border wall.

Other Republicans echoed that their top priority was making sure they crafted a spending bill that could clear both chambers before the government runs out of money. "I wouldn't mind funding the wall, but it's a question of what we can do up here, what's doable," said Sen. Richard Shelby (R., Ala.), a senior member of the Senate Appropriations Committee.

In March, the administration asked Congress for $1.4 billion in spending for the current fiscal year for the wall, with an additional $2.6 billion for the next fiscal year, beginning Oct. 1.

VALUE

Continued from Page One

Street Journal, the team has determined several variables—or what some call "levers"—likely to affect the price investors will pay for shares of the world's largest oil producer.

But no matter how they pull those levers, which include the price of oil and Saudi tax policy, Aramco's projected value tops out at about $1.5 trillion, these people say.

The Saudi government last month said it is reducing Aramco's tax rate to 50% from 85%, bringing it closer to the level of the world's biggest oil companies such as Exxon Mobil and Royal Dutch Shell.

That move would result in higher dividends for potential shareholders, and it brought Aramco's internal value estimates to $1.3 trillion to $1.5 trillion from about half a trillion dollars, say people involved in the process.

Nat Kern, president of Washington-based consulting firm Foreign Reports, said he's skeptical of the higher valuation because investors tend to discount state-controlled companies—that is, they value them at a lower level than similar independent companies—because they're subject to the sometimes unpredictable decisions of their majority owners.

For example, there is no way to be assured the tax rate will remain at 50%, said Mr. Kern, whose firm focuses on the Middle East and oil. "Most oil-producing countries are taking about 90% of crude sales" in taxes and other payments, he said.

Members of the internal Aramco IPO team took their figures to the company's chairman, Khalid al-Falih, who is also Saudi Arabia's energy minister, say people familiar with the matter.

One of those people said some of the team members are concerned because their calculations have consistently yielded lower numbers than the one the prince disclosed.

Saudi government officials

The discrepancy raises new challenges for a deal already fraught with complexity.

say Aramco's high reserves and low costs should make the company attractive to investors. "Our profitability is higher than others and the interest we have received so far is huge," said one official who defended the $2 trillion number.

Some of the banks pitching for a role in the advising and underwriting of the deal have been given minimal information on the company's financials, one person familiar with the pitching process said.

Yet even absent the specific financial information, this person said it appeared highly unlikely that Aramco could achieve a valuation anywhere near $2 trillion unless it paid no taxes or royalties.

Since deputy crown prince Mohammed bin Salman announced the stock-offering plan and his $2 trillion estimate early last year, insiders and outsiders have questioned how he arrived at that number. One Aramco official called the figure "unrealistic and mind blowing."

A lower valuation means the IPO would fetch less money for the kingdom to invest under the Vision 2030 plan championed by the deputy crown prince.

Also, the remaining Aramco shares in Saudi hands would be less valuable than the prince forecasts, lowering the amount of money the kingdom could borrow against those shares to fund economic diversification.

Of course, regardless of where the company sells shares to the public in an IPO, its market cap or valuation will change as soon as it starts trading.

Aramco produces nearly 10 million barrels of oil a day, more than twice the output of Exxon Mobil, which is valued at $337 billion. Aramco has among the world's lowest production costs—Saudi oil tends to be cheap to pump—and says its reserves total about 260 billion barrels.

Questions about Aramco's valuation surfaced earlier this year when a report for potential investors prepared by oil-industry consultant Wood Mackenzie Ltd. put Aramco's value at around $400 billion, according to a client who attended a private Wood Mackenzie briefing. The estimate, based on the 85% tax rate, surfaced in other media.

That number was also close to an internal estimate Aramco's IPO team came up with before the tax rate was reduced, say people familiar with the matter.

Now, some officials inside the company and in government have privately suggested reevaluating the listing, say people familiar with the matter, and perhaps reducing its size or delaying it.

So far, Prince Mohammed and his staff seem unlikely to do so, say people familiar with the matter. "This IPO will happen regardless of the valuation they may receive," according to the government official who called the $2-trillion-dollar number "mind-blowing."

—Maureen Farrell contributed to this article.

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CORRECTIONS & AMPLIFICATIONS

Euromonitor analyst Michelle Grant was misidentified as Michelle Evans, another Euromonitor analyst, in the Keywords column in Monday's Business & Finance section about the internet's lessons for retailers.

The first name of Claus G. Roehrborn was misspelled as Klaus in the photo caption with an article in the Encore report on Monday about a medical procedure for treating enlarged prostates.

A photo of an oil tanker that accompanied a Business News article about a return of piracy off Somalia was taken in March. In some editions Monday, the article incorrectly said the photo was taken in April.

In some editions Monday, a photo accompanying a Business News article about airline seats showed a man resting on a United business-class seat. The caption incorrectly said the photo was a Delta business-class seat.

The fashion designer Rei Kawakubo is 74 years old. A Review article Saturday about an exhibit of her work at New York's Metropolitan Museum of Art incorrectly said she is 64.

The Weizmann Institute of Science is in Rehovot, Israel. The Mind & Matter column in Saturday's Review section about the brain science behind conformity incorrectly said the institute is in Haifa.

In some editions Saturday, a photo caption with a U.S. News article about President Donald Trump's request for funding for a border wall incorrectly referred to a picture of budget director Mick Mulvaney that didn't accompany the article.

A photo with a World News article Thursday about confusion surrounding the USS Carl Vinson showed the Vinson and two other ships in its strike group. The caption incorrectly implied that the photo showed all of the strike group.

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

U.S. WATCH

INDIANA

Athletes Accused of Sex Abuse Face Ban

A new policy at Indiana University that aims to ban prospective student athletes with histories of sexual abuse was hailed by advocates, but some critics worry about a double standard for athletes and nonathletes.

The policy, which was approved this month and reported by the Indianapolis Star last week, says the university will screen prospective applicants or transfer students who may play intercollegiate sports or receive athletic financial aid. Universities have come under increased scrutiny for the criminal behavior of student athletes.

—Laura Kusisto and Melissa Korn

STATE DEPARTMENT

Former Fox Anchor To Be Spokeswoman

President Donald Trump's administration named former Fox anchor Heather Nauert to be the spokeswoman for the State Department, officials said Monday.

Ms. Nauert arrives as Secretary of State Rex Tillerson has begun to make more public appearances, but on-camera briefings have taken place in fits and starts.

The State Department resumed mostly daily media briefings for three weeks in March before pausing. Before that, the State Department hadn't held on-camera briefings since Jan. 19.

Acting spokesman Mark Toner, who was deputy spokesman in President Barack Obama's administration, has conducted on-camera briefings for Mr. Trump's administration. He will also brief reporters on camera this week.

—Felicia Schwartz

MAURA FRIEDMAN FOR THE WALL STREET JOURNAL

Politics economist Cliff Carrubba created a program at Emory University that melds humanities disciplines with math and statistics.

Liberal Arts Lose Luster

Colleges add math and statistics courses so students gain more marketable job skills

By Douglas Belkin

With their students facing rising debt and pressure to land a job after graduation, colleges and universities are focusing less on the meaning of life and more on how to earn a living.

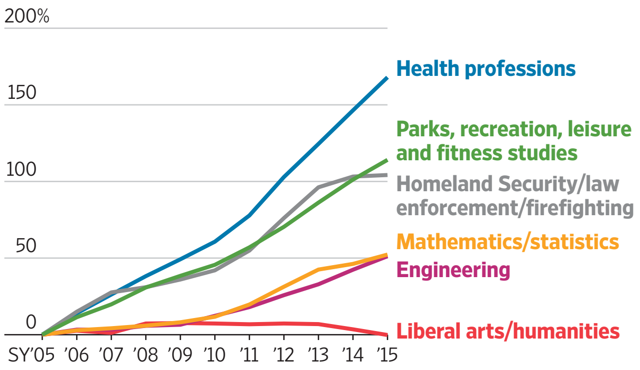
This evolution toward pragmatism has been under way since the 1990s, but the speed of change is ramping up as politicians threaten funding for humanities programs to nudge students toward more-profitable endeavors. The class of 2017 will leave with an average debt of roughly $35,000.

"The big shift is cost," said David Breneman, an economist and former college president, who has written about the pressures on liberal arts colleges. "People just can't afford to be educated; they almost have to be trained."

Career Paths

College students are moving away from liberal arts degrees and toward fields with better post-college job prospects.

Degrees by field of study, change from 2004–05 school year



Source: National Center for Education Statistics

THE WALL STREET JOURNAL.

The number of humanities degrees declined by almost 9% between 2012 and 2014, according to a 2016 analysis from the American Academy of Arts & Sciences. That led to a drop in humanities' share of all bachelor's degrees to 6.1% in 2014, the lowest level since record-keeping began in 1948.

Undergraduate students are opting instead for programs leading to jobs in homeland security, parks and recreation and health care. As a percentage of all bachelor's degrees, those three disciplines jumped to 17% in 2015 from 9% in 2005, according to the National Center for Education Statistics. The result is reorienting college life.

Schools are setting their career services buildings in the center of campus, offering to pay students during internships, and jettisoning traditional liberal arts majors such as history and philosophy in favor of job-ready disciplines such as nursing, engineering and business, said Vicki Baker, a professor of economics at Albion College in Albion, Mich., who has researched the shift. She estimates about one-third of colleges that called themselves liberal arts in 1990 no longer meet that description. "It's an evolution and we are losing some of our liberal arts colleges as schools try and manage these pressures," Dr. Baker said.

Mount Holyoke College, a 180-year-old, women's liberal arts college in South Hadley, Mass., recently built both computer-science and data-science programs. Google and Mass Mutual Insurance now recruit from the school.

"I don't know who can afford not to have a job after graduation," said Lynn Pasquerella, a former president of the college who now leads the Association of American Colleges and Universities.

A set of technical skills can double the number of jobs for which a typical liberal arts major is qualified, said Matthew Sigelman, chief executive of Burning Glass, a Boston-based labor market analytics firm. Those skills can also add about to $6,000 to average salaries. "Go study feminist anthropology but make sure you're picking up some skills on the periphery so that you can get a job when you graduate," said Mr. Sigelman.

Hanover College—a 190-year-old liberal arts college in Hanover, Ind., with an enrollment of about 1,100—created a business scholars program in 2005 to teach classes such as accounting and management.

Adding Math To Save Humanities

Emory University in Atlanta has created a degree that marries traditionally qualitative disciplines such as anthropology and English with math and statistics. Political economist Cliff Carrubba, who created the program in 2014, said his goal isn't just to better equip students to master large data sets—it is to save the liberal arts.

"There has been an explosion in data and there's a huge demand for people who know how to harness it," he said. "Most students coming out of the liberal arts have at best a consumer's knowledge of basic statistics, but they're rarely trained to rigorously and effectively answer questions using data." If they can master those skills, they are significantly more valuable in several industries that are being transformed by the data measuring human behavior generated by email, web tracking and cellphones. Now, schools like Dartmouth and Denison have started similar data programs that join data science with traditional liberal arts curricula.

Data-management skills qualifies those students for roughly 15% more jobs after college, said Matthew Sigelman, chief executive of Burning Glass, a labor-market analytics firm. Those positions pay a $13,000 wage premium.

"Ten years ago, marketing was pretty pictures," says Jennifer Harmel, a vice president at Annuitas, an Atlanta company that builds long-term marketing campaigns and has interviewed some of Dr. Carrubba's students for internships. "Today, it's all about numbers and we have a hard time finding people who can understand both the numbers and the softer side of things."

—Douglas Belkin

Arkansas Carries Out Double Execution

By Joe Palazzolo

Arkansas put two men to death Monday night in the first double execution by a state since 2000.

The executions of Jack Jones, 52 years old, and then Marcel Williams, 46, follow the state's lethal injection of Ledell Lee last Thursday, the first death sentence carried out in Arkansas since 2005.

Gov. Asa Hutchinson placed his state at the center of the death-penalty debate earlier this year, when he announced plans to execute eight men between April 17 and April 27.

Courts have halted half of the executions since the beginning of the month, and for a couple of hours on Monday night it looked as if a federal judge might put off Mr. Williams's death, after his attorney alleged that the lethal injection of Mr. Jones didn't go as planned.

Mr. Jones was pronounced dead at 7:20 p.m. local time, 14 minutes after the first drugs were administered, according to Arkansas officials.

The filing by lawyer John Williams alleged that Mr. Jones was "moving his lips and gulping for air" during the procedure, proof his execution was "torturous and inhumane."

David Lippman, a reporter for CBS affiliate THV11 who witnessed the execution of Mr. Jones, said on Twitter that the inmate's lips moved but "only very briefly at the start of the process." Mr. Lippman said in a separate tweet that he didn't see any signs that Mr. Jones suffered.

Judge Kristine Baker lifted the hold at 9:22 p.m., and Mr. Williams was executed about an hour later.

Mr. Williams was sentenced to death for the 1994 murder of Stacy Errickson, whom he raped and killed after abducting her at a gas station at gunpoint and forcing her to withdraw all of her money from several ATMs.

Mr. Jones was convicted in the 1995 killing of Mary Phillips. After robbing the 34-year-old bookkeeper at her office, he raped, beat and strangled Ms. Phillips after choking and beating her 11-year-old daughter, who was tied to a chair nearby. The daughter survived.

Two Found Guilty in Nevada Standoff

By Sara Randazzo

A Nevada jury found two men guilty on several counts stemming from a 2014 standoff with federal officers incited by rancher Cliven Bundy but deadlocked on other charges against the two defendants and four others.

U.S. District Judge Gloria Navarro in Las Vegas declared a mistrial Monday after the jurors failed to reach agreement on the bulk of the charges, which include conspiracy to commit an offense against the U.S., assault on a federal officer and using a firearm in a violent crime.

The jury's partial verdict found Gregory Burleson guilty of eight counts and Todd Engel guilty of two counts. That verdict will remain in effect, with the rest of the charges headed to a new trial scheduled for June 26. Each of the six defendants faced 10 charges.

Mr. Bundy and his family have become some of the most visible protesters against federal land-management policies in the West.

The trial didn't include Mr. Bundy and his closest allies. But the difficulty the jury faced could influence how prosecutors shape a trial expected to begin later this year against Mr. Bundy, his sons Ammon and Ryan and two other defendants. The three Bundys have remained in federal custody since last fall.

The first trial came after federal prosecutors indicted 19 defendants for the 2014 standoff between federal officers and Bundy supporters in Nevada. The confrontation was prompted by the government's seizure of the rancher's cattle for alleged illegal grazing.

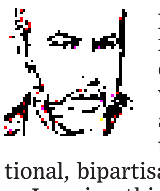
Six others are slated to be part of a trial later this year. Two defendants have pleaded guilty. In March, four men were found guilty on some charges in another trial stemming from actions of the Bundy family.

How Trump's Debut Could Have Differed

CAPITAL JOURNAL
By Gerald R. Seib

Let's imagine an alternative opening act to the Trump presidency.

Specifically, let's imagine a presidency that attempted from the outset to take advantage of the fact that Donald Trump isn't an ideological conservative or a traditional Republican, but rather a radical centrist who should be able to create unconventional, bipartisan coalitions.



Imagine this new president had given a different kind of inaugural address, one in which he didn't accuse the capital's political leaders of flourishing at the expense of its citizens but rather sketched out a vision of a new way of working with those leaders.

This presidency wouldn't have started with polarizing issues guaranteed to back both parties further into their corners: aiming to repeal the Democrats' signature health-care law and imposing a ban on travel from a set of Muslim-majority countries as the first step in fighting terrorism. Rather, it would have opened with two big initiatives in which at least a few Democrats would have been willing—maybe even eager—to cooperate: rebuilding U.S. infrastructure and changing the nation's inefficient tax code.

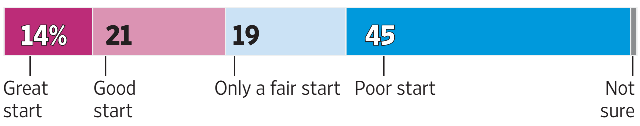
This alternative presidency would have set out to build bridges to the 10 Democratic senators up for re-election in 2018 from states Mr. Trump carried, and the 12 House Democrats in districts he carried. His cabinet would have been populated with fewer ideological conservatives and included moderate Democrats.

As the Trump presidency approaches its 100-day mark Saturday, it's easy to imagine that Mr. Trump, given a do-over, might choose this kind of opening act. It would have capitalized on his strongest single asset, the fact he isn't the product of the traditional party system but rather that rarest of things in Washington, a genuine free agent.

Grading a Different Kind of President

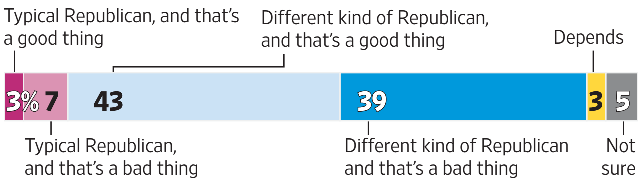
Americans don't tend to think the Trump administration is off to a great start...

When you look at the first 100 days of Donald Trump's presidency, how would you rate his start?



...but they still think he's a different kind of Republican.

Do you believe that Donald Trump is a typical Republican or a different kind of Republican? And is that a good thing or a bad thing?*



*Question asked of half the respondents.

Source: WSJ/NBC News telephone polls of 900 adults conducted April 17–20; full sample margin of error: +/-3.2 pct. pts.

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The suspicion that Mr. Trump might wish he had chosen a different opening path is buttressed by the fact that the figures now ascendant in the administration's power structure—son-in-law Jared Kushner, daughter Ivanka Trump, National Economic Council director Gary Cohn, Treasury Secretary Steven Mnuchin—all fit into this kind of nonpartisan mold.

On more practical terms, such an opening would have diminished rather than accentuated the power and leverage of the House Freedom Caucus, the band of the House's most conservative members who dealt the president his most grievous early blow in the collapse of the effort to replace Obamacare.

In a narrowly divided, highly partisan environment, the power of any such small group is enhanced because even a few votes spell the difference between success and failure. A president with a broader power base can't be held hostage by any one faction.

Mr. Trump's populist appeal isn't rooted in partisanship but, in many ways, actually should transcend partisanship and ideology. That is seen in a new Wall Street Journal/NBC News poll. The survey shows that basic economic issues are more important to Americans right now than are other domestic issues, including health care. Americans are inclined to think the government should be doing more, not less, to help solve them.

Only one in 10 Americans sees Mr. Trump as a typical Republican. The vast majority in both parties consider him a different kind of Republican, and are more likely to say that's a good thing rather than a bad thing.

This picture raises a couple of pertinent questions. The first is whether it really was possible to move down a nonpartisan path—or whether anti-Trump passions at the base of the Democratic Party would have made it impossible to do so. In other words, did Mr. Trump drive away Democrats, or did Democrats drive him further into the arms of fellow Republicans?

It's impossible to know for sure, of course, and certainly both forces were at work to some extent. The one thing that seems clear is that some of Mr. Trump's more divisive early actions, decisions and priorities made it easier for Democratic activists to create pressure on their representatives to take a never-cooperate position.

The more important question is whether it's too late to adopt a different approach. The answer: Of course not, after fewer than 100 days have passed. The president and his team already are pivoting toward a more centrist approach on some fronts.

Tax reform, infrastructure and national security all give Mr. Trump openings to become that builder of unconventional coalitions. The new Journal/NBC News poll indicates the most significant erosion in the president's standing since taking office has been among political independents. There's plenty of time to give them the kind of president they are looking for.

President Seeks Corporate Tax Cut

Trump tells staff he is willing to add significantly to the federal budget deficit

WASHINGTON—President Donald Trump has ordered White House aides to draft a tax plan that slashes the corporate tax rate to 15%, even if that means a loss of revenue, according to people familiar with the directive.

By Michael C. Bender, Richard Rubin and Nick Timiraos

BILL INGALLS/NASA/GETTY IMAGES

President Donald Trump, with his daughter Ivanka, talks with astronauts on the international space station from the White House.

During a meeting in the Oval Office last week, Mr. Trump told staff he wants a massive tax cut to sell to the American public, these people said. He told aides it was less important to him that such a plan could add to the federal budget deficit, though that might make it difficult to sell to GOP lawmakers who are wary of such a large tax cut. Mr. Trump told his team to "get it done" in time to release a plan by Wednesday, the people said.

Mr. Trump's willingness to let deficits run higher also could hinder the passage of tax cuts that are permanent. Congressional Republicans plan on using a procedural tool known as reconciliation that would allow the tax legislation to pass with a 51-vote majority in the Senate, instead of the usual 60 votes. Under those rules, changes can't add to deficits beyond a decade.

"It's the same discussion they had about the Bush tax cuts in the previous administration: Are you better off having a smaller cut that is permanent, or a larger cut that is temporary?" said Mick Mulvaney, the president's budget director, last week.

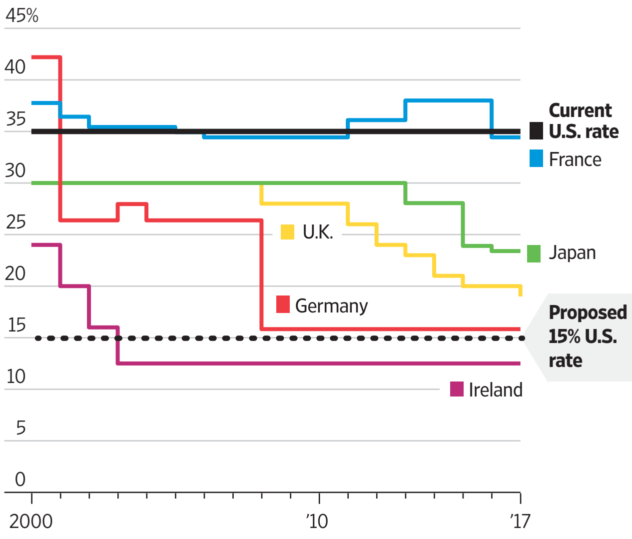
Treasury Secretary Steven Mnuchin and National Economic Council Director Gary Cohn are scheduled to meet Tuesday to discuss Mr. Trump's tax proposals with Senate Majority Leader Mitch McConnell (R., Ky.), House Speaker Paul Ryan (R., Wis.), Senate Finance Chairman Orrin Hatch (R., Utah) and House Ways and Means Chairman Kevin Brady (R., Texas). The meeting comes in advance of a Wednesday announcement by Mr. Trump about his principles for tax policy.

During the campaign, Mr. Trump proposed to cut corporate rates to 15% from 35%. There likely aren't enough business tax breaks that could be repealed to offset the fiscal cost, meaning such a move would increase budget deficits. Roughly, each percentage-point cut in the tax rate lowers federal revenue by $100 billion over a decade, so a 20-point cut would cost the government $2 trillion over a decade, according to the congressional Joint Committee on Taxation.

Big Break for Business

President Donald Trump has requested a plan to drop the corporate income-tax rate to 15%. Republican plans also provide reduced tax rates on an estimated $2.6 trillion that corporations have stockpiled abroad.

Corporate income-tax rates for select advanced economies



Note: Observations are updated before May of each year and exclude state and local taxes.

Sources: Organization for Economic Cooperation and Development (rates); Joint Committee on Taxation (amount overseas)

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Donald Trump's First 100 Days

The administration's latest actions and agenda at a glance

MONDAY

◆ **Tax plan:** President Donald Trump has ordered White House aides to draft a tax plan that slashes the corporate tax rate to 15%, even if that means a loss of revenue, according to people familiar with the matter.

◆ **Sanctions:** Mr. Trump's administration blacklisted 271 employees of the Syrian government agency involved in developing and producing chemical weapons, the Treasury Department said.

◆ **Afghanistan:** Defense Secretary Jim Mattis arrived in Afghanistan for a surprise visit, just hours after the resignations of his Afghan counterpart and the army chief of staff following the deadliest attack by insurgents on government forces since the war began in 2001.

◆ **Corruption:** Attorney General Jeff Sessions said the Justice Department will continue to strongly enforce the Foreign Corrupt Practices Act and other anticorruption laws, enabling "an even playing field" for law-abiding companies.

QUOTES

"Water is such a precious resource up here that we also are cleaning up our urine and making it drinkable—and it's really not as bad as it sounds."

—Astronaut Peggy Whitson, speaking to Mr. Trump from space

"Well, that's good. I'm glad to hear that. Better you than me."

—Mr. Trump

If such a deficit-financed tax cut passed under reconciliation, the provisions would expire after 10 years, because bills passed that way can't increase deficits beyond the typical 10-year time frame against which tax and spending policies are projected.

Some White House advisers have warned that changes that aren't permanent would undercut the rationale for a corporate-tax cut, which is to boost business investment. Businesses are "making long-term capital decisions. People are deciding to move this to the United States, and...they need some permanence of the tax code," Mr. Cohn said at a conference last week.

Democrats are against large tax cuts for corporations, especially when Mr. Trump is already proposing cuts to spending programs that Democrats prioritize, such as housing, arts and the environment.

"They will lose a boatload of revenue that we can't afford to lose and far more than this team will offset by closing loopholes," said Jared Bernstein, who was an economic adviser to former Vice President Joe Biden. Cutting marginal tax rates for businesses could generate some economic growth, Mr. Bernstein said, but not nearly enough to pay for itself with increased revenue.

"These promises about all kinds of growth and investment that are going to be triggered by these tax cuts never appear," Mr. Bernstein said.

Mr. Trump's call for a 15% corporate tax rate puts him below the low end of recent proposals. Former President Barack Obama sought a 28% rate for most companies. A 2014 GOP plan had a 25% corporate rate. And House Republicans want a 20% rate, with the cost covered by including a border-adjustment feature that taxes imports and exempts exports. Mr. Trump's White House has sent mixed messages about whether it would support the border-adjustment plan.

Asked Monday if the president's tax plan would be revenue-neutral, meaning it wouldn't add to the debt, Mr. Mnuchin told reporters that it would "pay for itself with economic growth." By that, he meant that the administration expects to be able to project faster growth due to tax cuts, which would in turn increase revenue and avert the risk of bigger budget deficits. Many economists say that without a big pickup in productivity and labor-force growth, though, it is uncertain whether the tax-policy changes could drive an economic expansion on a sustained basis.

The U.S. has the developed world's highest statutory corporate tax rate, and advocates for lower corporate rates say the system discourages job creation and investment in the U.S. Including state and local taxes, the U.S.'s corporate rate is 39.1%, according to the Congressional Budget Office.

The gap in corporate tax rates between the U.S. and other countries is smaller under a measure that looks at taxes as a share of income after deductions and other breaks, also known as the average rate.

FCC Chief Crafts Internet Policies

BY JOHN D. MCKINNON

WASHINGTON—The nation's top telecommunications regulator is expected to outline his strategy for rolling back Obama-era net-neutrality rules on Wednesday, people familiar with the matter said, signaling the start of a new clash over internet regulation.

The plan is expected to be made public at an event at the Newseum in Washington, where Federal Communications Commission Chairman Ajit Pai is scheduled to deliver a speech on "The Future of Internet Regulation," these people said.

The 2015 net-neutrality rules were aimed at requiring internet-service providers such as big cable and wireless firms to treat all traffic the same. Providers contend the rules went too far by reclassifying them as common carriers, potentially subjecting them to heavy government regulation.

They said they support basic principles of net neutrality, such as no blocking. But they want the common-carrier designation reversed.

Many consumer groups and online activists, as well as many Democrats, worry that even a partial rollback of the rules could harm competition on the internet.

Mr. Pai's office didn't respond to a request for comment.

People familiar with the matter said that Mr. Pai plans to focus his rule-making efforts on reversing the reclassification of internet-service providers and will put less emphasis on the possibility of shifting enforcement responsibility to the FTC.

Officials are widely believed to be refining Mr. Pai's strategy in ways that could make it somewhat less complicated than previously expected.

ANDREW HARRER/BLOOMBERG NEWS

FCC Chairman Ajit Pai

Senate Confirms Agriculture Chief

By Jacob Bunge

Awaiting Sonny Perdue, the new agriculture secretary, is the worst farm-economy slump in decades.

PABLO MARTINEZ MONSIVAIS/ASSOCIATED PRESS

The Senate on Monday confirmed former Georgia Gov. Sonny Perdue as secretary of agriculture, ending a three-month vacancy atop the sprawling agency as the food sector confronts potential changes to U.S. trade policy and farm-level regulations.

Mr. Perdue, a Republican who grew up on a dairy farm and has managed agribusinesses, was confirmed in an 87-11 vote, garnering significant support from Democratic senators who saw him as an experienced manager who will maintain supports for U.S. farmers navigating a crop-price slump.

Awaiting Mr. Perdue is the worst farm-economy slump in decades, with U.S. net farm income projected to fall for a fourth consecutive year to $62.3 billion, half the record $123 billion farmers earned in 2013, according to USDA projections. The agricultural sector, which heavily relies on exports, has also watched warily as President Donald Trump's administration has moved ahead with an overhaul of U.S. trade policy, including withdrawing from the Trans-Pacific Partnership, which farm groups generally had backed.

The vote makes Mr. Perdue among the last members of Mr. Trump's cabinet to be confirmed, though many other senior vacancies remain. Robert Lighthizer, Mr. Trump's nominee for U.S. trade representative, and Alexander Acosta, nominated to head the Labor Department, still await confirmation.

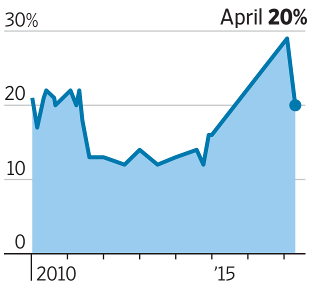
It also fills a gap that troubled some crop and livestock producers across U.S. farm states, which heavily factored into Mr. Trump's electoral victory in November. The president's focus on deregulation resonated with farmers and ranchers who chafed under federal environmental and regulatory restrictions that some saw as onerous.

Mr. Perdue is expected to start work at the USDA, which employs around 100,000, by addressing employees Tuesday. The agency has a hand in promoting U.S. grain, meat and fiber to foreign buyers, regulates genetically engineered crops, inspects meatpacking plants and oversees the $71 billion Supplemental Nutrition Assistance Program, formerly known as the food stamp program.

Mr. Perdue also will step into a growing trade dispute with Canada over U.S.-produced milk used to make cheese, which some U.S. producers have argued is unfairly shut out of the Canadian market.

Congress Takes Hit In Approval Ratings

Congressional job approval fell 9 percentage points from February.



Source: WSJ/NBC News telephone polls, most recent of 900 adults conducted from April 17–20; margin of error: +/- 3.2 pct. pts.

THE WALL STREET JOURNAL.

BIG SHIFT: A fifth of Americans approve of the job Congress is doing, down 9 percentage points since February, a new Wall Street Journal/NBC News poll found. **WSJ.com**

TARIFF

Continued from Page One

largest two-way trading partner, after China.

In the lead-up to the decision on lumber duties, U.S.-Canada trade watchers said the Trump administration's move on timber could serve as an opening gambit in laying out what he wants Canada to put on the table as part of the North American Free Trade Agreement renegotiations, which have yet to begin in earnest.

The trade row between the U.S. and Canada over lumber dates back decades, although the countries reached a standstill through a bilateral deal struck in 2006 that stopped the U.S. from imposing additional duties. Under that arrangement, which expired in late 2015, Canadian forest producers agreed to accept either a quota on U.S.-bound exports or pay a tax on goods shipped to the U.S. in exchange for no tariffs.

The U.S. lumber industry filed a complaint last fall to the Commerce Department, alleging that Canadian lumber is unfairly dumped—or sold at less than market value—into the U.S. market and that Canada heavily subsidizes its timber industry by offering Pacific Coast producers access to wood from government-owned land at below-market prices.

"We appreciate today's actions by the Department of Commerce," said Cameron Krauss, senior vice president of legal affairs at the U.S. Lumber Coalition, which represents large and small American producers.

The prospect of U.S. duties on Canadian lumber imports has roiled prices. Lumber futures rose more than 25% in the early months of 2017, peaking at their highest point in over 12 years. The U.S. ran a trade deficit of $5.28 billion in 2016 with Canada on products from sawmills, which captures softwood lumber.

The U.S. plans to impose a 20% tariff on softwood lumber from Canada. Above, stacked lumber in British Columbia earlier this year.

DARRYL DYCK/ASSOCIATED PRESS

The preliminary duties over alleged subsidies vary depending on the Canadian firm, according to a release from the U.S. Commerce Department late Monday. The tariffs range from 3% to 24% for companies named in the documents, with unspecified Canadian producers set to pay 20%.

During the election campaign and the weeks following, Mr. Trump focused much of his trade ire against Mexico, China and Germany. When Canadian Prime Minister Justin Trudeau visited the White House in February, the president spoke of the U.S.'s "outstanding" trade relationship with Canada and of how only some tweaking would be required to Nafta when it came to Canada.

But pointed comments—in particular Mr. Trump's dislike of how Canada restricts access to U.S. producers to its dairy market—and his move to slap a new tariff on Canadian lumber suggest the Nafta renegotiation could be more complicated than initially believed.

The president "is using his skills as a negotiator to set the bar very high and highlight a problematic area for U.S.-Canada trade," said Laura Dawson, director of the Canada Institute at the Wilson Center, a nonpartisan think tank.

Mr. Ross said the disputes illustrate the shortcomings of Nafta, which he said has restricted dairy products that Americans can export to Canada, yet allowed Canada to "dump lumber here."

"That is not a very satisfactory agreement," he said.

The issue is important for U.S. lawmakers in the Pacific Northwest, including Sen. Ron Wyden (D., Ore.), the top Democrat on the Senate committee that oversees trade policy—and on the panel that has delayed a vote on Mr. Trump's nominee for U.S. trade representative, Robert Lighthizer.

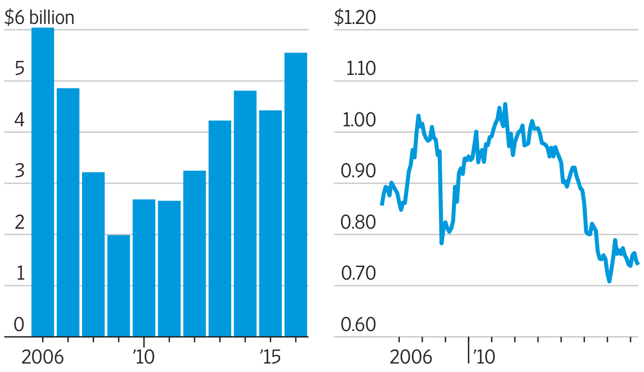
"Today's announcement sends the message that help is on the way," Mr. Wyden said.

Mark Warner, a Toronto-based trade and foreign investment lawyer, said the 20% tariff will either spur Canada to file a trade challenge against the U.S. to a dispute-resolution panel available under the terms of Nafta, and possibly the World Trade Organization, or force Ottawa to reconsider its negotiating position as the two countries try to renew the expired bilateral lumber deal.

—Will Mauldin and Benjamin Parkin contributed to this article.

Logging Trade

Canadian shipments of softwood lumber to the U.S. have been rising, helped in part by the weaker Canadian dollar.



Sources: U.S. Census Bureau; WSJ Market Data Group

THE WALL STREET JOURNAL.

Home Builders Face Higher Costs

The Trump administration's proposed 20% tariff on Canadian lumber imports could have the biggest impact on the U.S. home-building industry, a sector that has struggled with higher labor costs since the housing crash a decade ago.

U.S. home builders are among the biggest customers for Canadian lumber, which is a major component in framing single-family homes. Canadian imports represent about 28% of all softwood lumber purchased in the U.S., according to an analysis by the National Association of Home Builders, a trade group.

Based on analysis last year, a builder spends an average of $15,413 for the softwood lumber in a single-family home, or about 7% of the total construction cost of a home. Lumber cost increases so far this year have added an estimated $3,000 to the cost of building a typical home, according to the home builders' association.

Builders say lumber costs are already at the highest in a decade, even before the prospect of increased tariffs. Labor shortages throughout the housing recovery have already added costs and held back the overall pace of home construction, contributing to rising prices as more buyers compete for a smaller supply of homes.

"Someone's paying for this: Either I'm paying for it, or the homeowner is paying for it," said Scott Laurie, president and chief executive of Olson Co., a home builder in Southern California.

Home improvement retailers Home Depot Inc. and Lowe's Cos. likely won't be hardest hit by a potential tariff on Canadian lumber. Much of their business is focused on home improvement and repair, not home building, the industry most reliant on Canadian softwood lumber.

—Chris Kirkham and Sarah Nassauer

Obama Aims To Spark New Leaders

By Carol E. Lee And Michelle Hackman

Former President Barack Obama broke his public silence since President Donald Trump's inauguration, saying on Monday that his top post-White House priority is encouraging a new generation of political leaders.

Mr. Obama, a Democrat, spoke at a forum on civic engagement at the University of Chicago, which was scheduled before his GOP successor reaches the 100-day mark of his time in office.

"I'm spending a lot of time thinking about what is the most important thing I can do for my next job," Mr. Obama said. "And what I'm convinced of is that although there are all kinds of issues that I care about, and all kinds of issues that I intend to work on, the single most important thing that I can do is to help in any way I can prepare the next generation of leadership to take up the baton and take their own crack at changing the world," the former president added.

Mr. Obama also said the country's political discourse has suffered amid the media's polarizing effect and the decline of what he described as "mediating" institutions that bring together people with different types of political views.

Mr. Obama, who had vowed to avoid meddling in Mr. Trump's handling of the office, has largely declined to make public statements as his successor has worked to dismantle portions of his legacy in areas that include immigration, health care and the environment.

Outsider Macron Needs Political Machine

Centrist's party must secure majority in parliament to push through his agenda

BY DAVID GAUTHIER-VILLARS AND WILLIAM HOROBIN

BENOIT TESSIER/REUTERS

Emmanuel Macron, at left, waved as he left his home in Paris on Monday after his victory in Sunday's first round of the French presidential elections.

PARIS—Political novice Emmanuel Macron is widely expected to win the French presidency on May 7, but he will need a big victory in yet another crucial round of elections to become more than a mere figurehead.

For Mr. Macron to be able to implement his policies if he defeats far-right leader Marine Le Pen in the runoff, his upstart movement will have to secure a parliamentary majority in June.

Turning En Marche, or "On the Move," the party that Mr. Macron founded barely a year ago, into a political machine will be a tall order for the 39-year-old former investment banker, who on Sunday won the first round of the presidential contest with 24% of the vote.

So far, Mr. Macron, who is running for office for the first time, hasn't named anyone who would join his administration, and has announced only a handful of the candidates who will run under his colors for the 577 seats in the two-round legislative vote scheduled for June 11 and 18.

Without a majority, French presidents have historically been smacked by a constitutional punishment known here as "cohabitation"—a form of power-sharing under which a prime minister from the opposition runs the government, effectively squeezing the head of state into a ceremonial role.

The presidential and legislative elections have different dynamics, warned Famke Krumbmüller, analyst at political risk consultancy OpenCitiz. She said having Mr. Macron's stamp of approval may not be enough for En Marche candidates to unseat rivals in constituencies where voters enjoy cultivating a direct bond with their elected officials.

Mr. Macron is expected to win the May 7 runoff against Ms. Le Pen with 61% of the vote, according to a survey conducted by the OpinionWay polling agency during and after Sunday's first round.

If she prevailed in the runoff, Ms. Le Pen would face a different set of obstacles. Unlike Mr. Macron, she can rely on a nationwide and disciplined apparatus, as well as on the National Front's deep-rooted local bases. But her performance in the first round of the presidential election—she garnered 21.3% of the vote, up from 17.9% in 2012—suggests she has yet to broaden the party's mainstream appeal.

That is necessary to succeed in the two-round voting system introduced by Charles de Gaulle upon fathering the Fifth Republic, a new constitution designed to squeeze political majorities out of France's fractured postwar landscape.

The outcome of the legislative election will provide a measure of French voters' repulsion toward the socialist and conservative parties that have alternated to govern France in the past four decades.

On Sunday, both Benoît Hamon of the ruling Socialist Party, and François Fillon of the conservative Les Républicains, were ejected from the presidential race, garnering 6.4% and 20%, respectively.

Despite the humiliating blow, leaders of Les Républicains vowed to quickly regroup, conquer a majority in parliament, and impose a "cohabitation" on Mr. Macron.

"It's wasn't our ideas that were defeated on Sunday, it was our candidate," Daniel Fasquelle, a lawmaker for Les Républicains and mayor of Le Touquet, a resort town, told French television. "Our ideas are shared by a majority across the country and we will demonstrate that in the legislative vote."

Socialist Party officials sought to display similar fighting spirit, saying they would line up candidates in all the constituencies against Mr. Macron's recruits. Michel Rombaut, a volunteer in Mr. Hamon's campaign and a Socialist for nearly 40 years, said Mr. Macron's candidates should expect fierce resistance.

Hackers Targeted Election Front-Runner

BY SAM SCHECHNER

PARIS—Hackers matching the profile of a pro-Kremlin group have tried in recent weeks to access campaign email accounts of French presidential candidate Emmanuel Macron, a cybersecurity firm said Monday, raising fears of election interference in the final two weeks of France's presidential campaign.

In a report set to be published Tuesday, security-research firm Trend Micro identified a pro-Kremlin hacking group it calls Pawn Storm as the likely source of a multipronged phishing attack that started in mid-March against Mr. Macron's campaign.

As part of the attack, hackers set up multiple internet addresses that mimicked those of the campaign's own servers in an attempt to lure Mr. Macron's staffers into turning over their network passwords, said Feike Hacquebord, a senior threat researcher for Tokyo-based Trend Micro and the author of the report, a copy of which was reviewed by The Wall Street Journal.

Mounir Mahjoubi, digital director of Mr. Macron's campaign, confirmed the attempted hacking, saying that several staffers had received emails leading to the fake websites.

The phishing emails were quickly identified and blocked, and it was unlikely others went undetected, Mr. Mahjoubi said. "We can't be 100% sure," he said, "but as soon as we saw the intrusion attempts, we took measures to block access."

The hacking group Pawn Storm, which is known to other cybersecurity firms as Fancy Bear or APT28, was identified by U.S. officials and cybersecurity experts last year as a Russian state-backed organization. They said the group had carried out hacks to obtain and subsequently leak emails from the Democratic National Committee and Hillary Clinton's campaign chairman during last year's U.S. presidential election, allegations that Russia has denied.

Group matches profile of an entity identified as an organization backed by Moscow.

On Monday, referring to the allegations in the Trend Mico report, Kremlin spokesman Dmitry Peskov denied accusations that Moscow was involved. "I repeat once again: Russia has never interfered, isn't interfering and will never interfere in the electoral processes of other countries," he told Russian news agencies.

Cybersecurity experts say hacks by pro-Kremlin groups are part of a broader pattern of propaganda aimed at delegitimizing Western institutions. In recent years, groups have targeted elections, at times favoring candidates who are seen as more favorable to Russia's interests, experts say.

Analysts say Mr. Macron's opponent, National Front leader Marine Le Pen, could be favored by Moscow because she has vowed to pull France out of the North Atlantic Treaty Organization and the European Union, organizations that Russian President Vladimir Putin views as threats to Russian interests.

Ms. Le Pen, who met Mr. Putin last month in Moscow, has also said she would lift the sanctions imposed on Russia following its annexation of Crimea in 2014. A spokesman for Ms. Le Pen didn't respond to a request to comment on the latest hacking allegations.

In February, Mr. Macron accused Russia of sponsoring cyberattacks against his campaign and of spreading smears about his character, accusations the Kremlin rejected.

—Thomas Grove in Moscow contributed to this article.

EU Leader Sides With Centrist Candidate

BY VALENTINA POP AND LAURENCE NORMAN

BRUSSELS—The European Union's executive body is breaking with longstanding tradition by taking sides in the French presidential election, a potentially risky strategy aimed at helping centrist candidate Emmanuel Macron.

European Commission President Jean-Claude Juncker on Sunday night called Mr. Macron to congratulate him and wish him luck for the second round, a conversation that was tweeted about by his staff.

Mr. Juncker's intervention represents a stepped-up effort by EU authorities to actively defend Brussels from the growing political opposition it faces across the bloc. Some of Mr. Juncker's commission team also publicly welcomed Mr. Macron's first-round win, as did leaders of Germany, Belgium and Luxembourg.

As a rule of thumb, the EU's executive, unlike national leaders, typically stays above domestic party politics. Mr. Juncker's move comes as EU governments have increasingly bristled at Brussels' intervention.

Moreover, explicit commission backing of Mr. Macron could play into the hands of his May 7 runoff opponent, Marine Le Pen, who has derided Mr. Macron as a cheerleader for European and global elites.

On Monday, Mr. Juncker's spokesman, Margaritis Schinas, doubled down on the commission's support for Mr. Macron. Welcoming the prospect of a "strong, clear debate" on France's role in Europe ahead of the runoff, he said the choice on Sunday was "between defending what Europe represents and another option which aims to destroy Europe."

In the past, the EU has worked hard not to be seen as interfering in elections.

Senior EU officials said Mr. Juncker made the choice to go public with his support for Mr. Macron not as a calculated intervention but as a reflex to show the EU has certain values it will defend against what Brussels views as extremists. Some people in Brussels noted that Mr. Macron chose to speak Sunday night in front of both French and EU flags.

VOTE

Continued from Page One

to reverse Europe's deepening integration.

Sunday's French vote showcased the nationalist challenge to the status quo, but also the strength of a gathering backlash from broadly centrist voters who want to defend the European Union and the euro.

A long-awaited strengthening of Europe's economic recovery is adding to the sense that the continent may be over the worst of its troubles. Investors are now clearly betting against a political earthquake that brings down the euro or the EU.

The euro strengthened more than 1% against the dollar Monday to above $1.08. France's stock market rose 4.1%, led by its big banks. The Dow Jones Industrial Average rose 1.1%.

One clear sign of the market's growing optimism was the rise in yields of German bonds, indicating that investors believe that the strengthening eurozone economy will allow the European Central Bank to reduce its monetary stimulus measures, including bond purchases.

But Europe's political uncertainty hasn't suddenly disappeared. Ms. Le Pen can still win the presidency. Antiestablishment, euroskeptic parties have a shot at winning Italian elections due in early 2018.

Even if Ms. Le Pen doesn't win the presidency, the popular discontent with governing elites that she tapped is likely to linger—and could return with a vengeance if Mr. Macron fails to overcome France's sense of national malaise.

And the May 7 election might yet prove tighter than many expect. Ms. Le Pen now has two weeks to frame her duel with Mr. Macron as a plebiscite on globalization and the status quo—neither of which are popular in France.

What's more, many Europe-watchers have long viewed Italy as the place where the eurozone could crack. The country's deep-seated economic stagnation has fragmented its political landscape and weakened public support for the euro.

"It is probably too early for markets to see a big relief rally just yet," said Anna Stupnytska, global economist at Fidelity International.

Still, Mr. Macron is the clear favorite to become French president, with opinion polls putting him ahead by 20 percentage points or more.

Some investors say Europe's stabilizing politics could even turn the region's economic recovery into a boom.

"This allows investors to get back to the basics, to think about economic fundamentals and how it affects monetary policy," said Paul Meggyesi, a foreign-exchange strategist at J.P. Morgan.

German and other northern European bonds considered havens sold off sharply Monday. Gold, another haven that has benefited from concern over political risk, fell 1.52% in the wake of the French vote.

French government bonds, meanwhile, rallied alongside those of Italy, Spain and Portugal, the three European markets that typically sell off when investors are concerned about a eurozone breakup.

Investors' nerves had already been soothed somewhat by a mid-March election in the Netherlands that saw the defeat of anti-euro populist candidate Geert Wilders. And in Germany, support for the euroskeptic Alternative for Germany party ahead of the Sept. 24 election is now below 10%.

"The perception that the center, the establishment, is reasserting itself is good for investors," said Kevin O'Nolan, portfolio manager at Fidelity International.

Eurozone business surveys published by Markit on Friday indicated activity is at its strongest level in six years. The region's unemployment rate, at 9.5%, is the lowest since May 2009 and consumer prices rose 1.5% in March from a year earlier, not far from the central bank's target of close to but below 2%.

Investors had always seen Mr. Macron as one of the more market-friendly candidates in the French election—and as the foremost supporter of deeper eurozone integration.

As the country's economy minister, from 2014 to 2016, Mr. Macron made it easier for companies to lay off workers. His policies include corporate tax cuts and an additional €50 billion ($54 billion) program of public investment.

Market-oriented overhauls of French labor laws, taxation and other areas could boost the country's long-term growth potential, many economists say. The country's problem since 2011, however, is that it has been growing well below its potential.

Victory for Mr. Macron could, by removing political uncertainty, unleash some of the "animal spirits" that have been lacking from France's recovery in recent years, says Nicolas Véron, an economist at Brussels think tank Bruegel.

—Tom Fairless contributed to this article.

How France's Vote Jolted Markets

Here are some of the big moves:

◆ The euro shot to as high as $1.0935 overnight as trading opened on Sunday night, a five-month high, before settling up around 1.3% at $1.086.

◆ European stocks surged, with equity indexes in both France and Italy rising more than 4%, and the broad Stoxx 600 up 2%.

◆ Financial stocks led the surge, with banks listed on the Euro Stoxx rising by more than 7%. In dollar terms, the index is now outperforming the KBW Nasdaq Bank Index since the U.S. presidential election in November.

◆ Bonds in Europe's stronger core economies sold off, while yields tumbled in France and Southern Europe. The spread between 10-year yields in France and Germany tightened to as little as 0.42 percentage point from as much as 0.75 last week.

◆ Investor protection against a sharp drop in the euro, which had reached the most expensive levels on record, plunged in price. One-month risk reversals cooled from minus 4.4 last week to minus 1.5 on Monday, with more negative numbers meaning more expensive protection.

—Mike Bird

MICHEL EULER/ASSOCIATED PRESS

Marine Le Pen, who advanced to the runoff, in Paris on Monday.

Indonesia President Calls for Pluralism

BOGOR, Indonesia—President Joko Widodo spoke against the divisive identity politics that defined the latest Jakarta election, but in an interview dismissed concerns that Islamist hard-liners would stoke deeper conflict in the world's largest Muslim-majority nation.

By Ben Otto, Anita Rachman and Patrick McDowell

"Indonesia needs to avoid divisive issues such as race, religion and ethnicity to win elections," Mr. Widodo told The Wall Street Journal at the presidential palace outside Jakarta, days after a close ally from the Christian minority lost the vote for governor of the Indonesian capital. Islamists made religion the predominant election issue and in the run-up to the vote on Wednesday drew the country's largest protests in decades.

"We need to focus on policy issues and programs," Mr. Widodo said, after a race that consumed politics here for six months.

The president, a Muslim who has championed Indonesia's secular democratic traditions, said there was nothing unusual about the tensions that erupted during the election, in which hundreds of thousands of people took to the streets against Jakarta Gov. Basuki Tjahaja Purnama, a high-profile politician among the country's persecuted ethnic Chinese minority.

Mr. Purnama lost his reelection bid by 15% to 18% of the vote to a ticket led by Anies Baswedan, a former university rector who promotes a moderate form of Islam, according to pollsters' projections of samples from Wednesday's balloting. Official results are expected next week.

Conservative Muslim groups showed increasing organization and power in the election, and politicians looking for their support lent them political credibility.

"Now it is my task to bring the people together again," Mr. Widodo said. He said he would promote tolerance by meeting with religious groups across Indonesia. "Our DNA is pluralism."

"This election was not normal," said Tobias Basuki of the Center for Strategic and International Studies in Jakarta, pointing to how mainstream politicians relied on hard-line groups, bringing an Islamist narrative to the fore. "It's never been this way before."

Mr. Purnama had won support in the chaotic capital for trying to unsnarl traffic, improve infrastructure and shake up the bureaucracy. Yet he was criticized for a sometimes abrasive style and for clearing the poor from slums to empty flood-prone areas.

Trump Presses U.N. on North Korea

President Donald Trump said the United Nations Security Council must adopt new and stronger sanctions on North Korea, telling visiting U.N. diplomats that "it's time to solve the problem" posed by the country's nuclear-weapons program.

By Ben Kesling in Washington and Te-Ping Chen in Beijing

Mr. Trump's admonition on Monday came as the White House scheduled high-level meetings on North Korea amid concerns about a sixth nuclear test and as tensions escalated over the weekend with the arrest of an American citizen.

American officials briefed the visiting Security Council diplomats at the White House, and the administration said senators will attend a classified briefing there on Wednesday.

On Friday, Secretary of State Rex Tillerson will chair a special U.N. Security Council session on North Korea.

The heightened activity takes place as a U.S. aircraft carrier, the USS Carl Vinson, heads toward the Korean Peninsula and as experts said North Korea is preparing for additional missile launches and a possible nuclear test. Mr. Trump outlined security concerns to the visiting diplomats, singling out Syria and North Korea.


WONG MAYE-E/ASSOCIATED PRESS

U.S. concern about North Korean nuclear tests is rising. Above, soldiers in Pyongyang last week.

"The status quo in North Korea is...unacceptable, and the Council must be prepared to impose additional and stronger sanctions on North Korean nuclear- and ballistic-missile programs," Mr. Trump said. "This is a real threat to the world, whether we want to talk about it or not. North Korea is a big world problem, and it's a problem we have to finally solve."

As part of the elevated U.S. concern, Mr. Trump spoke late Sunday from Washington with Chinese President Xi Jinping and Japanese Prime Minister Shinzo Abe to discuss the threat.

"The two leaders reaffirmed the urgency of the threat posed by North Korea's missile and nuclear programs, and committed to strengthen coordination in achieving the denuclearization of the Korean Peninsula," the White House said on Monday.

Mr. Xi urged the U.S. president to exercise restraint and said he opposed any action that would violate Security Council resolutions, Chinese state media reported.

Mr. Abe said Mr. Trump "indicated by his words and actions that all possible options are on the table." Mr. Xi said all parties should avoid further ratcheting up tensions on the peninsula, state media reported, adding that the two pledged to stay in regular touch.

White House press secretary Sean Spicer said the Chinese government has been responsive to U.S. requests for help on North Korea.

"China has been very, very helpful in this process and continues to be," he said. "And I think we hope to see a change" in North Korea's behavior.

Mr. Spicer repeated White House concerns about reports that an American citizen had been detained over the weekend in North Korea. The Wall Street Journal reported that Korean-American professor Tony Kim, who had been teaching at a university in Pyongyang set up by a Korean-American Christian businessman, was detained in Pyongyang.

He is the third American citizen confirmed to be held in North Korea.

The Pentagon said on Monday that the Carl Vinson recently arrived in the Philippine Sea and has held naval exercises with the Japanese Navy. Pentagon spokesman Capt. Jeff Davis declined to say whether the exercises were preplanned or were added to the Vinson strike group's schedule.

Property Boom Leaves Rural China Out in Cold

BY MARK MAGNIER

YANJIAO, China—An epic property boom restricted to city dwellers has opened a wealth gap that continues to widen in China, setting back a state campaign to ease poverty and shunting rural dwellers from the middle-class dream.

China's system of *hukou*, or household registration, a decades-old legacy of the planned economy, binds most Chinese to their place of birth, and denies those outside China's booming megacities the right to buy property inside them.

That has largely shut them out of one of history's biggest wealth transfers: 98% of Chinese housing is now in private hands from virtually none a generation ago. Over the past decade, housing prices have increased as much as 700% in cities like Beijing and Shanghai. Property now accounts for 70% of personal wealth in the country.

"Housing is everything in China," said Li Gan, a professor at Southwestern University of Finance and Economics. Unless the Communist Party privatizes land, which is unlikely, farmers will continue to lose ground, he said.

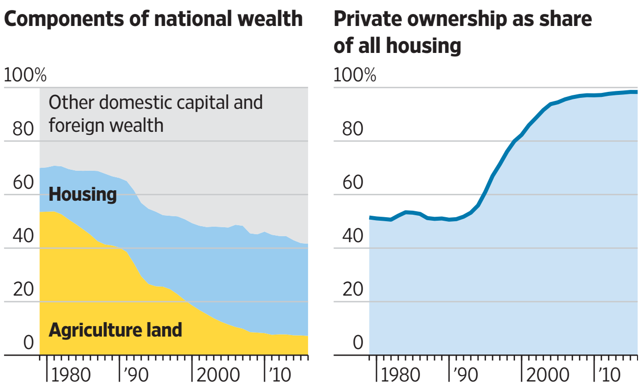
Meanwhile, home prices keep rising at a faster pace, with March the quickest in the past five months. China has recently stepped up efforts to fight poverty, including extending medical insurance to the poor and resettling them from areas prone to landslides and other geological threats. It also said it is building a new mega-city two hours from Beijing, bringing whirlwind growth to a dusty backwater. Both initiatives suggest leaders' awareness of the deep inequities along rural-urban lines.


CHINA DAILY/REUTERS

China's urban centers have seen a wealth of construction.

Land Poor, House Rich

China's farmers have fallen behind as wealth has shifted from collectively owned land toward businesses and privately owned urban apartments.



Source: 'Capital Accumulation, Private Property and Rising Inequality in China, 1978-2015' by Thomas Piketty, Li Yang and Gabriel Zucman

THE WALL STREET JOURNAL.

In 1978, when China embarked on economic overhauls, city dwellers earned about twice as much as rural residents; they now earn about 3.5 times as much, according to a study released in April by Paris School of Economics professor Thomas Piketty and World Bank consultant Li Yang.

Studies by the Asian Development Bank and the University of Michigan suggest China's rich-poor gap is even higher once property and hukou status are taken into account. "The urban-rural wealth divide is much greater than the income divide," Southwestern University's Mr. Gan said.

Often, the difference comes down to a line on a map.

Wang Qiang, a 30-year-old construction engineer from a village in northern China, bought an apartment in 2014 in the Banyan Tree Harbor residential complex astride a garbage dump in Yanjiao, just outside Beijing, across a dying river in Hebei province.

Looking across the dry riverbed separating Yanjiao from the capital, Mr. Wang said he hopes Beijing will someday absorb his community.

Giving him hope, some cities across China have extended property-buying rights to rural hukou holders around them. With a Beijing hukou, Mr. Wang's family would have access to better schools and hospitals, and his two-bedroom apartment would be twice as valuable. But for now, "I feel stuck," he said.

On the other side, 38-year-old app developer Liu Wei emerges from his apartment in upscale Jingmao International City. Over the past decade, his Beijing residency status has helped him to purchase several apartments and a villa that he said are now valued at as much as 10 times what he paid for them. "I'm absolutely delighted with the price appreciation," he said.

China has for decades talked about overhauling the hukou system, which economists say undercuts economic growth. Political resistance is strong as city officials balk at providing services to more people.

"The hukou system is kind of like apartheid without the racism," said Scott Kennedy, a China expert with the Center for Strategic and International Studies. "The life chances of rural and urban Chinese are vastly different."

While Beijing and Shanghai have plans to cap their populations, small cities ringed by unsold apartment blocks have welcomed rural hukou holders. However, they have little to offer in terms of jobs.

—Liyan Qi, Fanfan Wang and Pei Li contributed to this article.

Crimes by Migrants In Germany Increase

BY RUTH BENDER

BERLIN—The number of crimes committed by migrants surged 52.7% in Germany last year, driving a sharp rise in violent offenses and highlighting the challenges facing Chancellor Angela Merkel and other pro-immigration politicians in this fall's elections.

Migrants, defined as refugees and rejected asylum seekers, committed 174,438 crimes in 2016, up from 114,238 a year earlier, according to police figures released Monday. Over the period, crimes committed by German citizens declined 3.4% to 1.41 million.

The numbers come five months before a general election that is expected to be heavily influenced by the recent large inflow of refugees. More than one million asylum seekers entered Germany in the two years ended in December.

Anti-immigration parties and some members of Ms. Merkel's conservative-led coalition have argued that Berlin's relatively generous refugee policies had left the country more susceptible to crime and terror attacks. Karsten Woldeit, a politician for the anti-immigration Alternative for Germany in Berlin, said his party "predicted and warned about this development."

Criminologist Christian Pfeiffer, a former justice minister from the Social Democrats, said the rise in offenses committed by migrants is mostly due to the high number of young males traveling alone, a group that generally is responsible for the majority of crimes regardless of nationality, Mr. Pfeiffer said.

Interior Minister Thomas de Maizière said it was "frustrating that crimes committed by migrants have risen overproportionally over the past year. That is the case for nearly all categories of offenses."

The overall crime rate rose just 0.7% last year—similar with the numbers Germany has experienced for years. But violent crimes, including rape, murder, and bodily harm, jumped 6.7%. According to Mr. de Maizière, violent crimes by German nationals rose 1% in 2016, while those committed by migrants nearly doubled.

Vaunted Ebola Vaccine Faces Questions

BY THOMAS M. BURTON AND MICHELLE HACKMAN

The deadly Ebola outbreak in West Africa two years ago, the worst in recorded history, led to a vaccine that seemingly would stop the next Ebola epidemic in its tracks.

In December, doctors from the World Health Organization, Doctors Without Borders and other groups reported in the British medical journal the Lancet that a vaccine from Merck & Co. and NewLink Genetics Corp. tested during the outbreak proved to be 100% effective at preventing people from contracting the hemorrhagic fever once the vaccine's protection kicked in.

Now there are questions about that claim. A panel of scientists from the esteemed U.S. National Academy of Medicine has challenged the methodology of that 4,160-patient trial in the African nation of Guinea. They conclude the vaccine "most likely provides some protection to recipients" but that protection "could in reality be quite low."

Merck and NewLink didn't immediately comment on the finding.


JEROME DELAY/ASSOCIATED PRESS

Workers in Liberia help a man suspected of having Ebola in 2014.

In another Ebola epidemic, a vaccine with modest usefulness may still prevent deaths but not provide a firewall. The last outbreak involved 28,616 Ebola cases, and led to more than 11,300 deaths.

The National Academy is a private nonprofit organization that serves as an advisory group to the U.S. government. The Ebola study was sponsored by the National Institutes of Health, the Food and Drug Administration and the U.S. Department of Health and Human Services.

The Guinea vaccination trial was a compromise. Instead of randomizing people, it randomized groups of people who had had contact with an infected person. Researchers identified a ring of human contacts in the area where Ebola broke out. In the first ring, villagers were to be vaccinated right away. The next ring of contacts, or "cluster," received a delayed vaccination after 21 days, the outside time period for someone to show Ebola symptoms. That randomization was expanded to more areas throughout Guinea.

Estimating a vaccine would take 10 days to be effective, researchers counted Ebola cases that erupted 10 days or more after the first case. In this analysis, there were no new Ebola cases in the immediate-vaccination clusters, and 16 in delayed clusters; hence, the 100% statement.

But the National Academy team concluded that varying ways of analyzing the data lead to differing estimates of how effective the vaccine is. One confounding issue is there are indications that exposure to the illness varied from town to town. "The small proportion of clusters in which Ebola cases were reported raises a concern about the comparability of risk across clusters," the panel wrote.


STOP

WORLD NEWS

U.S. Says Russia Arming Taliban

By Gordon Lubold And Habib Khan Totakhil

KABUL—U.S. military officials said they have seen an increasing number of small arms provided by the Russian government, including machine guns and antiaircraft weapons, in the hands of Taliban fighters in Afghanistan over the past 18 months.

U.S. officials have complained that the Kremlin has interfered on the Afghan battlefield on the Taliban's side, but Monday's comments marked the most serious U.S. charges yet.

Defense Secretary Jim Mattis, who arrived in Kabul on an unannounced visit on Monday, said it would be a violation of international law for Russia to provide the Taliban with weapons.

Military officials have long suspected Russia may be sending weapons to Afghanistan, but have noticed an increase recently, a senior U.S. military official said. The weapons are showing up in Helmand, Kandahar and Uruzgan provinces.

Asked on Monday if the Russians were providing such weapons, Gen. John Nicholson, the top U.S. commander in Afghanistan, said, "I'm not refuting that."

Russia has acknowledged sharing information with Taliban groups in an effort to combat Islamic State, but has denied sending weaponry. Russian officials didn't respond on Monday to a request to comment on the U.S. charges.

The senior U.S. military official said heavier weaponry that could change battlefield dynamics, such as surface-to-air missiles, hadn't appeared in Afghanistan.

"The Russians seem to be choosing to be strategic competitors in a number of areas," Mr. Mattis said, adding that as far as "the level of granularity and the level of success they are achieving, I think the jury is still out on that."

Mr. Mattis said the U.S. would address the issue diplomatically, but would confront Russia if necessary.

"We will have to confront Russia where what they're doing is contrary to international law or denying the sovereignty of other countries," he said. "For example, any weapons being funneled in here, unless they are coming through the [Afghan] government, would be a violation of international law."

Mr. Mattis arrived in Afghanistan hours after the resignations of his Afghan counterpart and the army chief of staff following the deadliest attack by insurgents on government forces since the war began in 2001.

—Ehsanullah Amiri contributed to this article.

JONATHAN ERNST/REUTERS

Defense Secretary Jim Mattis looked out on Kabul on Monday.

WORLD WATCH

NARENDRA SHRESTHA/EUROPEAN PRESSPHOTO AGENCY

TWO YEARS ON: A Nepalese girl does her homework in a shelter on the anniversary of the earthquake that killed more than 8,000.

SYRIA

U.S. Sanctions 271 Weapons Workers

The Trump administration blacklisted 271 employees of the Syrian government agency involved in developing and producing chemical weapons, the Treasury Department said.

U.S. officials on Monday said the move was among the largest sanctions actions in history and was undertaken in response to a chemical-weapons attack in Idlib province this month that killed at least 85 people.

—Felicia Schwartz

ISRAEL

Country Remembers The Holocaust Dead

Israel came to a standstill as people stopped for a two-minute siren that wailed across the country to mark the annual Holocaust Remembrance Day for the six million Jewish victims of Nazi Germany and its collaborators.

Pedestrians stood in place, buses stopped on busy streets and cars pulled over on major highways, their drivers standing on the roads with heads bowed.

—Associated Press

INDIA

Maoist Rebels Kill Dozens of Soldiers

Firing from hilltops, Maoist rebels killed at least 24 Indian paramilitary soldiers and wounded six others in the Sukma district of central Chhattisgarh state, police said. The soldiers had been guarding road workers.

—Associated Press

Israel Charges Teen Over Jewish Center Threats

By Rory Jones

TEL AVIV—Prosecutors here charged an Israeli teenager accused of making more than 2,000 threatening calls to Jewish institutions, schools, airports and airlines in the U.S. and elsewhere.

The 18-year-old, who is Jewish and has dual Israeli and American citizenship, was charged with thousands of counts of various crimes over the course of two years including extortion, carrying a weapon, assaulting a police officer, drug trafficking and money laundering. He was also charged with possession of obscene materials including child pornography, according to an indictment filed in a Tel Aviv court on Monday.

The suspect was named in the Israeli indictment but the court barred publication because some of his crimes were committed when he was under the age of 18. But a U.S. indictment on Friday of the same person on similar charges identified him as Michael Ron David Kadar.

At the time of his arrest, one of Mr. Kadar's lawyers said he suffers from a nonmalignant brain tumor that affects his behavior. Another lawyer for the defendant on Monday referred questions to a representative who said he would respond later to charges.

Israeli police arrested Mr. Kadar last month as part of a monthslong investigation that involved the FBI and other security agencies in the U.S., Europe and Australia.

Following some of his threats and separate incidents of vandalism against Jewish property, American Jewish groups criticized President Donald Trump and his administration for not doing enough to combat anti-Semitism in the U.S.

Mr. Trump and the White House have denied turning a blind eye to anti-Semitism. The White House also has hailed the president's good relationship with Israeli Prime Minister Benjamin Netanyahu.

LOANS

Continued from Page One

people, or 11% of borrowers, had gone at least a year without making a payment on a Parent Plus loan, according to the Government Accountability Office. That exceeds the default rate on U.S. mortgages at the peak of the housing crisis. More recent Education Department data show another 180,000 of the loans were at least a month delinquent as of May 2016.

"This credit is being extended on terms that specifically, willfully ignore their ability to repay," said Toby Merrill of Harvard Law School's Legal Services Center. "You can't avoid that we're targeting high-cost, high-dollar-amount loans to people who we know can't afford to repay them."

Parent Plus is one thread in a web of college loan programs that have come to resemble the subprime mortgage industry a decade ago, given the shaky quality of many of the loans.

The number of Americans with federal student loans, including through programs for undergraduates, parents and graduate students, grew by 14 million to 42 million in the decade through last year. Overall student debt, most of it issued by the federal government, more than doubled to $1.3 trillion over that period.

The financing fueled a surge in college enrollment. Between 2005 and 2010, enrollment grew 20%, the biggest increase since the 1970s.

Nearly four in 10 student loans—the vast majority of them federal ones—went to borrowers with credit scores below the subprime threshold of 620, indicating they were at the highest risk of defaulting, according to a Wall Street Journal analysis of data from credit-rating firm Equifax Inc. That figure excludes borrowers, such as many 18-year-old freshmen, who lacked scores because of shallow credit histories. By comparison, subprime mortgages peaked at nearly 20% of mortgage originations in 2006.

About eight million Americans owing $137 billion are at least 360 days delinquent on federal student loans, nearly the number of homeowners who lost their homes because of the housing crisis. More than three million others owing $88 billion have fallen at least a month behind or have been granted temporary reprieves on payments because of financial distress. New research from Federal Reserve economists shows that most student-loan defaults are among borrowers who had weak credit.

Official review

Consumer advocates said defaults will mount as loans taken out after the recession enter the repayment cycle. An Education Department spokesman said the agency is reviewing Parent Plus and other programs "to determine how best they can fit into the administration's goals of helping students and taxpayers, while promoting excellence in education."

Parent Plus, created by Congress in 1980, allows parents to borrow to cover tuition and living expenses—often after their children borrow the maximum in undergraduate federal loans, capped by law at $5,500 a year for freshmen, $6,500 for sophomores and $7,500 for juniors and seniors. There is no limit to how much parents can borrow. Supporters said the program ensures students can go to schools of their choice.

Rebecca McEvoy, 53 years old, had been a retired public-school teacher for several years, coping with multiple sclerosis, when she turned to Parent Plus in 2010. She borrowed $84,000 to help her oldest son through an art and design college.

MADDIE MCGARVEY FOR THE WALL STREET JOURNAL

Rebecca McEvoy, a retired public-school teacher coping with multiple sclerosis, borrowed $84,000 through Parent Plus to help her oldest son through an art and design college.

After he graduated, she successfully appealed to the government to have the debt expunged under a law that forgives balances for borrowers deemed permanently disabled.

Three years ago, she and her husband, Dave, 64, also a retired teacher, turned to Parent Plus again to help their younger son, Alex, cover costs at Ohio University. Dave McEvoy took out the loans under his name. They borrowed $40,000 over the past several years and expect to borrow another $10,000 for his senior year.

The McEvoys' finances likely would have raised red flags with private lenders: They are living off modest pensions and have existing debts that eat up much of their income. "I have nothing left by the time I do my mortgage, the car, food and medical," Ms. McEvoy said.

She said they have started paying down the debt and plan to continue, but they likely won't be able to cover the full monthly payment once her son graduates in 2018.

Valerie Miller, Ohio University's director of student financial aid, said she can't comment on individual borrowers. She said the school counsels parents on their options and on whether they will be able to make payments under Parent Plus.

Alex McEvoy, 20, said he plans to work in the tech industry and pay off his parents' loans. "I'm like, 'Mom don't worry about it. It's going to be fine,' " he said.

Obama administration officials, worried Parent Plus was heaping debt on high-risk borrowers, put in place tighter restrictions in 2011. But after schools argued stiffer underwriting would prevent many students from covering tuition, thus reducing college access for minorities and poor students, the administration rolled back the new rules. Research shows that restricting access to loans based on credit scores leads to lower college enrollment.

The number of families enrolled in Parent Plus jumped more than 60% since 2005, to 3.5 million as of Jan. 1. They owed about $77.5 billion—an average $22,000 per borrower, federal figures show.

Many borrowers are poor and older. More than one-third of such loans in recent years have gone to households that also received Pell grants, a student-aid program for families typically earning below $30,000 a year, federal data show. Other research suggests about one-third were single parents and a similar share lacked college degrees themselves. The program checks only a borrower's past five years of credit for major blemishes such as bankruptcy or foreclosure, and the past two years for delinquency on debts of more than $2,085.

Consumer counselors are hearing from borrowers who make as little as minimum wage but borrowed tens of thousands of dollars and now can't repay. Some expected their children to get good jobs and pay off the loans for them. In many cases, their balances have grown with interest—most Parent Plus loans issued over the past decade carried rates of between 6% and 8%—and thousands of dollars in fees the government charges when borrowers default.

Federal law bars borrowers from discharging student loans in bankruptcy, except in rare circumstances. Instead, the government reduces tax refunds and Social Security checks of borrowers, leaving some with below-poverty incomes, the GAO reported.

"If Bank of America did that, Sen. [Elizabeth] Warren would have them in the biggest hearing you've ever seen," said Betsy Mayotte, a consumer advocate and student-loan expert.

The number of Americans who had wages, tax refunds or Social Security checks reduced because of unpaid student debt increased 71% between September 2010 and September 2015, according to the GAO. About 41,000 Parent Plus borrowers were among one million student-loan recipients who had checks garnished in the 2015 fiscal year. The government garnished the Social Security checks of 173,000 borrowers from student-loan programs in 2015, up from 36,000 in 2002.

Other borrowers are seeking relief through plans that cut their monthly payments and ultimately forgive some debt. Enrollment in the plans, known as income-driven repayment, has more than doubled in the last three years.

"At some point, we're going to have to realize that a bunch of loans that have been made are not going to be repaid," said James Kvaal, Barack Obama's top education adviser.

The GAO estimates taxpayers ultimately will forgive $108 billion on student loans made through the current fiscal year. By comparison, the savings-and-loan crisis of the 1980s cost the federal government about $181 billion, in today's dollars, according to the Federal Deposit Insurance Corp.

Sherry McPherson took out Parent Plus debt in 2006 so her son could enroll in a seven-month certificate program at a Seattle for-profit school that teaches commercial diving. She was an unemployed single mother with thousands of dollars in credit-card debt, a car loan and a subprime credit score. She had just retired from the Army after suffering an injury in Iraq.

The school, the Divers Institute of Technology, told Ms. McPherson she needed to borrow nearly $16,000 to cover remaining tuition after her son maxed out on undergraduate federal loans, she said.

Shaky credit

Ms. McPherson, now 50, remembers telling the school's financial-aid administrator she wouldn't be approved because of her shaky credit and unemployment.

"She looked at me and said, 'Look, all we need is your Social Security number,' " Ms. McPherson said. "They approved me in three minutes."

She hasn't worked since, partly because she attended college and graduate school herself. Her Parent Plus balance has more than doubled. Ms. McPherson has refinanced into an income-driven plan, which sets her payments at zero while she is unemployed.

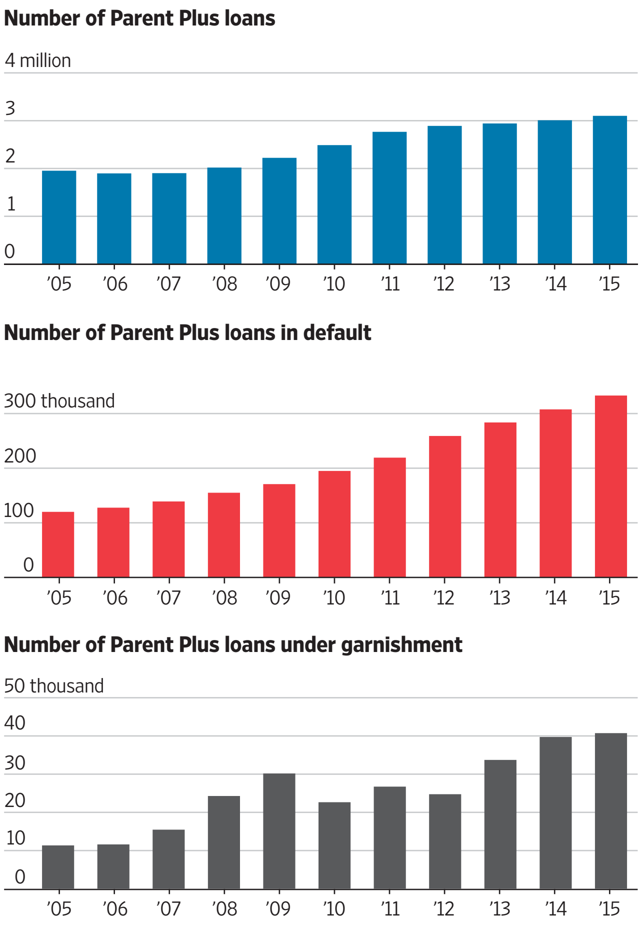
She and her son plan to start a commercial-diving company that she hopes will allow her to pay off the debt. But when she applied for a $60,000 loan to start the company, a private lender approved her for $20,000, at a nearly 16% rate, because of her student debt.

John Paul Johnston, executive director at the Divers Institute, said the financial-aid officer who dealt with Ms. McPherson has left the school, and that he couldn't confirm her account. The current financial-aid director, Caycee Clark, said the school informs parents of all their options, and that often Parent Plus is the only alternative for families with no savings. The school charges $26,000 tuition for a seven-month course.

As of late 2015, nearly two-thirds of borrowers with Parent Plus debt were between ages 50 and 64, the GAO said. Nearly four in 10 Americans age 60 and above with student debt—most of whom borrowed for children or grandchildren—reported skipping health-care needs in 2014, according to an analysis of survey data from the Consumer Financial Protection Bureau. That compares with 25% of above-60 Americans without student debt who said they went without such needs.

The Parent Problem

As the number of federal loans to parents of college students under the Parent Plus program has grown, so too have the numbers of defaults and federal garnishments of borrowers' Social Security and other checks.



Source: Government Accountability Office, Education Department

THE WALL STREET JOURNAL.

When College Debt Delays Retirement

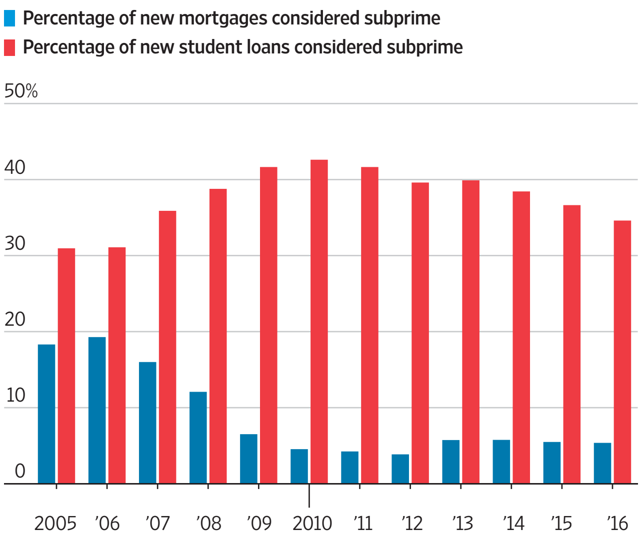
Harry Hagan, 66, of Syracuse, N.Y., delayed retirement to repay debt. He owes about $130,000 in Parent Plus debt after helping four children through college over the past decade, including a son still in school. He estimated the debt will rise to $175,000 once he graduates.

Mr. Hagan also owes about $60,000 to $70,000 in credit-card debt and a mortgage, and has a subprime credit score. He has no savings and receives a small pension from a previous employer. A couple of years ago, he said, he called the company that services the loans and said there was no way he would be able to make the roughly $1,200 a month payment it was expecting. The company suggested he refinance into a 30-year plan.

"I said, 'Listen, I'm 64 years old. In 30 years, God willing, I'll be 94. There's a very good chance I'm not going to make it. What happens?' " Mr. Hagan recalled asking. "They said, 'If you die before the loan goes up, it goes away.' I said, 'Good, let's do that.' "

Subprime Student Loans

The percentage of student loans made to borrowers with subprime credit scores exceeds the percentage of mortgages rated as subprime during the housing bubble.



Source: Equifax Inc.

THE WALL STREET JOURNAL.

BANKS

Continued from Page One

unions and never-ending email chains. They reminisce about the teller uniforms they wore, recall the heartwarming comment that nice janitor made one time and share faded photos from the 1990s.

Former IndyMac employees meet annually for dinner and drinks at El Torito, a Mexican restaurant in Pasadena near where customers lined up in July 2008 to withdraw deposits from IndyMac. At the time, IndyMac was the third-largest bank failure in U.S. history.

The ex-colleagues dwell on the good times they enjoyed together, including baseball games, picnics with root-beer floats and hamburgers, and trips with IndyMac executives to Six Flags Magic Mountain amusement park.

Yvette Hadloc, 43, who worked in the securitization department, says friends and family members sometimes needle her about why she still loves a company that imploded. IndyMac specialized in a type of mortgage often extended to people who had no proof of income.

IndyMac's history resurfaced earlier this year during the confirmation process of Treasury Secretary Steven Mnuchin, who acquired IndyMac with his investment partners about six months after it was seized by regulators.

At reunions, the failure is avoided altogether. "Whatever happened, happened," Ms. Hadloc says.

When banks fail, federal and state regulators march in, usually after closing time Friday. Bank employees are kept in the dark, and the surprise of that experience is a bond, according to some people who worked at institutions that failed during the crisis.

JANETTE LEWIS

Janette Lewis lost half of her retirement savings but kept a WaMu doll that looks like her.

Psychologists say that forging such connections is a natural way for humans to respond to high-stress situations such as combat or being held hostage. But a bank failure? "It's surprising," says Frank Ochberg, a psychiatry professor at Michigan State University and expert on post-traumatic stress disorder.

Failed-bank devotees say outsiders wouldn't understand. "There's a very strong loyalty because of that," says Ms. Ensor.

Former employees of Washington Mutual, the largest bank collapse of the crisis, have a Facebook page called "WaMulians." That's the nickname they were given while working at the Seattle thrift, where reckless lending led to thousands of foreclosures and huge investor losses. WaMu failed in September 2008.

WaMulians post photos of WaMu-branded memorabilia that they have saved for years: nametags, shirts featuring its last big marketing campaign (with the slogan "Whoo-Hoo!"), pens and piggy banks.

The Facebook page also includes WaMu Action Teller dolls, Barbie-style figurines outfitted in blue and khaki that the bank sold for $19.95 in the early 2000s. (They currently go for roughly $15 to $30 on eBay.)

"Best Employer Ever!!!!" former employee Reggie Russell posted next to a picture of himself wearing a WaMu hat.

Janette Lewis, 54, worked for more than 20 years at a WaMu branch in Oregon. She says she lost half her retirement savings when WaMu failed, but she still adores it.

When she couldn't find an Action Teller doll that looked like her, Ms. Lewis bought a Barbie—and dressed it in WaMu garb. The doll is on display in her house with certificates showing ownership of 60 shares of WaMu stock, which WaMu gave her to mark work anniversaries. The shares are worthless.

In October 2009, regulators shut down San Diego National Bank after its capital was depleted. In 2014, more than 100 former employees gathered at Rock Bottom Restaurant & Brewery to commemorate "five years since we were taken over by U.S. Bank," says Linda Falconer, who helped plan the reunion.

Ms. Falconer and other ex-employees printed fliers that said "banks will come and go, friendships last a lifetime!" So many former employees wanted to attend that she had to turn some away, she says. Ms. Falconer has begun planning a 10th anniversary event.

Nostalgia sometimes veers into the obscure as failed-bank casualties reminisce about old business cards and customer-service phone numbers they are unable to forget.

Former employees say they are still haunted by some experiences. On a Facebook page where ex-IndyMac employees were organizing a gathering, one implored: "Please do not invite that crazy ass temp who ate my food at her desk with my fork."

GREATER NEW YORK

Lobbyist Turns Up the Heat

By Mike Vilensky
And Mara Gay

When it comes to political brawling, Gov. Andrew Cuomo often operates behind the scenes and keeps his public remarks at a simmering boil.

But one Cuomo ally, lobbyist Charlie King, often puts the flame on high.

Mr. King, who was Mr. Cuomo's running mate in a failed 2002 gubernatorial campaign, has developed a reputation in New York politics as a no-holds-barred defender of the governor.

A co-chairman at lobbying and public-relations firm Mercury, Mr. King during the past year has taken shots at Cuomo critics and worked against a Cuomo rival.

"He's very zealous and protective of his friends," said Keith Wright, a former Harlem Assemblyman and longtime ally of Messrs. King and Cuomo. "Everyone needs someone who will defend them."

Zealous, indeed. Mr. King, in his most recent Cuomo-related controversy, apologized for using an explicit term some described as antigay to hit New York GOP chairman Ed Cox, an avowed foe of Mr. Cuomo, a Democrat.

In a head-spinning back-and-forth, Mr. Cox last week tweeted that Mr. Cuomo's new Secretary to the Governor, Melissa DeRosa, is a "petty thug." That earned Mr. Cox bipartisan blowback, but then came a

> Charlie King's longtime gloves-off defense of Gov. Cuomo remains strong.

statement from Mr. King: A 500-word missive to the media in which Mr. King used a lewd play on words with Mr. Cox's last name to describe the Republican chairman.

Facing backlash, Mr. King said his remarks "went too far." A spokeswoman for Mr. Cuomo said Mr. King acts on his own accord. "The comment was out of line and it was appropriate that he apologized," she said.

In an interview Monday, Mr. Cox stood by his initial tweet and said Mr. King is Mr. Cuomo's "henchman."

Michael McKeon, a partner at Mercury, said the firm supports Mr. King but "did not endorse the choice of words," and appreciated his apologizing.

When the governor faced flack for tolerating a rebel faction of Democratic senators allied with the GOP, Mr. King protested the protesters outside Mr. Cuomo's Manhattan office.

And as Mr. Cuomo faced tensions with his left-wing Democratic rival in the past few years, New York City Mayor Bill de Blasio, Mr. King suggested Mr. Wright, among others, consider a primary challenge to the mayor, who is up for reelection this year, said people familiar with the matter.

In an interview, Mr. King, 57 years old, didn't deny asking Democrats about their interest in running. "I ask a lot of questions about a lot of things all the time to see what's what," he said. Mr. Wright said he isn't running for mayor and he declined to say if Mr. King had suggested it.

Messrs. King and Cuomo worked together at the Department of Housing and Urban Development, which Mr. Cuomo headed during President Bill Clinton's tenure.

Mr. King joined Mr. Cuomo on the ticket in a failed 2002 bid for governor. "Then he threw me overboard for Bob Duffy," Mr. King said, referring to the lieutenant governor who ran on a winning ticket with Mr. Cuomo in 2011.

Mr. King, who once served as director of the state Democratic Party, said he isn't acting at Mr. Cuomo's behest, but they speak often and he agrees with "95%" of the governor's actions.

"More times than not, I'm seeking his forgiveness rather than seeking his permission," Mr. King said.

People familiar with the relationship said the two don't always agree—Mr. King even ran against Mr. Cuomo for attorney general in 2006—but they expect to always be in the other's life and have the other's back.

Mercury and its principals also have been helpful to the governor. The firm handled press for the Committee to Save New York, a lobbying group that backed Mr. Cuomo's agenda during his first term that was disbanded in 2013 amid criticism that its relationship to the governor wasn't transparent enough.


JOHN TAGGART FOR THE WALL STREET

Charlie King is a co-chairman at public-relations firm Mercury.

End Comes for Oak That Stood for Centuries


SETH WENIG/ASSOCIATED PRESS

ROOTED IN HISTORY: A tree declared dead and slated for removal this week in what is now Bernards Township, N.J., began its life 600 years ago. Officials say it was the site of a picnic George Washington held with the Marquis de Lafayette and was a community landmark.

SUNY Names Kristina Johnson Chancellor

By Melissa Korn

Trustees of the **State University of New York** on Monday appointed Kristina Johnson, a former U.S. undersecretary of Energy, as chancellor of the nation's largest comprehensive higher-education system.

Dr. Johnson, an electrical engineer by training, will take the helm of the 64-school system in September. She will begin the job as the SUNY system digests a potentially transformative change to its financial aid program, the state-backed Excelsior Scholarship that offers free tuition for local students whose families earn $125,000 or less.

The plan was put in the New York budget earlier this month, and includes a provision requiring recipients to stay in-state for a certain number of years after getting the award. It has been lauded as one of the most aggressive efforts to make college—not just community college—more affordable, but also criticized as not helping the neediest students, for whom additional fees outside tuition often are prohibitive.

The SUNY system, which includes community colleges and four-year universities, enrolled nearly 600,000 students in for-credit classes last year and another 700,000 via continuing education and extension programs.

Nancy Zimpher, the system's chancellor for the past eight years, will step down in June, and the spot will be held by a yet-to-be-determined interim leader during the summer.

Dr. Johnson most recently served as the founder and chief executive of Cube Hydro Partners LLC, which develops hydroelectric generating facilities nationwide. She served as an undersecretary


Dr. Kristina Johnson, an electrical engineer, will take the helm of the system in September.

in the Energy Department under former President Barack Obama, and before that as provost of Johns Hopkins University.

Dr. Johnson also was dean of the Pratt School of Engineering at Duke University, and she has championed the issue of women in science education.

SUNY in recent years has gained on the national stage for improving student outcomes and boosting local economic activity near campuses. Dr. Johnson, who holds 118 patents, likely would continue to stress the importance of academic research in improving the school's status.

SUNY also has been plagued by some scandals. SUNY Polytechnic President Alain Kaloyeros resigned last fall amid federal and state corruption charges connected with alleged bid-rigging on economic-development programs.

Dr. Johnson's new position comes with an annual salary of $560,000.

City to Expand Pre-K Program To 3-Year-Olds

By Mara Gay
And Melanie Grayce West

New York City will expand its free prekindergarten program to include 3-year-olds, an initiative Mayor Bill de Blasio said will give thousands of children a better start and help low-income parents struggling to pay for child care.

Starting in September, the city will offer prekindergarten classes in two high-poverty school districts. By 2021, it would serve an estimated 62,000 3-year-olds and cost about $877 million a year. The program would require significant funding from the state and federal governments.

"This is one of the smartest investments we've ever made in the history of the city," Mr. de Blasio said at a school in the Bronx, where he unveiled the new initiative.

For Mr. de Blasio, a Democrat, expanding prekindergarten plays a vital role in addressing income inequality and gaps in education outcomes between poor New Yorkers and their wealthier counterparts.

It also is likely to serve as an appealing campaign promise for Mr. de Blasio, who faces re-election this year. The mayor's first prekindergarten initiative, which provides full-day instruction for 4-year-olds citywide, was a key part of his 2013 campaign. It is considered to be one of his administration's most successful and popular initiatives.

Under the mayor's plan, the city would contribute $36 million to the effort this year, a sum that would grow to $177 million in 2021.

The mayor said he had sought support for the initiative from state Sen. Jeff Klein, who leads a breakaway group of Democrats in the Republican-controlled state Senate and who played a key role in helping the city secure funding for prekindergarten three years ago.

The mayor said he hadn't yet reached out to President Donald Trump or New York Gov. Andrew Cuomo.

Messrs. Cuomo and de Blasio, both Democrats, have openly feuded in recent years. Their relationship soured in part after a disagreement about how to pay for the city's prekindergarten program. Mr. de Blasio wanted to impose a tax on wealthy families, a measure Mr. Cuomo didn't push for with Albany lawmakers. Ultimately, the governor agreed in 2014 to allocate $300 million in state funds toward the city's program each year.

Mr. de Blasio revived the idea of a tax to help pay for the expansion of the city's prekindergarten program on Monday, saying "all options are on the table."

A spokeswoman for Mr. Cuomo said the governor had invested more than $1.5 billion in early-childhood education programs statewide. "We welcome the mayor's efforts and will review his proposal," said Dani Lever, the spokeswoman.

A White House spokeswoman didn't immediately respond to a request for comment.

Mr. de Blasio said the initiative would be more complicated to implement than prekindergarten for 4-year-olds, in part because the city would need to hire more teachers and find space in crowded school districts.

The pilot program this September is expected to serve 1,800 to 2,000 students in the Brooklyn neighborhood of Brownsville and the South Bronx.


CRAIG WARGA FOR THE WALL STREET JOURNAL

Prekindergarten children at a 2014 graduation in Brooklyn.

Author to Lead Nonprofit Robin Hood


BRANDCHILD MARKETING GROUP

Wes Moore will start his new job as Robin Hood CEO in June.

By Leslie Brody

Wes Moore, a best-selling author who escaped a troubled youth in the Bronx to become a Rhodes Scholar and social entrepreneur, will be the new chief-executive officer of Robin Hood.

The nonprofit, which is set to announce his appointment Tuesday, says it aims to fight poverty among 1.8 million New Yorkers by funding more than 200 schools, food pantries, shelters, job training centers and other initiatives. Its officials said it invested about $130 million in such grants last year.

Mr. Moore, 38 years old, says he will take charge of the organization at a time of particular urgency, as many programs serving the most vulnerable families are at risk of federal and state budget cuts. He called it the mission to address their suffering "our collective responsibility."

His personal experiences inform his advocacy. He was a 3-year-old in Baltimore when his father died and he moved with his mother to New York City. His mother juggled several jobs to send him to the private Riverdale Country School. "I very quickly found myself too poor for the kids in my new school...but too rich for the kids in my neighborhood," he said.

Mr. Moore's best seller, "The Other Wes Moore," tracks another African-American man named Wes Moore, who was in prison for murder. "The chilling truth is that his story could have been mine," the author wrote. "The tragedy is that my story could have been his."

When Mr. Moore starts his new job in June, he will be Robin Hood's first chief executive officer. A Robin Hood spokeswoman declined to reveal Mr. Moore's pay, but noted that the board covers administrative costs, including salaries, so that all other donor dollars go to poverty-fighting programs.

Robin Hood says it has raised $2.5 billion from over 360,000 donors since it was launched in 1988.

'Bandstand' Actors Hit High Notes

By Charles Passy

For most Broadway actors, the job of bringing their characters to life is challenge enough.

But for some cast members of the new musical "Bandstand," which opens on Wednesday at the Bernard B. Jacobs Theatre, the task is decidedly more complex: They have had to become semi-accomplished jazz musicians in the process of assuming their roles.

The show, created by Broadway first-timers Richard Oberacker and Robert Taylor and directed and choreographed by Tony Award-winner Andy Blankenbuehler, tells

> 'To do justice to the period, it had to be bad-ass music,' says Andy Blankenbuehler.

the story of a group of World War II veterans who form a swing band after coming home. In several scenes, the band rehearses and performs—and it is up to the actors portraying the musicians to make it seem as realistic as possible.

"To do justice to the period, it had to be bad-ass music," Mr. Blankenbuehler said.

The problem is that some of the actors Mr. Blankenbuehler tapped for the show had little to no instrumental chops. In particular, Corey Cott, a Broadway veteran who portrays Donny Novitski, the piano player and bandleader, had never played the piano.

"Some days I walk in the theater and say, 'What the heck did I get myself into?' " Mr. Cott said.

Not that the actor or his fellow cast members haven't taken the time to prepare for their roles. Mr. Cott, for example, began practicing two to three hours a day starting last June. Along the way, he says he has gotten good enough that he can perform without looking at the keyboard, though he knows his limitations.

"I can't look at any piece of Mozart and play it," he said.

"Bandstand" theoretically could have solved its dilemma by hiring accomplished musicians for the roles. But Mr. Blankenbuehler says the creative team realized it was easier said than done. Not only did the instrumentalists have to become Broadway-worthy actors, they also had to look the part of World War II-era veterans. "It was very hard to find people" who fit the bill, said the director.

Some exceptions were made along the way. The show cast Alex Bender, a veteran trumpeter who has performed with the New Jersey Symphony and other professional orchestras, to portray Nick Radel, the trumpeter in the band. Mr. Blankenbuehler says the role was too significant to leave it in the hands of an amateur. "We wanted the trumpeter to be our musical ace," he said.

Of course, "Bandstand" is far from the first Broadway show to ask its performers to become skilled at something other than acting. Over the years, actors have learned how to juggle, walk a tightrope and wield a knife like a professional chef, all in the name of playing a role.

Ultimately, actors have to become "all-around virtuosos," said Moritz von Stuelpnagel, a Tony-nominated Broadway director who was behind the production of "Hand to God," a play where puppetry was part of the show.

But Mr. von Stuelpnagel could breathe a sigh of relief for his current Broadway assignment, directing the revival of Noel Coward's "Present Laughter." The show calls for the male lead to play the piano, but that is no issue in this production, which stars Kevin Kline.

Mr. Kline had mastered the instrument long before tackling the part, the director said. "Kevin is a terrific piano player," he said.

AGATON STROM FOR THE WALL STREET JOURNAL

Trumpeter Alex Bender, right, is one of the few professional musician actors cast in 'Bandstand.'

GREATER NEW YORK WATCH

NEW JERSEY

East Orange Divests From Wells Fargo

The city of East Orange has pulled public funds from Wells Fargo & Co. after lawmakers accused the bank of engaging in predatory-lending practices and exacerbating the city's foreclosure crisis.

City officials said Wells Fargo holds 13% of the 439 mortgages currently in foreclosure in East Orange. City Councilman Chris James said the bank forced people from their homes and then let the vacant properties fall into disrepair.

"We can't have the city's money, that's from hardworking people's taxes, in this system," said Mr. James, a Democrat who led the divestment push.

A spokesman for Wells Fargo said the company is committed to boosting homeownership and to supporting "racially and ethnically diverse home buyers."

—*Kate King*

NEW YORK CITY

Councilman Endorses Mayoral Hopeful Dietl

Eric Ulrich, one of three Republicans on the New York City Council, on Monday endorsed mayoral candidate Bo Dietl, lending the weight of an elected officeholder to a political novice.

Mr. Ulrich's endorsement signaled Mr. Dietl may be embraced by Republican officials, after initially trying to run as a Democrat and now running as an independent.

"He's a real New Yorker who's not afraid to speak his mind," said Mr. Ulrich on the steps outside City Hall.

Mr. Ulrich, who has been criticized by some conservative constituents for opposing Donald Trump during the presidential campaign, has flirted with his own mayoral bid but recently decided against it.

Mayor Bill de Blasio has led general-election polls in the predominantly Democratic city. Businessman Paul Massey is viewed as the GOP front-runner.

—*Mike Vilensky*

QUEENS

Investigators Pursue Cause of Deadly Fire

Fire marshals sifted through charred wreckage and worked through the night to try to determine what sparked a fast-moving house fire that killed five people, but don't believe the blaze spread from a car found burned out in the driveway, officials said Monday.

A passing motorist called 911 to say someone had jumped from a window Sunday afternoon, and by the time firefighters arrived minutes later, flames were chewing through the roof and roaring out upstairs windows. No working smoke detectors were found.

—*Associated Press*

JOHN TAGGART FOR THE WALL STREET JOURNAL

GOP New York City Councilman Eric Ulrich, left, with independent mayoral candidate Bo Dietl outside City Hall on Monday.

LIFE & ARTS

YOUR HEALTH | By Sumathi Reddy

Prepare for The Summer Invasion Of the Ticks

Mild winters and growing deer and mice populations mean more ticks and higher rates of Lyme disease diagnoses

MILDER WINTERS, burgeoning mice and deer populations and a bumper acorn crop from two years ago mean this year's tick season is expected to be bad and more widespread, experts say. With that comes the threat of more tick-borne diseases, including the most common, Lyme disease.

States like Connecticut—home to the town of Old Lyme where the disease was first diagnosed—are already reporting a higher number of ticks infected with the Borrelia burgdorferi bacterium, which causes Lyme disease, as well as other tick-borne pathogens. The deer or blacklegged tick can transmit up to seven pathogens that cause human diseases, including Lyme disease.

The state collects ticks from residents, and of the more than 800 received thus far this year, nearly 38% have tested positive for Lyme disease, compared with an average of about 27% in the past five years for the full season, said Goudarz Molaei, a research scientist at the **Center for Vector Biology and Zoonotic Diseases**, part of the Connecticut Agricultural Experiment Station, a state-owned research facility.

Lyme disease is the most common vector-borne disease in the U.S.

Symptoms can include a ring-like rash, along with flulike symptoms, muscle and joint aches and swollen lymph nodes. It is usually diagnosed based on symptoms or a blood test. It is treated with antibiotics. Longer-term infections can cause more serious symptoms, including arthritis, severe muscle pain and headaches, heart palpitations, brain inflammation and nerve pain. Diagnosis and treatment of Lyme disease is controversial with many differences of opinion between patient groups and doctors.

About 10% of ticks have tested positive for the pathogen that causes Babesiosis, a malaria-like disease, and 5% have tested positive for the bacteria that causes Anaplasmosis, a flulike disease that can be fatal if left untreated. Due to the ticks' tiny size, they can be difficult to see.

"This problem is going to stay with us and it is going to get worse," said Dr. Molaei. Milder winters and no snow cover or frost means more ticks survive, he said.

The harbinger of how bad a tick season is going to be is the acorn supply, said Richard S. Ostfeld, a senior scientist at the **Cary Institute of Ecosystem Studies in Millbrook**, N.Y., who has been monitoring local tick populations and their hosts for 25 years.

In 2015 there was a bumper acorn crop, he said, which led to an explosion of white-footed mice last summer. That meant more hosts for baby ticks to latch onto. The mice are what infect some ticks with Lyme and other diseases.

"Ticks survive really well when they feed on a mouse compared to other animal hosts so more ticks survive to the nymph stage," said Dr. Ostfeld. "So our expectation is that we should have an unusually large number of infected nymph-stage ticks starting next month."

Ticks have a two-year life cycle and feed from hosts three times during that period. Most cases of Lyme disease in people are transmitted by nymph-stage ticks. The adult ticks also feed on deer so deer populations help adult ticks reproduce, although the deer don't infect the ticks and when they bite humans they are bigger and easier to detect and remove.

The **Centers for Disease Control and Prevention** estimates there are more than 300,000 new cases of Lyme disease a year, about triple the rate from two decades ago. Most cases are centered in the Northeast, mid-Atlantic region and Upper Midwest states, such as Minnesota and Wisconsin. On the West Coast, where it is less common, it is spread by a different species, the western blacklegged tick.

Getting bit by a deer tick doesn't mean you will get Lyme disease. On average 10 to 30% of deer nymphal ticks are infected with Lyme disease, depending on the region, said Rebecca Eisen, a research biologist with CDC's Division of Vector-borne Diseases.

Ticks typically feed on humans for three to five days, said Jorge Parada, a medical director of infection prevention and control at **Loyola University** Medical Center in Maywood, Illinois. A tick that latches on for only a few hours is unlikely to transmit infection. For Lyme disease to be transmitted, a tick usually has to be attached for 24 to 48 hours, said Dr. Parada, though for some other diseases it is less time. Thus, "the importance of doing tick checks."

Ticks won't crawl a lot once on a host, said Dr. Parada. They are usually found on the lower extremities, as they cling on to legs when people are walking through wooded areas or grass. Sometimes they will drop down onto people from a higher bush and end up in someone's hair or behind the ear.

Once done with a feeding, the tick will fall off on its own, said Dr. Parada. Many Lyme disease patients never see a tick on them, which can make diagnosis of the disease difficult.

Valneva, a biotech company based in France, recently started a phase one clinical trial for a Lyme disease vaccine in humans in both Europe and the U.S. The trial includes 180 subjects and is focusing on the safety of the vaccine.

Unfortunately, approval is far away. A spokeswoman for the company said the first approval could happen at the end of 2024 at the earliest.

A magnified adult deer tick, left; its approximate size, above.

How to Avoid Ticks and Help Prevent Lyme Disease

- **Avoid tall grass,** leaf piles and wooded areas. Stay in the center of walking and hiking trail.
- **Use repellent that contains DEET** — 20% or more — on skin and clothing.
- If camping or hiking, **treat clothing** and gear with permethrin.
- When working outside or walking in the woods, **wear long sleeves and long** pants and stick your pants inside your socks. Wear lighter colored clothing so you can see ticks more easily.
- Do a thorough **tick check** of the body using a mirror. Make sure to check hard-to-reach areas, including under the arms, behind the ears, inside the belly button, behind the knees and in the groin area. A lice comb can help for checking hair.
- **Showering or bathing** after spending time outside can wash off ticks that haven't latched on yet.
- **Check pets and clothing** and equipment that has been outside for crawling ticks.
- **Drying clothes** on high heat for 10 minutes can kill ticks. Add additional drying time for wet clothes.
- Regularly **mow or trim your lawn** to avoid tall grass and rake leaves.
- Place a **3-foot wide barrier** of gravel or wood chips between the lawn and wooded areas. Try to maintain a 9-foot barrier between the wood chips and areas such as the patio, garden and play areas.
- Try to **plant crops** that deer don't like or erect an 8-foot fence to keep them out.
- **Spray your yard** with acaricides or tick pesticides to help reduce the number of ticks.

Sources: CDC; Connecticut Agricultural Experiment Station; Patricia De-LaMora, Weill Cornell Medicine, Manhattan, New York; Jorge Parada, Loyola University Medical Center, Maywood, Illinois.

KENT WOOD/SCIENCE SOURCE; ILLUSTRATION BY MIKE SUDAL/WSJ

BONDS: ON RELATIONSHIPS | By Elizabeth Bernstein

LET'S THINK A LITTLE MORE ABOUT SEX

ROB WILSON

WANT A better relationship?

Think about sex more.

Typically, everyone—moms, best friends, therapists—gives the same advice on how to improve a relationship: Be nice. Listen more. Help out around the house. And they're right.

But now researchers say that just thinking about sex can help. When we have sexy thoughts we are more likely to open up and share information about ourselves. That helps us bond.

The new research, which will be published in print next month in the Personality and Social Psychology Bulletin, consists of three studies with a total of 245 heterosexual participants conducted by psychologists at the **Interdisciplinary Center**, a private university in Herzliya, Israel. In study one, participants were asked seven questions about what food, clothing and locations they would prefer for a first date. In between questions, pictures flashed on the screen so quickly the participants weren't consciously aware of them. Half the participants were shown erotic photos of a naked member of the opposite sex. Half were shown pictures of fish. Then they were asked to share a personal story via Instant Messenger with someone they thought was an attractive member of the opposite sex (but was really a researcher).

In study two, some participants watched a scene from the movie "Original Sin" where the actors Antonio Banderas and Angelina Jolie have sex. Others watched a film on cat behavior. All were then asked to tell an embarrassing personal story while face-to-face with another participant of the opposite sex.

In study three, participants watched several videos of couples interacting sexually or several movies of couples talking about their feelings. Then they were asked to tell an embarrassing personal story via online chat to an attractive member of the opposite sex (again, really a researcher). They were also asked whether or not they wanted to go on a date with that person.

The findings in all three studies were consistent: The people who

Please see RELATIONSHIP page A12

EMMANUEL FRADIN FOR THE WALL STREET JOURNAL

Myriam Badault inside Paris's Musée des Arts décoratifs, above and below, where she finds inspiration for her work.

DREAMSPACE

A PARIS MUSEUM'S TROVE SERVES AS A MUSE

Amid a vast collection, design ideas flourish for Diptyque's creative director

BY HEIDI MITCHELL

AS AN ARTISTICALLY inclined youngster in Paris, Myriam Badault loved whiling away hours in her grandmother's apartment. She was particularly captivated by an armoire crammed with art supplies, where she would gravitate during visits.

"It was a secret place, where one drawer had water colors, pastels and everything you needed to draw. Another drawer was filled with candies," says Ms. Badault, now the creative director of Diptyque, a French maker of body-care products, perfumes, home fragrances and other items. "It was paradise, a place where I never felt bored."

After graduating from business school and working for perfumer Annick Goutal and the fashion houses of Chanel and Rochas, Ms. Badault sought out an equally magical successor to the armoire. She found it at the Musée des Arts décoratifs, one of the museums housed within the Louvre.

On a slow day at Diptyque's Paris headquarters, located above the company's original boutique at 34 boulevard Saint-Germain, Ms. Badault might slip out to immerse herself in the galleries of furniture, wallpaper and *objets*. The museum has collected wall coverings since 1864 and counts about 400,000 swatches of fabric among its holdings. The collection is "a treasure," says Ms. Badault, who is 48 years old. "It is amazing to find thousands of wall coverings gathered together in one place."

Ms. Badault seeks out art wherever she goes, but always returns to the Musée des Arts décoratifs. "One recent exhibit I saw was on wallpapers which are not often shown because they are so fragile," she says. The retrospective, "Papier peint panoramique: Tombeau de Clorinde et Camp des croisés," "was fascinating because it mixed prints from the 18th century with contemporary wall coverings. It was funny to see the way people interpret the idea of decorative arts. I love that the museum doesn't try to be too intellectual. It's art on a human scale."

After a few hours at the museum, Ms. Badault is filled with ideas. On one visit she stumbled upon archival fabrics from Diptyque, which was founded in 1961 and recently reintroduced many of its original patterns on cloth tote bags and cases for throw pillows. "I am constantly seeking inspiration for unique designs," Ms. Badault says, "and the Musée des Arts décoratifs is a wonderful place for me to collect my thoughts and further develop my visions."

ART FAIR

Surprises at Independent Brussels

STEMS GALLERY

Awol Erizku on display at the Independent Brussels art fair

BY JULIA-AMBRA VERLAINE

Brussels

AN UNLIKELY PANEL in Brussels finds an image of International Monetary Fund chief Christine Lagarde next to disgraced junk-bond king Michael Milken and not far from Dick Fuld, the last boss of Lehman Brothers before it went bankrupt.

It is the contemporary art installation dubbed "Voodoo Justice for People of Finance" at Independent Brussels, the upstart art fair that had collectors from across the world flying in to Europe's capital this past weekend.

Representing galleries from 15 countries and 32 cities, the fair has gained the notice of top collectors. The European edition of the New York fair co-founded by gallerist Elizabeth Dee is in its second year. Home to surrealist painter René Magritte, Belgium has a history of welcoming rebels. Galleries could only participate in Independent Brussels by private invitation, in contrast to other fairs where applications are open. Ms. Dee's approach produced a curated selection of newcomers alongside established galleries.

Independent Brussels featured just 72 art houses from Lisbon to New York, Berlin, Paris and other cultural hubs. Art Brussels hosted nearly double that, and London's Frieze, one of the world's largest contemporary art fairs, will feature more than 160 galleries in October.

"It started out not intending to be an art fair exactly, but as a consensus of galleries collaborating on a new type of collective exhibition," said Olivier Pesret and Alix Dana, co-directors of the show in Brussels and New York.

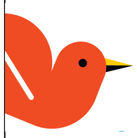
There are no aisles, nor booth numbers. The art sprawls throughout a former 1930s department store not far from the city's medieval square.

Young galleries such as Brussels-based Stems, founded in 2015 by siblings Pascaline and Guillaume Smets, displayed works by 28-year-old American artist Awol Erizku, the photographer behind Beyoncé's pregnancy announcement. Another participant was São Paulo's Mendes Wood DM, known for their eclectic parties and knack for spotting young talent. The gallery just set up shop in Brussels.

RELATIONSHIP

Continued from page A11

were exposed to sexual stimuli revealed significantly more personal information. They also were more likely to want to meet the person they had just opened up to online. There were no gender differences in the results.



Previously, psychologists looked at sexual arousal as our body's way to initiate sex with a desirable partner. These findings show that the point may also be to establish emotional bonding.

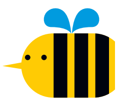
"Sexual desire makes you chatty," says Gurit Birnbaum, a social psychologist and associate professor of psychology at the Interdisciplinary Center, who is the lead researcher on the new studies. She says this is because we are wired to bond.

This chattiness obviously helps out when two people first start dating. But it is good news for couples in long-term relationships, too. Dr. Birnbaum says that thinking about sex starts a positive cycle of emotional intimacy: When you think about sex and then disclose personal information, the other person likes you more. If the attraction is mutual, he or she typically reciprocates by sharing as well. That, in turn, makes you feel more affection.

How can you harness this sexually prompted chattiness to boost the emotional connection in your relationship? Dr. Birnbaum has some advice:

First, be aware of it. And be careful to whom you are blabbing. If you see a suggestive ad in a magazine and start oversharing to the bus driver or a cute co-worker you're not helping your marriage.

Pick up your partner's cues. If he or she seems more romantic, maybe it is a good time to talk. You don't have to delve into life's big issues. And certainly don't choose this time to bring up any problems in the marriage. But an amorous partner is probably an attentive audience.



Don't dump. Reciprocal, and gradual opening up is attractive. Spewing your emotions without control—or rambling about every insignificant detail—is not. And make sure it is a good time for your partner to talk. The middle of a weekend-long visit from your in-laws is not the time.

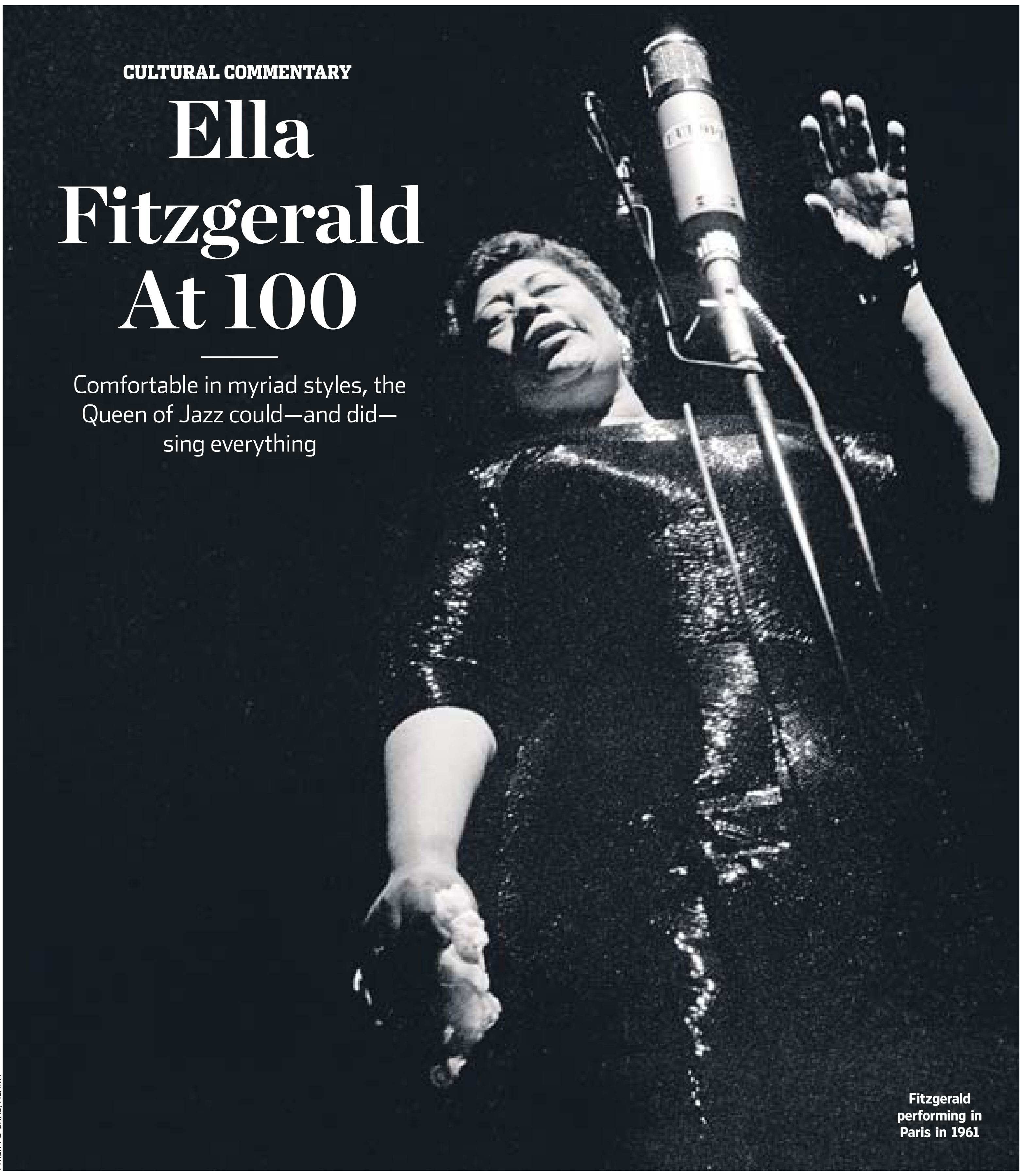
Create a sexy atmosphere. If you're feeling emotionally distant, put on some music. Light candles at dinner. Wear that shirt your partner thinks matches your eyes. Watch "Original Sin" together.

And if your partner is in a happy, open and sharing mood, have sex. Remember, it boosts relationship satisfaction, too.

CULTURAL COMMENTARY

Ella Fitzgerald At 100

Comfortable in myriad styles, the Queen of Jazz could—and did—sing everything



PHILIPPE GRAS/ALAMY

Fitzgerald performing in Paris in 1961

BY WILL FRIEDWALD

IN 1958, Frank Sinatra recorded Billy Strayhorn's classic torch song "Lush Life"—or, rather, he attempted to. He got about halfway through it when he, in 21st-century speak, "pivoted" and decided, he declared loudly, to "put that one aside for about a year!" Upon hearing the incomplete take, one can only concur with the Chairman's decision: This is far from a lost Sinatra masterpiece. Rather, it's a lost Sinatra mistake.

Conversely, Ella Fitzgerald made three important recordings of "Lush Life" in three very different contexts: in 1957 with pianist Oscar Peterson, in 1973 with guitarist Joe Pass, and on a 1968 TV special with Duke Ellington—Strayhorn's mentor and key collaborator—accompanying her on piano. Or was he? Careful analysis of the videotape by professional pianists reveals that even though it's Duke on camera, the soundtrack accompaniment is probably actually being played by her regular accompanist at the time, Jimmy Jones.

Clearly, neither Sinatra nor Ellington was comfortable with "Lush Life"—even though Sinatra had sung many songs that were just as musically difficult (and intimately personal), and Ellington was closer to Strayhorn than anyone; he, of all people, should have been willing and able to play it.

And yet Ella Fitzgerald, whose centennial is being celebrated on the 25th of this month, boldly went where both Sinatra and Ellington feared to tread. Most performers are limited to various kinds of songs, and for the great ones that range is often very vast. We hear about a "Sinatra kind of song," or a "Judy Garland kind of song." But you've never heard anyone speak of an "Ella Fitzgerald kind of song," because there's no such thing. She could and did sing everything.

In 1967-68, Fitzgerald made two of the most misguided albums of her career, "Brighten the Corner" and "Misty Blue," which can be viewed as ill-advised attempts by the first lady of song to capture the markets of, respectfully, Mahalia Jackson and Ray Charles. The first has her doing traditional spirituals like "The Old Rugged Cross"; the second consists of country-and-western songs with lyrics like "this gun don't care who it shoots." Clearly, neither one is a Fitzgerald classic, but both are great in their own way—I don't listen to them as often as I do "Ella in Berlin" or "Lullabies of Birdland," but when I do play them I find that, to quote another C&W classic, I can't stop loving them.

When Fitzgerald died in 1996, I was given the task of calling up her friends and musical associates for statements, and when I talked to one of her ex-husbands, bass virtuoso Ray Brown, to my surprise he quoted Bing Crosby's famous line, "Man, woman, or child, Ella is the most!" I didn't realize how appropriate that reference was at the time: In the 1930s, Crosby served as pop culture's ultimate musical everyman, who sang it all—from "Pennies From Heaven" to "Rock of Ages" to "Tumbling Tumbleweeds," and everything in between. His successor, the singer who picked up that torch in the postwar era and carried it to the furthest extremes, was Fitzgerald. Producer-manager Norman Granz knew what he was doing when he selected her as the one singer to do the major series of songbook albums by every major American songwriter, and then to do whole albums of scat singing, blues, bossa novas, show tunes—casting a wider net than even such remarkable contemporaries as Sinatra and Charles, and singing it all magnificently.

> Tracing the career of Ella Fitzgerald through her three recordings of 'Lush Life.'

Her performances of "Lush Life" are notable for other reasons: Fitzgerald is widely celebrated for her swinging and improvisation, but not enough attention is paid to her formidable abilities as a ballad singer. As Fitzgerald's contemporary, Jo Stafford, pointed out to me, the first lady was concerned most of all with the melody, but she also was a major interpreter of lyrics. Some performances are more emotional than others, but she was especially forthcoming on her live concert albums and tapes of the 1960s. As numbers like "A House Is Not a Home" (from a 1969 performance in Montreux, Switzerland) prove, Fitzgerald could break your heart with a song any time she wanted to. It's no surprise that when Matt Dennis wrote his saloon-song masterpiece "Angel Eyes," the first person he brought it to was Fitzgerald.

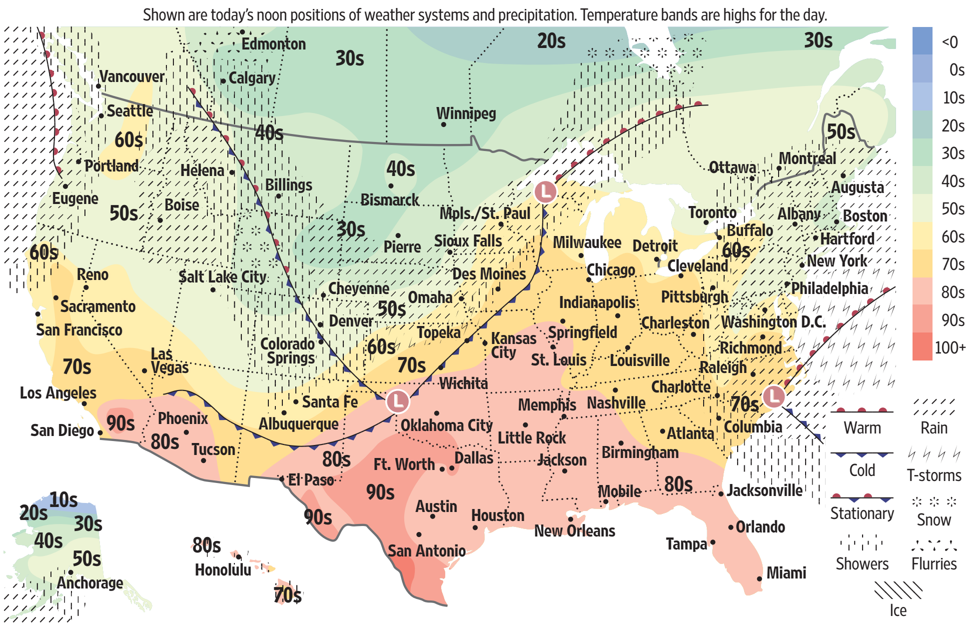
What's especially remarkable is that Fitzgerald first captured our attention with nursery rhymes, beginning with her breakthrough "A-Tisket, A-Tasket." From there she gradually expanded her purview to the point where she played a crucial role, no less than Sinatra, in helping to define the Great American Songbook, and made herself the gold standard of American popular music. Long before her centennial, it was clear that the contribution of Ella Fitzgerald to the world's cultural legacy is so vast as to be incalculable.

Mr. Friedwald writes about music and popular culture for the Journal.

Weather

AccuWeather.com

Shown are today's noon positions of weather systems and precipitation. Temperature bands are highs for the day.



U.S. Forecasts

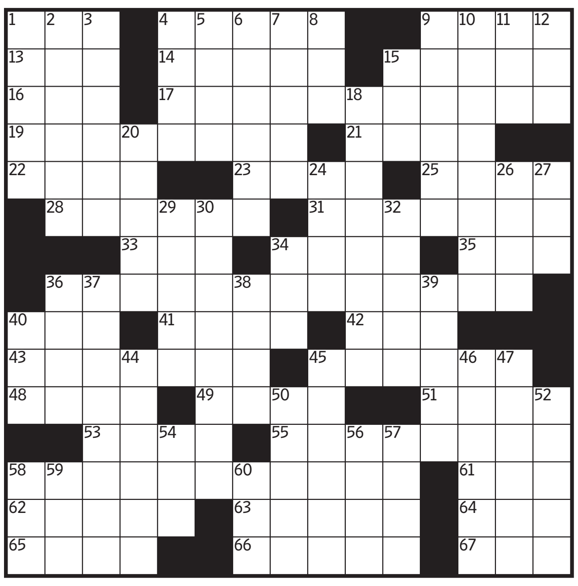
s...sunny; pc... partly cloudy; c...cloudy; sh...showers; t...t'storms; r...rain; sf...snow flurries; sn...snow; i...ice

City	Today Hi	Today Lo	Today W	Tomorrow Hi	Tomorrow Lo	Tomorrow W
Anchorage	56	42	c	56	39	c
Atlanta	78	59	s	84	63	s
Austin	89	71	pc	92	53	s
Baltimore	59	54	r	70	56	pc
Boise	59	44	r	53	37	sh
Boston	48	47	r	59	52	r
Burlington	56	47	r	65	53	c
Charlotte	70	55	c	82	60	s
Chicago	76	60	pc	76	57	t
Cleveland	74	53	pc	82	64	pc
Dallas	90	70	pc	78	51	t
Denver	57	30	c	60	38	c
Detroit	69	53	pc	77	62	c
Honolulu	86	73	pc	85	73	s
Houston	86	73	pc	85	56	t
Indianapolis	75	59	pc	82	63	pc
Kansas City	75	48	t	54	40	r
Las Vegas	77	59	pc	85	66	pc
Little Rock	82	65	s	77	50	t
Los Angeles	78	59	pc	81	63	s
Miami	83	66	s	84	75	s
Milwaukee	65	54	c	66	52	r
Minneapolis	66	42	r	49	35	sh
Nashville	79	58	s	84	64	pc
New Orleans	81	66	s	84	68	pc
New York City	53	50	r	62	56	r
Oklahoma City	87	52	pc	54	42	sh
Omaha	64	40	r	51	36	c
Orlando	86	61	s	89	61	s
Philadelphia	58	53	r	68	57	r
Phoenix	87	62	s	88	66	s
Pittsburgh	67	53	c	80	60	pc
Portland, Maine	46	43	r	54	48	r
Portland, Ore.	56	49	r	56	42	r
Sacramento	71	50	c	72	51	c
St. Louis	82	64	pc	79	51	t
Salt Lake City	52	41	r	56	43	sh
San Francisco	65	55	c	65	55	c
Santa Fe	60	35	sh	63	40	c
Seattle	58	47	c	56	43	r
Sioux Falls	51	35	r	45	31	c
Wash., D.C.	63	58	r	74	62	pc

International

City	Today Hi	Today Lo	Today W	Tomorrow Hi	Tomorrow Lo	Tomorrow W
Amsterdam	49	36	sh	51	37	t
Athens	70	53	s	72	54	s
Baghdad	85	59	s	87	59	pc
Bangkok	101	81	s	100	82	s
Beijing	67	41	pc	73	44	s
Berlin	50	35	r	52	36	pc
Brussels	49	33	sh	50	33	t
Buenos Aires	67	45	r	61	43	s
Dubai	96	76	s	94	77	s
Dublin	48	33	sh	47	38	sh
Edinburgh	49	30	sn	48	40	c
Frankfurt	52	39	r	54	37	pc
Geneva	62	43	r	50	35	r
Havana	85	65	s	88	66	s
Hong Kong	81	76	t	84	74	t
Istanbul	64	49	s	66	50	s
Jakarta	88	76	t	87	76	t
Jerusalem	71	51	s	78	56	s
Johannesburg	68	46	pc	68	45	pc
London	54	37	t	53	35	sh
Madrid	72	48	t	65	39	pc
Manila	94	77	s	94	80	s
Melbourne	66	48	r	54	48	sh
Mexico City	80	53	pc	82	52	pc
Milan	67	54	pc	60	47	t
Moscow	51	40	r	56	40	c
Mumbai	90	78	pc	90	79	pc
Paris	52	33	sh	53	36	t
Rio de Janeiro	85	70	s	88	74	pc
Riyadh	101	71	s	98	71	s
Rome	67	51	pc	68	54	c
San Juan	87	77	t	87	77	sh
Seoul	64	50	c	66	49	s
Shanghai	78	60	c	66	54	c
Singapore	88	77	c	88	76	c
Sydney	79	62	t	73	53	sh
Taipei	85	72	c	84	66	t
Tokyo	66	58	pc	66	56	pc
Toronto	54	45	sh	62	49	pc
Vancouver	57	46	pc	56	43	r
Warsaw	63	41	t	49	39	r
Zurich	59	36	r	44	34	r

The WSJ Daily Crossword | Edited by Mike Shenk



THE UNKNOWN | By Zhouqin Burnikel

Across

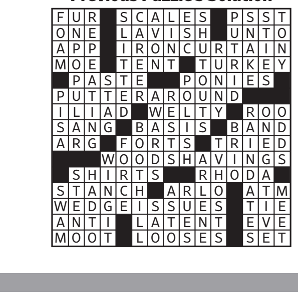
1 Features
4 Musicians' copyright org.
9 Money holder
13 Pendulum's path
14 Found, say
15 "To whom ___ concern"
16 Incensed feeling
17 *Crowded place on New Year's Eve
19 *First down distance
21 Catherine Palace resident
22 Words of understanding
23 Sicilian smoker
25 Casino city in the Silver State
28 Destroyer, in naval slang
31 Forgot to put in
33 Up to, briefly
34 Guidebook features
35 Bit
36 Treasure-indicating phrase, and a hint to the first words of the starred answers
40 Friend, en français
41 First son
42 Music's Daft Punk, e.g.
43 Unified whole, in psychology
45 Ranked, as tournament players
48 No longer deceived by
49 "This ___ sudden!"
51 Bearded bloom
53 Ireland, poetically
55 *Fans of Gene Simmons's band
58 *Ready-to-attack unit
61 Seek answers
62 Dunne of "I Remember Mama"
63 Buy a round
64 Cal. column heading
65 Fresh look
66 Vase inserts
67 Pro-___ (some golf tourneys)

Down

1 Hispaniolan nation
2 Collar
3 Act opener
4 Nick and Nora's terrier
5 Commotion
6 New Jersey city across the Delaware from Philadelphia
7 "Give it ___!"
8 Scoring amts.
9 Jeb of the Confederacy
10 Alabama Slammer liqueur
11 Distant
12 Pupil's place
15 Measures of brightness
18 Ranch problem
20 Busybody
24 "The Daily Show" host Trevor
26 "Nifty!"
27 "That's strange"
29 Around
30 Battery type
32 Debate topic
34 Range part: Abbr.
36 Beast, Cyclops, Storm et al.
37 1960s sitcom with a title palomino
38 Joins a jury
39 Speakers' stands
40 Before today
44 2006 Winter Olympics host
45 Evening gala
46 Printed mistakes
47 Bite-sized Cantonese dish
50 Woman's golf garment
52 Wanda of comedy
54 Likable candidate of 1952
56 Too-good-to-be-true offer
57 Match components
58 Military address
59 Number before quattro
60 Mil. outposts

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

Previous Puzzle's Solution



SPORTS

NFL

The Draft Prospect Out of Central Casting

BY MATTHEW FUTTERMAN

Former Stanford star Christian McCaffrey is projected to be a first-round pick in Thursday's NFL Draft.

CHRISTIAN PETERSEN/GETTY IMAGES

EVERY YEAR the NFL Draft produces a player who becomes pro football's version of the Rorschach test. This year's ink blot is Christian McCaffrey.

McCaffrey is the former Stanford multi-purpose back and special teams standout heading into Thursday's draft in Philadelphia. Depending on one's perspective, McCaffrey is either:

A) The perfect next-generation NFL star, descended from football royalty and teeming with the versatility, speed and star power the game craves right now, or;

B) A "me-first" millennial athlete with Popeye biceps who, at just 5-foot-11, 200 pounds, may be a little too big for his britches as he charts his path to NFL stardom.

The lack of consensus about McCaffrey is reflected in draft projections that either have him going in the top 10 of falling to the late teens or further. Amplifying McCaffrey's lightning-rod status is his bold—or ill-advised—approach to boosting his draft status.

McCaffrey skipped Stanford's Sun Bowl appearance rather than risk injury. He wowed scouts with his speed and agility at the NFL combine but turned down individual workouts with NFL teams. He will spend draft night at home with his family in Colorado.

McCaffrey's off-field profile also attracts attention—and can fuel either side of the debate about him.

He plays piano, swears he will return to Stanford during off-seasons to finish his degree, and has relished opportunities to hang around Silicon Valley luminaries like Mark Zuckerberg and Elon Musk. He has a Nike deal, and his marketing agent, IMG's Ira Stahlberger, recently spent a day at Silicon Valley venture-capital firm Andreessen Horowitz getting pitched by start-up CEOs interested in partnering with McCaffrey.

It all makes for a lot of noise and expectations, that seem impossible to fulfill.

In an interview at Stanford last month, he said he knew "it was a lose-lose situation" to skip the bowl game. But after winning support from teammates and some "tough talks" with Stanford head coach David Shaw, he decided not to risk his future on a meaningless game. "The easy decision would have been to play," he said.

When criticism over his decision not to meet with individual teams crested this month, McCaffrey responded with an eye-catching video showing him adroitly hopping back and forth over metal bars during a footwork drill.

He similarly plans to let his ability talk when he enters an NFL locker room. "I liken it to when I was a freshman," McCaffrey said. "I told myself to shut up, don't say anything and work my butt off."

The allure of a player like McCaffrey comes as the league is desperately searching for bright lights to take the torch from retired, imperfect or aging stars like Peyton Manning, Calvin Johnson and Tom Brady. NFL ratings plummeted for much of last season amid concerns about safety, a saturated television schedule, controversy over players kneeling during the national anthem and a distracting election.

"We are in a lull here where we have some talented guys but they haven't been able to take their teams to the next level and win," said the veteran sports marketing agent Steve Rosner of New Jersey-based 16W Marketing.

McCaffrey and his family appear sent from central casting for rescue duty. His father Ed was a Pro Bowl wide receiver for the Denver Broncos; older brother Max is part of the Green Bay Packers organization; and younger brothers Luke and Dylan, who are still in high school, are top Michigan recruits.

Fittingly, McCaffrey pitches himself as a football obsessive. "I honestly have no idea what I would do without it," he said after working out for scouts at Stanford.

The Stanford pro day included a twisting, leaping catch of an errant throw on a sideline route, as well as a dropped ball during a kickoff drill. McCaffrey seemed more bothered than anyone else.

Watching from the sidelines, McCaffrey's mother Lisa, who played soccer for Stanford, recalled how Christian cried his eyes out after his high school team in suburban Denver lost in consecutive seasons to a local rival. Fearing he was taking losses too hard, she told him there was no crying in football.

"Not my best parenting moment," Lisa said.

She has spent years fighting a losing battle to get her sons and husband to talk about something besides football. But the intense family football focus paid dividends. Steve Palazzolo, an analyst with Pro Football Focus, an analytics company that multiple NFL teams use, said McCaffrey should have won the Heisman trophy in 2015, when he broke Barry Sanders' record for all-purpose yards.

Then in 2016, after Stanford lost three starters on its offensive line, McCaffrey averaged one more yard after catching the ball than he had the previous year.

"I thought that was a telling stat," Palazzolo said. "We saw so many times how he ran routes out of the backfield and made guys miss in space."

Another telling stat—McCaffrey created 5.86 yards per play last season when opponents lined up at least eight players in the central part of the defense, referred to as "the box." That's more than Leonard Fournette, the LSU running back rated higher than McCaffrey.

McCaffrey argues that in the scheme-happy NFL of 2017, it's essential to have running backs that can get outside. "The whole point of today's league is to create mismatches and get your athletes into space," he said.

Johnson Bademosi, the Detroit Lions cornerback, said he was first awed by McCaffrey three springs ago, when McCaffrey showed up before college for conditioning workouts and crushed him in the endless shuttles and sprints.

"Whatever he does, it's going to translate," Bademosi said. " Someone is going to figure out what to do with him."

HEARD ON THE FIELD

KIN CHEUNG/ASSOCIATED PRESS

Serena Back at No. 1, Without Even Playing

Serena Williams is pregnant and hasn't played a match since January, but she's still a champion: She moved up to the No. 1 ranking in the world this week.

Williams passed Angelique Kerber by a tiny margin and spoke to her upcoming child in a post on her Instagram account. "My Dearest Baby," she wrote, "you gave me the strength I didn't know I had. You taught me the true meaning of serenity and peace. I can't wait to meet you. I can't wait for you to join the players box next year. But most importantly, I am so happy to share being number one in the world with you…. once again today."

Williams, 35, also cited the ranking as a birthday gift for fiancé Alexis Ohanian. Williams and Ohanian, an entrepreneur, are engaged and expecting their child to be born in September.

Williams has won 23 Grand Slam titles, more than anyone in the Open era, which began in 1968, and one fewer than the all-time record of 24 by Margaret Court. She won't compete in another Slam this year but does plan to return to the sport after turning age 36.

Success has happened after pregnancy, though it won't be as easy at Williams's age. Kim Clijsters, who won three Grand Slam titles after becoming a mom, was still in her 20s. Former No. 1 Victoria Azarenka, who had a child late last year, plans to return in July. She'll be age 28 at the end of that month. —*Tom Perrotta*

NBA PLAYOFFS

THE BASKETBALL STAR WHO WAS BETTER AT TENNIS

BY TOM PERROTTA

Gordon Hayward averaged 21.9 points per game this season for the Jazz.

GARY A. VASQUEZ/REUTERS

GARIN HESS, a Utah entrepreneur, drove to a tennis tournament in Salt Lake City one day last summer expecting to thump his first-round opponent.

Hess had a reason to be confident: He'd never heard of the person he was playing. The man listed his hometown outside of Utah and the U.S. Tennis Association rankings didn't reveal any useful information. It appeared to be his first time playing tennis in nearly a decade. Hess was late for the match, so he asked his iPhone to research his rival.

"I'm flying down I-215 at 85 mph because I'm late, saying, 'Siri, who is Gordon Hayward in Utah?'"

The answer: A 6-foot-8, 27-year-old professional basketball player for the Utah Jazz. But what Hess didn't learn until the match started was that Hayward used to play tennis better than basketball. Hayward smashed his way through the match and served like 6-foot-10 tennis pro John Isner on his way to winning the event.

"I always wanted to know what it was like to be at the other end of Isner's serve, and this is what it is like," Hess said. "Professional athletes in any sport—they're just a different animal."

Hayward has become the NBA's unlikeliest star. Seven seasons after he began an improbable rise from Butler, he leads a Jazz team that split its first four games with the Los Angeles Clippers. Hayward scored 40 points in Game 3 but left Game 4 on Sunday night with food poisoning. He is expected to play in Game 5 on Tuesday.

Hayward made his first All-Star team this year while averaging 21.9 points per game.

Making Hayward's story more absurd: In high school, he was almost a foot shorter and a lot better at tennis than basketball.

At a time when parents often push their kids to master one sport from the time they can pick up a tennis racket—or shoot a basketball—Hayward offers a reminder that excellence in athletics often requires patience. He played many sports as a child and even as a teenager. He didn't make basketball his sole ambition until college.

"I think that it's really, really good for kids to play all sports at a young age," Hayward said. "It builds your competitive drive, it doesn't have the pounding of the same muscles and bones that one sport would have over and over."

That he stuck with tennis for so long was even more impressive because Hayward was raised in Brownsburg, Ind., a small town in a state obsessed with basketball. Hayward didn't stand out. He wasn't all that tall or an uncanny dunker. Most people thought he was good at basketball for someone who was so good at tennis, but not a star in the making.

"He was a much better tennis player than a basketball player at the time," said Michael Lefko, a former high-school player who is now a sports announcer in Tampa, Fla. "He never measured in basketball on the state level."

One of the peculiar things about the current generation of NBA stars is that many of them never seemed likely to play basketball for a living. Stephen Curry went to Davidson. Damian Lillard and C.J. McCollum played four years each at Weber State and Lehigh. Draymond Green was a second-round pick, and Isaiah Thomas was the last pick of his draft. Hayward wasn't optimistic about a career in basketball, either.

"My parents were both 5-10, and so I didn't think basketball would necessarily be the way," he said. "Even though I loved basketball." So he kept playing tennis.

Then strange things began to happen. Hayward grew—a lot. And he kept his coordination. Which meant he started to dominate in tennis. "My coach was like, 'Dude, you're 6-8—you've got to go to the net!'" he said.

Hayward went on to win conference tournaments and had enough weapons to play for a top college.

That same growth spurt made him a better basketball player. By then he'd accepted a scholarship to Butler largely because the team's young coach, an up-and-comer named Brad Stevens, had nothing against Hayward playing both basketball and tennis in college. He's in the NBA, too: Stevens is the coach of the Boston Celtics.

"He actually supported it and came to one of my matches," Hayward said. "It was the one regular season match I lost all year."

Hayward's height and growing skills inspired him skip tennis to play basketball at Butler. He became the folk hero of a team that went all the way to the national championship in 2010 before losing to Duke.

He still relies on his tennis chops to this day. Hayward says tennis helps him control his nerves and patience in the vein of his most admired player: Roger Federer.

"I love how he really didn't get rattled too much," Hayward said. "It seemed like he was always in control, whether things were going good or things were going bad."

There's only one downside to Hayward's day job: He has little time to play tennis anymore (last year's charity tournament was a rare chance). He's close to one pro, Ryan Harrison, but he's never met Federer, Rafael Nadal or Novak Djokovic. He has less time than ever now that Utah is playing so deep into the postseason.

"Schedule-wise," he said, "it's really hard."

OPINION

Medicaid and Mr. Monopoly

MAIN STREET
By William McGurn

When progressives think of Republicans, the image that likely comes to mind is Mr. Monopoly, the top-hatted fellow from the popular board game. It helps that his original name was Rich Uncle Pennybags.

In what will be a busy week in Washington, circumstances are ripening for a revival of the Mr. Monopoly caricature. The Republican House hopes to take another whack at ObamaCare reform, a large chunk of which is Medicaid. As if this were not enough to handle, Donald Trump promises a "big announcement" Wednesday about his tax plan, which will likely include cuts in the corporate tax rate.

Let us stipulate that Medicaid reform and corporate tax cuts are both excellent initiatives. Done properly, each would offer Americans, including those at the lower end of the income scale, a better deal than they have now. Unfortunately, pitching health-care reform as the way to help "pay for" corporate tax cuts undermines the best arguments for both.

President Trump inadvertently did this last week when he told a Wall Street Journal reporter that passing the GOP's health-care bill would mean "hundreds of millions of dollars in savings" that would then make it easier to pass a separate tax-cut bill.

While that may be the spreadsheet reality of today's Congress, it's a self-defeating argument for Republicans. So long as health-care reform, especially Medicaid reform, is touted as a vehicle for tax cuts, especially corporate tax cuts, Republicans will lose the human argument.

Google "tax cuts," "Medicaid" and "Republicans" for examples. The GOP is caricatured as taking funds from Medicaid recipients and funneling them to big business. Take a recent op-ed in Roll Call. Under the headline "Robbing the Poor to Pay Paul Ryan's Pals," it argues that the House Speaker's goal is to use money saved from slashing Medicaid so he can "finance corporations. That's just morally bankrupt."

That's grossly unfair, of course. Still, the great moral claim of ObamaCare isn't that it works well. It's that it's given millions of previously uninsured people coverage (primarily through the Medicaid expansion). In this context, probably all most people know about the proposed Republican fix is that 24 million fellow Americans would lose their coverage.

What might a moral and human Republican argument look like? Start with corporate tax cuts, and what they would do.

Today American companies pay some of the highest taxes in the world. Cutting these rates would mean that fewer companies shut down and move overseas to reduce their tax burdens. It would also mean more money now parked overseas comes back in the form of investment, and that jobs are created for working Americans from the economic expansion.

While we're at it, what about a little more Republican detail on why and how an economy growing at 3% or 4% would do far more than any government program could to fatten American paychecks and help ordinary working families realize their dreams?

Why opponents find it easy to lampoon GOP arguments for health reform.

Ditto for Medicaid. Financially, Medicaid is a terrible system, with costs exploding to the point where it has become the largest or second largest item in many state budgets.

But Medicaid is also overly complicated and inadequate for those who use it, in good part because of the sneaky way the program controls costs. Washington's preferred lever here is to reduce payments to doctors and hospitals for services rendered. Often this leads providers to stop accepting Medicaid patients altogether.

As a result, many Medicaid patients can't get access to the doctors they need. Yet as bad as Medicaid is, it isn't unreasonable for people to say, "It's still better than nothing."

The American Enterprise Institute's James Capretta argues that the GOP needs to accept the reality that Americans today require some form of insurance, that Medicaid has become the de facto safety net, and that the idea of solving its problems by reducing its rolls to pre-ObamaCare levels is probably not going to fly politically.

Mr. Capretta, however, doesn't leave it there. He believes Republicans have good answers for all those struggling to afford health care. The answers begin with explaining three broad principles.

First, Americans need a working health-care market that drives down prices while encouraging innovation. Without it, costs will continue to spiral upward, making programs such as Medicaid ripe targets for cuts or controls.

Second, a real market would make it easier and affordable for some of those now on Medicaid to move to buying their own insurance.

Third, Medicaid ought to be integrated as much as possible into this functioning market, so there is minimum disruption as people move up the economic ladder and into private plans.

In the end, Mr. Monopoly has some important and valid points to make about the fisc. But the health-care argument, at its heart, has always been moral. And Republicans would do better to remember their original promise: not simply to return to the pre-ObamaCare status quo but to offer the American people something *better.*

Write to mcgurn@wsj.com.

Gibraltar Braces for Life After Brexit

By Tunku Varadarajan

Being Gibraltar is a mighty tough act: Barely 2½ times the area of New York's Central Park, the Rock has, for much of the past three centuries, faced hostility on its land border with Spain, which ceded it to Britain in 1713. The cession was made in perpetuity—but that has never stopped Spain from treating Gibraltar as a "disputed territory" and trying to wrench it back. The border reopened fully only in 1985, a decade after the death of Gen. Francisco Franco; but even democratic Spain has imposed border closures from time to time as a way to teach Gibraltar who's boss.

The people of Gibraltar have sided with Britain and against Spain in the sovereignty debate. In a referendum in 1967 on whether sovereignty in the British territory should pass to Spain, 99.64% of citizens voted "no"; and in a 2002 referendum on whether sovereignty in Gibraltar should be shared by the U.K. and Spain, "no" scored 98.97%. Even the most diehard Spanish nationalist wouldn't spin the smaller second number as progress for Madrid's cause.

Gibraltar's latest problems, however, have been of British—not Spanish—making. The European Union was a boon to Gibraltar, as Madrid was required to treat its border as one between two EU member states, as well as to accord to Gibraltar the full range of EU rights. But the Brexit referendum has wrecked this happy situation. In spite of voting to remain in the EU by a very Gibraltarian 96%, the Rock is now bound by the U.K.'s vote to leave. Bowing ominously to Spanish pressure, the EU has stated—in its guidelines for

Spain wants joint sovereignty over the Rock, but the people adamantly oppose it.

Brexit negotiations—that no new deal with the U.K. would apply to Gibraltar without Spain's assent.

This veto gives Spain great power to throttle Gibraltar's economy, and accompanies its latest offer to the U.K. of joint sovereignty over Gibraltar, under which Gibraltarians would keep their political and legal institutions, while having to acknowledge that their territory was as much Spain's as Britain's. (Madrid acts as if the Gibraltarians don't exist. It talks only to London, denying the Rock's people a voice. The U.K., for its part, has affirmed that it will not accept a change in Gibraltar's sovereign status without the explicit agreement of Gibraltar's people.)

To find out how Gibraltar is bracing for life after Brexit, I spoke to Fabian Picardo, its chief minister. (Disclosure: He was my student at Oxford, where I taught him law in 1992.) Mr. Picardo is forthright in his rejection of Spain's co-sovereignty offer: "People born a particular way can't be changed because they're offered a deal. Brits don't become Germans if they're offered a good deal, and Gibraltarians don't become Spaniards because the deal on the table is commercially attractive."

Mr. Picardo, whose grandmother was Spanish, says that "the terms put to us in respect of joint sovereignty actually represent the full hypocrisy of the Spanish position." He explains that many of Spain's attacks against Gibraltar are aimed at its financial-services sector. Even though Gibraltar is highly regulated and a financial services center ranked alongside London and Frankfurt, Spain claims the territory allows money laundering. "And what's the first line of their offer of joint sovereignty? That we can keep the financial-services sector that's so anathema to them when it's not in a joint-sovereign Gibraltar!" says Mr. Picardo.

Diplomats say that Spain was emboldened to take a hard line on a post-Brexit Gibraltar because Prime Minister Theresa May didn't mention the territory in her letter of withdrawal from the EU (under Article 50 of the Treaty of Lisbon). I ask Mr. Picardo whether he'll push for an addendum to the letter, one that makes clear Gibraltar must be part of any post-Brexit deal. "We're not calling for an amended Article 50 notification from the U.K.," he says. He is certain that the U.K. will stand by Gibraltar: "David Davis"—the U.K.'s Brexit secretary—"said to me three weeks ago, 'We will not do a deal with Europe if it excludes Gibraltar.' I have no reason to doubt him."

Mr. Picardo talks, also, of the snap general election in the U.K. to be held in June, announced by Mrs. May last week: "What I can tell you is that we'll be approaching all political parties in the U.K. for clear commitments to Gibraltar to feature in their manifestos, both in terms of our ability to continue to trade on single-market terms with the U.K. after Brexit, and the inclusion of Gibraltar in the U.K.'s new international trade deals going forward—including the ones with the EU."

The Brexit negotiations promise to be even more knotty than many imagine. The plucky Gibraltarians will make sure of that—their way of life is at stake.

Mr. Varadarajan, a former lecturer in law at Oxford University, is a Research Fellow at Stanford University's Hoover Institution.

Colombia Is a 'Smart Power' Success Story

By Bill Lane

An analogy usually works as a low-risk way to make a point. The secret is to stick to comparisons that garner near-universal support. President Trump did it in February when he talked about the need for bold infrastructure projects like Eisenhower's Interstate Highway System. Last year Sen. Lindsey Graham proposed a Marshall Plan for the Middle East. President Obama launched the Cancer Moonshot, a nod to the Apollo program.

Yet few other big-government programs from the past 75 years evoke such positive associations. Add in the Manhattan Project, Medicare, civil rights—and the list is almost complete.

A politician looking for new material should cast a gaze toward South America. Twenty years ago, Colombia was on the verge of becoming a narco-terrorist state. The government had ceded large swaths of territory to the left-wing Revolutionary Armed Forces of Colombia, or FARC. In 2000, President Clinton and House Speaker Dennis Hastert came together

A list of Washington's true achievements is short, but here is an indisputable victory.

in a bipartisan effort to help Colombians take back their country. It was known as Plan Colombia.

The program combined military assistance with civil-society initiatives. Free-market reforms were included, resulting in the U.S.-Colombia Free Trade Agreement. All of this bolstered the efforts of Colombia's determined political leaders, its courageous citizenry and its dedicated military.

The plan wasn't perfect. Colombia's coca production began to decline soon after, according to a White House report, but by 2016 production was higher than it had been since the 1990s. That said, today Colombia is addressing the drug problem from a position of strength. Democracy is thriving, the economy is growing, law and order prevails, and the Colombian people are optimistic about the future.

The U.S. invested about $10 billion in Plan Colombia. To put it in perspective, the financial cost of the entire effort was equivalent to about three weeks of the Iraq war.

Plan Colombia is a reminder that a sustained, bipartisan intervention that includes defense, diplomacy, development and democratic values can be effective. Smart power isn't cheap, quick or easy, but it can work.

The American military knows this best. In February more than 120 retired three- and four-star generals and admirals wrote to congressional leaders urging them not to skimp on the international-affairs budget. The letter quotes Gen. Jim Mattis, now defense secretary: "If you don't fully fund the State Department, then I need to buy more ammunition."

Plan Colombia was a difficult intervention, but it largely worked. It also demonstrated the importance of having many tools in America's foreign-policy toolbox. To make that point, future foreign-policy analogies should cite Plan Colombia.

Mr. Lane is a retired director of global government affairs at Caterpillar Inc.

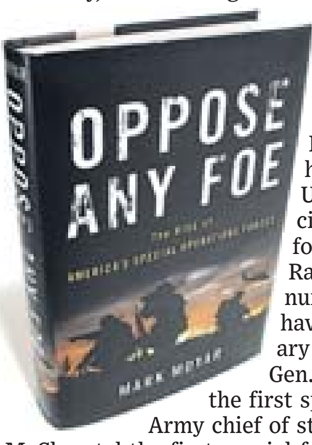
BOOKSHELF | By Ian F.W. Beckett

The Point Of the Spear

Oppose Any Foe

By Mark Moyar
(Basic, 402 pages, $30)

In May 1980, British television was interrupted by a live broadcast of balaclava-clad Special Air Service men storming the Iranian Embassy in London to rescue hostages taken by an Iranian separatist group. Such operations were not perhaps a surprise for the baby-boomer generation. After all, we had been brought up with celluloid heroics in which Dirk Bogarde—it was nearly always Dirk Bogarde—snatched German generals from Crete or raided Rommel's supply lines in North Africa. But for younger generations of Britons, the embassy raid had an enormous impact, spawning a new fascination with special-operations forces. Their growing mystique has led to a stream of often lamentable books with "SAS" on the cover as well as, more seriously, a misleading confidence in their superiority to conventional forces for many missions.



As Mark Moyar's "Oppose Any Foe: The Rise of America's Special Operations Forces" demonstrates, there has been a similar trend in the U.S. The various American special forces, which date from the formation of the Army First Ranger Battalion in 1942, now number 70,000 members. They have moved from being a secondary weapon to a primary weapon. Gen. Peter Schoomaker became the first special-forces officer to be Army chief of staff in 2003, and Gen. Stanley McChrystal the first special-forces officer to be given direction of an entire campaign—in Afghanistan—in 2009.

But, at best, unconventional units have offered tactical rather than strategic success. The one exception was the ousting of the Taliban from Afghanistan in support of the Northern Alliance immediately after 9/11; operations against al Qaeda in eastern Afghanistan were not as successful. There has been a litany of failures, including Operation Eagle Claw in Iran in April 1980 and Operation Gothic Serpent in Somalia in October 1993. Successive presidents, however, have fallen under the spell of special forces, although their support has often been qualified and quickly withdrawn, as was the case with President Bill Clinton after Somalia.

It is Mr. Moyar's contention that the problem has been that few incumbents of the White House have understood special forces' limitations. Special forces, he says, are best suited to counterinsurgency. He sees little likelihood of future opportunities to use special forces in the strategic role they played in Afghanistan in 2001, for example. Indeed, he argues that given the persistence of conventional threats, "the best solution at the present time would be to expand conventional forces rather than special operations forces." New roles and missions may evolve, but special forces must be properly integrated into broader strategic enterprises. Successive presidents, he writes, have made decisions about unconventional units "based on superficial and romanticized views."

Few presidents have understood special forces' limitations. They are best suited to counterinsurgency—not conventional warfare.

Franklin Roosevelt, for example, was persuaded by his son James, a Marine captain, to push the creation of the Corps' Raiders units against the views of the Marine Corps commandant. Young Roosevelt had been captivated, in turn, by the ideas of his mentor, Maj. Evans Carlson, who had observed early Maoist guerrilla tactics in China. Carlson ended up being played by Randolph Scott in 1943. (Mr. Moyar tactfully omits the name of the film—"Gung Ho!") Carlson is by no means the most flamboyant character populating Mr. Moyar's story. Special forces seem to attract mavericks, such as "Wild Bill" Donovan; Carl Eifler (who as commander of the Army's Detachment 101 in Burma would introduce himself to potential recruits by "asking them to punch him in the stomach as hard as they could"); hard-drinking Navy SEAL Richard Marcinko; and Charlie Beckwith, first leader of the Army's Delta Force.

Even John F. Kennedy, who did so much to re-establish the Green Berets in response to Khrushchev's declaration of Soviet support for "wars of national liberation" in 1961, had "little idea of the practical realities of special operations forces, the mundane details that put limits on what could actually be achieved," Mr. Moyar writes. Rapid expansion came at the expense of lowering standards. Too often, conventional forces have been robbed of their best personnel. Following a policy preference instituted by Donald Rumsfeld, Barack Obama embraced "surgical strikes" as a substitute for a real strategy, because "they enabled him to show the American public that he was combating terrorism forcefully and efficiently."

Ironically, at the same time that Mr. Obama was seduced by the supposed utility of ever-expanding special forces, the 2012 Defense Strategic Guidance eschewed building genuine counterinsurgency capability of the kind that has often shown special forces at their most effective. The Village Stability Operations in Afghanistan—part of what Mr. Moyar characterizes as "white" operations—were reminiscent of the Civilian Irregular Defense Group program in Vietnam. Like the Vietnam program, Village Stability Operations, in which Americans "rented compounds within their assigned villages, forgoing the concrete cocoons of the forward operating bases," were tactically successful to a degree but overtaken by the increasing integration of special forces into large conventional operations. In passing, it might be noted that, while Mr. Moyar has published important studies of the Phoenix Program and of the early years in Vietnam, there is relatively little discussion in "Oppose Any Foe" of the debate over the merits of special forces' involvement with the CIDG as opposed to the more conventional strike role imposed on them after 1965. J.P. Harris's recent "Vietnam's High Ground" (2016), for example, provides an altogether more comprehensive account.

Of course, Mr. Moyar aims at an overall assessment of the development of special forces and has to cover over 70 years of lessons. In so doing, he falls occasionally into the kind of narrative associated with popular history. To an extent, this arguably detracts from his analysis, but his book needs to be taken seriously by policy makers. As Mr. Moyar concludes, "for the sake of the special operations forces, their history must be published, the good as well as the bad, and it must be read."

Mr. Beckett is a former professor of military history at the University of Kent.

OPINION

REVIEW & OUTLOOK

Freud's Government Shutdown

Congress returns to work Tuesday, funding for the government runs out Friday, and seemingly all of Washington is promising high drama and an epic budget battle. Don't fall for the hype. A more accurate term for this week's scuffle is Freud's shutdown, because the stakes aren't much higher than the narcissism of small differences.

Maybe it's time to kill the filibuster for appropriations.

Congress is debating a stopgap omnibus that will last through Sept. 30, which is presumably when the next fake crisis will arrive. For now, talks between Republican and Democratic leaders in the House and Senate are deadlocked over funding for President Trump's Mexican border wall, the Pentagon and ObamaCare subsidies. But the politics on both sides are hotter than the policy details. Democratic obstructionism and Mr. Trump's hyperbole are becoming an unvirtuous cycle.

Take the White House demand for funding border security. "The Democrats don't want money from budget going to border wall despite the fact that it will stop drugs and very bad MS 13 gang members," Mr. Trump tweeted over the weekend, while Nancy Pelosi averred Sunday that Democrats won't approve a penny for this "immoral, expensive, unwise" exercise.

The House Minority Leader has a point that completing the wall—652 miles of the 1,954-mile U.S.-Mexico border are already fenced—would be wasteful and unnecessary. The full project would run $15 billion to $25 billion, and there are better uses of scarce taxpayer dollars than antagonizing a neighbor.

Then again, the White House request is for all of—$1.5 billion. About $500 million would finance immigration enforcement with the balance going to the wall. This is pocket change in the $3.9 trillion federal budget, and in practice it might pay for logistical planning, site reviews and perhaps building a couple miles of fence after years of federal and state permitting and Nimby opposition.

Yet Mr. Trump is portraying these fiscal peanuts as the coming of the "great, great wall" he promised. Democrats have decided they'll defy him anyway—though they know his policy is more moderate than his rhetoric and they were ready to spend $40 billion to militarize the border in the failed 2013 immigration bill.

Democrats have thus set up a game of political chicken, and Chuck Schumer has an eight-vote Senate margin to filibuster a deal. Either they box Mr. Trump into a retreat that demoralizes his voters, frustrates a White House impatient for legislative success, and energizes the progressive base. Or maybe their true goal is to force a partial shutdown that they can blame on Republicans.

Refusing to negotiate adds to disorder in Washington, which benefits Democrats, and a government work stoppage that Democrats caused would amplify the media narrative that Mr. Trump and the GOP can't govern. Democrats think they can retake the House in 2018, and they'll campaign as the party that at least knows how to run the joint.

Republicans have offered to compromise by passing an appropriation bill for a corner of ObamaCare in return for the border $1.5 billion and a defense supplemental bill of about $30 billion. So-called cost-sharing reduction subsidies offset out-of-pocket insurance costs for some individuals, and their spending formula was included in the 2010 law.

But the cost-sharing reductions don't flow automatically like other entitlements. The Obama Administration asked for the money in 2014, Congress refused, and the Administration opened the Treasury spigots anyway. The House sued to stop this unconstitutional usurpation of Congress's Article I spending power—an argument a district court upheld in 2015.

This litigation is now postponed in the D.C. Circuit Court of Appeals as the Trump Administration debates the legal merits and the fate of the illegal subsidies. If Congress regularizes the payment with a bill, the move would likely moot the lawsuit and is a significant concession because the case could help restore the proper separation of powers.

The short-term cost of the cost-sharing payments is only about $7 billion for the rest of this year. The Democratic ultimatum is for a permanent appropriation, which would run about $90 billion over 10 years.

* * *

Amid these passing controversies—and ode to joy, there will be more—Congress ought to ponder how to better use the power of the purse. Most of the government has been on autopilot since 2010, lurching from one short-term funding bill to the next. The author of this dysfunction was the unlamented former Majority Leader Harry Reid, who shut down regular budget order to shield Senate Democrats from having to make spending choices. He carried the practice into the minority after 2014.

Republicans now control both chambers of Congress and the White House, yet the dysfunction is getting worse. Ending the Senate filibuster for appropriations is fast becoming a more appealing solution.

Lowering the threshold to 51 votes from 60 would reduce the incentive for hostage-taking and might even allow Congress to debate matters of more consequence than a billion dollars here, a billion dollars there. Who knows, maybe they'd even set priorities or pass serious reforms that reduced the federal government's claim on the private economy.

Middlebury Struggle Session

By now you've heard about the student mob at Middlebury College that roughed up Charles Murray, a visiting speaker and social scientist. The March mayhem ended with Mr. Murray's faculty escort in a neck brace, but so far the public shaming has been reserved for a professor who dared to promote the free exchange of ideas.

The wrong man issues an apology for violent student behavior.

Last week Bert Johnson, chair of Middlebury's political science department, apologized in the campus newspaper for offering "a symbolic departmental co-sponsorship" to the Murray event "without wider consultation." It seems Mr. Johnson lent the department's imprimatur to the invitation to Mr. Murray that had come from a student group.

Mr. Johnson lamented in his statement that his decision "contributed to a feeling of voicelessness that many already experience on this campus," though anyone paying (or getting subsidized) $200,000 for a college degree and a four-year respite in Vermont is not among America's marginalized.

Mr. Johnson has since said on Twitter that he intended merely to extend good will, not to walk back his commitment to free speech. And Mr. Johnson is a unicorn on campus for his research on why campaign-spending limits are less effective than allowing more spending and more political speech. Yet his letter does read like a hostage confession to students who had screamed, punched fire alarms and jumped on cars.

What happened to those students? A Middlebury spokesman says more than 30 students have "accepted disciplinary sanctions," though he won't offer details. That could mean the dean invited folks to discuss their hurt feelings, when the correct punishment for violence is suspension or expulsion.

Meanwhile, the Middlebury faculty is divided over endorsing free-speech principles that the University of Chicago, Purdue University and others have adopted. The fallout from Mr. Murray's visit has dragged on for nearly two months, but the drama will continue until the administration decides to restore order, punish offenders and govern the place as adults.

Ending the Trial Bar's Road Trips

Plaintiffs lawyers have a business model built around litigation tourism, suing in state courts known for friendly verdicts and big jury awards. The Supreme Court hears a pair of cases Tuesday that could upend this violation of federalism and due process.

A pair of Supreme Court cases could rein in abusive forum shopping.

In *Bristol Meyers Squibb v. Superior Court of California*, the Justices will consider whether some 600 plaintiffs who live outside California can sue the New York-based company in the Golden State by joining 86 local plaintiffs. The plaintiffs, who allege injuries related to the drug Plavix, sued in California because of its plaintiff-friendly reputation. (The other case, *BNSF Railway v. Tyrell*, concerns a similar play in Montana.)

The Constitution's Due Process Clause says no person shall "be deprived of life, liberty, or property, without due process of law," which protects defendants from being dragged into courts for improper claims. In Tuesday's cases the claims filed have no connection to the state court exercising jurisdiction, a practice the High Court has already rejected.

In 2014 the Justices ruled in *Daimler v. Bauman* that for a court to have jurisdiction a lawsuit must be filed where a company is headquartered or uses as its main place of business. The same year in *Walden v. Fiore*, the Court held unanimously that "[f]or a State to exercise jurisdiction consistent with due process, the defendant's suit-related conduct must create a substantial connection with the forum State."

Yet the California Supreme Court ruled 4-3 in 2016 that California courts had jurisdiction over the Plavix lawsuits though the alleged injuries didn't occur there, the company isn't incorporated there and Plavix isn't made there. The California judges, in willful disregard of the U.S. Supreme Court, said the state had jurisdiction because the company did a lot of business there. By that standard nearly any business could sue in California.

Justice Kathryn Werdegar noted in dissent that allowing a lawsuit with such a tenuous connection to the state "threatens to subject companies to the jurisdiction of California courts to an extent unpredictable from their business activities in California" and extends jurisdiction over liability claims "well beyond our state's legitimate regulatory interest." This violates a basic tenet of federalism. Justice Werdegar offers the High Court a road map to enforce its precedents and rein in the trial bar.

LETTERS TO THE EDITOR

Lessons for the Next Supreme Court Nominee

Fred Barnes asserts that abortion will be the central issue in the confirmation battle over the next Supreme Court nominee ("Gorsuch Lessons for Trump's Next Nominee," op-ed, April 19). This is myopic, one-sided, sure to be espoused by Democrats and just wrong.

A litmus test on any particular issue cannot, by definition, preserve the Constitution's numerous, liberty-protecting dimensions. The proper focus of any Supreme Court nomination must instead be on the nominee's overall judicial philosophy. On that point, President Trump has made himself clear. Only a judge who follows the original meaning of the Constitution will do.

Democrats, of course, will inevitably oppose the next Trump nominee and will flog the a-word in an attempt to rally their base by whipping up an abortion frenzy. But just think of all the other pivotal constitutional issues that appear more regularly on the Court's docket and matter greatly to everyday lives. Protecting the First Amendment's guarantees of freedom of speech and religion, the Second Amendment's right to keep and bear arms and the Constitution's separation of powers—among the three branches of the federal government and between the federal government and the states—are essential to securing individual liberty. Notably, these are among the issues that Justice Anthony Kennedy has championed for the past 30 years.

Americans tend to agree with the president on judicial appointments, so it is no surprise that Democrats would want to change the terms of the debate by using scare tactics on the issue of abortion. Republicans—or anyone who truly cares about our Constitution or individual liberty, for that matter—should not take the bait.

David B. Rivkin Jr.
Washington

Time to Scrap the Jones Act, or to Enforce It?

Despite The Journal's subtle suggestion to the contrary, President Trump's support of a Customs and Border Protection (CBP) proposal to reverse 30 "regulatory precedents" shielding specialized foreign-flagged vessels in the Gulf of Mexico from the domestic shipping law known as the Jones Act ("Offshore Drilling Blowout Preventer," Review & Outlook, April 19) wouldn't align the president politically or ideologically with his predecessor.

As you note, this specific Jones Act exemption has been in force for 40 years. President Obama did little or nothing to encourage wider Jones Act jurisdiction in the Gulf. And, when the U.S. was drawing down crude oil from the Strategic Petroleum Reserve in 2011, the Obama administration issued a series of Jones Act waivers crafted specifically to prevent available U.S.-owned, built, documented and crewed tankers from carrying these cargoes. From this perspective, CBP's proposal two days before President Obama's departure appears more like the agency's thoughtful anticipation of a constructive change of presidential heart than a bureaucracy "riding herd."

Without question the Jones Act is consistent with President Trump's "Buy American, Hire American" credo. This law stands on conspicuous merit as an economic, defense mobilization and homeland-security asset sustained by private investment. Broader Jones Act application in the Gulf of Mexico would enhance the law's already substantial value at no cost to the government, and I doubt the "global and mobile" offshore drilling industry you refer to will go hungry as a consequence.

Paul Doell
National President
American Maritime Officers
Dania Beach, Fla.

The Offshore Marine Services Association would never support an action that shuts down energy production, and CBP's notice does no such thing. U.S. vessel companies have sufficient Jones Act compliant ships to transport subsea construction merchandise at issue. The editorial also cites heavy-lift construction vessels as an example where the U.S. fleet doesn't have capacity. However, the CBP notice doesn't address heavy lift rulings.

Our members depend on healthy energy production and have invested more than $2 billion since 2009 to build the necessary vessels to ensure that offshore energy exploration and production wouldn't be affected by proper enforcement of the Jones Act.

Aaron Smith
President
Offshore Marine Services Association
New Orleans

President Trump has promised deregulation and greater energy independence, but making the venerable Jones Act more restrictive would do the opposite. At a recent conference on the Jones Act in Maui sponsored by the Mercatus Center at George Mason University and the Institute for Humane Studies, the predominant conclusion of papers was that the Jones Act produced far more costs than benefits.

Em. Prof Thomas Grennes
North Carolina State University
Raleigh, N.C.

How About Accountability For Our Federal Employees?

Regarding Stanley A. Weiss's "Avoid the Crony-Capitalist Temptation" (op-ed, April 18): If the idea of the article and the new office of American innovation is to bring business leaders together to discuss how they can improve governmental efficiency, why not start with the ability to fire federal workers for nonperformance or poor performance? Evaluating performance and holding workers accountable may be a novel concept for government, but it is how the "real world" and business works. I'm not sure when government ran off the rails.

Rod Kelly
Spring, Texas

Reading the Tea Leaves of a Georgia Election

Regarding Karl Rove's "What Does Georgia Say About 2018?" (op-ed, April 20): There should be only one GOP message to the people of the Sixth District from now to the runoff—"The good people of San Francisco want Jon Ossoff to represent you in Congress. What do you want? He's raised over $8 million for election in a district that hasn't got three quarters of a million souls in it, and he doesn't even live there. Don't Democrats object to money in American politics? Something about corruption smothering the voice of the people, etc. Maybe it's only the Koch brothers' money. Or maybe they don't believe Georgia is in America."

I wonder what they think of the notion that we have so many congressional districts in the country because there's some value in local people electing local representatives to represent local policy preferences in the national forum. Maybe they don't actually think about that very much.

Spencer Lawton Jr.
Savannah, Ga.

As one who lives in the district and was subjected to a constant barrage of mail and commercials, I was amazed that Mr. Ossoff's campaign was so stealthy. Although the pundits viewed his campaign as little more than a referendum on President Trump, most of what I saw him advertise during the campaign was a simple hearkening to the mainstream: I will fight to cut waste in government and I will work with anyone to get things done. That is a message that resonated with many folks, while most of the other candidates were busy bashing each other or trying to "out conservative" the others. As we move into the runoff, I expect we will see the two candidates move to their corners, and the stealth nature of Mr. Ossoff will be shed. But given the vitriol and gridlock on all sides, I wonder if someone committed to working across the aisle and seeking "80% solutions" wouldn't be a breath of fresh air.

Mike Ernst
Alpharetta, Ga.

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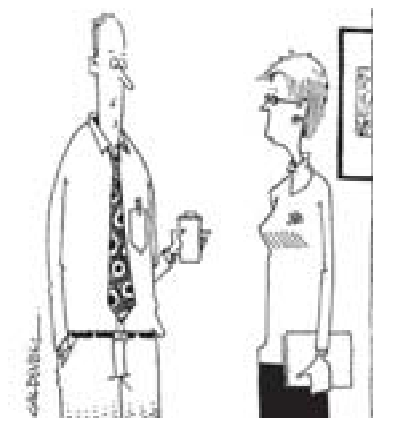
Pepper ... And Salt

THE WALL STREET JOURNAL



"I dread the thought of swimming with the sharks. I'm much more comfortable blending with the chameleons."

ObamaCare Repeal Needs a Direction

By Bobby Jindal

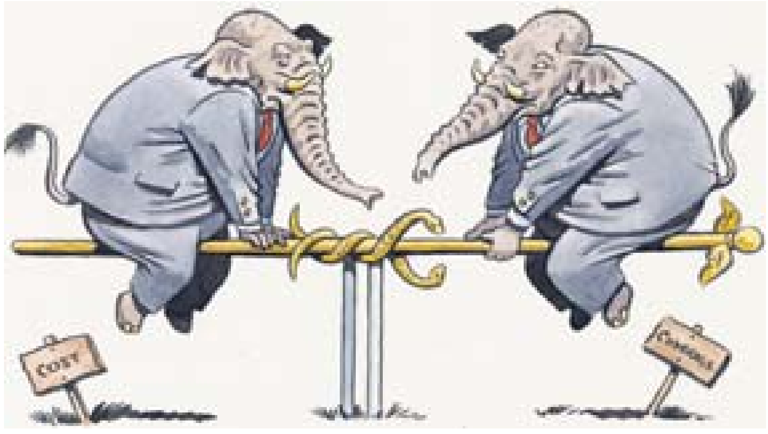
Before you start a journey, it helps to know where you are going. That's obvious advice—but instructive as Republicans consider next steps in the effort to repeal ObamaCare. Before getting lost in arcane Senate rules, technical modifications to the existing law, or Congressional Budget Office scores, conservatives must define for themselves and the American people what they are actually trying to accomplish.

Watching the recent debate, one could be forgiven for thinking that simply getting a deal done was the goal. The now-withdrawn American Health Care Act of 2017 was seemingly written by House leaders with the sole purpose of winning over the most recalcitrant Republican senator. The real goal must be something larger, more inspiring and more important than merely getting to a signing ceremony.

Focus on reducing the costs of health care, and more Americans will end up getting covered.

Republicans have historically offered creative proposals for tax reform, foreign policy and defense spending. The GOP's health-care ideas, however, too often have been developed in opposition to Democratic proposals. Republicans want to spend less than Democrats do, but that approach only slows government expansion; it doesn't change government's direction. The GOP has now tried and failed to replace ObamaCare with its own, less expensive entitlement program. Rather than simply tweaking the previous failure, why not take a completely different approach?

Although I disagreed with the late Sen. Ted Kennedy on policy, I respected him for always keeping his ultimate goal in mind and consistently working toward it. He took small steps toward the single-payer system he wanted when Republicans were in the majority, and larger steps when his party ruled. He helped create the State Children's Health Insurance Program when Newt Gingrich was House speaker, and inspired the Affordable Care Act when Nancy Pelosi had the gavel.



DAVID GOTHARD

Republicans must be similarly single-minded about taking control of the health-care system from bureaucrats and returning power to patients and doctors. In the current debate, Republicans must choose between two related goals—lowering costs and increasing coverage. Which will we prioritize?

Putting coverage expansion first, as President Obama did, leads to insurance plans with narrower provider networks, higher deductibles and stingier benefits. Consider the disabled Medicaid beneficiaries on waiting lists for community-based services, or the families on exchange plans who cannot see their children's specialists. The cheapest way to ensure everyone has coverage is to ignore the adequacy of that coverage.

When Republicans debate which ObamaCare regulations to keep, they should remember they are dictating that the private market offer products whose pricing and benefits do not make financial sense. Many insurance companies are abandoning markets in which it is not sustainable for them to operate.

The next logical step—and Vermont Sen. Bernie Sanders is already there—is for government to cut out the middleman and simply offer the coverage itself. The populist argument for expanding Medicare (or Medicaid) to all Americans is hard to resist, at least when coverage is the primary goal. But when everyone gets health insurance from the government, doctors will lose their autonomy and patients their choice. America's health-care system will innovate less, and quality and efficiency will deteriorate—as they always do in a top-down, command-and-control system.

Under a single-payer system, special interests—such as large hospitals and medical technology providers—would use the political process to obtain favorable pricing and coverage decisions while keeping out competitors, and political elites would exempt themselves from the burdens they impose on the rest of us. Politicians would be loath to disrupt entrenched interests, harming instead the dynamism of the market and millions of individual decisions that speed up the development of life-saving cures. But, some will say, at least everyone is covered.

It does not have to be this way. The alternative is to focus on lowering costs, not merely covering them up through subsidies or wealth transfers. Instead of simply offering cheaper versions of Democratic proposals, Republicans should offer principled health-care reform that is bottom-up, not top-down.

A successful ObamaCare replacement should harness the power of choice and competition. Republicans should allow insurance companies to compete across state lines and allow patients to select the benefits and cost-sharing they want. The GOP should expand the use of health savings accounts, crack down on frivolous lawsuits, and encourage competition among providers by expanding the scope of what they are legally allowed to do and removing barriers to entry.

Republicans should rewrite the tax code to encourage health-care saving (not just spending), make health coverage portable, and create incentives for wellness programs. They should establish voluntary purchasing pools with legal and tax benefits while giving states much more flexibility over their Medicaid programs and grants to increase access for those with pre-existing conditions. They should put pricing and quality information online, speed up the FDA approval process, and crack down on industry abuses to increase generic drug competition.

The main problem with American health care before ObamaCare was cost. ObamaCare has made matters worse—both on the individual level, with dramatic premium increases, and the corporate level, by driving the country further into debt.

At first glance, the choice I am urging Congress to make between increasing coverage and lowering costs seems like a choice between motherhood and apple pie. Can't health-care reform do both, just as the beer commercials once promised great taste and lower calories? Yes—but as we have seen, prioritizing coverage expansion results in higher costs and lower quality. Focusing on lowering costs is the way to increase coverage in a meaningful and sustainable way.

Mr. Jindal, a Republican, served as governor of Louisiana, 2008-16.

A Court-Martial for a Bible Verse

By S. Simcha Goldman

Should Americans be prohibited from practicing their faith while serving in the military? The Supreme Court ought to take up *Sterling v. U.S.*, which presents exactly that question. Around 2013, the plaintiff, Lance Cpl. Monifa Sterling, had displayed a Bible verse above her desk. It was a message from Isaiah: "No weapon formed against me shall prosper." That small act of religious devotion mattered to her, but the military considered it inappropriate. Her superiors ordered her to take it down. When she refused, the quotation was removed by a superior. Lance Cpl. Sterling was court-martialed and discharged from the Marines, in part for her refusal to remove the biblical message.

Her story bears a striking resemblance to a lawsuit that I took to the Supreme Court in 1986. Several years earlier I had joined the U.S. Air Force, intending to serve my country while continuing to practice my Orthodox Jewish faith. As part of that faith, I always covered my head with a yarmulke. I did so for many years while in uniform, and without complaint.

The Supreme Court should hear out Monifa Sterling, a Marine punished over a line from Isaiah.

That is, until I encountered a vindictive military lawyer in 1981 who disliked an element of my expert testimony at a military hearing. He made a formal complaint about my wearing a yarmulke while in uniform. My commander subsequently ordered me to remove it. When I refused, I was threatened with a court-martial. Whether my commander was motivated by personal animus, bigotry or simple narrow-mindedness, I cannot say. He outranked me and would not tolerate any longer my minority religious practice.

I filed a lawsuit, *Goldman v. Weinberger*, and took it to the highest court in the land. But the Supreme Court ruled against me, 5-4, and deferred to the military's stated interest in uniformity. Four justices dissented, arguing that the military had no good reason to quash the religious freedom of a serviceman who wanted to follow both his God and his country. I thereafter decided to leave the military.

In 1993 Congress enacted the Religious Freedom Restoration Act, or RFRA, to protect believers like me. The law guarantees that men and women in uniform can exercise their faith freely except in the rarest of cases: when the military can prove that a compelling interest is being pursued in as narrow a way as possible.

Applied properly, RFRA protects Lance Cpl. Sterling's right to her small biblical display. As a Christian, she drew inspiration and strength from the verse during hard times. When her case landed at the U.S. Court of Appeals for the Armed Forces last August, the judges should have applied RFRA. Instead, they sided with the military, finding no real burden on her exercise of faith. That decision fundamentally distorts the law and threatens all religious believers serving the nation.

The decision is especially problematic because the military appeals court has exclusive jurisdiction over court-martial proceedings. Anyone in the military who is court-martialed in connection with religious exercise will be subject to this precedent. Lance Cpl. Sterling now has asked the Supreme Court to hear her appeal. Unless it does, the result will be injustice for the next religious minority—and the one after that—whose unfamiliar practice might offend a superior officer.

Fortunately, one of the justices has already argued forcefully for the men and women of faith in our armed forces. Since I wasn't court-martialed, my case went through the civilian judiciary, including the U.S. Court of Appeals for the District of Columbia Circuit. At one stage in the case, Judge Ruth Bader Ginsburg took my side. She excoriated the military for "callous indifference" to my faith and implored the armed forces to "accommodate the public service to the spiritual needs" of religious adherents.

That view did not prevail in my case, but Lance Cpl. Sterling has given the Supreme Court a chance to set things right. The religious liberty of American service members hangs in the balance.

Mr. Goldman is a clinical psychologist and rabbi.

The Two Faces of Qatar, a Dubious Mideast Ally

By Charles Wald And Michael Makovsky

Defense Secretary Jim Mattis visited several of America's Middle Eastern partners last week—including a dubious one. Qatar hosts an important air base but also undermines American security by sponsoring Islamic radicalism.

Nearly all coalition airstrikes against Islamic State are commanded from America's nerve center at Qatar's al-Udeid Air Base, which also supports missions in Afghanistan. The U.S. Air Force stations many of its larger aircraft there—refueling tankers, advanced surveillance and early-warning aircraft, and heavy bombers. Al-Udeid also houses the Combined Air and Space Operations Center, which commands all coalition air operations in the region. With all these key assets in one place, the Pentagon expects to stay through 2024.

But the host nation supports some of the groups the base is used to bomb. According to the State Department, "entities and individuals within Qatar continue to serve as a source of financial support for terrorist and violent extremist groups," including al Qaeda's Syrian affiliate. Qatar has also supplied advanced weaponry to militants in Syria and Libya.

Doha poured billions into the radical Muslim Brotherhood government of former Egyptian President Mohammed Morsi, who urged supporters "to nurse our children and our grandchildren on hatred for them: for Zionists, for Jews." The Brotherhood's supreme guide, Mohammed Badie, has called jihad against Israel and America "a commandment of Allah that cannot be disregarded."

After Mr. Morsi's government fell in 2013, Qatar offered safe harbor to many Brotherhood leaders. Pressure from neighbors eventually forced Doha to eject them, but Qatar still hosts Yusuf al-Qaradawi, a Brotherhood-affiliated preacher who once declared, "Those killed fighting the American forces are martyrs." Qatar is also a key financier of Hamas, a Palestinian spinoff of the Muslim Brotherhood, which has repeatedly attacked Israel with rockets.

Doha undermines U.S. security by sponsoring Islamic radicalism.

Qatar wields tremendous soft power on behalf of radical Islam through its state-funded Al Jazeera news channel. Mr. Qaradawi has a weekly show, and the network became notorious in America for broadcasting Osama bin Laden's videos, repeatedly and uncut, far exceeding their news value.

Given President Trump's forthright opposition to radical Islamic terrorism, it makes sense to ask whether the U.S. should continue leasing crucial military assets from a government that supports such ideology. If Qatar won't change its behavior, the U.S. should consider relocating assets from the base. The United Arab Emirates would be a logical destination. It is an active partner in American efforts to combat ISIS, pacify Afghanistan and counter Iran. U.S. officials consider the U.A.E. one of their strongest Arab partners. Mr. Mattis has called it "Little Sparta."

Emirati air bases could accommodate U.S.-led operations currently run from al-Udeid, without putting U.S. aircraft farther from their targets. The Combined Air and Space Operations Center would need to be replaced, but the cost would be easily outweighed by the security benefits. The U.A.E. is a far more responsible actor than Qatar, and it already works with the U.S. military to train pilots from our other Gulf allies and coordinate coalition air operations.

If the Trump White House hopes to end the free-riding of American allies, it can start by sending a clear message to Doha: The benefits of al-Udeid do not outweigh Qatar's support for extremism.

Mr. Wald was deputy commander of U.S. European Command and is a fellow at the Jewish Institute for National Security of America. Mr. Makovsky, a former Pentagon official, is the institute's president.

A Better Idea for Bankrupt Big Banks

By Stephen E. Hessler

The most significant Wall Street reform in nearly a decade may soon become law. Last Friday President Trump directed Treasury Secretary Steven Mnuchin to review Title II of the 2010 Dodd-Frank Act, which gives the federal government authority to wind down involuntarily failing financial institutions. Treasury is to issue a report that considers whether changing the U.S. Bankruptcy Code "would be a superior method of resolution for financial companies" while preventing bailouts.

Congress is already moving in that direction. The Financial Institution Bankruptcy Act passed the House earlier this month with wide bipartisan support. FIBA would amend the Bankruptcy Code to streamline Chapter 11 cases of "systemically important financial institutions," or SIFIs, while minimizing disruptions to the rest of the economy. By endorsing FIBA, Treasury could bring the administration a key legislative victory.

Traditional Chapter 11 cases, which facilitate the restructuring of corporations, have many benefits, including fundamental reliance on the rule of law. But for SIFIs, Chapter 11 could be made faster and more nimble to prevent bank runs. FIBA builds upon existing Bankruptcy Code protections but would work more quickly, leave operating subsidiaries outside Chapter 11, and assign Bankruptcy Court judges preselected by the chief justice for their expertise in financial markets.

FIBA would enable a quick separation of "good" and "bad" SIFI assets through the rapid postpetition transfer of the good assets to a newly formed bridge company that is not in bankruptcy. The bridge company would be capitalized by leaving behind unsecured debt, and creditors would pursue their claims in the Chapter 11 case. Any repayment would come in the form of equity in the bridge company or proceeds from the liquidation of bad assets. FIBA would allow a failing SIFI to fix itself in a predictable, rules-based open-court proceeding, and permit counterparties to transact without interruption—while making it possible to create a new, fully capitalized entity that credibly provides most if not all of the same financial services.

Importantly, FIBA would allow for the reorganization of SIFIs with the safeguards of well-settled Chapter 11 precedent and practice, and with the transparency and fairness that come with judicial supervision. Every decision about filing, asset transfer and value distribution would be subject to Bankruptcy Court approval. That is in stark contrast to the opaque process of Title II, which gives unprecedented discretionary power to the Federal Deposit Insurance Corp. to render critical judgments without explanation or even a record or forum for disputes.

Moreover, Title II actually makes risky lender behavior more likely. Dodd-Frank authorizes the FDIC to treat similarly situated creditors dissimilarly—which means the federal government could pick and choose winners and losers according to political priorities. Moral hazard results when investors are assured of outsize profits if an investment succeeds, but the government shields them from outsize harm if it fails. FIBA would require that parties with the same legal rights receive the same economic treatment.

Prior Senate versions of these reforms also included a provision to repeal Title II, which FIBA does not. But debate over Title II should not impede the prospects for FIBA's prompt enactment. FIBA is worth passing even if Title II endures. And a related benefit is that FIBA would enhance insolvency planning under Title I of Dodd-Frank. Some of the "living wills" submitted by SIFIs have been rejected by the Federal Reserve and FDIC. FIBA could make them feasible.

The best way to resolve failing SIFIs is with clear and established rules administered by an impartial tribunal. The Senate and Mr. Trump would be well-served to follow the House's lead and shepherd FIBA into law.

Mr. Hessler is a restructuring partner at Kirkland & Ellis LLP and has testified before the House Judiciary Committee in favor of FIBA.

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Gerard Baker
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KAY NIETFELD/ZUMA PRESS

French voter takes part in first round of presidential election.

ECB May Shift If Macron Wins

By Jon Sindreu And Tom Fairless

A rise of Emmanuel Macron to France's presidency could trigger a much-anticipated event in European financial markets: the scaling back of the European Central Bank's vast stimulus program.

ECB policy makers have been wary of signaling an end to their monetary stimulus amid the risk posed by the rise of euroskepticism. That is despite evidence of a strong economic rebound in the 19-nation eurozone.

ECB rate setters will gather in Frankfurt on Wednesday and Thursday for their next policy meeting. They are widely expected to leave their policy mix unchanged.

But Mr. Macron's first-place finish Sunday, ahead of anti-euro candidate Marine Le Pen, places him in position for May's second round and a reduction of monetary stimulus back on the agenda, investors say.

Any such move by the ECB would have a big effect on markets, driving money out of bonds and, if investors stay confident about the local economy, moving more cash into riskier assets.

On Monday, European stocks rallied, and German and other haven government bonds sold off.

"European government bond yields will likely come under pressure in the months ahead," said Anthony Doyle, fixed-interest investment director at M&G Investments.

When the Federal Reserve signaled in mid-2013 that it might start scaling back its bond-purchase program, known as quantitative easing market volatility spiked and bond yields jumped more than a percentage point in an episode known as the "taper tantrum."

Away from the political sphere, the outlook for the eurozone has been brightening for months.

Eurozone business surveys

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Investors React

STREETWISE | By James Mackintosh

European Shares Aren't As Cheap as They Look

It is easiest to judge how worried investors were about something when it doesn't happen. In the case of France, the relief evident in Monday's market reaction showed the scale of dread that had been priced in ahead of Sunday's election.

The French fears can be pinned down more precisely. The standard measure of eurozone panic, the spread of French bond yields over Germany's haven bunds, dropped by the most since the height of the eurozone crisis in 2011 and had its second-best day since the calm of the 2000s.

European bank stocks soared 7.4%, but the jump was somewhat less notable, only slightly above three big daily gains early last year and frequently exceeded during the rescues from 2008-2012. The euro's initial 2% leap against the dollar after the French result on Sunday night would have been the best in a

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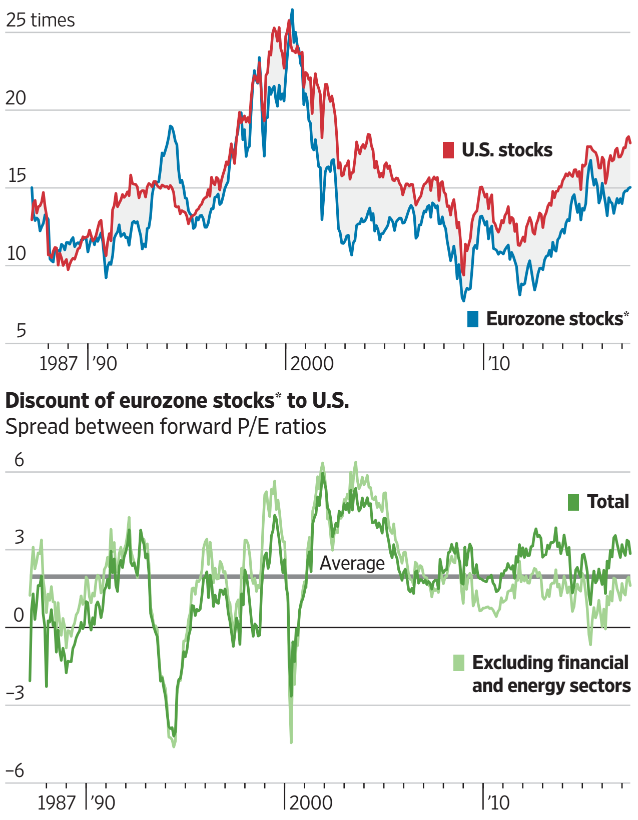
The European Stock Discount

European shares typically trade at a valuation discount to the U.S. The discount is currently bigger than usual, but all of the extra discount is explained by financial and energy stocks.



*Historical data show equivalent countries before euro was created.
Source: Thomson Reuters

THE WALL STREET JOURNAL.

Apple Car Races to Catch Up

Team for road testing of self-driving vehicles includes engineers who worked for NASA

By Tripp Mickle And Tim Higgins

Apple Inc.'s plan for autonomous vehicles calls for putting more-senior engineers in all of its cars than some of its rivals are using for road tests, a move that suggests the company is still in the early phases of testing its technology, analysts say.

In a permit issued April 14 by the state of California, obtained Friday through a public-records request, Apple identifies six employees, including roboticists who worked at the U.S. National Aeronautics and Space Administration, who will be in the front seat of three Lexus sport-utility vehicles outfitted with technology to make them autonomous.

The road tests are critical for Apple as it tries to catch up in the race to develop self-driving cars. **Alphabet** Inc.'s **Waymo** has been testing autonomous vehicles on roads since 2009, with senior engineers in the front seat for many early tests.

At stake is a shuffling of the auto industry and the $2 trillion in annual revenue tied to it, according to estimates by Deloitte. Traditional auto makers such as **Ford Motor** Co. and **General Motors** Co., as well as Silicon Valley companies such as **Uber Technologies** Inc. and **Tesla** Inc., are investing heavily in self-driving technology.

Though Apple has been working since at least 2014 on self-driving cars—an effort dubbed Project Titan—it has been guarded publicly about the people working on the project.

Shilpa Gulati, the first person named on the Apple permit, has been in the field since at least 2009, when she was part of a team working in Antarctica on a NASA-funded project to develop an autonomous vehicle to explore one of Jupiter's moons.

She later worked on self-driving cars at Robert Bosch GmbH, a German technology and auto-parts supplier. According to her LinkedIn page, she is a manager working on special projects at a "Silicon Valley company," where she built a team of about 30 researchers and engineers.

California in recent years began issuing permits specifically for road-testing driverless vehicles. The permit granted Apple also names three engineers who worked at NASA's Jet Propulsion Laboratory: Paul Hebert, who designed a robot that could unlock a door; Jeremy Ma, who focused on algorithms for detecting three-dimensional objects; and Victor Hwang, who has worked on motion-planning algorithms for robots, according to their LinkedIn pages, which list them as working at Apple.

Rivals such as Waymo and Uber have more vehicles on the road than Apple. Waymo, for example, now mainly relies on technicians for testing, industry watchers say. For Apple, keeping engineers

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Investment Fund Is Kicking Off Its Jimmy Choos

ANDREY RUDAKOV/BLOOMBERG

STEPPING OUT: JAB Holding, the European investment fund that plans to buy Panera Bread for about $7.16 billion, is putting footwear companies Jimmy Choo and Bally International up for sale, marking a retreat from the luxury sector. B3

GM Loses Bid to Curb Ignition Suits

By Katy Stech And Mike Spector

The nation's top court rejected an attempt by **General Motors** Co. to limit the fallout from its ignition-switch defect.

The Supreme Court denied the Detroit auto maker's request to review a lower-court ruling that gave some victims' families the power to sue over defective ignition switches, exposing GM to billions of dollars in potential new claims.

GM had sought to overturn a July ruling from the Second U.S. Circuit Court of Appeals that said the auto maker should have disclosed the ignition-switch defect when its operations were sold during its 2009 bankruptcy. Under bankruptcy law, a company's operations can be sold "free and clear" of past liabilities, blocking future lawsuits over claims that arose before the sale. The decision could expose GM to hundreds of additional wrongful death and personal injury cases, as well as claims from car owners alleging their resale values fell.

The Supreme Court's action exposes GM to billions of dollars in potential new claims.

The potential legal claims could total more than $10 billion, according to figures cited by several judges in court records, though the ultimate financial fallout could be far less if plaintiffs don't prevail in court or reach settlements. GM has already reached ignition-switch settlements with consumers, shareholders and federal prosecutors totaling more than $2 billion.

Those settlements included roughly $600 million from a compensation fund that GM set up for ignition-switch victims, which allowed some people with prebankruptcy claims to receive money. Still, the bankruptcy shield remained intact in other cases, blocking others from moving forward with lawsuits.

GM recalled 2.6 million older cars in 2014 with the defective switches, which can slip from the run position, cause vehicles to stall and disable safety features including air bags. The company acknowledged that employees knew of problems for more than a decade. The defect has been linked to 124 deaths and led GM to settle a federal criminal case.

The appeals court found that GM should have known of the ignition-switch defect—or strongly suspected it—at the time of its bankruptcy case and therefore should have disclosed it. Failing to do so violated consumer rights that are built into the chapter 11 bankruptcy process, the court said.

Without the Supreme Court's intervention, the lower court's ruling stands.

Gary Peller, a lawyer for the plaintiffs, said he was pleased with the Supreme Court decision, which he said "makes it clear that it's time for GM to take responsibility for wrongdoing."

A GM spokesman said the Supreme Court's move "was not a decision on the merits" of the case and said plaintiffs will still have to win individual lawsuits over the defect.

Perrigo's Chief Faces Investor Heat

By Vipal Monga

CFO JOURNAL

John Hendrickson faces a daunting challenge: One year into his tenure as chief executive of drugmaker **Perrigo** Co., he must persuade investors he has a handle on the company's wobbly business.

Perrigo's shares peaked at $203.69 two years ago, when the maker of store-brand cold and allergy medications was among the many highflying pharmaceuticals companies embroiled in a merger frenzy. Since that peak, the stock has lost roughly two-thirds of its value, as investors fret about missed earnings projections and management turmoil. On Monday, shares rose 0.9%, to $67.05.

Activist investor **Starboard Value** LP is applying pressure as well. As one of the largest shareholders of Dublin-based Perrigo, it has put three directors on the board and will nominate two more independent directors later. Jeff Smith, Starboard's founder, prodded the company to sell assets and undo much of its expansion from the past decade.

"They're in a tough spot," said Randall Stanicky, an analyst at RBC Capital Markets. The company may become more efficient by selling off units, he said, but it would also lose revenue and its stock could continue to drop. "It's a bit of a conundrum."

Mr. Hendrickson, 54 years old, joined Perrigo as an engineer in 1989. As a rising executive, he gained a reputation as the type of manager who knows the name of every worker on the factory floor. But as CEO, he has struggled to right a 130-year-old business careening between crises.

"The Perrigo management team and board decline to comment as a result of being in a previously disclosed quiet period," said a company

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INSIDE

PPG RAISES BID FOR AKZO TO $26.4 BILLION

DEALS, B3

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INDEX TO PEOPLE

'Living Will' for Wells Cleared by Regulators

By Emily Glazer

Wells Fargo & Co., girding for a contentious shareholders meeting, got some unexpected good news on another front: Regulators signed off on its attempt to fix a blueprint for avoiding a bailout should the bank ever founder.

The Federal Deposit Insurance Corp. and Federal Reserve on Monday said Wells Fargo passed its "living will" for 2015.

The regulators had failed the bank early last year and dinged it a second time in December, essentially meaning Wells Fargo had failed a make-up test.

A Wells Fargo spokesman didn't have an immediate comment.

Resolution plans, known as living wills, are a requirement of the 2010 Dodd-Frank law, which sought to prevent bailouts partly by forcing big banks to develop a plan for how they could go through bankruptcy without taxpayer assistance. The law directed regulators to judge whether plans are credible and gave them power to sanction, or even break up, firms that are found lacking.

Wells Fargo's December submission marked the first time the Fed and FDIC imposed penalties on a bank under the process, barring Wells Fargo at the time from creating new international banking units or acquiring any nonbank subsidiaries.

There would have been additional sanctions if the bank didn't pass its most recent resubmission, such as capping growth or forcing it to divest itself of certain assets or businesses.

BUSINESS & FINANCE

AGENCE FRANCE-PRESSE/GETTY IMAGES

India's Supreme Court has banned the sale of booze within 500 meters of national and state highways starting this month.

A Dispiriting Ruling in India

High-court highway curbs threaten liquor makers as well as local sellers

By Saabira Chaudhuri

GOA, India—An increasingly hard-line view on alcohol in India is threatening sales for global spirits makers as a new ruling forces many local sellers to shut down or adapt.

In an attempt to reduce alcohol-fueled road accidents, India's Supreme Court banned the sale of booze within 500 meters, or 547 yards, of national and state highways starting this month, a decision that affects liquor stores, bars, restaurants and hotels.

The move has shaken India's bar and restaurant industry and sent a chill through large spirits makers that are betting on growing demand in the emerging middle class in India, the country that is the world's largest whiskey market by volume.

On Thursday, **Pernod Ricard** SA, which owns brands such as Chivas Regal Scotch whisky and Absolut vodka, warned that the highway liquor ban would hurt its sales in India through 2017.

Chief Financial Officer Gilles Bogaert said on an investor call that it was still too early to assess the full impact. "It will just create disruption over the short term," he said.

Investment bank Jefferies Group LLC estimated the ruling affects roughly 35% of India's liquor outlets. Danish brewer **Carlsberg** A/S estimates there are 66,000 of these across the country.

Roughly one million jobs could be affected and $9 billion to $15 billion lost because of the ban, according to estimates from Riyaaz Amlani, president of the National Restaurant Association of India. In the tourist-heavy state of Goa, 85% of liquor stores could close or be forced to move because of their proximity to highways, he said.

Jefferies earlier this month cut its per-share earnings estimate on **Diageo** PLC's Indian affiliate, **United Spirits** Ltd., for fiscal 2019 by 6.5%, saying volumes of high-end liquor would be weaker through 2018 than previously expected.

Carlsberg CEO Cees 't Hart in February warned that 2017 "could be a volatile year for India."

One venue already feeling the impact is the Leela Ambience, a five-star hotel in the city of Gurugram near Delhi. Just off a major highway, the hotel this month stopped serving alcohol throughout the property, including via room service.

"As of now, until we get information through the government, we won't be able to serve anything," said Siddharth Singh, a reservations associate.

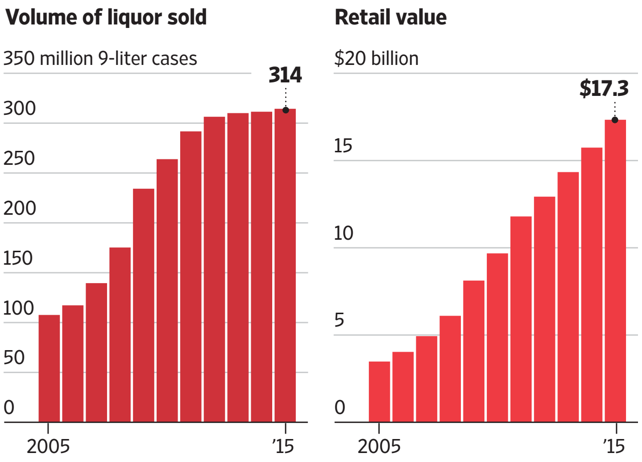
Global spirits makers have invested heavily in India in recent years, attracted by its expanding middle class, young population and longstanding preference for hard liquor over wine or beer.

India became Diageo's second-biggest market by sales behind the U.S. after the Johnnie Walker maker in 2013 and 2014 built up a stake in Bangalore-based United Spirits, India's largest liquor maker. India has also become Pernod Ricard's second-biggest market by sales after the U.S., pushing China to third.

India is also one of the toughest places in the world to sell alcohol. The country's constitution recommends prohibition, influenced by Mahatma Gandhi's antipathy to alcohol.

Subcontinental Surge

Liquor sales have risen for years in India, by volume and revenue, but new regulations threaten to crimp that growth.



Source: IWSR via Bernstein Research

THE WALL STREET JOURNAL.

Police Unveil Records on United Flap

By Andrew Tangel and Shibani Mahtani

CHICAGO—The Kentucky physician dragged off a **United Airlines** flight in Chicago on April 9 was initially interested in the carrier's offer for an $800 voucher but declined, according to a Chicago Police Department report released Monday.

The report is among a trove of documents released by Chicago officials in response to public-information requests by media outlets including The Wall Street Journal.

Records also show the officer who pulled the doctor from the United flight had been reinstated from suspension effective April 1, little more than a week before the encounter.

"The victim and his wife, both doctors, initially expressed interest but declined after learning they were not guaranteed a flight later this evening," the report states.

United sought volunteers to leave the flight so four crew members could instead fly to Louisville from O'Hare International Airport.

In a separate report released by the city's Department of Aviation, an officer involved in the incident said that officers used "minimal but necessary force" to remove David Dao.

Tom Demetrio, an attorney for Dr. Dao, dismissed the content of the reports, saying through a spokeswoman: "It's utter nonsense. Consider the source."

Mr. Demetrio has signaled plans to sue United and the city.

The Chicago Police Department responded to the April 9 incident after Dr. Dao refused to give up his seat and was dragged by Chicago Department of Aviation officers from the plane.

Videos of the confrontation sparked global outrage and caused a public-relations crisis for United. Dr. Dao was shown bloodied and dazed after being forcibly removed from the flight.

The official accounts of the incident provide officers' perspectives of the incident.

—Doug Cameron contributed to this article.

BUSINESS WATCH

TYSON FOODS

Company Weighs Sale of Product Lines

Tyson Foods Inc. aims to trim some fat from its product portfolio, saying it's exploring the sale of its Sara Lee Frozen Bakery, Kettle and Van's product lines to focus on protein-centric offerings.

Tom Hayes, the former Hillshire Brands executive who took over as Tyson's CEO at the beginning of the year, previously hinted at such moves as he mapped the path for the top U.S. meat company by sales.

Ranging from frozen desserts to waffles and soups, some of the brands going up for sale are vestiges of Hillshire, which Tyson acquired in 2014.

—Jacob Bunge

UBER TECHNOLOGIES

European Legal Fight Widens to New Front

Uber Technologies Inc. on Monday opened a new front in its European legal battles, part of its effort to convince governments that it should be regulated as a technology, not a transportation, company.

CHARLES PLATIAU/REUTERS

Uber seeks to be regulated as a tech, not transport, firm in Europe.

The case, before the European Union's top court, challenges French transport rules.

The outcome of the case before the European Court of Justice on Monday could be influenced by another battle at the court, one that would decide whether Uber should be regulated in Europe as a transport company or an online-service provider. An adviser to the court is expected to issue his opinion in the latter case on May 11, with a decision due midyear.

—Natalia Drozdziak

ALINTA ENERGY

Australia Clears Chow Tai Fook Deal

Hong Kong conglomerate **Chow Tai Fook Enterprises** Ltd. has won Australian government approval for its takeover of gas-and-electricity provider **Alinta Energy** Ltd.

The deal was approved with strict conditions, a spokeswoman for Treasurer Scott Morrison said Monday. No details were disclosed, and the treasury declined to comment further.

The buyout offer from Chow Tai Fook, controlled by the family of the late Hong Kong tycoon Cheng Yu-tung valued Alinta at about four billion Australian dollars (US$3.02 billion), a person familiar with the situation said when it was announced last month.

—Robb M. Stewart

LAFARGEHOLCIM

CEO Exits in Wake Of Syria Payments

LafargeHolcim Ltd. Chief Executive Eric Olsen resigned in the wake of a controversy over payments the cement company made to armed groups in Syria amid the country's civil war.

Lafarge said Monday in a release detailing the findings of an internal probe into the Syria payments that the role of Mr. Olsen as CEO had been a "point of attention." But it said its investigation cleared him of any wrongdoing regarding the payments, or knowledge of them. It declined to comment further, citing legal proceedings in France.

Mr. Olsen said he was "absolutely not involved" with, or aware of, the payments.

—Brian Blackstone

Arconic Bends to Elliott

By Bob Tita and David Benoit

Aerospace parts maker **Arconic** Inc. on Monday delayed its much-anticipated annual meeting and tried to defuse a long-running spat with an activist investor that last week forced the company's chief executive to step down.

Arconic set a Wednesday deadline for hedge-fund **Elliott Management** Corp. to sign off on a deal that would give Elliott two additional representatives on the company's board in exchange for abandoning its proxy fight. Arconic said it would push back the date of its annual shareholder meeting from May 16 to later in the month and was willing to make "certain other concessions."

The sides were close to a deal over the weekend, but talks broke down over the formation of board committees and how much power Elliott's representatives would have in directing the strategy of a company that is also a key supplier to the auto sector.

Arconic's surprise disclosure that it is trying to reach a settlement after months of acrimony caps of weeks of turmoil for one of the aerospace sector's largest suppliers, punctuated by the abrupt resignation of CEO Klaus Kleinfeld following a letter he sent to Elliott founder Paul Singer that the hedge fund viewed as a veiled threat. He was replaced on an interim basis by David Hess, a former executive at United Technologies Corp.

"A settlement on reasonable terms could benefit all shareholders by putting an end to this distracting proxy fight," Arconic said.

The parts maker on Monday said Elliott is pursuing a level of control over the company's operations and critical board functions that exceeds what the company considers appropriate for the hedge fund's 13.2% stake.

Elliott is seeking to add four representatives to the board in the proxy contest on top of the three directors it suggested last year. There are five seats up for election this spring. A representative for Elliott wasn't immediately available to comment.

Arconic was part of aluminum producer Alcoa Inc. before the two were split last fall.

—Maria Armental contributed to this article.

PPG Brightens Up Its Bid for Akzo

The $26.4 billion offer by the U.S. paint giant marks its third effort to woo Akzo Nobel

By *Christopher Alessi, Austen Hufford and Andrew Tangel*

Paint giant **PPG Industries** Inc. on Monday raised its offer for Dutch rival **Akzo Nobel** NV to €24.6 billion ($26.4 billion), the U.S. firm's third takeover attempt in a two-month-long, unsolicited courtship.

PPG increased its offer price for Akzo to €96.75 a share from its bid last month of €88.72 a share. PPG's initial approach at the start of March was at €83 a share.

"It's clear we're not going away," PPG Chairman and Chief Executive Michael McGarry said in an interview, calling the latest bid the company's final offer. "It's clear that the shareholders and the stakeholders will all benefit from PPG being the owner of the larger, combined company."

Akzo, whose stock rose almost 5% on Monday, confirmed it had received PPG's updated offer and would "carefully review and consider" the proposal.

PPG's latest offer comes as Akzo is warding off an effort by some of its largest investors, including activist investor **Elliott Management** Corp., to push the Amsterdam-based company to engage in negotiations with the Pittsburgh-based firm.

Elliott earlier this month called for a special meeting of Akzo's shareholders to try to oust the chairman of its supervisory board, who is seen as an opponent of such a deal. Akzo responded by saying that it strongly supported Chairman Antony Burgmans and would reject an agenda item seeking to dismiss him. The company has yet to say whether it will agree to hold the extraordinary meeting.

PPG said the new bid values Akzo at a premium of 24% over its closing price of €78.20 a share on April 21, the last full day of trading before the revised offer.

That was just days after Akzo unveiled the details of a new strategy to separate its specialty-chemicals unit, which is part of Chief Executive Ton Büchner's continuing effort to ward off PPG. Mr. Büchner has repeatedly refused to engage with PPG, calling the first two takeover offers inadequate.

PPG's Mr. McGarry said the U.S. paint manufacturer has gone out of its way to assuage concerns over the acquisition, including a pledge that the combined company would be listed on stock exchanges in both New York and in Amsterdam.

"We have bent over backwards to appease them," Mr. McGarry said, adding: "There is no room left for them to raise for any further concerns. It's time for them to come to the table."

Mr. McGarry has said all options remain on the table, though he wanted to avoid a hostile bid.

"We strongly prefer a negotiated deal with Akzo Nobel, and it to be done privately," he said.

The company told investors on April 19 that it plans to pursue a dual-track process to have the option to either spin off the specialty chemicals business as a separate listed entity or sell it outright, to be completed within the next 12 months.

The Dutch company first announced last month that it planned to separate its chemicals business, when it disclosed PPG's interest.

Mr. Büchner said the "vast majority" of net proceeds from the separation of the chemicals business would be returned to shareholders. Pretax proceeds from the move could be roughly €8 billion, according to analysts.

Akzo said it is targeting increased shareholder returns and plans to issue a €1 billion special dividend to shareholders in November, with a 50% increase on the regular dividend to €2.50 a share.

Speaking with The Wall Street Journal last week, Mr. Büchner said that unlike PPG's takeover proposal, his plan to separate the specialty chemicals division and create value for shareholders offers a "certainty of execution."

PPG said Monday that its most recent proposal "is vastly superior to Akzo Nobel's new stand-alone plan."


HENDRIK SCHMIDT/ASSOCIATED PRESS
The Dutch company said it would 'carefully review' the latest bid.

Express Scripts To Lose Big Client

By Bowdeya Tweh

Express Scripts Holding Co. said Monday it doesn't expect **Anthem** Inc., its biggest customer, to extend a pharmacy-benefits management agreement slated to expire at the end of 2019.

The nation's largest pharmacy-benefits manager said it pledged $1 billion a year in price concessions through 2019 if Anthem would extend the current deal beyond the current expiration date. But Express Scripts officials said recent conversations with Anthem indicate the health insurer wants to move in a different direction.

Anthem has issued a request for proposals seeking a new pharmacy-benefits manager once the current agreement expires, Express Scripts said.

Express Scripts shares dropped 12% after hours following the company's announcement. Shares closed up 1.2% to $67.25 during regular trading hours Monday.

Tim Wentworth, president and chief executive of Express Scripts, said it is "difficult for us to understand" why Anthem hasn't engaged in discussions.

"No other party can offer Anthem savings prior to 2020, and no other party can provide updated pricing terms beyond 2019 without the risk and disruption of a lengthy and complicated implementation," he said.

An Anthem spokeswoman declined to comment on Express Scripts' announcement.

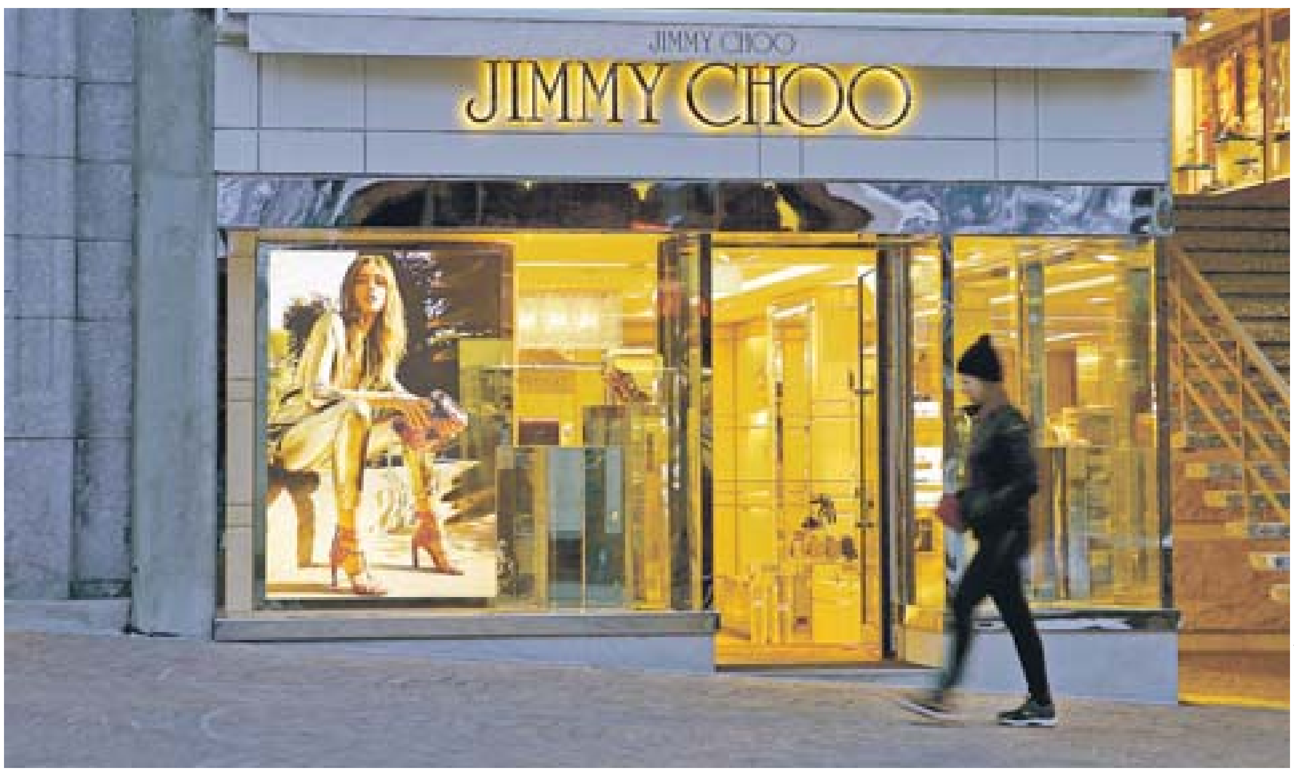
The Anthem business contributed 31% of adjusted earnings before interest, taxes, depreciation and amortization in 2016 and 26% of adjusted earnings before interest, taxes and amortization in 2015, Express Scripts said.

Anthem sued Express Scripts last year, alleging the St. Louis benefits manager violated its contract by charging excessive prices for drugs. Express Scripts has rejected that claim, adding that Anthem failed to negotiate in good faith on new pricing terms and shouldn't be able to change the existing contract.

Express Scripts has handled Anthem's pharmacy services under a 10-year contract struck in 2009, when it bought Anthem's in-house PBM for about $4.68 billion.

"Looking forward, we will continue to invest in our business to maintain optimal service levels, bring innovative solutions to the marketplace to help our patients and payers and generate new business," Mr. Wentworth said.

On Monday, Express Scripts also reported first-quarter adjusted earnings per share that just topped analysts' expectations, coming in at $1.33 on revenue of $24.65 billion. Adjusted claims, which account for monthly prescriptions filled in retail pharmacies and 90-day fills through the company's mail-order business, fell 1% to 351.7 million.



ARND WIEGMANN/REUTERS
Luxury-goods companies like Jimmy Choo have been struggling in recent years. JAB Holding also aims to sell shoemaker Bally.

JAB Puts Jimmy Choo on the Block

By Saabira Chaudhuri

JAB Holding Co., the European investment fund that has binged on coffee and restaurant chains, is stepping back from the luxury sector, saying it plans to put shoemakers **Jimmy Choo** PLC and **Bally International** AG on the block.

JAB also expects to explore the sale of upscale motorcycle-jacket maker Belstaff, its third major luxury holding, a company spokesman said.

Luxembourg-based JAB is the controlling shareholder of Jimmy Choo, whose Italian-crafted shoes sell for up to $3,800.

Jimmy Choo is traded in London, where it has a market value of £636.6 million ($816 million). The brand said it hadn't received any offers so far. Shares in Jimmy Choo climbed 11% in London on Monday.

JAB said it considered its holdings in the luxury sector as noncore, given its significant investments in coffee and related areas in recent years. The company—controlled by members of Germany's wealthy and reclusive Reimann family—said it planned to focus on its consumer-goods holdings.

JAB has invested in an array of well-known consumer brands in recent years, despite maintaining a low profile. This month, JAB said it would buy **Panera Bread** Co. for about $7.16 billion, taking the coffee-and-sandwich chain private. It bought U.S. company Krispy Kreme Doughnuts Inc. in 2016 for about $1.35 billion, and a JAB-led investor group acquired Keurig Green Mountain Inc. for about $14 billion.

In 2015, the European investment fund paid roughly $5 billion for control of **Mondelez International** Inc.'s coffee business. It also owns Peet's Coffee & Tea and Danish coffee-bar chain Baresso Coffee A/S. The stance that JAB outlined on Monday is a departure from 2014, when JAB said its increasing commitment to luxury goods was key to its investment strategy.

Luxury-goods companies globally have struggled in recent years as once-strong growth in China has slowed, while discounting in the U.S. has made it tough for brands to maintain upmarket images.

—Nina Adam contributed to this article.

Ivanka Trump Clothing Mislabeled

By Suzanne Kapner

Ivanka Trump clothing was sold at discount retailer Stein Mart Inc. under the label of a different designer, the latest controversy surrounding Ms. Trump's brand.

G-III Apparel Group Ltd., which holds the license to manufacture and distribute Ivanka Trump branded apparel, said some of the clothing incorrectly carried "Adrienne Vittadini Studio" labels. The items were relabeled without the knowledge of Ivanka Trump company executives, it said.

A G-III spokesman offered no explanation for why the clothes carried the wrong label and declined to say how many products were affected. "G-III has already begun to take corrective actions, including facilitating the immediate removal of any mistakenly labeled merchandise," he said.

Since Donald Trump became president, his daughter's brand has become a lightning rod for those protesting his policies.

One anti-Trump group, called Grab Your Wallet, lists dozens of stores that shoppers should boycott for selling Trump-branded goods, including Stein Mart.

A few retailers have stopped selling Ivanka Trump goods, including Nordstrom Inc., which cited weak sales. The brand is still sold at dozens of outlets, including Macy's Inc., Dillard's Inc., T.J. Maxx and other chains.

Ms. Trump, who recently became an official White House adviser, took a leave of absence from her family's company, the Trump Organization, and her own brand when her father was sworn in as president.

She is no longer involved in the management or operations of either company but retains her ownership interest through a trust.

Retail publication the Business of Fashion first reported on the mislabeled clothes, which, according to a photo on its website, included pink and blue sleeveless blouses.

A spokeswoman for the Ivanka Trump brand declined to comment on the mislabeled clothes.

A representative of Authentic Brands Group, which makes goods under the Adrienne Vittadini name, wasn't available to comment.

The Adrienne Vittadini brand was founded by a Hungarian knitwear designer.

T-Mobile Adds Fewer Customers

By Drew FitzGerald

The No. 3 carrier in the U.S. by subscribers ended its first quarter with 1.1 million more of them, bringing its customer base to 72.6 million. The net additions included 798,000 postpaid phone subscribers, the types of accounts that wireless companies find most profitable.

But those gains were smaller than the 2.1 million customers and 933,000 postpaid phone subscribers that the company added in the fourth quarter.

Starting Thursday, telecommunications companies will be allowed to resume merger discussions, following a quiet period in which such talks were banned because of the Federal Communications Commission's airwaves auction.

In a conference call with analysts, T-Mobile Chief Executive John Legere said he expects consolidation in the U.S. market.

"There's this huge pent-up energy because it's been over a year since they could have conversations," he said, adding there are some combinations "we would be interested in taking a look at" under the right circumstances.

T-Mobile was the top bidder in the FCC auction, pledging $8 billion toward airwaves.

T-Mobile on Monday posted a first-quarter profit of $698 million, up from $479 million a year earlier.

Its revenue rose 11% to $9.6 billion.

T-Mobile slightly raised its 2017 estimate for branded postpaid net customer additions to between 2.8 million and 3.5 million, up from its earlier target range of 2.4 million to 3.4 million.

JASON DECROW/ASSOCIATED PRESS
T-Mobile's profit rose to $698 million in the first quarter.

Bonuses at Southern Draw Investors' Fire

By Russell Gold

Several public pension funds and a foundation issued an open letter Monday to **Southern** Co. criticizing executive compensation at the Georgia-based utility and urging shareholders to vote against two board members because of the issue.

The investors, including the **California State Teachers' Retirement System** and the **Nathan Cummings Foundation**, argue executives are being rewarded despite severe problems at two flagship power projects.

The Southern board excluded the impact of pretax charges on earnings in determining bonuses for Chief Executive Thomas Fanning and Chief Financial Officer Art Beattie.

Using the "adjusted" earnings, the executives were awarded an extra $2 million in combined bonuses.

The board's decision "undermines the link between pay and performance and has led to higher pay during a time of subpar returns to shareholders," the letter said.

The board-adjusted earnings were also used, in part, to calculate long-term incentive compensation for Mr. Fanning and other Southern executives. Previously, long-term incentives were based entirely on total shareholder return relative to other power companies.

The letter asks shareholders to vote against the re-election of board members Steven R. Specker and Dale E. Klein. Both sit on the compensation committee and the panel that oversees operational issues.

A Southern spokesman didn't immediately comment on the letter.

Southern is struggling to complete construction of a clean-coal power plant in Mississippi and a nuclear power station expansion in Georgia.

Amazon Studies Driverless Ideas

Technology fits into the company's push to get more involved in transporting goods

By Laura Stevens And Tim Higgins

Amazon.com Inc. has created a team focused on driverless-vehicle technology to help the retail giant navigate the shake-up of transportation, according to people briefed on the matter.

Amazon quietly formed the team, which has comprised about a dozen employees, more than a year ago as part of a broader ambition to transport more of its goods itself. For now, Amazon doesn't intend to build a fleet of vehicles, according to these people. Instead, the team serves as an in-house think tank to figure out how to exploit autonomous vehicles.

The initiative, still in its early phases, could help the Seattle-based company address one of its biggest logistical complications and costs: delivering packages quickly. Amazon could use autonomous vehicles including trucks, forklifts and drones to move goods. In addition, driverless cars could play a bigger role in the future of last-mile delivery, enabling easier package drop-offs, experts say.

Many details of the team's work, such as the extent of its progress, couldn't be determined. An Amazon spokeswoman declined to comment.

Amazon hosted an event last week titled "Radical Transportation Salon" to discuss the future of transportation with other companies, the people said. The event, spearheaded by H.B. Siegel, whose responsibilities at Amazon include new ideas, in part targeted experts in autonomous vehicles. It wasn't clear which companies attended.

JOHN TLUMACKI/THE BOSTON GLOBE/GETTY IMAGES

Autonomous vehicles could serve Amazon in its warehouses, but also someday on highways.

Driving Itself Toward A Transport Future

◆ **Trucks:** Amazon has a fleet of more than 4,000 dedicated trailers for hauling cargo between its growing number of warehouses. The mode is considered ripe for driverless technology because of the regularity of truck routes.

◆ **Drones:** Amazon in 2013 announced a drone program, which in December made its first customer delivery: a package containing popcorn and a Fire TV video-streaming device to a U.K. customer several miles away. Drone deliveries might make most sense for rural areas—assuming regulations adjust to allow them.

◆ **Airplanes:** Amazon has said it is leasing 40 aircraft and building its first air-cargo hub in Kentucky. Planes already have autopilot, but some experts envision self-aware aircraft that require only human assistance.

◆ **Ocean Freight:** Amazon has begun handling shipment of goods to its U.S. warehouses from Chinese merchants selling on its site, taking over the role from freight-transportation companies. Ship designers, their operators and regulators are gearing up for a future in which cargo vessels sail the oceans with minimal or even no crew.

◆ **Cars:** Amazon has a network of citizen drivers making deliveries as part of its Flex program. It has also experimented with direct-to-car delivery in tests with auto makers BMW and Audi. Self-driving vehicles could play a role in package delivery, while high-tech cars in general facilitate Amazon's payment and services push.

—Laura Stevens

"Amazon has a plan in place to shake up the entire supply chain as we know it today," said Dave Sullivan, an automotive analyst for consultancy AutoPacific Inc.

Tech giants and auto makers are in a race to develop autonomous-vehicle technology that, while unproven, has the potential to reshape what Deloitte Consulting estimates to be the $2 trillion in annual revenue tied to the automotive industry. Waymo LLC, the self-driving tech unit of Google parent Alphabet Inc.; General Motors Co., Tesla Inc. and Uber Technologies Inc. are among the many global companies aiming to put self-driving vehicles on the road in the near future. They are joined by Silicon Valley startups eager to beat these bigger companies to market and players such as Apple Inc., whose intentions haven't become clear.

There have been early signs of Amazon's interest in autonomous-vehicle technology. In January, Amazon won a patent for coordinating autonomous vehicles in a roadway, earlier reported by technology news website Recode. A job posting on Amazon's site calls for a research scientist "to develop future mobility and transportation systems" at Amazon Robotics, which largely focuses on the company's warehousing technology.

Over the past few years, Amazon has been building out its supply chain and logistics network, aiming to deliver more of its own packages. It also envisions transporting goods on a large scale for other companies, one day competing with delivery giants United Parcel Service Inc. and FedEx Corp., according to people familiar with the matter.

The company is leasing 40 planes and has bought thousands of branded truck trailers. Amazon is interested in autonomous trucking, according to the people.

The biggest portion of Amazon's spending and energy has gone toward another type of autonomous means of transport: drones. That initiative is further along and has a bigger dedicated team. It is expected to continue to be the major focus of the company, according to the people. Drones could communicate or pair up with driverless vehicles, for example, to coordinate deliveries.

Samsung Prepares S8 Fixes

By Eun-Young Jeong

SEOUL—**Samsung Electronics** Co. said it would roll out two software updates for its new Galaxy S8 smartphone this week after users complained of red-tinted screens and patchy Wi-Fi connections.

In announcing the updates Monday, the company said neither the screen hue nor the Wi-Fi issue were product defects, and that it was offering fixes simply for consumers' comfort. The display-related patch would give users "a further enhanced ability to adjust the color setting to their preference," Samsung said in an emailed statement.

The second software patch, Samsung said, would resolve Wi-Fi issues in some S8 devices stemming from what it described as a fault in the wireless access point of a South Korean carrier.

The moves come three days after the Galaxy S8 hit shelves in the U.S. and Canada.

In Samsung's home market of South Korea, where the S8 became available a few days before its North American launch, the S8 recorded more than a million preorder sales.

It is rare for devices running on **Google**'s Android operating system, such as the Galaxy S8, to require software updates so soon after launch, said Tom Kang, an analyst at Counterpoint Technology Market Research.

Apple Inc. releases new software packages with every new iPhone, but this isn't the case with Samsung's flagship phones or with other makers of Android-powered devices, Mr. Kang said.

Three consumers who spoke to The Wall Street Journal said last week that they noticed reddish screens after turning on their Galaxy S8 devices for the first time, under factory settings.

It is unclear how many devices have the screen-color or Wi-Fi connection issue. Samsung declined to comment on the number of complaints it has registered.

The smartphone maker needs a smooth start for the Galaxy S8 to help win back consumer trust after the company's costly recall last year of three million Galaxy Note 7 devices because of overheating batteries.

APPLE

Continued from page B1

close to the technology could allow them to make quicker improvements, said Jeremy Carlson, an automotive analyst with research firm IHS Markit.

Apple declined to comment on its autonomous-driving plans or employees named in the document. The drivers named in the permit didn't reply to requests for comment.

The employees named in the permit are among an estimated 1,000 people working on Project Titan, said people familiar with the effort. Their experience in robotics and camera vision from their work on space programs would be valuable to a self-driving program. Ms. Gulati, for example, has researched making autonomous wheelchairs move more gracefully, work that would be applicable in a car program.

"The fundamental problems of controlling a wheelchair overlap a great deal with the fundamental problems of controlling a car," said Benjamin Kuipers, the University of Michigan professor who oversaw Ms. Gulati's wheelchair research when she was a Ph.D. student at the University of Texas.

Hiring experts with self-driving car experience has become fiercely competitive and expensive in recent years. Sebastian Thrun, the so-called godfather of Google's self-driving car project, created a stir last fall when he told Recode that experienced autonomous-vehicle researchers were valued at $10 million each, based on GM's acquisition of Cruise Automation Inc., which had about 40 employees, and Uber's acquisition of Ottomotto LLC, which had about 70 employees.

Ms. Gulati brought to Apple her experience in robotics and time spent at an automotive supplier. A graduate of the Indian Institute of Technology, she went from working on the NASA-funded Jupiter project to joining a Bosch team that developed algorithms for a car that could drive on highways, according to her personal website.

In a 2013 Bosch marketing video, she is featured riding in a BMW car retrofitted with sensors and computers to make it drive autonomously. Apple listed Bosch for the first time as one of its top 200 suppliers in 2016 and included an address for a Bosch facility focused on automotive electronics and mobility solutions.

The permit also includes a 10-page training plan for test drivers, outlining moments when they might need to take control of a vehicle on the road. Each driver is given two practice runs and three trials to pass tests such as responding to a vehicle's rapid acceleration by tapping the brakes.

SAM MIRCOVICH/REUTERS

A Tesla station in California, where the electric-vehicle maker aims to add more than 1,000 chargers.

Tesla to Bulk Up EV Stations

By Tim Higgins

Tesla Inc. plans to double the number of chargers for its electric cars at its stations globally, after owners complained of long wait times and crowds at popular locations.

The Silicon Valley auto maker began the year with more than 5,000 individual chargers at its 790 so-called Supercharger stations globally. The plan announced on Monday calls for increasing the number of chargers to more than 10,000 this year. The company declined to say how many additional sites would be added, while saying it would broaden locations within city centers.

Plans for the build-out come ahead of the introduction later this year of the Model 3, a $35,000 sedan that Tesla Chief Executive Elon Musk is betting will make his company more mainstream and less of a niche luxury player. He is targeting overall production, including the existing Model S sedans and Model X SUVs, of 500,000 vehicles next year, up from about 84,000 last year.

"The ongoing expansion of the networks will ensure that Tesla drivers are able to quickly and easily charge their vehicles no matter what, and that a seamless charging experience remains our priority," the company said.

Ahead of the Model 3 introduction, Mr. Musk has been working to alleviate complaints about overcrowding at the Supercharger stations, which recharge Tesla electric vehicles far faster than conventional chargers and are intended for long-distance travelers. The network began in 2012 and has served as a unique perk of ownership; but in November Tesla announced that this year it would stop providing unlimited free access to the charging stations for buyers of new vehicles.

Tesla understands the danger of having too few places to charge its vehicles. In a March filing, it said the growing number of its vehicles on the road "will require us to continue to increase the number of our Supercharger stations significantly." It added that the expansion will require "significant cash investments," and that "if we fail to do so, our customers could become dissatisfied, which could adversely affect sales of our vehicles."

Colin Langan, an analyst for UBS, in March estimated that it could cost Tesla between $1.9 billion and $7.5 billion to build out its fast-charging stations in the U.S. to provide a coverage area similar to gas stations. "Investors are underestimating the capex in Supercharger and store/service infrastructure required for Tesla to meet high volume demand in the future," Mr. Langan wrote in a note to investors.

Tesla plans to increase the number of chargers by 150% in North America and by more than 1,000 in California.

"Tesla will build larger sites along our busiest travel routes that will accommodate several dozen Teslas supercharging simultaneously," it said.

Venture Attempts To Integrate Data For Drug Firms

By Jonathan D. Rockoff

Health-care data and services company **Quintiles IMS Holdings** Inc. is teaming up with **Salesforce.com** Inc. to build a software system to integrate the various data used by drug firms.

The companies announced the agreement on Monday and didn't disclose financial terms.

The tie-up between QuintilesIMS and Salesforce, which provides customer-relationship software, aims to tackle a fundamental information-technology problem for drug companies.

The various systems that they use to manage functions ranging from the clinical testing of new medicines to their marketing are often incompatible.

QuintilesIMS aims to provide its data through Salesforce's cloud-based system.

The alliance aims to build a virtual one-stop data shop, accessible by smartphone, to allow drug-company officials to monitor the progress of drug development and sales and to aid in decision making, said Tal Rosenberg, QuintilesIMS's senior vice president for global technology solutions.

"What Salesforce brings is one technology platform that is very horizontal," Mr. Rosenberg said in an interview.

Salesforce said in a statement that the collaboration will "digitally transform" the work of life-sciences companies.

The alliance, if it can deliver on the promise, would also help QuintilesIMS address Wall Street's concern about the company's ability to knit together the various capabilities amassed through years of deal making and use them to attract new clients and improve sales.

The company is the product of an $8.75 billion merger last year between contract-research organization Quintiles, which helped drug companies test experimental drugs, and IMS Health, best known for the drug-prescription data used by pharmaceutical sales forces.

Mr. Rosenberg said drug companies could mine the data in the new platform to identify research sites best for conducting clinical trials for experimental drugs and then monitor the progress of the testing.

Likewise, drug companies developing plans for selling an approved drug could use the platform to identify doctors who treat patients with the targeted disease and the best ways to market to them, as well as determine which health plans would pay for the prescriptions.

Drug companies, hospitals and health insurers could also plumb findings from social-media postings and other data in the platform to identify patients who would benefit from a treatment or may be at risk of halting use without intervention, Mr. Rosenberg said.

AMIR COHEN/REUTERS

A Perrigo factory in Israel. The Dublin-based drugmaker cut earnings projections three times last year as sales have faltered.

ALEXANDER KOERNER/GETTY IMAGES

The German defense budget is set to climb by 8% this year. However, that surge still leaves it well below NATO's 2% benchmark.

German Arms Orders Rise

Weapons makers get busier as spending on military rises; prods from U.S. and Russia

By Christopher Alessi And William Wilkes

MUNICH—The German arms industry is on an upward trajectory.

Germany's weapons manufacturers, long subject to the sway of the country's pacifist-leaning politicians, had been struggling to find new European orders.

But in the wake of Russia's incursions in Ukraine and its tougher military stance on the North Atlantic Treaty Organization's eastern border, German military spending is rising more than at any time since the Cold War. Most of the orders for upgrades and new equipment are going to the country's biggest arms manufacturers: **Rheinmetall** AG and **Krauss-Maffei Wegmann** GmbH.

One of the largest orders on the table is an expected €800 million ($858 million) deal for both Rheinmetall and KMW to modernize a fleet of roughly 100 Leopard 2 main battle tanks, a pillar of Western defense during the Cold War.

The deal, which has yet to be signed, would bring out tanks that have languished in storage into the 21st century, adding new armor to protect against roadside bombs, high-tech communications equipment and night-vision capabilities. The upgraded tanks, which experts say Germany could use to defend against a Russian ground attack, would be similar to the Leopard 2s that Canada has deployed to fight in Afghanistan.

KMW Chief Executive Frank Haun credits the general uptick in business to a 2014 NATO summit in Wales—just months after Russia annexed the Ukrainian peninsula of Crimea—at which members broadly committed to increase spending to 2% of gross domestic product.

"I think there is a need for refurbishment, as there is a need for new equipment without a doubt," said Mr. Haun.

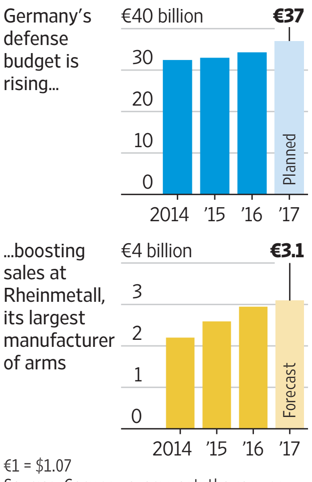
The German defense budget is set to rise by 8% this year to €37 billion, according to the Defense Ministry, slightly higher proportionally than China's expected increase for 2017. However, that surge still leaves German military spending well below NATO's 2% benchmark, at roughly 1.2% of GDP. "This welcome change in direction is necessary to keep driving the modernization of the Bundeswehr," a spokeswoman for the Defense Ministry said.

Should Berlin heed calls by U.S. President Donald Trump to accelerate spending in order to reach the target sooner, German arms makers stand to reap a bigger windfall. But Germany, the largest economy in Europe, has so far shown restraint due to limited public appetite for such a large defense budget.

"If [Mr. Trump] puts more pressure, it will help" the industry, Rheinmetall Chief Executive Armin Papperger said of the president's push for NATO allies to take on more defense responsibility.

Rearming

The German arms industry is benefiting from higher military spending by Germany and other NATO members amid mounting tension with Russia.



€1 = $1.07

Sources: German government; the company

THE WALL STREET JOURNAL.

For Mr. Papperger, the "turning point" for the German arms industry came in 2015. In December of that year, the German Defense Ministry signed a contract for a €467 million joint order with Rheinmetall and KMW for 131 Boxer armored wheeled vehicles, one of its largest orders in nearly a decade. The Boxer has already been deployed by Germany's armed forces, the Bundeswehr, in Afghanistan as a transport vehicle and field ambulance.

The "potential of a significant increase in German military spending has created an optimistic attitude among CEOs" of weapons manufacturers in the country, said Georg Wilhelm Adamowitsch, managing director of the Federation of German Security and Defense Industries.

Companies such as Rheinmetall largely have a monopoly on the domestic arms market. For most other Western contractors like BAE Systems PLC, Europe's largest arms maker, and Lockheed Martin Corp., the Pentagon's No. 1 supplier, Germany is effectively a closed market. European firm Airbus SE provides the bulk of the German military's helicopters and planes.

Rheinmetall, the country's largest arms maker by sales, reported a 63% jump in profit for 2016, to €147 million, driven by its ammunition and vehicle-systems units.

Mr. Papperger said there is now the potential for "some big programs" with the German government, including plans to provide the Bundeswehr with new military trucks, infantry fighting vehicles and ammunition.

Military spending is also rising in NATO countries neighboring Russia, according to Pieter Wezeman, a senior researcher with the Stockholm International Peace Research Institute's Arms & Military Expenditure division. This "will obviously benefit the German arms industry," he said.

Rheinmetall is upgrading Leopard tanks for Poland. Lithuania recently bought the Boxer from KMW and Rheinmetall, while Scandinavian countries have placed orders from both companies for upgrades of main battle tanks and new military trucks. The two companies are also finalizing deals in Romania.

—Robert Wall contributed to this article.

HEAT

Continued from page B1

spokesman. Perrigo is in a quiet period until it discloses its annual report.

Mr. Hendrickson took control of the company's management after former CEO Joe Papa stunned investors and quit to join Valeant Pharmaceuticals International Inc. last year. Mr. Papa benefited from rising drug prices and used an acquisition-focused strategy to increase Perrigo's stock price by roughly seven times during his decade at the firm.

But only five months after persuading shareholders to turn down a takeover offer valued at more than $26 billion from **Mylan** NV in November 2015, Mr. Papa resigned. To thwart Mylan, Mr. Papa promised an earnings and growth surge that never materialized, souring investors on the stock. The market today values Perrigo under $10 billion, less than half Mylan's offer.

Mr. Hendrickson didn't get much of a honeymoon as CEO. Starboard put his feet to the fire less than five months into his tenure.

"Although we recognize you are new to the CEO role and hope you will have fresh ideas, we also know that you have been at Perrigo for approximately 27 years, and, to date, no new plans have been announced for a meaningful change in strategic direction or operational excellence," wrote Mr. Smith in a September letter to Mr. Hendrickson. Starboard didn't respond to requests for comment.

Mr. Hendrickson is contending with disappointing results from Mr. Papa's last major acquisition, the roughly $4.5 billion purchase in March 2015 of Omega Pharma Invest NV, a Belgium-based drugmaker that expanded Perrigo's European consumer reach. Meanwhile, sales from the generic drug business, which Mr. Papa expanded during his decadelong tenure, have weakened as competition causes drug prices to fall.

Perrigo cut earnings projections three times last year and put a share buyback on hold to pay down debt. The company also lost some executives, including Doug Boothe, head of the generics business, who left in July, and former finance chief Judy Brown, who resigned at the end of February to take a finance job at biotech company Amgen Inc.

The soft-spoken Mr. Hendrickson, who labeled himself "action oriented" in his first earnings call as CEO, has tried to quickly stabilize the company. He fired the Omega business head, Marc Coucke, began a strategic review of the generics business, announced a layoff of 750 employees, and took Starboard's advice in selling Perrigo's rights to the royalty stream from the multiple sclerosis drug Tysabri.

Investors' doubts persist.

"Management needs to execute, that's the key," said David Hackfort, portfolio manager at North Star Asset Management, which owns almost 100,000 Perrigo shares. "We'll gain confidence depending on how they do."

Perrigo's $2.2 billion sale in March to Royalty Pharma of the Tysabri royalties—valued at $2.85 billion if Tysabri sales reach certain levels—disappointed some investors and analysts, who felt the company could have received more for the asset.

EARNINGS WATCH

HALLIBURTON

Rise in U.S. Drilling Boosts Results

Stepped-up drilling for oil in the U.S. may have global producers on edge about oversupply, but the increased activity in the domestic energy sector is a boon for oil-field-services firm **Halliburton** Co.

The Houston company reported its first quarterly increase in revenue since the fourth quarter of 2014. The company said its results in the first three months of 2017 reflected more activity in its pressure-pumping and well-construction services. Revenue rose 1.9% to $4.28 billion.

Halliburton reported a net loss of $32 million, or 4 cents a share, compared with a year-earlier loss of $2.41 billion, or $2.81 a share. Excluding certain items, such as the early extinguishment of debt, the company said it earned 4 cents a share in the latest period. Analysts, polled by Thomson Reuters, expected Halliburton to earn 3 cents a share on $4.26 billion in revenue.

—Joshua Jamerson

HASBRO

Revenue Tops Mattel In Rare Occurrence

After years of trailing **Mattel** Inc., **Hasbro** Inc. passed its rival in quarterly revenue for the first time since 2000, highlighting the diverging fortunes of the two toy makers.

Hasbro, long the smaller of the two main U.S. toy makers, has posted strong quarters back to back, while Mattel's performance has languished.

Hasbro posted revenue of $849.7 million, topping analysts' forecasts and eclipsing Mattel's latest quarterly total of $735.6 million.

It reported earnings of $68.6 million or 54 cents a share, up from $48.8 million, or 38 cents a year earlier.

Analysts polled by Thomson Reuters were looking for 32 cents a share in earnings on $822.1 million in sales.

—Imani Moise

CHARLES SYKES/ASSOCIATED PRESS

Hasbro's robotic Disney Princess: Dance Code Belle doll

5 Things to Watch In Defense Earnings

The largest U.S. defense companies report first-quarter earnings this week. Here are some things to look for.

◆ **Lockheed Kicks Off**

Lockheed Martin Corp., the world's largest defense contractor by sales, opens the reporting season before the bell Tuesday. Investors' focus remains on the planned rise in F-35 combat jet production and Lockheed's efforts to boost the profitability of the plane while reducing its cost following White House intervention.

◆ **Budget Black Hole**

Defense companies are working in the dark. A temporary budget runs out Friday and will likely be replaced by another that freezes spending at prior-year levels for several months, assuming a government shutdown is avoided.

◆ **Cheaper by the Dozen**

The number of big contracts being awarded has shrunk as budgets tightened, but companies are also becoming pickier. **Northrop Grumman** Corp., which reports Wednesday, pulled out of the contest to build new Air Force trainers, and, like others, is guarded about the Pentagon procurement apparatus.

◆ **Something's Got to Give**

General Dynamics Corp., which reports Wednesday, has been by far the best-performing defense firm since the presidential election, boosted by rhetoric around expanding the Navy and a slightly brighter outlook for its Gulfstream business jets.

◆ **Export Potential**

Congress was notified of overseas defense deals valued at $62.5 billion last year. High-end equipment such as the missile-defense systems made by **Raytheon** Co., which reports Thursday, as well as combat jets and munitions, remain in heavy demand.

—Doug Cameron

MARKETS DIGEST

EQUITIES

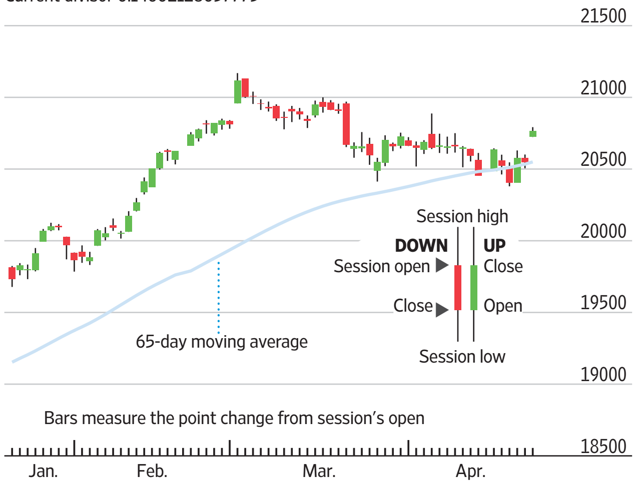
Dow Jones Industrial Average

20763.89 ▲216.13, or 1.05%

High, low, open and close for each trading day of the past three months.

	Last	Year ago
Trailing P/E ratio *	20.81	18.84
P/E estimate *	17.60	17.15
Dividend yield	2.35	2.56
All-time high	21115.55, 03/01/17	

Current divisor 0.14602128057775



S&P 500 Index

2374.15 ▲25.46, or 1.08%

High, low, open and close for each trading day of the past three months.

	Last	Year ago
Trailing P/E ratio *	24.39	24.11
P/E estimate *	18.24	17.80
Dividend yield	1.98	2.17
All-time high:	2395.96, 03/01/17	

Nasdaq Composite Index

5983.82 ▲ 73.30, or 1.24%

High, low, open and close for each trading day of the past three months.

	Last	Year ago
Trailing P/E ratio *	26.01	22.58
P/E estimate *	20.37	18.79
Dividend yield	1.11	1.26
All-time high:	5983.82, 04/24/17	

* P/E data based on as-reported earnings from Birinyi Associates Inc.

Major U.S. Stock-Market Indexes

	Latest High	Low	Close	Net chg	% chg	52-Week High	Low	% chg	% chg YTD	3-yr. ann.
Dow Jones										
Industrial Average	20792.20	20723.59	20763.89	216.13	1.05	21115.55	17140.24	15.5	5.1	8.0
Transportation Avg	9301.72	9234.62	9282.99	149.18	1.63	9593.95	7093.40	16.2	2.6	6.4
Utility Average	709.70	701.79	709.03	3.02	0.43	720.45	625.44	10.5	7.5	9.1
Total Stock Market	24675.55	24594.24	24646.05	265.63	1.09	24868.78	20583.16	14.6	5.9	7.8
Barron's 400	637.38	634.56	636.47	8.68	1.38	636.47	491.89	20.9	5.8	7.2
Nasdaq Stock Market										
Nasdaq Composite	5989.92	5970.25	5983.82	73.30	1.24	5983.82	4594.44	22.2	11.2	13.0
Nasdaq 100	5513.57	5494.46	5508.03	65.98	1.21	5508.03	4201.05	23.1	13.2	15.3
Standard & Poor's										
500 Index	2376.98	2369.19	2374.15	25.46	1.08	2395.96	2000.54	13.7	6.0	8.1
MidCap 400	1739.95	1732.15	1737.35	19.69	1.15	1758.27	1416.66	18.2	4.6	8.4
SmallCap 600	852.31	847.58	849.90	10.54	1.26	862.21	670.90	22.1	1.4	8.8
Other Indexes										
Russell 2000	1399.96	1380.53	1397.94	18.09	1.31	1413.64	1089.65	22.8	3.0	6.9
NYSE Composite	11546.09	11512.14	11531.80	142.67	1.25	11661.22	9973.54	10.2	4.3	2.9
Value Line	524.03	517.27	523.22	5.95	1.15	529.13	435.06	13.3	3.4	2.3
NYSE Arca Biotech	3548.00	3509.69	3541.43	61.17	1.76	3642.30	2818.70	8.7	15.2	12.3
NYSE Arca Pharma	506.24	503.88	505.16	6.07	1.22	554.66	463.78	-2.9	4.9	-0.0
KBW Bank	92.70	90.70	91.90	2.27	2.53	99.33	60.27	31.8	0.1	9.8
PHLX§ Gold/Silver	86.32	84.95	85.44	-1.40	-1.62	112.86	73.03	6.6	8.3	-2.3
PHLX§ Oil Service	158.60	157.07	157.27	0.25	0.16	192.66	148.37	-9.0	-14.4	-19.0
PHLX§ Semiconductor	1010.71	1003.84	1007.80	14.86	1.50	1012.29	630.77	51.5	11.2	19.4
CBOE Volatility	12.01	10.82	10.84	-3.79	-25.91	25.76	10.58	-23.0	-22.8	-6.6

§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)	After Hours Last	Net chg	% chg	High	Low
VanEck Vectors Gold Miner	GDX	14,612.6	23.14	-0.06	-0.26	23.33	23.11
SPDR S&P 500	SPY	13,038.2	236.90	-0.27	-0.11	237.32	234.56
Express Scripts Holding	ESRX	4,342.3	56.99	-10.26	-15.26	67.25	56.40
iShares MSCI EAFE ETF	EFA	4,221.8	63.54	...	unch.	63.57	57.27
Intel	INTC	3,934.9	36.75	...	unch.	36.76	36.64
Ford Motor	F	3,925.1	11.43	...	unch.	11.44	11.41
iShares Russell 2000 ETF	IWM	3,924.5	138.92	...	unch.	139.04	137.14
iSh Emg Mkt LC Bond	LEMB	3,685.4	45.88	-0.06	-0.13	45.90	45.88

Percentage gainers...

Unisys Corp	UIS	47.4	12.60	1.45	13.00	13.95	11.02
UDR	UDR	24.1	40.05	4.08	11.34	40.05	35.97
Limelight Networks	LLNW	111.6	3.05	0.30	10.91	3.15	2.69
LSB Industries	LXU	18.9	7.75	0.40	5.44	7.80	7.35
U.S. Silica Holdings	SLCA	120.3	43.66	2.11	5.08	43.97	41.36

...And losers

Express Scripts Holding	ESRX	4,342.3	56.99	-10.26	-15.26	67.25	56.40
Vanguard Small-Cap	VB	50.9	116.92	-17.51	-13.03	134.45	116.92
Swift Transportation	SWFT	49.3	23.50	-1.55	-6.19	25.20	22.50
Comfort Systems USA	FIX	7.7	34.00	-1.90	-5.29	35.90	34.00
Essent Group	ESNT	6.6	35.78	-1.88	-4.99	37.87	35.78

Trading Diary

Volume, Advancers, Decliners

	NYSE	NYSE MKT
Total volume*	906,713,644	12,102,267
Adv. volume*	669,090,723	4,023,755
Decl. volume*	210,274,584	7,308,500
Issues traded	3,095	340
Advances	2,114	151
Declines	882	157
Unchanged	99	32
New highs	252	11
New lows	16	5
Closing tick	130	26
Closing Arms†	0.75	1.19
Block trades*	7,360	154
	Nasdaq	**NYSE Arca**
Total volume*	1,815,232,807	320,942,183
Adv. volume*	1,342,614,593	194,110,589
Decl. volume*	451,233,357	126,757,037
Issues traded	2,988	1,367
Advances	2,069	994
Declines	792	361
Unchanged	127	12
New highs	262	244
New lows	47	24
Closing tick	180	45
Closing Arms†	0.88	1.61
Block trades*	7,393	1,704

* Primary market NYSE, NYSE MKT NYSE Arca only.
†(TRIN) A comparison of the number of advancing and declining issues with the volume of shares rising and falling. An Arms of less than 1 indicates buying demand; above 1 indicates selling pressure.

International Stock Indexes

Region/Country	Index	Close	Latest Net chg	% chg	YTD % chg
World	The Global Dow	2714.82	54.40	2.04	7.2
	The Global Dow Euro	2353.41	9.61	0.41	4.1
	DJ Global Index	350.62	5.10	1.48	7.5
World	DJ Global ex U.S.	233.42	4.33	1.89	9.1
Americas	DJ Americas	572.76	6.05	1.07	6.0
Brazil	Sao Paulo Bovespa	64389.01	628.40	0.99	6.9
Canada	S&P/TSX Comp	15712.46	97.98	0.63	2.8
Mexico	IPC All-Share	49413.26	445.43	0.91	8.3
Chile	Santiago IPSA	3731.77	20.95	0.56	15.8
Europe	Stoxx Europe 600	386.09	7.97	2.11	6.8
Euro zone	Euro Stoxx	382.15	13.31	3.61	9.1
Belgium	Bel-20	3887.87	117.42	3.11	7.8
France	CAC 40	5268.85	209.65	4.14	8.4
Germany	DAX	12454.98	406.41	3.37	8.5
Israel	Tel Aviv	1402.53	17.37	1.25	−4.6
Italy	FTSE MIB	20684.41	942.66	4.77	7.5
Netherlands	AEX	523.73	11.54	2.25	8.4
Spain	IBEX 35	10766.80	389.80	3.76	15.1
Sweden	SX All Share	574.70	10.68	1.89	7.5
Switzerland	Swiss Market	8711.32	157.33	1.84	6.0
U.K.	FTSE 100	7264.68	150.13	2.11	1.7
Asia-Pacific	DJ Asia-Pacific TSM	1555.52	6.18	0.40	9.3
Australia	S&P/ASX 200	5871.80	17.70	0.30	3.6
China	Shanghai Composite	3129.53	−43.62	−1.37	0.8
Hong Kong	Hang Seng	24139.48	97.46	0.41	9.7
India	S&P BSE Sensex	29655.84	290.54	0.99	11.4
Japan	Nikkei Stock Avg	18875.88	255.13	1.37	−1.2
Singapore	Straits Times	3144.03	4.20	0.13	9.1
South Korea	Kospi	2173.74	8.70	0.40	7.3
Taiwan	Weighted	9717.95	0.54	0.01	5.0

Sources: SIX Financial Information; WSJ Market Data Group

Percentage Gainers...

Company	Symbol	Latest Session Close	Net chg	% chg	52-Week High	Low	% chg
CR Bard	BCR	302.41	49.34	19.50	305.66	203.63	46.1
Rocket Fuel	FUEL	5.22	0.82	18.64	5.61	1.70	77.6
Upland Software	UPLD	20.25	3.18	18.63	20.25	6.79	192.2
Mitek Systems	MITK	8.10	0.95	13.29	9.49	5.26	34.3
VOXX International	VOXX	6.10	0.70	12.96	6.24	2.47	33.2
CAI International	CAI	20.86	2.29	12.33	21.19	6.75	110.3
Porter Bancorp	PBIB	9.72	0.99	11.34	13.75	7.10	15.0
Deutsche Bank	DB	18.37	1.87	11.33	18.70	9.99	13.4
Rocky Brands	RCKY	13.35	1.35	11.25	13.40	9.95	12.4
Direxion Euro Fin Bull 2X	EUFL	39.40	3.98	11.23	39.40	24.51	...
Direxion FTSE Eur Bull 3x	EURL	27.38	2.68	10.84	27.45	14.48	18.1
ProSharesShtVIXST	SVXY	141.67	13.79	10.78	146.00	39.43	165.1
VS Inverse VIX STerm	XIV	73.26	7.00	10.56	75.48	20.21	168.0
MicroVision	MVIS	2.87	0.26	9.96	2.89	0.89	55.1
Emmis Communications Cl A	EMMS	2.78	0.25	9.88	4.33	1.92	18.3

Percentage Losers

Company	Symbol	Latest Session Close	Net chg	% chg	52-Week High	Low	% chg
ProSharesUltVIXST	UVXY	14.93	-4.06	-21.38	462.50	14.81	-96.2
VS 2x VIX Short Term	TVIX	32.42	-8.79	-21.33	1037.50	32.19	-96.4
Reed's	REED	3.75	-1.00	-21.05	4.75	2.25	-19.4
Immune Pharmaceuticals	IMNP	2.79	-0.74	-20.96	12.80	2.14	-64.2
Aoxin Tianli Group	ABAC	1.77	-0.43	-19.55	4.07	1.51	-35.9
Globus Maritime	GLBS	2.50	-0.45	-15.25	23.60	1.13	64.5
Akari Therapeutics ADR	AKTX	17.49	-3.01	-14.68	22.20	6.22	2.0
Helix Energy Solutions	HLX	6.06	-1.03	-14.53	11.87	6.02	-26.4
Lantronix	LTRX	2.79	-0.39	-12.26	4.09	0.96	165.7
Achillion Pharm	ACHN	3.21	-0.43	-11.81	10.06	3.15	-64.9
iPath S&P 500 VIX ST Fut	VXX	15.37	-1.83	-10.64	71.48	15.30	-76.3
ProShares VIX ST Fut	VIXY	12.83	-1.52	-10.59	59.20	12.75	-76.0
VS VIX Short Term	VIIX	26.01	-3.08	-10.59	120.80	25.86	-76.2
Yintech Invt Holdings ADR	YIN	16.52	-1.67	-9.18	22.97	10.92	...
SGOCO Group	SGOC	2.05	-0.20	-8.89	5.12	2.05	-39.5

Most Active Stocks

Company	Symbol	Volume (000)	% chg from 65-day avg	Latest Session Close	% chg	52-Week High	Low
Bank of America	BAC	137,080	42.1	23.63	4.05	25.80	12.05
SPDR S&P 500	SPY	106,080	33.6	237.17	1.10	240.32	198.65
Finl Select Sector SPDR	XLF	96,677	31.9	23.68	2.25	25.30	17.31
iPath S&P 500 VIX ST Fut	VXX	71,575	38.9	15.37	-10.64	71.48	15.30
iShares MSCI Emg Markets	EEM	60,565	16.8	39.85	1.43	40.23	31.70
Sirius XM Holdings	SIRI	57,731	139.8	5.13	1.18	5.53	3.74
VanEck Vectors Gold Miner	GDX	54,723	-11.4	23.20	-1.74	31.79	18.58
CytRx	CYTR	51,338	3027.1	0.83	35.40	3.66	0.36
General Electric	GE	46,324	51.5	29.55	0.00	33.00	28.19
Micron Technology	MU	43,588	61.8	26.57	-2.75	29.87	9.35

* Volumes of 100,000 shares or more are rounded to the nearest thousand

Volume Movers

Ranked by change from 65-day average*

Company	Symbol	Volume (000)	% chg from 65-day avg	Latest Session Close	% chg	52-Week High	Low
Sprott Jr Gold Miners ETF	SGDJ	612	2817	33.28	-4.06	49.11	28.00
Direxion CSI300 CN A 1X	CHAD	245	2524	40.00	1.01	46.91	38.73
CR Bard	BCR	11,521	2096	302.41	19.50	305.66	203.63
Isle of Capri Casinos	ISLE	3,204	1985	25.56	-1.73	26.89	14.30
ProShrsUltraEuro	ULE	417	1648	14.73	3.08	17.35	13.50
CRH Medical	CRHM	1,983	1262	6.80	-7.48	9.25	2.80
iSh Residential Real Est	REZ	417	1261	64.63	-0.98	69.29	58.02
PS Russell Top 200 Pure V	PXLV	268	1201	35.57	1.51	36.75	28.27
Felcor Lodging Trust	FCH	17,101	1151	7.90	7.92	9.13	5.68
Becton Dickinson	BDX	9,726	1034	177.07	-4.44	186.40	157.60

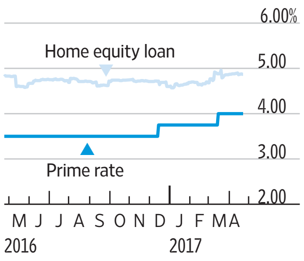
* Common stocks priced at $5 a share or more with an average volume over 65 trading days of at least 5,000 shares †Has traded fewer than 65 days

CREDIT MARKETS

Consumer Rates and Returns to Investor

U.S. consumer rates

A consumer rate against its benchmark over the past year



Selected rates

Home Equity

Bankrate.com avg†:	**4.87%**
First Citizens Bank	**2.49%**
Raleigh, NC	800-367-0995
Amegy Bank of Texas	**2.99%**
Farmington, UT	800-287-0301
First Northern Bank and Trust Company	**3.30%**
Palmerton, PA	800-242-4671
Berkshire Bank	**3.50%**
New Hartford, NY	315-735-6106
Institution for Savings in Newburyport	**3.50%**
Newburyport, MA	978-462-2344

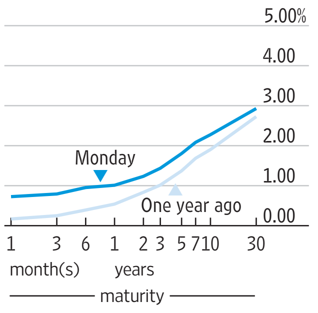
Interest rate	Yield/Rate (%) Last	Week ago	52-Week Range (%) Low	High	3-yr chg (pct pts)
Federal-funds rate target	0.75-1.00	0.75-1.00	0.25	1.00	0.75
Prime rate*	4.00	4.00	3.50	4.00	0.75
Libor, 3-month	1.17	1.16	0.62	1.17	0.94
Money market, annual yield	0.32	0.30	0.22	0.34	-0.09
Five-year CD, annual yield	1.31	1.30	1.17	1.31	-0.07
30-year mortgage, fixed†	3.98	3.99	3.43	4.33	-0.38
15-year mortgage, fixed†	3.19	3.19	2.70	3.50	-0.23
Jumbo mortgages, $424,100-plus†	4.53	4.52	4.02	4.88	-0.19
Five-year adj mortgage (ARM)†	3.25	3.30	2.97	4.03	-0.29
New-car loan, 48-month	3.11	3.23	2.87	3.36	0.20
HELOC, $30,000	4.87	4.90	4.57	4.96	0.06

Bankrate.com rates based on survey of over 4,800 online banks. *Base rate posted by 70% of the nation's largest banks.† Excludes closing costs.

Sources: SIX Financial Information; WSJ Market Data Group; Bankrate.com

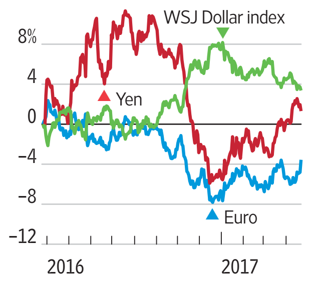
Treasury yield curve

Yield to maturity of current bills, notes and bonds



Forex Race

Yen, euro vs. dollar; dollar vs. major U.S. trading partners



Sources: Ryan ALM; Tullett Prebon; WSJ Market Data Group

Corporate Borrowing Rates and Yields

Bond total return index	Close	Yield (%) Last	Week ago	52-Week High	Low	Total Return (%) 52-wk	3-yr
Treasury, Ryan ALM	1447.579	1.960	1.932	2.237	1.141	–0.344	2.965
10-yr Treasury, Ryan ALM	1724.194	2.275	2.248	2.609	1.366	2.307	3.329
DJ Corporate	368.150	3.085	3.069	3.390	2.460	2.142	3.783
Aggregate, Barclays Capital	1907.540	2.510	2.500	2.790	1.820	1.214	2.730
High Yield 100, Merrill Lynch	2771.515	5.329	5.476	6.804	5.200	11.754	3.288
Fixed-Rate MBS, Barclays	1960.410	2.790	2.780	3.120	1.930	0.827	2.676
Muni Master, Merrill	510.263	2.019	2.009	2.516	1.297	0.249	2.850
EMBI Global, J.P. Morgan	778.714	5.546	5.584	6.290	5.134	8.982	5.794

Sources: J.P. Morgan; Ryan ALM; S&P Dow Jones Indices; Barclays Capital; Merrill Lynch

CURRENCIES

U.S.-dollar foreign-exchange rates in late New York trading

Country/currency	Mon in US$	per US$	US$ vs, YTD chg (%)
Americas			
Argentina peso	.0650	15.3902	–3.0
Brazil real	.3197	3.1279	–3.9
Canada dollar	.7407	1.3501	0.4
Chile peso	.001526	655.40	–2.1
Colombia peso	.0003483	2871.00	–4.4
Ecuador US dollar	1	1	unch
Mexico peso	.0534	18.7320	–9.7
Peru new sol	.3083	3.244	–3.3
Uruguay peso	.03515	28.4500	–3.1
Venezuela b. fuerte	.098617	10.1403	1.5
Asia-Pacific			
Australian dollar	.7569	1.3212	–4.8
China yuan	.1452	6.8848	–0.9
Hong Kong dollar	.1286	7.7788	0.3
India rupee	.01552	64.435	–5.2
Indonesia rupiah	.0000762	13126	–3.0
Japan yen	.009111	109.76	–6.2
Kazakhstan tenge	.003208	311.69	–6.6
Macau pataca	.1268	7.8874	–0.4
Malaysia ringgit	.2272	4.4005	–1.9
New Zealand dollar	.7017	1.4251	–1.3
Pakistan rupee	.00954	104.768	0.4
Philippines peso	.0201	49.790	0.4
Singapore dollar	.7180	1.3927	–3.8
South Korea won	.0008815	1134.38	–6.1
Sri Lanka rupee	.0065664	152.29	2.6
Taiwan dollar	.03304	30.267	–6.7
Thailand baht	.02911	34.350	–4.1
Vietnam dong	.00004401	22720	–0.2
Europe			
Czech Rep. koruna	.04048	24.703	–3.8
Denmark krone	.1461	6.8456	–3.2
Euro area euro	1.0868	.9202	–3.2
Hungary forint	.003490	286.56	–2.6
Iceland krona	.009290	107.64	–4.7
Norway krone	.1170	8.5478	–1.1
Poland zloty	.2560	3.9065	–6.7
Russia ruble	.01792	55.817	–8.9
Sweden krona	.1129	8.8580	–2.7
Switzerland franc	1.0042	.9958	–2.3
Turkey lira	.2800	3.5716	1.4
Ukraine hryvnia	.0375	26.6850	–1.5
UK pound	1.2797	.7814	–3.5
Middle East/Africa			
Bahrain dinar	2.6527	.3770	–0.1
Egypt pound	.0550	18.1790	0.3
Israel shekel	.2739	3.6512	–5.1
Kuwait dinar	3.2852	.3044	–0.4
Oman sul rial	2.5972	.3850	0.02
Qatar rial	.2746	3.642	0.05
Saudi Arabia riyal	.2666	3.7505	–0.01
South Africa rand	.0768	13.0150	–5.0

	Close	Net Chg	% Chg	YTD % Chg
WSJ Dollar Index	89.41	–0.30	–0.34	–3.79

Sources: Tullett Prebon, WSJ Market Data Group

COMMODITIES

	Close	Monday Net chg	% Chg	52-Week High	Low	% Chg	YTD % chg
DJ Commodity	558.81	-1.06	-0.19	589.81	498.06	10.86	-1.49
TR/CC CRB Index	180.93	-0.94	-0.52	195.82	177.04	1.15	-6.02
Crude oil, $ per barrel	49.23	-0.39	-0.79	54.45	39.51	15.45	-8.36
Natural gas, $/MMBtu	3.066	-0.035	-1.13	3.93	1.96	48.62	-17.67
Gold, $ per troy oz.	1275.80	-11.60	-0.90	1364.90	1127.80	2.98	10.94

COMMODITIES

WSJ.com/commodities

Futures Contracts

Metal & Petroleum Futures

	Open	Contract High	hi lo	Low	Settle	Chg	Open interest
Copper-High (CMX)-25,000 lbs.; $ per lb.							
April	2.5350	2.5520		2.5350	**2.5535**	0.0170	547
July	2.5680	2.5860		2.5475	**2.5650**	0.0140	115,927
Gold (CMX)-100 troy oz.; $ per troy oz.							
April	1275.00	1276.40		1265.00	**1275.80**	−11.60	554
June	1280.00	1280.00		1266.00	**1277.50**	−11.60	348,758
Aug	1284.30	1284.30		1270.00	**1280.80**	−11.60	48,555
Oct	1280.50	1284.20		1273.40	**1284.00**	−11.60	7,826
Dec	1291.00	1291.00		1276.50	**1287.30**	−11.60	50,190
Feb'18	1285.00	1291.40		1282.30	**1290.70**	−11.50	7,953
Palladium (NYM) - 50 troy oz.; $ per troy oz.							
April	797.00	797.00		797.00	**795.30**	4.70	1
May	803.00	803.00		803.00	**795.30**	4.70	1
June	789.75	800.10		789.15	**795.45**	4.70	30,385
Sept	792.60	798.00		790.50	**795.35**	4.70	3,135
Platinum (NYM)-50 troy oz.; $ per troy oz.							
April	975.00	976.50		975.00	**957.20**	−17.30	15
July	970.70	975.10		955.50	**960.20**	−17.40	57,965
Silver (CMX)-5,000 troy oz.; $ per troy oz.							
April	17.985	17.990		17.855	**17.848**	0.018	25
July	18.035	18.035		17.625	**17.932**	−0.005	131,014
Crude Oil, Light Sweet (NYM)-1,000 bbls.; $ per bbl.							
June	49.68	50.22		49.03	**49.23**	−0.39	620,044
July	50.02	50.56		49.39	**49.58**	−0.39	232,509
Aug	50.35	50.86		49.72	**49.89**	−0.39	111,667
Sept	50.49	51.11		49.98	**50.17**	−0.38	193,535
Dec	51.20	51.73		50.66	**50.81**	−0.37	278,751
Dec'18	51.45	51.77		50.84	**50.94**	−0.39	134,990
NY Harbor ULSD (NYM)-42,000 gal.; $ per gal.							
May	1.5557	1.5705		1.5380	**1.5427**	−.0106	45,947
June	1.5594	1.5761		1.5430	**1.5478**	−.0116	125,490
Gasoline-NY RBOB (NYM)-42,000 gal.; $ per gal.							
May	1.6416	1.6554		1.6197	**1.6214**	−.0231	40,600
June	1.6450	1.6574		1.6233	**1.6258**	−.0195	130,038
Natural Gas (NYM)-10,000 MMBtu.; $ per MMBtu.							
May	3.094	3.149		3.031	**3.066**	−.035	28,450
June	3.189	3.245		3.128	**3.160**	−.032	240,006
July	3.266	3.311		3.210	**3.243**	−.027	207,531
Sept	3.300	3.324		3.232	**3.265**	−.024	125,720
Oct	3.320	3.340		3.251	**3.285**	−.023	147,201
Jan'18	3.570	3.594		3.517	**3.553**	−.022	94,249

Agriculture Futures

	Open	Contract High	hi lo	Low	Settle	Chg	Open interest
Corn (CBT)-5,000 bu.; cents per bu.							
May	358.00	360.50		356.25	**359.25**	2.25	199,141
July	364.00	367.00		362.50	**365.50**	1.75	697,896
Oats (CBT)-5,000 bu.; cents per bu.							
May	218.00	220.00		215.50	**218.75**	1.25	2,112
July	218.00	219.25		215.00	**217.75**	1.50	3,708
Soybeans (CBT)-5,000 bu.; cents per bu.							
May	951.50	962.25		951.50	**961.25**	10.25	109,378
July	961.50	972.50		961.50	**971.75**	11.00	341,771
Soybean Meal (CBT)-100 tons; $ per ton.							
May	309.60	316.90		309.30	**316.40**	6.80	36,993
July	313.20	321.00		313.20	**320.60**	7.00	195,204
Soybean Oil (CBT)-60,000 lbs.; cents per lb.							
May	32.09	32.35		31.30	**31.69**	−.25	54,457
July	32.35	32.55		31.53	**31.93**	−.23	211,767
Rough Rice (CBT)-2,000 cwt.; $ per cwt.							
May	980.00	983.00		960.00	**960.50**	−16.50	3,898
July	1007.50	1010.00		987.00	**987.50**	−17.50	5,167
Wheat (CBT)-5,000 bu.; cents per bu.							
May	406.50	408.50		401.25	**402.50**	−2.50	60,950
July	422.25	425.00		418.00	**419.25**	−1.75	306,315
Wheat (KC)-5,000 bu.; cents per bu.							
May	405.00	408.25		400.50	**401.75**	−2.75	37,160
July	418.25	421.00		413.00	**414.25**	−3.00	153,951
Wheat (MPLS)-5,000 bu.; cents per bu.							
May	526.50	531.00		520.00	**521.50**	−5.00	11,463
July	535.75	539.75		530.25	**531.50**	−4.00	28,771
Cattle-Feeder (CME)-50,000 lbs.; cents per lb.							
April	138.675	138.900		137.850	**138.250**	−.300	2,991
Aug	141.425	141.925		139.875	**140.700**	−1.550	28,127
Cattle-Live (CME)-40,000 lbs.; cents per lb.							
April	129.800	129.825		128.300	**129.000**	−.800	5,501
June	116.200	116.450		114.425	**114.850**	−1.850	185,650
Hogs-Lean (CME)-40,000 lbs.; cents per lb.							
May	62.800	64.475		62.800	**64.400**	1.375	1,932
June	68.725	69.625		68.375	**69.525**	1.200	86,027
Lumber (CME)-110,000 bd. ft., $ per 1,000 bd. ft.							
May	400.90	402.70		390.40	**395.10**	−3.40	2,317
July	407.10	407.90		396.70	**402.90**	−.40	2,902
Milk (CME)-200,000 lbs., cents per lb.							
April	15.20	15.21		15.20	**15.20**	...	5,323
June	15.90	15.97		15.76	**15.85**	−.02	5,002
Cocoa (ICE-US)-10 metric tons; $ per ton.							
May	1,830	1,830		1,815	**1,825**	−34	167
July	1,848	1,877		1,804	**1,816**	−34	152,960
Coffee (ICE-US)-37,500 lbs.; cents per lb.							
May	130.45	131.30		129.10	**129.50**	−.35	169
July	132.90	134.35		131.65	**131.90**	−1.00	104,508
Sugar-World (ICE-US)-112,000 lbs.; cents per lb.							
May	16.49	16.58		16.08	**16.24**	−.17	66,073
July	16.56	16.67	▼	16.17	**16.32**	−.19	346,600
Sugar-Domestic (ICE-US)-112,000 lbs.; cents per lb.							
July	29.40	29.40		29.40	**28.74**	−.20	1,137
Sept	29.00	29.00		29.00	**29.00**	−.20	1,493
Cotton (ICE-US)-50,000 lbs.; cents per lb.							
May	79.50	80.02		79.18	**80.09**	1.10	712
July	79.50	79.63		77.78	**78.79**	−.54	131,992
Orange Juice (ICE-US)-15,000 lbs.; cents per lb.							
May	160.00	162.00		157.00	**157.40**	−2.60	2,971
July	153.20	155.75		152.65	**154.75**	2.35	6,259

Interest Rate Futures

	Open	Contract High	hi lo	Low	Settle	Chg	Open interest
Treasury Bonds (CBT)-$100,000; pts 32nds of 100%							
June	153-020	153-220		152-180	**153-140**	−23.0	626,436
Sept	152-010	152-150		151-150	**152-070**	−23.0	366
Treasury Notes (CBT)-$100,000; pts 32nds of 100%							
June	125-150	125-275		125-065	**125-255**	−8.5	3,155,578
Sept	125-085	125-155		124-300	**125-155**	−8.5	10,995
5 Yr. Treasury Notes (CBT)-$100,000; pts 32nds of 100%							
June	118-080	118-167		118-025	**118-150**	−6.5	3,148,341
Sept	117-210	117-285		117-185	**117-290**	−6.5	6,905
2 Yr. Treasury Notes (CBT)-$200,000; pts 32nds of 100%							
June	108-107	108-112		108-077	**108-110**	−3.0	1,396,408
Sept	108-030	108-047		108-030	**108-055**	−3.0	1,626
30 Day Federal Funds (CBT)-$5,000,000; 100 - daily avg.							
April	99.105	99.108	▼	99.105	**99.100**	−.008	427,519
May	99.095	99.100		99.095	**99.090**	−.005	251,405
10 Yr. Del. Int. Rate Swaps (CBT)-$100,000; pts 32nds of 100%							
June	92.313	92.813		92.313	**92.719**	−.359	31,430
1 Month Libor (CME)-$3,000,000; pts of 100%							
May	98.9800	98.9800		98.9800	**98.9825**	...	2,461
July	98.8150	98.8175		98.8150	**98.8175**	−.0300	2,948
Eurodollar (CME)-$1,000,000; pts of 100%							
May	98.8000	98.8000		98.7800	**98.7925**	−.0125	147,712
June	98.7250	98.7250		98.6800	**98.7050**	−.0300	1,449,885
Dec	98.5100	98.5300		98.4700	**98.5200**	−.0400	1,621,437
Dec'18	98.1000	98.1600		98.0700	**98.1450**	−.0450	1,438,878

Currency Futures

	Open	Contract High	hi lo	Low	Settle	Chg	Open interest
Japanese Yen (CME)-¥12,500,000; $ per 100¥							
May	.9084	.9126		.9070	**.9118**	−.0046	487
June	.9090	.9139		.9075	**.9130**	−.0046	202,972
Canadian Dollar (CME)-CAD 100,000; $ per CAD							
May	.7406	.7458		.7399	**.7403**	−.0001	280
June	.7422	.7464		.7401	**.7406**	−.0001	151,542
British Pound (CME)-£62,500; $ per £							
May	1.2829	1.2839		1.2781	**1.2796**	−.0008	381
June	1.2842	1.2852		1.2790	**1.2807**	−.0007	259,451
Swiss Franc (CME)-CHF 125,000; $ per CHF							
June	1.0120	1.0132		1.0053	**1.0070**	.0020	46,317
Sept	1.0163	1.0177		1.0115	**1.0131**	.0020	209
Australian Dollar (CME)-AUD 100,000; $ per AUD							
May	.7559	.7580		.7555	**.7558**	.0023	375
June	.7562	.7578		.7532	**.7554**	.0024	106,617
Sept	.7544	.7566		.7523	**.7544**	.0024	1,300
Mexican Peso (CME)-MXN 500,000; $ per MXN							
June	.05316	.05364		.05287	**.05295**	.00039	185,050
Euro (CME)-€125,000; $ per €							
May	1.0800	1.0909		1.0800	**1.0869**	.0163	533
June	1.0893	1.0929		1.0849	**1.0887**	.0162	413,812

Index Futures

	Open	Contract High	hi lo	Low	Settle	Chg	Open interest
Mini DJ Industrial Average (CBT)-$5 x index							
June	20599	20732		20599	**20696**	193	123,679
Sept	20522	20679		20522	**20642**	190	332
S&P 500 Index (CME)-$250 x index							
June	2364.50	2376.60		2364.50	**2370.00**	22.60	59,664
Mini S&P 500 (CME)-$50 x index							
June	2365.75	2376.75		2365.25	**2370.00**	22.50	2,913,388
Sept	2355.00	2374.00		2355.00	**2367.25**	22.75	9,059
Mini S&P Midcap 400 (CME)-$100 x index							
June	1726.60	1742.50		1726.50	**1735.70**	20.20	97,236
Mini Nasdaq 100 (CME)-$20 x index							
June	5471.0	5512.8	▲	5471.0	**5504.0**	62.0	259,638
Sept	5475.0	5517.0	▲	5475.0	**5509.0**	62.0	517
Mini Russell 2000 (ICE-US)-$100 x index							
June	1388.40	1403.50		1388.40	**1396.00**	16.20	561,899
Sept	1385.00	1399.50	▲	1385.00	**1394.70**	16.40	226
Mini Russell 1000 (ICE-US)-$100 x index							
June	1316.90	1317.00		1312.40	**1315.00**	12.70	7,657
U.S. Dollar Index (ICE-US)-$1,000 x index							
June	99.18	99.24		98.70	**98.97**	−.91	65,015
Sept	99.00	99.08		98.59	**98.82**	−.90	1,021

Source: SIX Financial Information

Cash Prices | WSJ.com/commodities

Monday, April 24, 2017

These prices reflect buying and selling of a variety of actual or "physical" commodities in the marketplace—separate from the futures price on an exchange, which reflects what the commodity might be worth in future months.

	Monday
Energy	
Propane,tet,Mont Belvieu-g	0.6370
Butane,normal,Mont Belvieu-g	0.7768
NaturalGas,HenryHub-i	2.980
NaturalGas,TranscoZone3-i	2.920
NaturalGas,TranscoZone6NY-i	2.950
NaturalGas,PanhandleEast-i	2.660
NaturalGas,Opal-i	2.640
NaturalGas,MarcellusNE PA-i	2.480
NaturalGas,HaynesvilleN.LA-i	2.830
Coal,C.Aplc.,12500Btu,1.2SO2-r,w	52.450
Coal,PwdrRvrBsn,8800Btu,0.8SO2-r,w	11.750
Metals	
Gold, per troy oz	
Engelhard industrial	1271.81
Engelhard fabricated	1367.20
Handy & Harman base	1269.40
Handy & Harman fabricated	1409.03
LBMA Gold Price AM	*1281.50
LBMA Gold Price PM	*1281.85
Krugerrand,wholesale-e	1327.30
Maple Leaf-e	1340.06
American Eagle-e	1340.06
Mexican peso-e	1546.77
Austria crown-e	1253.98
Austria phil-e	1340.06
Silver, troy oz.	
Engelhard industrial	17.7900
Engelhard fabricated	21.3480
Handy & Harman base	17.8750
Handy & Harman fabricated	22.3440
LBMA spot price	£13.8967
(U.S.$ equivalent)	17.8100
Coins,wholesale $1,000 face-a	13620
Other metals	
LBMA Platinum Price PM	*979.0
Platinum,Engelhard industrial	957.0
Platinum,Engelhard fabricated	1057.0
Palladium,Engelhard industrial	799.0
Palladium,Engelhard fabricated	899.0
Aluminum, LME, $ per metric ton	*1932.5
Copper,Comex spot	2.5535
Iron Ore, 62% Fe CFR China-s	65.4
Shredded Scrap, US Midwest-s,w	301
Steel, HRC USA, FOB Midwest Mill-s	646
Fibers and Textiles	
Burlap,10-oz,40-inch NY yd-n,w	0.6000
Cotton,1 1/16 std lw-mdMphs-u	0.7729
Cotlook 'A' Index-t	*88.55
Hides,hvy native steers piece fob-u	n.a.
Wool,64s,staple,Terr del-u,w	n.a.
Grains and Feeds	
Barley,top-quality Mnpls-u	n.a.
Bran,wheat middlings, KC-u	53
Corn,No. 2 yellow,Cent IL-bp,u	3.3800
Corn gluten feed,Midwest-u,w	79.7
Corn gluten meal,Midwest-u,w	501.1
Cottonseed meal-u,w	190
Hominy feed,Cent IL-u,w	n.a.
Meat-bonemeal,50% pro Mnpls-u,w	263
Oats,No.2 milling,Mnpls-u	2.8225
Rice, 5% Broken White, Thailand-l,w	365.00
Rice, Long Grain Milled, No. 2 AR-u,w	20.25
Sorghum,(Milo) No.2 Gulf-u	6.7275
SoybeanMeal,Cent IL,rail,ton48%-u	311.60
Soybeans,No.1 yllw IL-bp,u	9.2950
Wheat,Spring14%-pro Mnpls-u	6.3150
Wheat,No.2 soft red,St.Louis-bp,u	3.9650
Wheat - Hard - KC (USDA) $ per bu-u	3.6575
Wheat,No.1soft white,Portld,OR-u	4.4625
Food	
Beef,carcass equiv. index	
choice 1-3,600-900 lbs.-u	202.34
select 1-3,600-900 lbs.-u	188.81
Broilers,dressed 'A'-u	n.a.
Broilers, National comp wghtd-u,w	0.9644
Butter,AA Chicago	2.0750
Cheddar cheese,bbl,Chicago	142.75
Cheddar cheese,blk,Chicago	155.25
Milk,Nonfat dry,Chicago lb.	84.50
Cocoa,Ivory Coast-w	2113
Coffee,Brazilian,Comp	1.3027
Coffee,Colombian, NY	1.4980
Eggs,large white,Chicago-u	0.5450
Flour,hard winter KC	12.70
Hams,17-20 lbs,Mid-US fob-u	0.61
Hogs,Iowa-So. Minnesota-u	60.57
Pork bellies,12-14 lb MidUS-u	n.a.
Pork loins,13-19 lb MidUS-u	0.8834
Steers,Tex.-Okla. Choice-u	132.00
Steers,feeder,Okla. City-u,w	162.74
Fats and Oils	
Corn oil,crude wet/dry mill-u,w	37.7500
Grease,choice white,Chicago-u	0.2800
Lard,Chicago-u	n.a.
Soybean oil,crude;Centl IL-u	0.2982
Tallow,bleach;Chicago-u	0.3025
Tallow,edible,Chicago-u	n.a.

KEY TO CODES: A=ask; B=bid; BP=country elevator bids to producers; C=corrected; E=Manfra,Tordella & Brooks; G=ICE; I=Natural Gas Intelligence; L=livericeindex.com; M=midday; N=nominal; n.a.=not quoted or not available; R=SNL Energy; S=The Steel Index; T=Cotlook Limited; U=USDA; W=weekly, Z=not quoted. *Data as of 4/21

Source: WSJ Market Data Group

Borrowing Benchmarks | WSJ.com/bonds

Money Rates

April 24, 2017

Key annual interest rates paid to borrow or lend money in U.S. and international markets. Rates below are a guide to general levels but don't always represent actual transactions.

Inflation

	March index level	Chg From (%) Feb. '17	March '16
U.S. consumer price index			
All items	243.801	0.08	2.4
Core	251.290	0.06	2.0

International rates

	Latest	Week ago	52-Week High	52-Week Low
Prime rates				
U.S.	4.00	4.00	4.00	3.50
Canada	2.70	2.70	2.70	2.70
Japan	1.475	1.475	1.475	1.475
Policy Rates				
Euro zone	0.00	0.00	0.00	0.00
Switzerland	0.50	0.50	0.50	0.50
Britain	0.25	0.25	0.50	0.25
Australia	1.50	1.50	2.00	1.50
Overnight repurchase				
U.S.	0.91	0.91	1.30	0.15

U.S. government rates

	Latest	Week ago	52-Week High	52-Week Low
Discount				
	1.50	1.50	1.50	1.00
Federal funds				
Effective rate	0.9400	0.9400	0.9400	0.3200
High	1.0625	1.0625	1.0625	0.5000
Low	0.9000	0.8000	0.9000	0.2000
Bid	0.9000	0.9100	0.9300	0.2000
Offer	1.0000	0.9300	1.0000	0.2600

	Latest	Week ago	52-Week High	52-Week Low
Treasury bill auction				
4 weeks	0.750	0.760	0.770	0.160
13 weeks	0.820	0.820	0.825	0.220
26 weeks	0.955	0.945	0.955	0.340

Secondary market

	Latest	Week ago	52-Week High	52-Week Low
Fannie Mae				
30-year mortgage yields				
30 days	3.582	3.485	3.865	2.806
60 days	3.616	3.516	3.899	2.832

Other short-term rates

	Latest	Week ago	52-Week high	52-Week low
Call money				
	2.75	2.75	2.75	2.25
Commercial paper (AA financial)				
90 days	1.03	n.a.	1.06	0.47
Libor				
One month	0.99111	0.99444	0.99444	0.43395
Three month	1.16650	1.15844	1.16650	0.62360
Six month	1.42072	1.40322	1.43822	0.88685
One year	1.76817	1.77178	1.82761	1.19570
Euro Libor				
One month	-0.396	-0.391	-0.348	-0.401
Three month	-0.359	-0.358	-0.269	-0.362
Six month	-0.260	-0.257	-0.155	-0.260
One year	-0.145	-0.135	-0.026	-0.145
Euro interbank offered rate (Euribor)				
One month	-0.371	-0.372	-0.343	-0.375
Three month	-0.329	-0.331	-0.250	-0.332
Six month	-0.247	-0.246	-0.141	-0.251
One year	-0.121	-0.120	-0.011	-0.124

	Latest	Value Traded	52-Week High	52-Week Low
DTCC GCF Repo Index				
Treasury	0.869	24.600	1.266	0.244
MBS	0.871	80.100	1.328	0.257

	Settle	Change	Open Interest	Implied Rate
DTCC GCF Repo Index Futures				
Treasury Apr	99.110	-0.005	6701	0.890
Treasury May	99.140	-0.005	4698	0.860
Treasury Jun	99.050	-0.015	1291	0.950

Notes on data:

U.S. prime rate is the base rate on corporate loans posted by at least 70% of the 10 largest U.S. banks, and is effective March 16, 2017. **Other prime rates** aren't directly comparable; lending practices vary widely by location; **Discount rate** is effective March 16, 2017. **DTCC GCF Repo Index** is Depository Trust & Clearing Corp.'s weighted average for overnight trades in applicable CUSIPs. Value traded is in billions of U.S. dollars. **Futures on the DTCC GCF Repo Index** are traded on NYSE Liffe US.

Sources: Federal Reserve; Bureau of Labor Statistics; DTCC; SIX Financial Information; General Electric Capital Corp.; Tullett Prebon Information, Ltd.

Key Interest Rates

Data are annualized on a 360-day basis. Treasury yields are per annum, on actively traded noninflation and inflation-indexed issues that are adjusted to constant maturities. Data are from weekly Federal Reserve release H.15.

	Week Ended Apr 21	Week Ended Apr 14	52-Week High	52-Week Low
Federal funds (effective)	0.91	0.91	0.91	0.34
Commercial paper				
Nonfinancial				
1-month	0.83	0.82	0.85	0.33
2-month	0.87	0.86	0.87	0.39
3-month	0.93	0.92	0.93	0.46
Financial				
1-month	0.93	0.92	0.95	0.36
2-month	0.97	0.98	1.00	0.41
3-month	1.02	1.04	1.05	0.54
Discount window primary credit	1.50	1.50	1.50	1.00
Conventional mortgages	n.a.	n.a.	3.66	3.41
Treasury yields at constant maturities				
1-month	0.74	0.76	0.76	0.13
3-month	0.81	0.82	0.82	0.20
6-month	0.93	0.95	0.95	0.36
1-year	1.02	1.05	1.05	0.45
2-year	1.20	1.25	1.36	0.58
3-year	1.39	1.45	1.64	0.69
5-year	1.76	1.83	2.08	0.95
7-year	2.04	2.11	2.37	1.20
10-year	2.23	2.30	2.55	1.38
20-year	2.60	2.67	2.91	1.71

	Week Ended Apr 21	Week Ended Apr 14	52-Week High	52-Week Low
Treasury yields (secondary market)				
1-month	0.73	0.75	0.75	0.12
3-month	0.80	0.81	0.81	0.20
6-month	0.91	0.93	0.93	0.35
TIPS				
5-year	0.04	0.13	0.25	-0.45
7-year	0.23	0.34	0.47	-0.27
10-year	0.37	0.39	0.63	-0.04
20-year	0.72	0.69	0.97	0.36
Long-term avg	0.73	0.74	0.97	0.38
Interest rate swaps				
1-year	n.a.	n.a.	1.00	0.67
2-year	n.a.	n.a.	1.09	0.74
3-year	n.a.	n.a.	1.17	0.81
4-year	n.a.	n.a.	1.26	0.89
5-year	n.a.	n.a.	1.35	0.96
7-year	n.a.	n.a.	1.52	1.10
10-year	n.a.	n.a.	1.75	1.29
30-year	n.a.	n.a.	2.25	1.69
Corporate bonds, Moody's seasoned				
Aaa	n.a.	n.a.	3.67	3.21
Baa	n.a.	n.a.	4.77	4.19
State and local bonds	n.a.	n.a.	3.32	2.80
Eurodollars				
1 month	n.a.	n.a.	0.50	0.48
3 month	n.a.	n.a.	0.93	0.65
6 month	n.a.	n.a.	1.30	0.93

Notes on data:
Federal-funds rate is an average for the seven days ended Wednesday, weighted according to rates on broker trades; **Commercial paper rates** are discounted offer rates interpolated from sales by discounted averages of dealer bid rates on nationally traded certificates of deposit; **Discount window primary credit rate** is charged for discounts made and advances extended under the Federal Reserve's primary credit discount window program; **rate** is average for seven days ended Wednesday; **Inflation-indexed long-term TIPS** average is indexed and is based on the unweighted average bid yields for all TIPS with remaining terms to maturity of 10 years or more; **Swap rates** are International Swaps and Derivatives Association (ISDA(R)) mid-market par rates for a fixed-rate payer, who in return receives three-month Libor, and are based on rates collected at 11:00 a.m. ET by Garban Intercapital PLC; Source is Reuters; **Moody's triple-AAA** rates are averages of industrial bonds only; **Muni rates** are Thursday quotes based on the Bond Buyer Index for general obligation, 20 years to maturity, mixed quality debt; **Mortgage rates** are contract rates on commitments for fixed-rate first mortgages

Sources: Federal Reserve; for additional information on these rate data and their derivation, please see, www.federalreserve.gov/releases/h15/data.htm

Bonds | WSJ.com/bonds

Tracking Bond Benchmarks

Return on investment and spreads over Treasurys and/or yields paid to investors compared with 52-week highs and lows for different types of bonds

Total return close	YTD total return (%)	Index	Yield (%) Latest	Low	High
Broad Market Bloomberg Barclays					
1907.54	1.6	U.S. Aggregate	2.510	1.820	2.790
U.S. Corporate Indexes Bloomberg Barclays					
2687.33	2.2	U.S. Corporate	3.240	2.750	3.520
2568.61	1.9	Intermediate	2.720	2.190	3.010
3613.22	3.0	Long term	4.420	3.960	4.710
552.21	1.8	Double-A-rated	2.620	1.980	2.870
689.04	2.5	Triple-B-rated	3.560	3.180	3.870
High Yield Bonds Merrill Lynch					
401.93	3.4	High Yield Constrained	5.696	5.568	7.850
403.66	5.0	Triple-C-rated	10.004	9.584	17.336
2771.52	3.3	High Yield 100	5.329	5.200	6.804
364.93	3.6	Global High Yield Constrained	5.332	5.256	7.368
293.93	2.4	Europe High Yield Constrained	2.879	2.879	4.840
U.S Agency Bloomberg Barclays					
1624.98	1.3	U.S Agency	1.760	1.150	1.960
1458.42	0.8	10-20 years	1.560	0.960	1.750
3257.70	4.3	20-plus years	3.040	2.390	3.460
2397.87	2.4	Yankee	2.770	2.320	3.090
Mortgage-Backed Bloomberg Barclays					
1960.41	1.0	Mortgage-Backed	2.790	1.930	3.120
1934.84	0.9	Ginnie Mae (GNMA)	2.740	1.850	3.090
1147.82	1.1	Fannie mae (FNMA)	2.800	1.950	3.120
1767.11	1.1	Freddie Mac (FHLMC)	2.820	1.980	3.130
510.26	2.3	Muni Master	2.019	1.297	2.516
356.78	2.7	7-12 year	2.037	1.300	2.618
395.31	2.5	12-22 year	2.596	1.610	3.047
380.14	2.4	22-plus year	3.121	2.027	3.622
Global Government J.P. Morgan†					
n.a.	n.a.	Global Government	n.a.	n.a.	n.a.
n.a.	n.a.	Canada	n.a.	n.a.	n.a.
n.a.	n.a.	EMU§	n.a.	n.a.	n.a.
n.a.	n.a.	France	n.a.	n.a.	n.a.
n.a.	n.a.	Germany	n.a.	n.a.	n.a.
n.a.	n.a.	Japan	n.a.	n.a.	n.a.
n.a.	n.a.	Netherlands	n.a.	n.a.	n.a.
n.a.	n.a.	U.K.	n.a.	n.a.	n.a.
778.71	5.4	Emerging Markets **	5.546	5.134	6.290

*Constrained indexes limit individual issuer concentrations to 2%; the High Yield 100 are the 100 largest bonds † In local currency § Euro-zone bonds
** EMBI Global Index

Sources: Merrill Lynch; Bloomberg Barclays; J.P.Morgan

Global Government Bonds: Mapping Yields

Yields and spreads over or under U.S. Treasurys on benchmark two-year and 10-year government bonds in selected other countries; arrows indicate whether the yield rose(▲) or fell (▼) in the latest session

Coupon (%)	Country/ Maturity, in years	Yield (%) Latest	Previous	Month ago	Year ago	Spread Under/Over U.S. Treasurys, in basis points Latest	Prev	Year ago
1.250	U.S. 2	1.234 ▲	1.188	1.253	0.822			
2.250	10	2.270 ▲	2.248	2.413	1.889			
5.250	Australia 2	1.669 ▲	1.666	1.767	2.059	43.5	47.8	123.7
4.750	10	2.607 ▲	2.549	2.761	2.643	33.7	30.1	75.4
0.000	France 2	-0.444 ▼	-0.303	-0.493	-0.462	-167.8	-149.1	-128.4
1.000	10	0.833 ▼	0.939	0.996	0.567	-143.7	-130.9	-132.2
0.000	Germany 2	-0.696 ▲	-0.790	-0.739	-0.495	-192.9	-197.9	-131.6
0.250	10	0.330 ▲	0.255	0.406	0.234	-194.0	-199.3	-165.5
0.300	Italy 2	-0.067 ▼	-0.012	-0.078	0.005	-130.0	-120.0	-81.6
2.200	10	2.190 ▼	2.280	2.228	1.486	-8.0	3.2	-40.3
0.100	Japan 2	-0.209 ▲	-0.220	-0.259	-0.288	-144.2	-140.8	-111.0
0.100	10	0.022 ▲	0.016	0.065	-0.125	-224.8	-223.2	-201.4
2.750	Spain 2	-0.223 ▼	-0.180	-0.197	-0.029	-145.6	-136.9	-85.0
1.500	10	1.605 ▼	1.695	1.696	1.595	-66.5	-55.3	-29.4
1.750	U.K. 2	0.083 ▼	0.099	0.153	0.514	-115.0	-108.9	-30.8
4.250	10	1.051 ▲	1.036	1.198	1.602	-121.9	-121.3	-28.7

Source: Tullett Prebon

Corporate Debt

Price moves by a company's debt in the credit markets sometimes mirror and sometimes anticipate moves in that same company's share price.

Investment-grade spreads that tightened the most...

Issuer	Symbol	Coupon (%)	Maturity	Spread*, in basis points Current	One-day change	Last week	Stock Performance Close ($)	% chg
Societe Generale S.A.	SOCGEN	6.000	Jan. 27, '49	396	–112	n.a.	...	...
Bnp Paribas	BNP	6.750	March 14, '49	279	–61	361	...	...
RPM International	RPM	2.250	Dec. 15, '20	103	–42	n.a.	52.65	1.43
Citigroup	C	5.875	March 27, '49	132	–25	n.a.	59.44	2.98
Credit Agricole S.A.	ACAFP	4.375	March 17, '25	182	–24	n.a.	...	...
Intesa Sanpaolo Spa	ISPIM	5.017	June 26, '24	373	–21	388	...	...
Johnson & Johnson	JNJ	2.050	March 1, '23	28	–19	n.a.	122.89	0.93
Nationwide Building Society	NWIDE	4.000	Sept. 14, '26	183	–17	n.a.	...	...

...And spreads that widened the most

Issuer	Symbol	Coupon (%)	Maturity	Current	One-day change	Last week	Close ($)	% chg
Bd*	BDX	5.000	Nov. 12, '40	210	69	148	...	...
CenterPoint Energy Houston Electric	CNP	9.150	March 15, '21	89	25	97	...	...
Apollo Investment	AINV	5.250	March 3, '25	295	17	n.a.	6.68	0.91
Capital One NA	COF	2.400	Sept. 5, '19	100	9	n.a.	...	...
Plains All American Pipeline	PAA	4.650	Oct. 15, '25	186	9	n.a.	29.92	0.03
Cabot	CBT	3.700	July 15, '22	127	8	n.a.	60.34	2.20
Cenovus Energy	CVECN	4.250	April 15, '27	207	6	196	...	...
Staples	SPLS	4.375	Jan. 12, '23	251	6	n.a.	9.88	1.65

High-yield issues with the biggest price increases...

Issuer	Symbol	Coupon (%)	Maturity	Bond Price as % of face value Current	One-day change	Last week	Stock Performance Close ($)	% chg
Vistajet Malta Finance	VSTJET	7.750	June 1, '20	85.500	2.50	84.250	...	...
Pactiv	REYNOL	7.950	Dec. 15, '25	110.750	2.38	n.a.	...	...
SFR S.A.	SFRFP	7.375	May 1, '26	104.500	2.00	102.844	...	...
Kindred Healthcare	KND	6.375	April 15, '22	98.685	1.69	n.a.	8.90	–8.25
Ensco	ESV	5.200	March 15, '25	86.783	1.53	87.000	8.40	0.96
Claire's Stores	CLE	9.000	March 15, '19	46.500	1.50	43.500	...	...
L Brands	LB	6.875	Nov. 1, '35	97.469	1.47	94.000	50.69	1.71
Novelis	HNDLIN	6.250	Aug. 15, '24	105.500	1.25	n.a.	...	...

...And with the biggest price decreases

Issuer	Symbol	Coupon (%)	Maturity	Current	One-day change	Last week	Close ($)	% chg
Noble Holding International	NE	7.750	Jan. 15, '24	91.500	–1.38	96.250	...	...
United Rentals	URI	5.500	May 15, '27	101.000	–1.25	102.000	113.56	1.88
Rowan	RDC	7.375	June 15, '25	99.000	–1.13	n.a.	14.37	0.70
ADT	ADT	3.500	July 15, '22	95.500	–0.88	96.125	...	...
Albertsons	ALBLLC	5.750	March 15, '25	97.000	–0.88	n.a.	...	...
United Continental Holdings	UAL	5.000	Feb. 1, '24	99.252	–0.81	n.a.	71.00	2.07
Goodyear Tire & Rubber	GT	4.875	March 15, '27	100.125	–0.67	98.750	35.91	1.58
Royal Caribbean Cruises	RCL	5.250	Nov. 15, '22	110.688	–0.61	n.a.	97.44	0.11

*Estimated spread over 2-year, 3-year, 5-year, 10-year or 30-year hot-run Treasury; 100 basis points=one percentage pt.; change in spread shown is for Z-spread.
Note: Data are for the most active issue of bonds with maturities of two years or more

Sources: MarketAxess Corporate BondTicker; WSJ Market Data Group

BIGGEST 1,000 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, CBOE, 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.

Footnotes:

- ▲-New 52-week high.
- ▼-New 52-week low.
- **dd**-Indicates loss in the most recent four quarters.
- **FD**-First day of trading.
- **h**-Does not meet continued listing standards
- **lf**-Late filing
- **q**-Temporary exemption from Nasdaq requirements.
- **t**-NYSE bankruptcy
- **v**-Trading halted on primary market.
- **vj**-In bankruptcy or receivership or being reorganized under the Bankruptcy Code, or securities assumed by such companies.

Wall Street Journal stock tables reflect composite regular trading as of 4 p.m. and changes in the closing prices from 4 p.m. the previous day.

Monday, April 24, 2017

NYSE

Stock	Sym	Close	Net Chg
▲ ABB	ABB	23.93	0.61
AES	AES	11.59	0.21
▲ Aflac	AFL	74.65	0.66
AT&T	T	40.02	0.09
AXIS Capital	AXS	66.79	0.59

Stock	Sym	Close	Net Chg
BCE	BCE	45.46	0.03
BHPBilliton	BHP	36.16	0.40
BHPBilliton	BBL	31.28	0.53
BP	BP	34.45	0.45
BRF	BRFS	12.95	0.24
BT Group	BT	20.24	0.19
BakerHughes	BHI	58.65	0.97
Ball	BLL	74.39	0.71

Stock	Sym	Close	Net Chg
CenturyLink	CTL	25.45	0.13
▲ Chemours	CC	39.22	1.69
Chevron	CVX	105.93	1.04
ChinaEastrnAir	CEA	27.72	0.27
ChinaLifeIns	LFC	14.74	0.21
ChinaMobile	CHL	53.25	-0.62
ChinaPetrol	SNP	81.38	0.54
ChinaSoAirlines	ZNH	33.99	0.48

New Highs and Lows | WSJ.com/newhighs

The following explanations apply to the New York Stock Exchange, NYSE Arca, NYSE MKT and Nasdaq Stock Market stocks that hit a new 52-week intraday high or low in the latest session. % CHG-Daily percentage change from the previous trading session.

Monday, April 24, 2017

NYSE highs - 252

NYSE lows - 16

NYSE Arca highs - 244

NYSE Arca lows - 24

NYSE MKT highs - 11

NYSE MKT lows - 5

Nasdaq highs - 262

Nasdaq lows - 47

Dividend Changes

Dividend announcements from April 24.

Company	Symbol	Yld %	Amount New/Old	Frq	Payable / Record
Increased					
American Water Works	AWK	2.1	.415/.375	Q	Jun01/May05
CONE Midstream Partners	CNNX	5.2	.2821/.2724	Q	May15/May04
Dominion Midstream Ptrs	DM	3.5	.274/.2605	Q	May15/May05
NextEra Energy Partners	NEP	4.3	.365/.3525	Q	May15/May08
Rice Midstream Partners	RMP	4.2	.2608/.2505	Q	May18/May09
Value Line	VALU	4.2	.18/.17	Q	May11/May02
Reduced					
CSI Compressco	CCLP	9.0	.1875/.3775	Q	May15/May01
Initial					
JPMorgan Gl Bd Opps	JPGB		.07327		Apr28/Apr26
Funds and investment companies					
Adams Divers Equity Fd	ADX	1.4	.05	Q	Jun01/May12
Adams Natural Rscs Fd	PEO	2.1	.10	Q	Jun01/May12
AdvisorSh Pac Asst Enh FR	FLRT	3.4	.14105	M	Apr28/Apr26
AdvisorShares Newfleet	MINC	2.5	.10116	M	Apr28/Apr26
AdvisorShares Sage Core	HOLD	1.2	.09568	M	Apr28/Apr26
AdvisorShs Peritus Hi Yd	HYLD	7.2	.21356	M	Apr28/Apr26
Apollo Sr Fltg Rate Fd	AFT	6.2	.09	M	May31/May18
Apollo Tactical Incm Fd	AIF	7.9	.11	M	May31/May18
Elkhorn S&P High Qual Pfd	EPRF	6.9	.14	M	Apr28/Apr26
JPMorgan Disciplined HY	JPHY	4.8	.2044	M	Apr28/Apr26
Madrona Global Bond	FWDB	2.4	.05085	M	Apr28/Apr26
WisdmTr Bloomberg FR Trea	USFR	0.7	.015	M	Apr28/Apr26
WisdomTree Emg Mkts Corp	EMCB	4.2	.25	M	Apr28/Apr26
WisdomTree Fd US HY Cp Bd	WFHY	5.4	.23	M	Apr28/Apr26
WisdomTree Fund Cp Bd Fd	WFIG	2.6	.105	M	Apr28/Apr26
WisdomTree Fund US ST Cp	SFIG	1.6	.065	M	Apr28/Apr26
WisdomTree Fund US ST HY	SFHY	4.7	.195	M	Apr28/Apr26
WisdomTree High Div Fund	DHS	1.6	.09	M	Apr28/Apr26
WisdomTree SmallCap Div	DES	0.7	.05	M	Apr28/Apr26
WisdomTree Strat Corp Bd	CRDT	3.4	.21	M	Apr28/Apr26
WisdomTree US Agg Bd	AGGY	2.9	.12	M	Apr28/Apr26
WisdTree Wstn Asset Uncon	UBND	3.0	.125	M	Apr28/Apr26
WisTree Div Ex-Finls	DTN	1.0	.07	M	Apr28/Apr26
WisTree Tr LC Div	DLN	1.3	.09	M	Apr28/Apr26
WisTree Tr MC Div	DON	0.5	.045	M	Apr28/Apr26
WisTree Tr Total Div	DTD	1.3	.09	M	Apr28/Apr26
WisTree US Qlty Div Grwth	DGRW	1.2	.035	M	Apr28/Apr26
WisTree US SmCp Qlty Div	DGRS	0.7	.02	M	Apr28/Apr26
WM EM Local Debt	ELD	4.6	.145	M	Apr28/Apr26
WT Asia Local Debt	ALD	1.8	.065	M	Apr28/Apr26
WT Barclays US Agg Bd Neg	AGZD	2.4	.095	M	Apr28/Apr26
WT Barclays US Agg Bd Neg	AGND	2.4	.085	M	Apr28/Apr26
WT Interest Rt Hdg HY Bd	HYZD	5.0	.10	M	Apr28/Apr26
WT Neg Dur HY Bd Fd	HYND	4.6	.08	M	Apr28/Apr26
Foreign					
Dynagas LNG 9% Pfd. A	DLNGpA	8.5	.5625	Q	May12/May05
Fresenius Medical ADR	FMS	1.2	.51365	A	May26/May15
Unilever ADR	UN	2.9	.3828	Q	Jun07/May05
Unilever ADR	UL	3.0	.3828	Q	Jun07/May05

KEY: A: annual; M: monthly; Q: quarterly; r: revised; SA: semiannual; S2:1: stock split and ratio; SO: spin-off.

Treasury's New Key Man

By Ryan Tracy

WASHINGTON—After Donald Trump won the presidency, Craig Phillips shifted gears. The recent retiree from **BlackRock** Inc. had been donating to Hillary Clinton's campaign and angling for a job in a Democratic administration.

Immediately following the November election, Mr. Phillips logged on to Mr. Trump's new transition website, GreatAgain.gov, and filled out a form for volunteers, according to people familiar with the matter.

Five months later, he has emerged as a central figure in Mr. Trump's understaffed Treasury Department, helming the administration's plan for financial deregulation and serving as a key point of contact with the financial industry.

Mr. Phillips is one of the many deal-making Wall Street millionaires who the Trump team has tapped for a first-time government role, and he embodies both the potential advantages and pitfalls of that experience. Former colleagues described him as both a brilliant financier and a volatile boss prone to dressing down subordinates with expletive-laced tongue-lashings.

Mr. Phillips's influence as a counselor to Treasury Secretary Steven Mnuchin may continue for the foreseeable future. Mr. Trump has nominated other senior Treasury officials but not an undersecretary of domestic finance, which is an area on which Mr. Phillips is advising the Treasury.

Through a Treasury spokeswoman, Mr. Phillips declined to comment. The spokeswoman in a statement said Mr. Phillips has "forty years of domestic and global capital markets experience" and "is dedicated to lending his expertise to public service, and he is a key member of our team at the Treasury."

She said he "has formally registered as a Republican and is committed to the president's vision and leadership of the party and country."

His primary job at the Treasury Department is to craft a response to Mr. Trump's February executive order asking for a broad review by the department of financial regulations in order to determine whether they are consistent with goals such as expanding the economy.

As officials gather ideas from industry executives, advocacy groups and others about what regulations should be scrapped or changed, Mr. Phillips, 62 years old, has often been the senior Treasury representative in the room.

Mr. Phillips didn't speak much publicly about his regulatory views during his time at BlackRock, which began during the 2008 financial crisis. What he has said suggests he saw the Obama administration's regulatory approach as too aggressive, while rejecting some conservatives' views that the government should have little if any role in backstopping financial markets.

In August 2015, during a round-table discussion on housing finance, Mr. Phillips said regulations are restricting big banks from playing their role as financial-market middlemen.

"We worry about it at BlackRock," he said. "Some of the banking policies that protect the bank balance sheets aren't really thinking about market liquidity."

Discussing the financial crisis in December 2008 at the National Press Club, he said he felt terrible about the level of government support of the financial system at that time, but government actions such as injecting capital into banks were "critical because we can't have systematic failure and a breakdown in all markets."

Besides the regulatory review, Mr. Phillips also appears primed to play a role in other Treasury initiatives, such as Mr. Mnuchin's goal of re-examining the U.S. housing-finance industry.

He and Mr. Mnuchin have known each other for decades, having both worked in the mortgage-finance business—Mr. Mnuchin at Goldman Sachs Group Inc. and Mr. Phillips at Credit Suisse First Boston and then Morgan Stanley.

Mr. Phillips grew up in Orlando, Fla., and has said he dreamed of being an astronaut or surgeon before settling on finance.

His first job on Wall Street in 1976 was with Kuhn Loeb & Co. at 40 Wall St., a property now known as the Trump Building.

Former colleagues say he had a talent for attacking complex problems.

"Easily one of the five smartest people I have known in my 25-year career," said Arvind Bajaj, a real-estate investor who worked for Mr. Phillips at Morgan Stanley.

—Sarah Krouse contributed to this article.

STEFAN FALKE/LAIF/REDUX

Craig Phillips has emerged as a central figure at Treasury, advising on financial deregulation.

China Pollution Push Benefits Aluminum

By David Hodari

Pollution is helping the price of aluminum to thrive.

The metal has defied the recent selloff in copper, lead and other industrial metals, in anticipation of a Chinese clampdown on pollution that is expected to lead to the closure of some aluminum smelters this year.

Most industrial metals have been hit by concerns that Chinese demand is waning and the fading of the global reflation trade—the rally pinned to expectations of higher economic growth and inflation since the election of President Donald Trump.

But aluminum has risen 4.1% in the past three months and is up 15% in London in the year to date. That is against a fall of 7.6% in the year so far for nickel and a gain of 2.4% for copper.

In late February, China's government issued directives aimed at tackling smog created by burning coal, moves that some analysts say could later this year cut as much as 30% of aluminum production from a country that accounts for roughly half of the world's output.

Most global aluminum producers use a mix of electricity sources, but China's energy-intensive smelters receive 90% of their power from coal, according to the International Aluminium Institute, an industry body.

Smelters in China's Henan, Shandong and Shanxi provinces are due to close this coming winter, in a move that would remove 6% of global capacity at that time, according to ETF Securities.

"That could be enough to tip the global balance of aluminum into a deficit," said Nitesh Shah, a commodities strategist at the firm.

Though similar government directives have been broadly ignored by provincial authorities in the past, there are signs that Beijing is taking a tougher stance this time, said Caroline Bain, an economist at Capital Economics.

Since those February directives, the Chinese government has halted construction at three smelters in Xinjiang province, she said.

Shares in aluminum producers have risen with the metal. The stock of **Aluminum Corp. of China** has increased nearly 24% year to date, while Russia's **United Co. Rusal** has gained nearly 17%. U.S. firm **Alcoa** Corp. is up about 19% from the start of the year.

Some analysts question how long the price bump will last.

With the smelting ban only hitting facilities close to major cities, those in unaffected areas may capitalize on higher aluminum prices by increasing production.

The short-term direction of aluminum prices depends on whether other regions can raise production at a rate that outpaces the cuts in China, said Xiao Fu, head of commodities research at BOCI Global Commodities.

ANDREY RUDAKOV/BLOOMBERG NEWS

Bound aluminum ingots at a United Co. Rusal warehouse.

Mutual Funds | WSJ.com/fundresearch

Explanatory Notes

Data provided by LIPPER

Top 250 mutual-funds listings for Nasdaq-published share classes with net assets of at least $500 million each. **NAV** is net asset value. Percentage performance figures are total returns, assuming reinvestment of all distributions and after subtracting annual expenses. Figures don't reflect sales charges ("loads") or redemption fees. **NET CHG** is change in NAV from previous trading day. **YTD%RET** is year-to-date return. **3-YR%RET** is trailing three-year return annualized.

e-Ex-distribution. **f**-Previous day's quotation. **g**-Footnotes x and s apply. **j**-Footnotes e and s apply. **k**-Recalculated by Lipper, using updated data. **p**-Distribution costs apply, 12b-1. **r**-Redemption charge may apply. **s**-Stock split or dividend. **t**-Footnotes p and r apply. **v**-Footnotes x and e apply. **x**-Ex-dividend. **z**-Footnote x, e and s apply. **NA**-Not available due to incomplete price, performance or cost data. **NE**-Not released by Lipper; data under review. **NN**-Fund not tracked. **NS**-Fund didn't exist at start of period.

Monday, April 24, 2017

Fund	NAV	Net Chg	YTD %Ret
American Century Inv			
Ultra	38.87	+0.41	11.4
American Funds Cl A			
AmcpA p	29.08	+0.33	6.8
AMutlA p	38.45	+0.34	4.9
BalA p	25.95	+0.17	5.0
BondA p	12.88	-0.02	1.8
CapIBA p	60.38	+0.69	5.6
CapWGrA	47.48	+0.77	8.8
EupacA p	50.48	+0.92	11.9
FdInvA p	58.38	+0.71	7.5
GwthA p	45.88	+0.53	9.1
HI TrA p	10.41	+0.02	3.1
ICAA p	38.28	+0.43	6.1
IncoA p	22.41	+0.22	4.2
N PerA p	39.39	+0.59	11.5
NEcoA p	40.30	+0.58	12.1
NwWrldA	58.14	+0.77	13.0
SmCpA p	50.77	+0.57	10.4
TxExA p	12.88	-0.03	2.1
WshA p	42.82	+0.41	5.0
AMG Managers Funds			
YacktmanFd I	22.87	+0.18	6.9
Baird Funds			
AggBdInst	10.84	-0.01	1.9
CorBdInst	11.18	-0.01	2.0
BlackRock Funds A			
GlblAlloc p	19.15	+0.18	5.3
BlackRock Funds C			
GlblAlloc t	17.39	+0.16	5.1
BlackRock Funds Inst			
EqtyDivd	23.24	+0.33	3.5
GlblAlloc	19.27	+0.18	5.4
HiYldBd	7.76	+0.02	3.4
StratIncOpptyIns	9.89	+0.02	1.6
Del Invest Instl			
Value	20.17	+0.17	2.9
Dimensional Fds			
5GlbFxdInc	10.97	-0.02	1.3
EmgMktVa	27.48	+0.33	14.7
EmMktCorEq	19.93	+0.19	14.8
IntlCoreEq	12.76	+0.27	9.6
IntSmCo	19.11	+0.31	10.7
IntSmVa	20.81	+0.37	9.4
US CoreEq1	20.32	+0.24	5.8
US CoreEq2	19.42	+0.23	4.7
US Small	34.38	+0.49	1.8
US SmCpVal	37.07	+0.56	-0.8
US TgdVal	24.03	+0.34	0.3
USLgVa	36.28	+0.43	3.8
Dodge & Cox			
Balanced	105.20	+0.96	3.9
Income	13.72	-0.01	1.8
Intl Stk	42.28	+1.17	11.0
Stock	189.79	+2.67	4.9
DoubleLine Funds			
TotRetBdI	NA	...	NA
TotRetBdN	NA	...	NA
Federated Instl			
StraValDivIS	6.20	+0.06	5.7
Fidelity			
500IdxInst	83.09	+0.90	6.7
500IdxInstPrem	83.08	+0.89	6.7
500IdxPrem	83.08	+0.89	6.7
ExtMktIdxPrem r	57.93	+0.64	5.6
IntlIdxPrem r	38.81	+0.95	10.0
TMktIdxF r	68.41	+0.74	6.5
TMktIdxPrem	68.41	+0.74	6.5
USBdIdxInstPrem	11.59	-0.02	1.7
Fidelity Advisor I			
NwInsghtI	29.32	+0.40	9.8
Fidelity Freedom			
FF2020	15.85	+0.13	5.7
FF2025	13.63	+0.13	6.1
FF2030	16.90	+0.19	7.0
FreedomK2020	14.75	+0.12	5.7
FreedomK2025	15.48	+0.14	6.1
FreedomK2030	15.93	+0.18	7.1
FreedomK2035	16.60	+0.21	7.7
FreedomK2040	16.63	+0.21	7.7
Fidelity Invest			
Balanc	23.37	+0.17	6.5
BluCh	76.64	+0.99	13.8
Contra	109.43	+1.45	11.9
ContraK	109.38	+1.45	11.9
CpInc r	10.05	+0.04	4.8
DivIntl	37.09	+0.82	11.4
GroCo	152.13	+1.89	11.2
GrowCoK	152.02	+1.89	11.3
InvGB	7.88	-0.01	1.8
InvGrBd	11.23	-0.01	2.0
LowP r	52.48	+0.57	6.1
LowPriStkK r	52.44	+0.57	6.1
MagIn	97.76	+1.40	7.0
OTC	95.97	+1.21	15.2
Puritn	21.80	+0.19	6.3
SrsEmrgMktF	18.22	+0.19	15.8
SrsInvGrdF	11.23	-0.02	2.0
TotalBond	10.65	-0.01	2.1
Fidelity Selects			
Biotech r	198.79	+2.89	14.2
First Eagle Funds			
GlbA	57.57	+0.57	6.1
FPA Funds			
FPACres	NA	...	NA
FrankTemp/Frank Adv			
IncomeAdv	2.32	+0.01	3.1
FrankTemp/Franklin A			
CA TF A p	7.42	-0.02	2.6
Fed TF A p	12.04	-0.01	1.6
IncomeA p	2.34	+0.02	3.0
RisDv A p	55.36	+0.51	5.5
FrankTemp/Franklin C			
Income C t	2.37	+0.02	3.3
FrankTemp/Temp A			
GlBond A p	12.35	...	3.8
Growth A p	25.06	+0.53	6.4
FrankTemp/Temp Adv			
GlBondAdv p	12.31	+0.01	3.9
Harbor Funds			
CapApInst	63.66	+0.86	12.4
IntlInst r	NA	...	NA
Invesco Funds A			
EqIncA	10.77	+0.11	2.4
John Hancock Class 1			
LSBalncd	14.99	+0.13	5.5
LSGwth	15.70	+0.18	6.8
John Hancock Instl			
DispValMCI	22.44	+0.26	4.5
JPMorgan Funds			
MdCpVal L	38.18	+0.38	4.9
JPMorgan I Class			
CoreBond	11.62	-0.02	1.8
JPMorgan R Class			
CoreBond	11.63	-0.02	1.8
Lazard Instl			
EmgMktEq	17.91	+0.28	12.2
Loomis Sayles Fds			
LSBondI	14.00	+0.03	4.0
Lord Abbett A			
ShtDurIncmA p	4.31	...	1.2
Lord Abbett F			
ShtDurIncm	4.30	...	1.2
Metropolitan West			
TotRetBd	10.63	-0.02	1.4
TotRetBdI	10.63	-0.01	1.6
TRBdPlan	10.00	-0.02	1.6
MFS Funds Class I			
ValueI	37.94	+0.50	5.1
Mutual Series			
GlbDiscA	31.96	+0.51	4.5
GlbDiscz	32.57	+0.52	4.6
Oakmark Funds Invest			
EqtyInc r	31.67	+0.32	4.1
Oakmark	75.48	+1.17	4.1
OakmrkInt	25.53	+0.79	12.5
Old Westbury Fds			
LrgCpStr	13.81	+0.17	7.6
Oppenheimer Y			
DevMktY	36.11	+0.36	12.9
IntGrowY	38.61	+0.99	11.3
Parnassus Fds			
ParnEqFd	40.90	+0.40	4.4
PIMCO Fds Instl			
AllAsset	NA	...	NA
HiYld	8.94	+0.03	3.2
TotRt	10.18	-0.03	2.4
PIMCO Funds A			
IncomeFd	NA	...	NA
PIMCO Funds D			
IncomeFd	NA	...	NA
PIMCO Funds Instl			
IncomeFd	NA	...	NA
PIMCO Funds P			
IncomeP	NA	...	NA
Price Funds			
BlChip	81.91	+1.10	12.8
CapApp	27.89	+0.19	6.5
EqInc	32.42	+0.38	3.3
EqIndex	63.84	+0.68	6.6
Growth	60.47	+0.78	13.6
HelSci	65.77	+0.68	11.3
InstlCapG	33.09	+0.43	13.2
IntlValEq	14.00	+0.30	9.3
IntlStk	17.21	+0.33	12.6
MCapGro	82.62	+0.91	9.6
MCapVal	29.95	+0.25	3.1
N Horiz	48.61	+0.45	12.2
N Inc	9.46	-0.01	1.8
OverS SF r	10.01	+0.24	10.4
R2015	14.92	+0.10	5.2
R2020	21.66	+0.19	6.1
R2025	16.56	+0.16	6.8
R2030	24.20	+0.26	7.4
R2035	17.59	+0.21	8.0
R2040	25.15	+0.31	8.4
Ret2045	16.95	+0.22	8.5
SmCapStk	47.07	+0.58	4.8
Value	35.48	+0.45	5.4
Principal Investors			
DivIntlInst	NA	...	NA
Prudential Cl Z & I			
TRBdZ	14.34	-0.02	2.8
Schwab Funds			
S&P Sel	36.72	+0.40	6.7
TIAA/CREF Funds			
EqIdxInst	17.66	+0.19	6.4
Tweedy Browne Fds			
GblValue	26.90	+0.45	7.4
VANGUARD ADMIRAL			
500Adml	219.33	+2.35	6.7
BalAdml	32.37	+0.19	4.6
CAITAdml	11.71	-0.02	2.4
CapOpAdml r	136.21	+2.19	9.6
EMAdmr	33.24	+0.28	11.8
EqIncAdml	71.16	+0.84	4.8
ExtndAdml	76.56	+0.85	5.6
GNMAAdml	10.54	-0.03	0.8
GrwthAdml	63.36	+0.60	10.9
HlthCareAdml r	83.69	+0.75	10.4
HYCorAdml r	5.90	+0.01	2.9
InfProAd	25.88	...	1.7
IntlGrAdml	78.14	+1.76	16.1
ITBondAdml	11.41	-0.02	2.3
ITIGradeAdml	9.77	-0.01	2.3
LTGradeAdml	10.22	-0.03	2.9
MidCpAdml	174.24	+1.99	7.3
MuHYAdml	11.18	-0.03	2.8
MuIntAdml	14.08	-0.03	2.3
MuLTAdml	11.52	-0.03	2.4
MuLtdAdml	10.95	-0.01	1.5
MuShtAdml	15.78	-0.01	0.7
PrmcpAdml r	118.92	+1.71	9.3
REITAdml r	119.29	-1.26	2.8
SmCapAdml	64.40	+0.66	4.6
STBondAdml	10.47	-0.01	0.9
STIGradeAdml	10.68	-0.01	1.2
TotBdAdml	10.74	-0.02	1.6
TotIntBdIdxAdm	21.74	...	0.6
TotIntlAdmIdx r	27.08	+0.53	10.3
TotStAdml	59.45	+0.64	6.5
TxMIn r	12.84	+0.28	9.8
ValAdml	37.24	+0.44	3.4
WdsrllAdml	65.33	+0.86	4.8
WellsIAdml	63.03	+0.25	2.8
WelltnAdml	69.74	+0.63	4.0
WndsrAdml	73.38	+0.93	6.0
VANGUARD FDS			
DivdGro	24.90	+0.20	6.9
HlthCare r	198.43	+1.79	10.4
IntlVal	35.03	+0.77	10.3
INSTTRF2020	21.15	+0.16	5.0
INSTTRF2025	21.23	+0.18	5.6
INSTTRF2030	21.28	+0.22	6.1
INSTTRF2035	21.32	+0.24	6.6
INSTTRF2040	21.36	+0.26	7.1
INSTTRF2045	21.43	+0.28	7.3
LifeCon	19.09	+0.09	3.9
LifeGro	30.78	+0.35	6.6
LifeMod	25.43	+0.21	5.3
PrmcpCor	24.04	+0.36	8.4
SelValu r	30.56	+0.31	6.2
STAR	25.16	+0.23	6.3
STIGrade	10.68	-0.01	1.1
TgtRe2015	15.12	+0.09	4.2
TgtRe2020	29.68	+0.23	5.0
TgtRe2025	17.26	+0.15	5.6
TgtRe2030	30.98	+0.31	6.1
TgtRe2035	18.91	+0.21	6.6
TgtRe2040	32.36	+0.40	7.1
TgtRe2045	20.27	+0.26	7.3
TgtRe2050	32.61	+0.42	7.3
TgtRetInc	13.17	+0.05	3.2
TotIntBdIxInv	10.87	...	0.5
WellsI	26.02	+0.10	2.8
Welltn	40.38	+0.36	4.0
WndsrII	36.81	+0.48	4.8
VANGUARD INDEX FDS			
500	219.32	+2.36	6.6
ExtndIstPl	188.93	+2.10	5.6
SmValAdml	53.14	+0.60	2.7
TotBd2	10.70	-0.02	1.6
TotIntl	16.19	+0.32	10.2
TotSt	59.43	+0.64	6.5
VANGUARD INSTL FDS			
BalInst	32.38	+0.19	4.6
DevMktsIndInst	12.86	+0.28	9.9
ExtndInst	76.56	+0.85	5.6
GrwthInst	63.36	+0.60	10.9
InPrSeIn	10.54	...	1.7
InstIdx	216.40	+2.33	6.7
InstPlus	216.41	+2.32	6.7
InstTStPlus	53.33	+0.58	6.5
MidCpInst	38.49	+0.44	7.3
MidCpIstPl	189.83	+2.17	7.3
SmCapInst	64.40	+0.66	4.6
SmCapIstPl	185.88	+1.90	4.6
STIGradeInst	10.68	-0.01	1.2
TotBdInst	10.74	-0.02	1.6
TotBdInst2	10.70	-0.02	1.6
TotBdInstPl	10.74	-0.02	1.6
TotIntBdIdxInst	32.63	...	0.6
TotIntlInstIdx r	108.31	+2.14	10.3
TotItlInstPlId r	108.33	+2.14	10.3
TotStInst	59.46	+0.64	6.5
ValueInst	37.24	+0.45	3.4
Western Asset			
CorePlusBdI	NA	...	NA

Exchange-Traded Portfolios | WSJ.com/ETFresearch

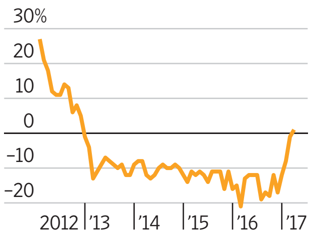
Largest 100 exchange-traded funds, latest session

Monday, April 24, 2017

ETF	Symbol	Closing Price	Chg (%)	YTD (%)
AlerianMLPETF	AMLP	12.63	0.56	0.2
CnsmrDiscSelSector	XLY	88.82	0.65	9.1
CnsStapleSelSector	XLP	55.50	0.91	7.3
DBGoldDoubleLgETN	DGP	24.45	–1.23	21.5
DBGoldDoubleShrt	DZZ	5.61	–5.08	–18.2
DeutscheXMSCIEAFE	DBEF	29.85	2.12	6.4
EnSelectSectorSPDR	XLE	68.19	0.59	–9.5
FinSelSectorSPDR	XLF	23.68	2.25	1.8
GuggS&P500EW	RSP	91.39	0.98	5.5
HealthCareSelSect	XLV	74.41	0.99	7.9
IndSelSectorSPDR	XLI	66.34	1.42	6.6
iShIntermCredBd	CIU	109.54	–0.07	1.2
iSh1-3YCreditBond	CSJ	105.32	–0.02	0.4
iSh3-7YTreasuryBd	IEI	123.80	–0.15	1.1
iShCoreHiDividend	HDV	83.50	0.71	1.5
iShCoreMSCIEAFEETF	IEFA	59.24	2.46	10.5
iShCoreMSCIEmgMk	IEMG	48.38	1.21	14.0
iShCoreS&P500ETF	IVV	238.64	1.06	6.1
iShCoreS&PMdCp	IJH	173.17	1.24	4.7
iShCoreS&PSmCpETF	IJR	69.72	1.25	1.4
iShS&PTotlUSStkMkt	ITOT	54.38	1.04	6.0
iShCoreUSAggBd	AGG	109.18	–0.15	1.0
iShSelectDividend	DVY	92.05	0.97	3.9
iShEdgeMSCIMinEAFE	EFAV	67.36	1.54	10.0
iShEdgeMSCIMinUSA	USMV	48.32	0.75	6.9
iShGoldTr	IAU	12.29	–0.65	10.9
iShiBoxx$InvGrCpBd	LQD	118.92	–0.13	1.5
iShiBoxx$HYCpBd	HYG	88.01	0.47	1.7
iShJPMUSDEmgBd	EMB	114.89	0.31	4.2
iShMBSETF	MBB	106.98	–0.13	0.6
iShMSCIACWIETF	ACWI	63.98	1.52	8.1
iShMSCI EAFE	EFA	63.54	2.53	10.1
iShMSCIEAFESC	SCZ	55.66	1.83	11.7
iShMSCIEmgMarkets	EEM	39.85	1.43	13.8
iShMSCIEurozoneETF	EZU	39.31	5.15	13.6
iShMSCIJapanETF	EWJ	51.82	0.70	6.1
iShNasdaqBiotech	IBB	291.74	1.48	9.9
iShNatlMuniBdETF	MUB	109.50	–0.24	1.2
iShRussell1000Gwth	IWF	115.24	1.03	9.9
iShRussell1000ETF	IWB	132.07	1.06	6.1
iShRussell1000Val	IWD	114.89	1.12	2.6
iShRussell2000Gwth	IWO	163.65	1.29	6.3
iShRussell2000ETF	IWM	138.92	1.25	3.0
iShRussell2000Val	IWN	119.12	1.30	0.2
iShRussell3000ETF	IWV	140.79	1.07	5.9
iShRussellMid-Cap	IWR	188.98	1.06	5.7
iShRussellMCValue	IWS	83.55	0.92	3.9
iShS&PMC400Growth	IJK	193.85	1.13	6.4
iShS&P500Growth	IVW	133.02	0.99	9.2
iShS&P500ValueETF	IVE	103.97	1.11	2.6
iShS&PMC400Value	IJJ	149.34	1.23	2.8
iShUSPfdStk	PFF	38.97	0.10	4.7
iShTIPSBondETF	TIP	114.69	–0.03	1.3
iSh1-3YTreasuryBd	SHY	84.60	–0.11	0.2
iSh7-10YTreasuryBd	IEF	106.69	–0.21	1.8
iShRussellMCGrowth	IWP	105.02	1.18	7.8
PIMCOEnhShMaturity	MINT	101.63	–0.01	0.3
PwrShQQQ1	QQQ	134.16	1.21	13.2
PwrShS&P500LoVol	SPLV	43.95	0.78	5.7
PwrShSrLoanPtf	BKLN	23.27	0.04	–0.4
SPDRBloomBarcHYBd	JNK	37.04	0.46	1.6
SchwabIntEquity	SCHF	30.46	2.35	10.0
SchwabUS BrdMkt	SCHB	57.43	1.06	6.0
SchwabUS LC	SCHX	56.63	1.07	6.3
SPDR DJIA Tr	DIA	207.38	1.04	5.0
SPDR GldTr	GLD	121.48	–0.68	10.8
SPDR S&PMdCpTr	MDY	315.83	1.21	4.7
SPDR S&P 500	SPY	237.17	1.10	6.1
SPDR S&P Div	SDY	88.66	0.78	3.6
TechSelectSector	XLK	53.80	1.18	11.2
UtilitiesSelSector	XLU	52.00	0.52	7.1
VanEckGoldMiner	GDX	23.20	–1.74	10.9
VangdInfoTech	VGT	137.21	1.33	12.9
VangdSC Val	VBR	123.72	1.16	2.2
VangdDivApp	VIG	91.09	1.10	6.9
VangdFTSEDevMk	VEA	40.03	2.20	9.6
VangdFTSE EM	VWO	40.16	1.16	12.2
VangdFTSE Europe	VGK	53.32	3.65	11.2
VangdFTSEAWxUS	VEU	48.66	2.10	10.1
VangdGrowth	VUG	123.12	0.96	10.4
VangdHlthCr	VHT	137.82	0.96	8.7
VangdHiDiv	VYM	77.63	1.07	2.5
VangdIntermBd	BIV	84.40	–0.13	1.6
VangdIntrCorpBd	VCIT	87.06	–0.15	1.6
VangdLC	VV	108.79	1.10	6.3
VangdMC	VO	140.69	1.15	6.9
VangdMC Val	VOE	102.50	1.17	5.5
VangdREIT	VNQ	84.16	–1.10	2.0
VangdS&P500	VOO	217.70	1.07	6.0
VangdST Bond	BSV	79.93	–0.05	0.6
VangdSTCpBd	VCSH	79.92	–0.04	0.7
VangdSC	VB	134.43	1.01	4.2
VangdTotalBd	BND	81.57	–0.13	1.0
VangdTotIntlBd	BNDX	54.43	–0.06	0.3
VangdTotIntlStk	VXUS	50.59	2.12	10.3
VangdTotalStk	VTI	122.11	1.06	5.9
VangdTotlWrld	VT	66.03	1.57	8.2
VangdValue	VTV	95.49	1.20	2.7
WisdTrEuropeHdg	HEDJ	64.55	3.18	12.5
WisdTrJapanHdg	DXJ	49.81	1.22	0.5

Digging Out

Caterpillar's world-wide machine retail sales, three-month rolling average, change from a year earlier



Source: the company

THE WALL STREET JOURNAL.

AHEAD OF THE TAPE

By Steven Russolillo

Caterpillar Rally Has Heavy Lift To Endure

Caterpillar Inc.'s stock has climbed out of a deep hole. Considering the machinery company's earnings, revenue and legal outlook, shareholders might want to temper their enthusiasm.

Shares surged 36% last year, making it the best performer in the Dow Jones Industrial Average. They have tacked on another 4% in 2017 to date on hopes that President Donald Trump will increase infrastructure spending. The gains come even as Caterpillar has been stung by big bets on resources, agriculture and construction markets, which were hurt by the global commodities slump and mining-sector slowdown.

Analysts, who have repeatedly cut earnings forecasts, expect revenue to drop in 2017 for a fifth consecutive year. And not only does Caterpillar face top- and bottom-line weakness, but it is now grappling with a federal criminal investigation, which should be top of mind for investors in Tuesday's earnings report.

Before that, though, the headline numbers aren't expected to be anything to celebrate, either. Analysts polled by FactSet estimate first-quarter earnings of 63 cents a share, down four cents from a year earlier. For the full year, analysts expect earnings of $3.25 a share. Two years ago, the forecast for the same period was $5.45.

Revenue is expected to have decreased 2.1% to $9.3 billion. Caterpillar has missed analysts' sales forecasts in six of the past seven quarters.

What could sway the stock more in the near term is any additional information related to the criminal investigation. Federal agents raided three of Caterpillar's facilities in Illinois last month, with questions swirling about the company's offshore tax strategy involving a Swiss subsidiary and its export filings with the Commerce Department. The company has been contesting the roughly $2 billion in taxes and penalties sought by the Internal Revenue Service.

Granted, the news isn't all bad; Caterpillar on Monday said its world-wide machine retail sales rose 1% year over year during the three-month stretch ended in March, the first increase since November 2012. That suggests that the worst of Caterpillar's deep slump in recent years might be over.

But, as with other cyclical companies, the time to buy those stocks usually isn't when results turn positive but when they are bottoming. That might have been the case with Caterpillar, too.

The stock's sharp rally since the beginning of 2016 has now made it fairly expensive. In February, its debt-adjusted market value hit a high of 2.4 times forward sales projections, its highest at least since 1994, according to FactSet. It currently sits above two times, which has been the case only 5% of the time over that period.

Caterpillar's stock is riding a banner-year performance. Don't expect a repeat in 2017.

French Vote Results Spur Markets

Euro, stocks rally after first round of election eases fears about the future of the eurozone

By Mike Bird

A stock-price board at the Paris stock exchange Monday. France's CAC-40 index surged 4.1% as investors' appetite for risk picked up.

CHRISTOPHE MORIN/BLOOMBERG NEWS

The euro, French government bonds and European stocks rose sharply after centrist candidate Emmanuel Macron won the most votes in the first round of France's presidential election, a reaction that may herald a broader realignment of European markets recently plagued by concerns over political risk.

Mr. Macron is the overwhelming favorite to win May 7's runoff against second-place finisher Marine Le Pen, whose antieuro stance had concerned investors.

As European trading ended Monday, the euro was up around 1.2% at $1.085, after touching five-month highs of $1.0935 overnight. The differential between yields on French government debt and German government bonds, seen as a haven investment, narrowed from 0.64 percentage point Friday to as little as 0.42 percentage point Monday, the narrowest spread this year. The French CAC-40 stock-market index surged 4.1%, driving the broader Stoxx Europe 600 up 2.1%. Germany's DAX advanced 3.4% to a record, and the U.K.'s FTSE 100 rose 2.1%.

Some investors believe this relief rally will continue, with an increased appetite for the euro and European stocks as electoral worries fade and the Continent's improving economy comes further into focus. The increased appetite for riskier investments such as stocks is expected to hurt bonds, which have benefited from haven buying and a huge European Central Bank bond-buying program that some analysts believe will be scaled back this year.

"The balance of discourse was just so skewed against the euro," said Geoffrey Yu, head of the U.K. investment office at UBS Wealth Management. "As we move away from the politics, we think the euro is going higher. It's still quite cheap at these levels relative to long-term averages."

In the U.S., stocks also jumped after France's election results. The Dow Jones Industrial Average rose 216.13 points, or 1.1%, to 20763.89. The S&P 500 rose 1.1%, and the Nasdaq Composite climbed 1.2% to a record.

Political risks, particularly around the French election, have been investors' biggest concern for European markets this year, especially after the surprise results of last year's U.K. vote to leave the European Union and the U.S. presidential election and after Italians rejected attempts at political overhaul. Investors had put money into safer investments, including bonds and German government debt, and often avoided Europe's weaker southern economies.

German bonds fell sharply Monday. The yield on 10-year bunds rose to 0.35% from around 0.245% on Friday. Yields move inversely to prices. The price of gold, another haven that has benefited from concern over political risk, fell 0.9% to $1,275.80 a troy ounce.

French government bonds rallied alongside those of Italy, Spain and Portugal, the three European markets that typically tumble when investors are concerned about the risks of a breakup of the eurozone.

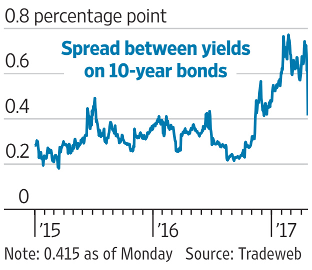
Investors had been concerned by the prospect of a strong showing by Ms. Le Pen, the far-right leader of the National Front, or by the far-left candidate Jean-Luc Mélenchon. Ms. Le Pen wants to pull France out of the currency union, and Mr. Mélenchon had advocated scrapping some of its core fiscal rules, positions that would spell trouble for the euro and French government bonds.

But most analysts and polls expect Mr. Macron to win comfortably on May 7.

—Jon Sindreu, Emese Bartha and Noemie Bisserbe contributed to this article.

Relief

As French debt rallied, its yield fell closer to that of German bonds, a haven.



Note: 0.415 as of Monday Source: Tradeweb

THE WALL STREET JOURNAL.

Next Up on List Of Worries: Italy

The first round of French elections over the weekend eased investor fears that a euro skeptic could win the presidency. But investors keep getting fresh reminders that those worries are alive and well in Italy.

The latest measure of the shifting winds in Europe will come on Sunday, when Italy's center-left ruling party holds an open primary amid tensions within the party itself. Some have accused Matteo Renzi, the former prime minister and current party leader, of pulling the party too far right.

Mr. Renzi is expected to win, but the margin of victory could be an important indicator of how coming parliamentary elections might shake out.

Like France, Italy has its own populist movement. Polls suggest the euroskeptic 5 Star Movement could win a large chunk of the vote, likely to be held either later this year or in 2018.

Only 41% of Italians think the euro is "a good thing," according to a survey released by the European Commission last December, a decline of 8 percentage points from the previous year. That compares with 53% in France.

"Italy's election next year may be more of a threat to the [European Union] and [its economic and monetary union] than this year's Dutch, French and German contests," said Marc Chandler, global head of currency strategy at Brown Brothers Harriman, in a note to clients.

Italy's troubled economy is also raising more questions for investors.

On Friday, Fitch Ratings dropped the country's sovereign-debt rating to BBB from BBB-plus, citing high debt levels and weak economic growth. The political situation also played into the decision.

The Fitch analysts, led by Douglas Winslow, wrote: "Risks of weak or unstable government have increased, as has the possibility of populist and eurosceptic parties influencing policy. Greater populism may dampen political appetite for reform, increase the pressure for fiscal loosening, and weigh on investor sentiment."

One sign that investors have long been more worried about Italy: Many investors have said that if far-right French presidential candidate Marine Le Pen pulls off a surprise upset in the final round of voting next month, Italian markets could be hit the hardest.

—Ben Eisen

ECB

Continued from page B1

published by Markit on Friday indicated activity is at its strongest level in six years. The region's unemployment rate, at 9.5%, is the lowest since May 2009 and consumer prices rose 1.5% in March from a year earlier, a rate not far away from the central bank's target of close to, but below, 2%.

The big question is: When will officials start reacting to the data?

While the central bank has moved to curb stimulus in recent months by slowing bond purchases and phasing out a series of free loans, some top officials have denied that those changes mark a turning point. "It's not signaling a change in monetary policy stance, it's simply reflecting a different assessment of real conditions," Belgium's central bank governor, Jan Smets, said in an interview.

ECB rate setters will meet again in Frankfurt on June 8. While few investors expect significant policy moves to happen then, many believe that officials will start preparing markets for tighter money in the future. They may drop a pledge to increase the bank's stimulus efforts again were the outlook to darken. That easing bias "could well be discontinued in light of all the positive news that is coming in," said the Dutch central-bank governor, Klaas Knot.

Investors are also zeroing in on increasing discrepancies between the views of officials from Northern and Southern Europe. The former have appeared more eager to unpeg the central bank's benchmark interest rate from its current record-low level of minus 0.4%.

Unlike in the U.S., where stocks came under pressure during the taper tantrum, the ECB's shift might come at a time when investors are increasingly willing to take risks.

On Monday, the Stoxx Europe 600 index gained 2.1% and eurozone bank stocks jumped almost 7%, as investors imagined the benefits of stronger economic growth and higher interest rates to their profits. Meanwhile, the spread between 10-year yields in French and German government bonds—a sign of how much riskier investors deem French debt to be—has almost halved from February levels, the widest since 2012.

Indeed, the political risks that have sandbagged European markets over the past year may be starting to dissipate.

While eurozone stocks continue to trade at a discount to those in the U.S., money has cautiously started to return to the region's equity funds, according to data provider EPFR Global.

"If anything we could be towing back from populism," Mark Dowding, portfolio manager at London-based BlueBay Asset Management, who bet against French government bonds earlier in the year and has been cashing in on some of that investment.

Last month, fears that Geert Wilders's euroskeptic Party for Freedom might emerge victorious in Dutch national elections also proved unfounded. In Germany, support for the euroskeptic Alternative for Germany party ahead of the Sept. 24 election is below 10%, while Chancellor Angela Merkel's Christian Democratic Union and her main rival, Martin Schulz's Social Democrats, are both polling above 30%.

A policy reversal from the ECB may actually help mainstream parties, as it would relieve pressure on the nation's conservative savers.

"It would definitely make Merkel happy," said Paresh Upadhyaya, a portfolio manager at Pioneer Investments.

Over the past two months, markets have only timidly started positioning for tighter ECB policy. Derivatives that protect investors against moves in short-term interest rates have shown a consistent trend toward signaling that future rates might be slightly higher.

Top officials continue to urge caution in their last public comments before this week's policy meeting. ECB chief Mario Draghi warned in Washington on Friday that underlying inflation in the eurozone was too weak and the bloc's economy still needed "very substantial" support from Frankfurt. His top officials struck a similar tone last week.

ECB policy makers meet in Frankfurt Wednesday and Thursday.

KRISZTIAN BOCSI/BLOOMBERG NEWS

SHARES

Continued from page B1

year if sustained, but faded back to a more ordinary 1% rally by the end of Paris's day. Meanwhile, gold and yen fell about 0.7% each, notable drops but not unusual for the global sanctuaries.

So the market story about France was that a populist win risked the creditworthiness of the French government, which would be very bad for European banks. The euro itself was never seen as under any serious threat, while knock-on global effects were expected to be relatively small.

There are still two weeks to go until the second-round runoff between the centrist winner Emmanuel Macron and far-right runner-up Marine Le Pen. Polls suggest Mr. Macron will win with a big margin. There is plenty of scope for a surprise revelation to hurt Mr. Macron's chances, but the market's gains if and when he wins are likely to be much smaller than in the tight first round.

Many investors think U.S. stocks are expensive, and for the past month or so money has been switching from U.S. funds to European funds. On the face of it, it is true that Europe is cheaper, with eurozone stocks at 15 times next year's estimated earnings, according to Thomson Reuters IBES, and the U.S. close to 18 times.

European profit margins are also depressed by historic standards, helping the argument that they are more likely to rise than fall. By contrast, in the U.S., margins are close to records, so further gains are harder.

There are three big problems with the argument that Europe is cheaper. First, it is virtually always cheaper. Second, the cheapness is concentrated in banks, which still scare many, and oil stocks, which only look cheaper in Europe because of the collapse in U.S. shale profits. Finally, being cheaper than the most expensive major market isn't much help if Europe's still expensive itself.

History shows investors demand a discount for European stocks, perhaps because of less economic dynamism, or because of slower long-run profit growth or because employees have more say. The average discount since Thomson Reuters IBES data began in the mid-1980s is a discount of 2 points on the price/earnings ratio.

Europe's current discount is even bigger than the historic norm, but all of it is down to banks and oil. Exclude those, and the discount for eurozone stocks is fractionally smaller than the long-run average.

An alternative bet on Europe is that the economy is recovering faster as global growth picks up and that a reformist in France's Élysée Palace could make Germany more willing to help out (although Mr. Macron may have to work with a prime minister from another party, hampering his policy agenda.) Again, the biggest winners from a faster expansion and a rise in interest rates should be the banks. If the economy doesn't behave, the banks will be the big losers. European banks are cheap, and it isn't hard to see why.

MARKETS

Investors Jump Back Into Risky Assets

Dow industrials gain 216 points as 'fear gauge' tumbles 26%; gold and bonds drop

By Riva Gold
And Alexander Osipovich

Global stock markets rallied after a centrist candidate won the first round of France's presidential election, defusing some of the political tension that had been weighing on share prices.

The Dow Jones Industrial Average rose 216.13 points, or 1.1%, to 20763.89. The S&P 500 jumped 25.46, or 1.1%, to 2374.15, while the Nasdaq Composite added 73.30, or 1.2%, to a record 5983.82.

All three indexes notched their biggest gains since March 1. France's CAC 40 posted its largest one-day percentage jump—4.1%—in nearly five years, and Germany's benchmark DAX index reached a fresh high.

Other risky assets, such as emerging-markets currencies and junk bonds, also rallied.

"The market is enjoying a risk-on trade," said Quincy Krosby, a market strategist for Prudential Financial.

Traders sold assets perceived as relatively safe, such as gold, the Japanese yen and government bonds. That reversed a trade that had been gaining momentum for much of this year as political risks in North Korea, the Middle East and France began to pile up.

The CBOE Volatility Index, or VIX, a measure of anticipated stock-market volatility sometimes called the "fear gauge," dropped 26%—its largest one-day fall since 2011.

French independent centrist Emmanuel Macron prevailed on Sunday, winning the first round with nearly 24% of the vote. He will face off on May 7 in the election's second round against National Front leader Marine Le Pen, who has campaigned to take France out of the euro and rattled global markets. Opinion polls Sunday suggested Mr. Macron would win a head-to-head contest.

"It gives a lot of confidence to the market that we have a good feel for the outlook in France and to a large extent puts to bed the Frexit prospect," said Christopher Dyer, director of global equity at Eaton Vance, noting the outcome should increase appetite for borrowing and investment in Europe. "European banks should be prime beneficiaries of policies that are pro-growth, pro-stimulus and not protectionist in nature," he said.

Bank shares rallied around the world. Banks in the Stoxx Europe 600 rose 4.8% and the KBW Nasdaq Bank Index of large U.S. commercial lenders climbed 2.5%. **J.P. Morgan Chase** rose $2.98, or 3.5%, to $87.50, while **Goldman Sachs** added 6.36, or 2.9%, to 223.22. Combined, the two added roughly 64 points to the Dow.

Government bonds slid in the U.S., Germany, the U.K. and Japan. The yield on the 10-year U.S. Treasury rose to 2.275%, from 2.234% Friday. Yields rise as bond prices fall.

Gold for April delivery lost 0.9% to $1,275.80 an ounce, in the largest one-day decline since early March.

The euro gained 1.3% to $1.0868, for the largest gain since last June.

There is a busy week of earnings ahead, with companies such as **Caterpillar**, **McDonald's**, **Microsoft**, **Amazon.com** and **Exxon Mobil** set to report quarterly results.

A strong series of reports could give the U.S. stock market the jolt it needs to break out of its recent trading range, said Philip Blancato, president and chief executive of Ladenburg Thalmann Asset Management. "For it to go substantially higher, you need a good earnings season," he said.

But investors' enthusiasm could be tempered by the looming deadline to avoid a U.S. government shutdown and other policy issues, analysts said.

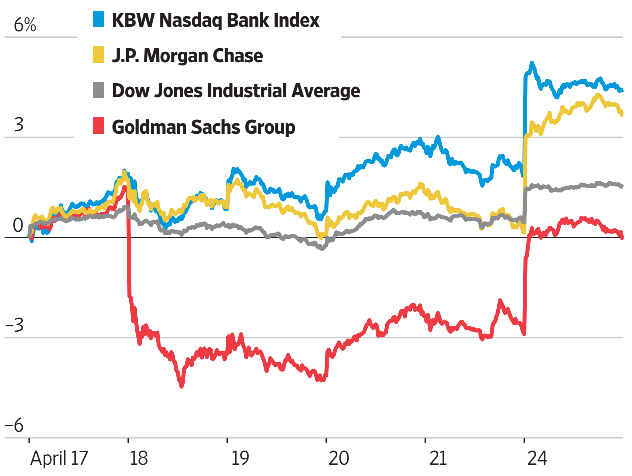
In Asia early Tuesday, Japan's Nikkei 225 index and Hong Kong's Hang Seng Index were up 0.6%.

Relief Rally

Stocks and other risky assets gained after a centrist candidate won the French presidential election's first round, alleviating recent political anxiety.

Banks led major indexes higher.

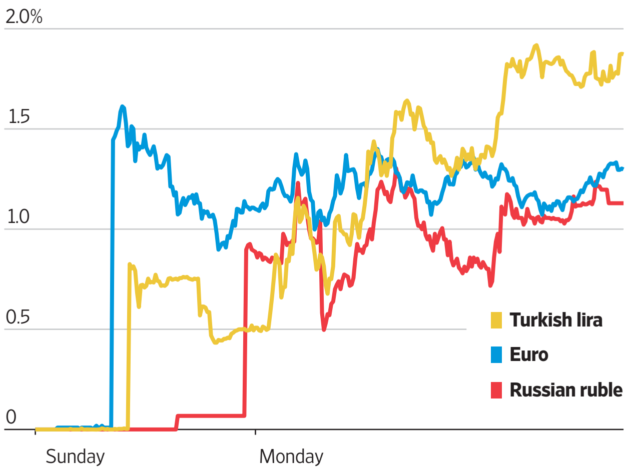
Performance since April 13



Tech stocks rose as the Nasdaq Composite moved closer to hitting 6000 for the first time.

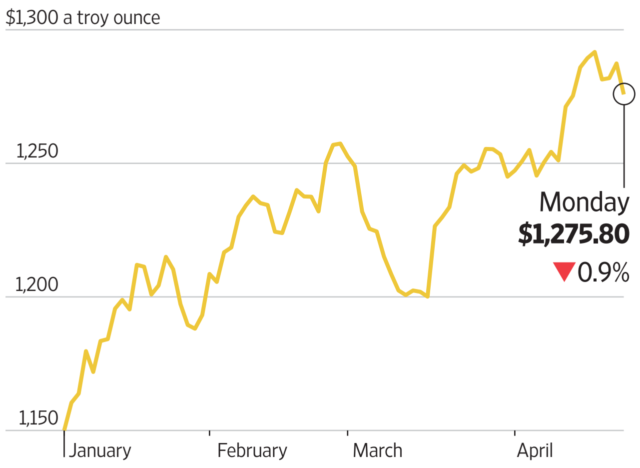
The euro rallied, as did emerging-market currencies.

Performance since April 22



Gold declined as investors sold assets perceived as safe.

Front-month contract



Sources: FactSet (indexes, currencies); WSJ Market Data Group (gold)

THE WALL STREET JOURNAL.

AUCTION RESULTS

Here are the results of Monday's Treasury auctions. 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.

13-WEEK AND 26-WEEK BILLS

	13-Week	26-Week
Applications	$120,322,791,400	$112,978,172,400
Accepted bids	$39,000,241,400	$33,000,347,400
" noncomp	$486,538,900	$413,972,400
" foreign noncomp	$1,000,000,000	$993,700,000
Auction price (rate)	99.792722	99.517194
	(0.820%)	(0.955%)
Coupon equivalent	0.833%	0.973%
Bids at clearing yield accepted	75.26%	68.74%
Cusip number	912796LL1	912796LZ0

Both issues are dated April 27, 2017. The 13-week bills mature on July 27, 2017; the 26-week bills mature on Oct. 26, 2017.

HEARD ON THE STREET

Email: heard@wsj.com FINANCIAL ANALYSIS & COMMENTARY **WSJ.com/Heard**

Euro Slips Its Political Shackles

When it comes to the euro, what doesn't kill it should make it stronger.

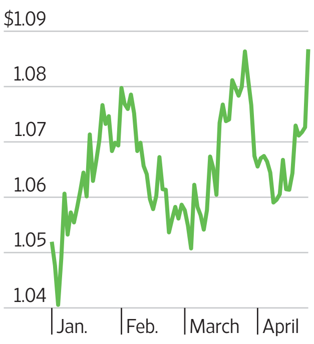
The existential threat posed to the single currency by the French elections has faded. That should allow investors to look more at the favorable conditions for European assets, including the euro.

The single currency was the immediate beneficiary of the market-friendly outcome of Sunday's vote, which pits centrist Emmanuel Macron against far-right euroskeptic Marine Le Pen in a runoff May 7. Unless there is a huge shock, Mr. Macron, who is staunchly pro-European, looks set to win. That will remove a cloud that has hung over European assets.

The euro rose to a five-month high against the dollar above $1.09 late Sunday before consolidating around $1.085. It put in an even bigger move against the yen, gaining more than 2%. French stocks shone, with the CAC-40 index up more than 4%. French bonds rallied sharply, too.

Upwardly Mobile

How many U.S. dollars €1 buys



Source: WSJ Market Data Group

THE WALL STREET JOURNAL.

French election's threat to the common currency has faded.

Looking past the politics should be a good thing for investors. While the French elections were in the foreground, the economic backdrop for the eurozone has been quietly improving. Political worries haven't deterred consumers or businesses. On Friday, the flash eurozone purchasing managers' index hit a six-year high at 56.7; On Monday, Germany's closely followed Ifo business-climate index rose to 112.9, its highest since July 2011. The threat of deflation has receded, and corporate earnings have shown signs of life. European stocks trade at a discount to their U.S. counterparts, with the Stoxx Europe 600 on 14.9 times forward earnings, versus 17.4 times for the S&P 500.

The better news from Europe will put new focus on the European Central Bank's ultraloose policy stance, with interest rates still negative and large-scale bond purchases continuing. Already in March there was a wave of market speculation about how and when the ECB might start to head for the exit.

ECB officials led by President Mario Draghi and executive board member Peter Praet have spent a good deal of time pushing back against that. That makes this week's meeting unlikely to provide much new for bulls on Europe, potentially acting as a near-term restraint on the euro.

But by June, if Mr. Macron is installed in the Élysée Palace and the eurozone economy is still on track, the ECB may have to give greater acknowledgment to the good news from Europe.

That should buoy the euro, steepen the yield curve and potentially give a further lift to bank stocks, helping equities more broadly. Focusing on the fundamentals could pay off for investors.

—Richard Barley

OVERHEARD

Markets are relieved that the first round of the French election has paved the way to victory for former investment banker **Emmanuel Macron**. But investors' literary patience has been tested. "Le Macron is mightier than Le Pen?" currency strategists at Westpac asked in a note analyzing the May 7 second-round runoff between Mr. Macron and euro-hating rival **Marine Le Pen**. Stocks and the euro were indeed happy Monday morning, as Nomura put it: "Macr-On vs. Le Pen is Risk-On...Because it's his Toulouse."

At least the outcome saves investors from leftist firebrand **Jean-Luc Mélenchon**, who is out of the game after Sunday's vote. He was apt to make investors "Melenchon-ly," wrote the fixed-income team at Royal London Asset Management. With young Mr. Macron leading handily over Ms. Le Pen in the polls, we will inevitably be left to study the intricacies of "Macron-economics."

Mon dieu.

Don't Fret At High Price Of Bard Buy

Look past the large numbers on the latest blockbuster health-care deal.

There is no doubt that medical supplier **Becton Dickinson's** acquisition of **C.R. Bard** is a pricey one. Becton Dickinson is paying $24 billion in cash and stock to make the deal, which amounts to a 25% premium to C.R. Bard's previous closing price. That will leave a mark on the balance sheet: Combined company debt amounts to nearly five times trailing earnings before interest, taxes, depreciation and amortization.

The deal has a solid and fairly simple strategic rationale. Years of hospital mergers mean more concentrated negotiating power among buyers of medical supplies and devices.

Consolidation on the supplier side is a natural response to that trend. Bard's portfolio of catheters and heart devices has minimal overlap with that of Becton Dickinson.

Becton Dickinson said that the transaction will boost gross margins by 3 percentage points once the deal closes. That should mean a significant boost to profits.

Making forecasts and delivering on those promises are two different things, of course, but on this front Becton Dickinson deserves more trust than most. The integration of CareFusion, Becton Dickinson's last major acquisition for $12 billion, has exceeded management's forecasts. The stock is up by more than 50% since that deal was announced in the fall of 2014.

Anxiety over the latest big splash gives management another chance to pleasantly surprise its investors.

—Charley Grant

T-Mobile Has Wealth of Options Compared With Verizon

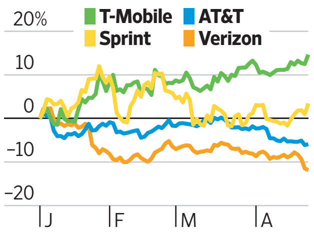
The financial and strategic divides between the haves and have-nots of U.S. telecom appear to be widening.

T-Mobile US on Monday reported first-quarter earnings that blew past analysts' expectations, saying it added 1.1 million subscribers, including 798,000 of the industry's most valuable postpaid phone customers. Its wireless service revenue climbed 11% over the previous year.

While that represented a slowdown in T-Mobile's subscriber growth, it stood in contrast to **Verizon Communications'** results last Thursday when it posted its first-ever quarterly net loss of wireless subscribers. Wireless service revenue fell 6.1% as Verizon brought back unlimited plans to compete with unlimited offerings from T-Mobile and **Sprint**.

Competition Calling

Share-price performance



Source: WSJ Market Data Group

Verizon now faces pressure to do an aggressive deal to diversify away from the troubled wireless business. T-Mobile, on the other hand, looks increasingly attractive as a takeover target as deal talk rises with the close of the government's auction for wireless spectrum.

For Verizon, the biggest carrier by subscribers, there simply aren't many assets that move the needle enough to offset the downward trends in wireless. The telecom giant also risks losing its investment-grade credit rating if it takes on too much debt, something that could prevent it from acquiring a company like **Charter Communications**. Buying **Dish Network** might help it strategically, but it wouldn't boost results, and it would likely come at a steep price.

Diversification won't help unless the new business is better than wireless. **AT&T**, which bought **DirecTV** in July 2015, will likely show similar wireless pressures when it reports earnings Tuesday. Part of the strategic logic behind the company's acquisition of DirecTV was to bundle it with wireless to help lower churn. But the wave of unlimited plans from competitors undermined the value of AT&T's offer of unlimited wireless plans to DirecTV customers.

T-Mobile, meanwhile, is expected to be approached again by Sprint in the coming weeks amid expectations that the Trump administration will look more kindly on a deal than the Obama administration did. But even if a deal fails, T-Mobile could be attractive to other buyers including Dish or **Comcast**.

Or T-Mobile could go it alone. Monday's results and the $8 billion of wireless spectrum T-Mobile bought in the recent auction will help T-Mobile's service quality, potentially reducing its churn, which is still higher than that of its larger rivals.

While Verizon's hands look tied, T-Mobile has a wealth of options.

—Miriam Gottfried

JOURNAL REPORT

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THE WALL STREET JOURNAL. Tuesday, April 25, 2017 | R1

Where Financial Regulation Goes From Here

A closer look at the two main competing visions—and what they mean for consumers, institutions and the economy

BY RYAN TRACY AND ANDREW ACKERMAN

THE 2008 FINANCIAL CRISIS WAS A global economic catastrophe that triggered years of new regulations designed to prevent another meltdown. Now that tide of rules is cresting, with officials across the globe talking about pulling back regulations instead of adding new ones. The defenders of the current regime are fighting to save it.

At the heart of the debate are opposing philosophies about free markets, regulation and the role of government. After 2008, the Obama administration in the U.S. pursued an aggressive rule-making path, injecting the government further into bank boardrooms, loan-underwriting decisions and conversations about retirement advice—all in the name of protecting citizens from a financial crisis and risky financial products.

With Republicans in control of the White House and Congress, the U.S. is seeing a resurgence of a different philosophy, one that favors freer markets and is skeptical of Washington's recent approach to overseeing Wall Street. The government, these critics say, has repeatedly overreached in trying to prevent another crisis. It should take stock of all the work that has been done since the crisis—and consider rolling back many rules that critics say aren't working as intended or weren't needed in the first place.

As the debate rages on, here's a closer look at the two competing visions for financial regulation.

REIN IN THE BANKS:
The Need for Discipline

Advocates who support active financial oversight favor an approach that can be summed up this way: Let the markets work, but within significant regulatory constraints to protect society from excesses.

Left to their own devices, financiers can cause a lot of trouble, advocates say. Big banks have incentives to seek short-term profits without regard for the long-term consequences of their actions—and the 2008 crisis provided an example of just how much damage they can do if they succumb to those incentives.

Financial firms and consumers lent or borrowed too much, and regulators failed to act on warning signs before this excessive risk-taking spiraled out of control. Worst of all, the government bailed out some firms because it determined they were "too big to fail" without the financial system imploding. The result was a panic so sweeping, it dried up credit for Main Street and threatened the entire economy.

Regulatory hawks concede that government housing policies may have played some role in inflating the housing bubble but say it wasn't central to the meltdown. Lack of oversight was. So, they argue, the government has an obligation to protect the economy from risky behavior—by banning those behaviors entirely or adopting policies that act like a tax on it, making it less attractive in the short term. Financial firms and their customers may have less freedom under these rules, but these advocates say that the effects of those restrictions pale in comparison to the cost of a huge financial crisis.

The 2010 Dodd-Frank law, approved by a Democratic Congress and signed by Democratic President Barack Obama, expanded the government's power to react to what it viewed as emerging risks in financial markets. Firms considered "systemically important" to the economy now face tougher rules and more intrusive oversight than smaller competitors. A new regulatory committee can designate any firm for these tougher rules.

The idea is that if these firms pose an outsize risk, they should pay for it though higher regulation, even if those rules are complex. Federal Reserve Chairwoman Janet Yellen has said huge banks must "bear the costs that their failure would impose on others." If the firms don't like the regulation, so be it, these policy makers say: They can shrink or split themselves apart.

Tougher rules have meant that regulators take a far more active role in the continuing management of large firms, and to some extent smaller ones as well. The pro-regulation advocates acknowledge that such involvement might be uncomfortable, but say it's a lot better than burdening taxpayers in the event of future bailouts.

Take the case of dividends. Large banks can no longer decide on their own to raise the dividend they pay to shareholders. They must get permission from the Federal Reserve first as part of their annual stress tests. The Fed justified the restrictions by pointing out that in the lead-up to the 2008 crisis, big banks paid out capital via dividends, then months later needed capital from taxpayers to stay alive. These restrictions are just one example of the myriad extra rules firms must now keep in mind as they make day-to-day business decisions.

In another case, when financial firms started ramping up a practice bank examiners considered dangerous—"leveraged loans" to companies already deep in debt—regulators at the Fed and the Office of the Comptroller of the Currency responded with prescriptive lending standards that they relentlessly enforced. Critics say the regulators should have let firms make their own lending decisions, but the Fed and Office of the Comptroller say that when a type of lending poses a risk to the broader economy, they have an obligation to try to nip it in the bud.

Backers of an expanded regulatory regime also believe the government has an important role in setting standards for the sale of financial products to limit fraud and deception. Lenders must document a borrower's ability to repay a mortgage loan, for instance. Under another Obama-era rule, finan-

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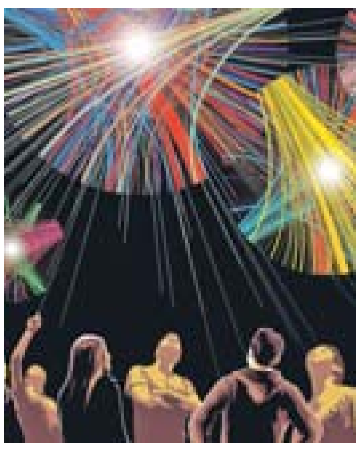
INSIDE



Regulators Get a Better Picture of Risk, Literally

Researchers can now draw simple images that reveal much about systemic weak spots

BY PAUL J. DAVIES

KIMMO SORAMÄKI has seen something strange happening in U.S. house prices. The math behind his findings is fiendishly complex, but he can show the results to anyone in seconds.

Mr. Soramäki is a specialist in a kind of financial mapmaking: He takes a complex analysis of the relations between financial institutions or markets, and by weeding out some information and focusing on the most significant links, he can create simple treelike images that reveal something—in this case, that housing prices have become increasingly correlated—that might otherwise go unnoticed.

This type of analysis is part of a growing area of research that is changing how regulators and banks manage financial risk. Network analytics such as that used by Mr. Soramäki, as well as new modeling approaches, allow researchers to show how thousands or millions of iterations of apparently simple financial exchanges or actions together can create a far more complex and at times unstable financial system than traditional economic theory might suggest.

A surprising finding

Already, such approaches are being used in bank stress-testing and to spot weaknesses in global markets. Some envision the technology eventually could be used to build a dashboard of the global financial system that regulators could monitor to spot crises before they hit.

Andy Haldane, chief economist at the Bank of England, fantasized in a 2014 speech about sitting in the financial equivalent of the bridge of the Starship Enterprise, from which regulators could test and watch for impending disasters, then intervene when necessary. The world isn't there yet—and some argue it might not be desirable even if it were possible—but the theories and computer models behind this vision already are being tested.

Mr. Soramäki's company, Financial Network Analytics, is helping the Colombian central bank build a systemic-risk tool using data on payments that flow through the financial system. Institutions such as the Bank of England and the U.S. Office of Financial Research, meanwhile, have been working to build their own network models of banks, money managers and clearinghouses to study how shocks such as a bank failure or the Swiss central bank's abandoning its currency link to the dollar propagate through the financial system. In recent years, they have begun publishing the results of this work.

Mr. Soramäki created the map of home prices to demonstrate his technology. On the map, which shifts and changes over the period from 2000 to the present, U.S. states are depicted as dots, linked to one another by lines. The shorter the line, the greater the similarity in house-price movements in those two states.

On a map showing the data for 2000, the dots are small and mostly far apart, and the "tree" appears very spread out. From roughly 2004 to

FINANCIAL NETWORK ANALYTICS

This sprawling tree shows housing prices in U.S. markets moving with little correlation in 2000. The tree has gotten shorter and shorter since, indicating higher correlation between markets.

2008, as the housing bubble builds and then enters the crisis, the dots grow in size and turn from green to red, moving closer together and forming clusters, as price changes across the country become larger and more similar. As the links get shorter, so does the tree, signifying greater correlation. But what is really surprising is what has happened since the 2008 crisis: Changes in home values across states are more alike today than ever before.

"In the U.S. housing market, correlations have continued to rise even after the collapse of the bubble: The tree span has continued to shrink," says Mr. Soramäki, who worked at the Bank of Finland and the New York Federal Reserve before starting his company in 2013.

"Visual network analysis improves our answer to existing questions, but can also expose questions we didn't know we had," he says. His work can't explain why this is happening; it can simply show that it is, highlighting an unexpected risk—in this case that everyone could start losing money on real estate at the same time—that would likely otherwise go unnoticed.

Other researchers are working on models that could someday be used to monitor financial markets. J. Doyne Farmer, an American scientist now at Oxford University's Institute for New Economic Thinking, is helping the Bank of England develop agent-based models to better understand how markets and other complex financial systems behave.

The models simulate how agents—people, companies, institutional investors, etc.—act and interact in markets and financial systems. Such programs have produced outcomes that more closely resemble what happens in the real world than do the predictions of classical economics.

Prof. Farmer thinks that in five to 10 years' time, such models could be used to make financial and economic forecasts in much the same way we can now predict the weather. "The economy is more difficult—we don't know the laws of physics for the economy—but on first principles we don't really understand clouds either," he says.

Yet with enough data from the past, meteorologists can make reliable forecasts. Similarly, enough historical data about activity in financial markets could help make better models of the future. The problem is, people can adapt and change their behavior in a way that water molecules can't. "Clouds don't think," Prof. Farmer says.

Still, he believes that a lot of what happens in markets or economics comes down to accounting rules and legal contracts that are quite mechanical, so much of it is predictable and stable.

A moral hazard?

Many of the techniques and ideas in this field have come from other disciplines, including biology and engineering. Mr. Soramäki's correlation trees, for example, are adapted from a method for mapping genomes. This cross-fertilization began in New Mexico at the Santa Fe Institute in the late 1980s, and it has led to an entire field of study known as complexity economics.

Even before the financial crisis, regulators were starting to take note. Now, private companies are investing in this research, aiming to develop products for the finance industry.

Alexander Denev, the head of quantitative research at data company IHS Markit, says there is still uncertainty about the answers that such tools produce. One problem is that there isn't enough high-quality data. Another issue is selecting which model to use and even how to define what constitutes systemic risk. In stress-testing, U.S. and U.K. regulators require banks to use more than one model as a cross-check. But Mr. Denev says they ought to be using multiple models, even thousands, to show the variety of potential outcomes under different starting assumptions.

"This is where computing power and machine learning come in," he says, and the private sector tends to have more of that than regulators and central banks.

All of this could feed into a futuristic dashboard, but that leads to questions about how much influence regulators should have. "Dashboards lead to human insights, human insights lead to decisions, but no automatic rules should be used to circumvent the human part," Mr. Denev says.

Mark Flood, a research principal at the Office of Financial Research, says regulators shouldn't be in control of the financial system. "We need a gap between the regulator and the free market," he says. "You don't want the police driving everyone's car. You want them setting the speed limits and checking for drunken drivers."

Mr. Davies is a London-based writer for The Wall Street Journal's Heard on the Street column. Email paul.davies@wsj.com.

Where Financial Regulation Goes From Here

Continued from the prior page

cial advisers must take their clients' best interest into account when giving advice about investing for retirement.

Supporters of this approach acknowledge that it will restrict financial firms from doing certain kinds of transactions, but say it still leaves them plenty of room to operative and innovate. They just won't be able to operate quite so freely as to do considerable potential harm to their customers and the public. They also say more needs to be done to improve financial oversight, such as addressing the continued purgatory of Fannie Mae and Freddie Mac, the mortgage firms that are still under government control, and looking for ways to ease the burden of enhanced regulation on community banks.

Those who support a hard line on regulation agree with critics that regulators won't be able to stop every crisis. But they believe disasters would be more likely if regulators didn't act strongly when they see budding risks.

"Wall Street Reform isn't perfect," former Treasury Secretary Jacob Lew wrote in an academic journal in December. But he added: "It would be a grave mistake if technical refinements were to give way to a dismantling of the new forward-looking, flexible approach to regulating the financial sector that Wall Street Reform established."

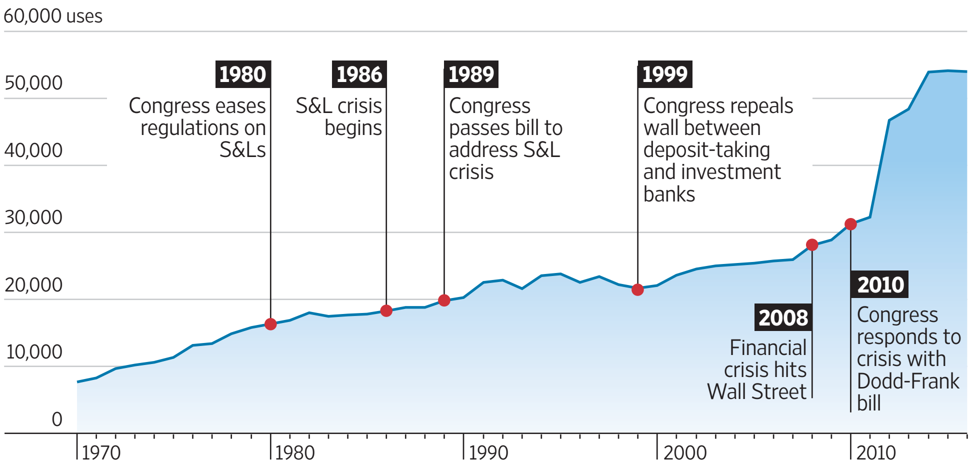
LET THE MARKET WORK: Complex Regulations Do More Harm Than Good

Proponents of freer financial markets say the government should let the banks and markets function with limited constraints from bureaucrats. In their view, post-financial-crisis regulations have harmed the broader economy through expensive and unduly restrictive red tape.

Government interference in any industry or market produces unintended consequences, because bureaucrats and regulators don't have the knowledge that people working in the field do, regulatory critics say. That leads to problems and distortions when the government tries to push an industry to do something to achieve a political goal that's unrealistic.

Rough Guide to Regulation

The number of times the terms "shall," "must," "may not," "prohibited" or "required" appeared, by year, in Title 12, Banks and Banking, of the U.S. Code of Federal Regulations



Sources: Mercatus Center, George Mason University (statistics); WSJ reporting (events) THE WALL STREET JOURNAL.

The housing bubble was a particularly disastrous example of this kind of meddling, the critics believe. They argue that the government pushed a goal of boosting homeownership through policies that essentially forced banks to take on risky borrowers. Fannie Mae and Freddie Mac lowered their standards, further signaling that lenders should take on low-quality borrowers.

Regulatory critics think the way to head off severe crises is to have fewer rules, not more. Have the government set simple guidelines about what financial firms are allowed to do, and then let the markets decide the rest. Executives will have a natural incentive not to go overboard because they won't have the government to back them up if they make mistakes—and if they do things that may harm consumers, they will lose business.

Ultimately, this side argues, the market does a better job of rewarding good ideas and behavior—and punishing bad—than the government ever could. Regulators, meanwhile, aren't infallible, and could just as easily miss a future crisis as they missed the last one, deregulation boosters say.

So they strongly favor easing post-crisis financial regulations, including the 2010 Dodd-Frank financial law, which they say will end a period they see as unduly restrictive.

For instance, the so-called Volcker rule bans banks from most trading or speculating unless they are doing so on customers' behalf. Proponents say the rule is designed to rein in reckless risk-taking at taxpayer-insured banks, but conservative critics complain that it is unduly burdensome to comply with, and deprives banks of legitimate moneymaking opportunities. They also say it has harmed liquidity—the ability to easily buy or sell—in certain financial markets.

Critics have also argued against the post-crisis rules for trading financial instruments known as swaps. In the lead-up to the crisis, these vehicles acted as a form of insurance against defaults on all sorts of debts. Dodd-Frank supporters in Congress argued that the market for swaps was kept opaque, and mandated that banks report swaps, among a series of sweeping changes. But Republican critics say regulators needlessly limited the methods by which banks are allowed to execute such trades. The limited flexibility has sent trading of these instruments overseas and away from U.S. markets, these critics say, fragmenting markets in potentially harmful ways.

A plan on the table—from Rep. Jeb Hensarling (R., Texas), who heads the powerful House Financial Services Committee—would reverse course on Dodd-Frank. It would scrap most of the law's provisions and exempt big financial institutions from many rules as long as they maintain higher capital levels, measured in a simple calculation. Mr. Hensarling says this approach would curb excessive risk-taking by banks, because they would fund loans with a larger share of investor equity instead of riskier forms of funding. And that, in turn, would mean banks wouldn't have to rely on the government to assess and head off financial risks, returning the management of financial firms to their executives.

"This approach not only helps unleash greater opportunities for small businesses, innovators and job creators, it also stops investors from betting with taxpayer money," Mr. Hensarling said in a speech last fall.

Some policy makers, who embrace regulators are too slow to embrace innovations, see other benefits from lightened rules. Chris Giancarlo, the top U.S. derivatives regulator, has been especially vocal about the need for Washington to fully embrace financial-technology firms. His concern is that rules created for an analog world haven't kept pace with—and may stifle—digital innovation. For instance, financial-services firms should be encouraged to experiment with new digital strategies rather than be constrained by numerous rules. Proponents of stricter rules also say those rules should accommodate innovation.

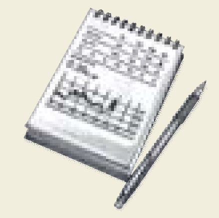
Advocates for loosened regulations also say fewer rules would benefit borrowers. For one thing, they argue, postcrisis Washington has forced banks to be overly conservative in their lending decisions, which hurts consumers. For instance, in the name of protecting borrowers from bad practices by so-called predatory lenders, people with less-than-pristine credit histories have trouble obtaining home loans from banks.

Along similar lines, advocates want to curb the powers of the Consumer Financial Protection Bureau, an agency created under Dodd-Frank to police consumer-finance markets. The bureau's defenders say the mortgage crisis showed U.S. consumers needed a new financial cop. But critics say restraining the bureau would lead to more lending and availability of credit.

Yet another priority: a repeal of stricter standards for brokers who provide retirement advice. The rules, they say, are overly complex and will reduce access to advice for investors with lower-balance accounts.

The investment-advice rule unduly restricts options for retirement savers, Gary Cohn, a top economic adviser to President Donald Trump, said in a February interview. It "is like putting only healthy food on the menu," he said, "because unhealthy food tastes good but you still shouldn't eat it because you might die younger."

Mr. Tracy and Mr. Ackerman are reporters in The Wall Street Journal's Washington bureau. Email them at ryan.tracy@wsj.com and andrew.ackerman@wsj.com.



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◆ "Highs and Lows of Living a Nomadic Life." Andrew Blackman and Genie Austin got rid of most of their belongings and now live and work full time while traveling. It's a life many dream about. But does the reality match up to the dream?

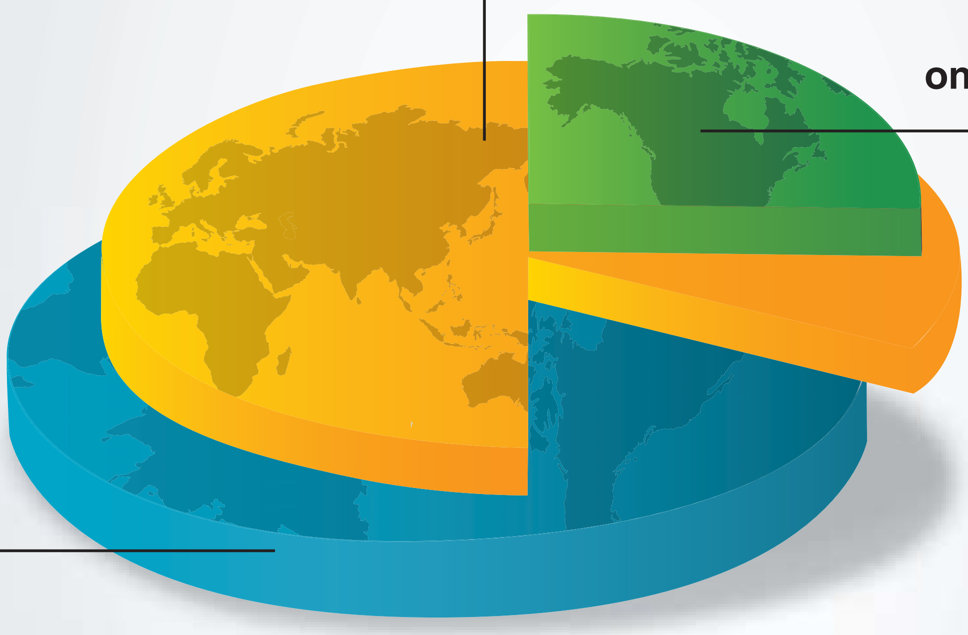
◆ "How to Evaluate Your Financial Adviser." Investors should build both a portfolio-based benchmark and goals-based benchmark to measure their progress, says Wall Street Journal Wealth Expert Peter Lazaroff.

Is your portfolio TOO LOCAL for a GLOBAL ECONOMY?

100%
of the time, over the past 30 years, the top-performing equity market has been outside the U.S.[1]

78%
of global GDP comes from non-U.S. countries.[2]

only **26%**
of the world's publicly traded companies are based in the U.S.[3]



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[1]Source: MSCI All Country benchmark returns 1986–2015.
[2]Source: Nominal GDP in current U.S. Dollars via the IMF World Economic Outlook Database—April 2016.
[3]Source: FactSet as of 03/31/2016. Data presented for the MSCI AC World Index, which represents 23 developed and 23 emerging market countries and contains 2,480 constituents, covering approximately 85% of the global investable equity opportunity set. The index is not intended to represent the entire global universe of tradable securities.

Fintech Apps Bring Stability to Stressed Families

New offerings help people save more money and cope with fluctuations in income

BY DAVID WESSEL

AT A TIME of volatile household incomes and widespread economic insecurity, the latest innovations in financial technology may help bring some peace of mind and a little stability to financially stressed American families.

The past few years have seen a proliferation of apps designed to help families—not rich people looking to allocate 401(k) retirement accounts, but the larger number struggling to make it from paycheck to paycheck, coping with the uncertainty of everyday life and trying to keep the promises they made to themselves to save.

"In the U.S. we don't really have an access-to-banking problem," says Jennifer Tescher, president of the Center for Financial Services Innovation, a nonprofit that aims to help the industry better serve low- and moderate-income consumers. After all, 93% of U.S. households have bank accounts, according to the latest Federal Deposit Insurance Corp. data. "The bigger issue is: Can we use technology to help people better manage their financial lives?"

The financial strains that afflict many American households are well documented. About 12% of respondents to a 2015 Federal Reserve survey said their income varied "quite a bit" from one month to the next during the past year; an additional 20% said they occasionally had some unusually high or low months.

The JPMorgan Chase Institute, sifting through data on one million Chase customers from 2012 to 2015, found that more than half experienced greater than 30% month-to-month changes in income; for Chase's lowest-income customers, it was three-quarters.

And scrutiny of 235 low- and moderate-income families in four communities, detailed in a new book, "The Financial Diaries: How American Families Cope in a World of Uncertainty," found that the households typically experienced five months a year in which spending was either 25% above or below the monthly average.

So now come the apps, a slice of what has come to be known as fintech—technology that is changing the financial industry.

Making, saving, spending

A three-year-old app called **Even**, for instance, is a response to the volatility of some people's income—the Lyft driver, say, whose earnings swing widely from week to week. Based on past paychecks, Even estimates the amount a person makes on average, advancing money on bad weeks that the user pays back on a good week. The cost of the credit extended is covered by a subscription fee—$3 a month for individuals, though for many users employers subscribe and offer Even as an employee benefit. The company has raised $12 million in venture capital.

Another app, Digit, from **Hello Digit** Inc., attempts to make saving easier. A user gives the app access to his or her checking account. It analyzes income and spending patterns, decides how much one can afford to save at any given time and automatically moves that sum into a Digit savings account, often just a few dollars every couple of days. "We believe so strongly in our math and our ability to safely identify money you can afford to save that if we overdraft your account, we'll cover the fee, up to two times per customer," Digit says. The two-year-old company effectively pays interest at a 0.2% annual rate on the $500 million it has accumulated in user savings, and makes its money by investing at a higher rate. It has raised $36 million in venture funding.

The Prism app, from **Prism Money**, began by simply putting all of a user's bills in one app to cut down on the hassle of keeping track of them all. But the founders realized that managing the payment of bills was a huge source of stress to many people and shifted their focus to helping users with that, says Tyler Griffin, until recently Prism's CEO and now entrepreneur in residence at the Center for Financial Services Innovation. Users connect the app to their bank accounts and monthly bills. The app reminds users when a bill is due and allows them to pay it with one click. It alerts users if a bill payment will trigger an overdraft, and it helps them avoid late fees by prioritizing their bills so they pay the ones due sooner first. Prism raised $3 million in venture capital before selling last year to **PayNearMe**, a firm that allows people to pay all sorts of bills in cash at 28,000 retail outlets.

Other fintech companies help people borrow at lower costs than they can find elsewhere. **Ascend Consumer Finance** makes three-year loans averaging $6,000 at annual interest rates as high as 36%, which sounds steep but is well below the annual rates of 350% or more often charged by the payday lenders many people use. Also, Ascend cuts the interest rate—halving it in some cases—in any month in which a borrower reduces his or her debt by $50 or more, saves $50 or more, or spends less than $600 on a credit card. The two-year-old company has raised $60 million in equity and debt.

Trends converge

This proliferation of fintech apps is the result of a convergence of forces.

Several are technological. There is the ubiquity of smartphones among Americans of all incomes and the evolution of app stores with user-generated ratings that can quickly propel startups to popularity. There are the falling barriers to entry as more, and cheaper, software platforms and third-party services emerge on which startups rely. And there is the capacity and (sometimes grudging) willingness of big banks to let customers give fintech apps access to customers' financial data.

At the same time, investors are pouring billions into fintech startups as a cadre of entrepreneurs emerge. Some are deploying the lessons of behavioral economics, fashioning smartphone-based nudges to get people to do what they intend to do but often don't.

Quinten Farmer, a co-founder of Even, emphasizes the need for app designers to talk to their customers. "The very first hire we made at Even was a user researcher," he said at a recent forum. "It was not a popular choice with our investors; they wanted us to hire an engineer. But she has ended up being an incredibly foundational part of how our product has come together." Every day on their morning commute, the Even team is "listening to a podcast that she put together which is interviews with the people we serve talking about the features that we're working on building that day," he said.

The long view

Few, if any, of these young fintech services have gone viral. Indeed, several are available only in some states, because state-by-state regulatory approvals are costly and time-consuming. Ascend, for instance, is doing business in just eight states.

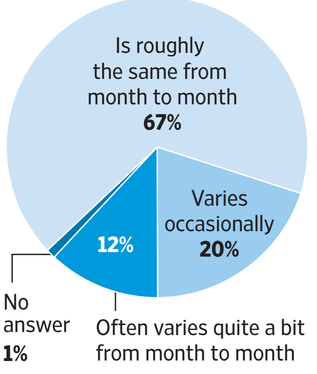
Whether the startups can prove profitable while serving low- and moderate-income customers remains to be seen. "I think fintech has significant potential if policy makers and firms are intentional about wanting to serve the low-income community by lowering costs, increasing speed and improving control over one's financial life," says Michael Barr, a University of Michigan law professor and former Treasury Department official with a longstanding interest in consumer finance. But, he adds, "The low-hanging fruit for making a lot of money is not in poor people. It may be a very long time before the bottom of the [income] pyramid is reached. It may be that there need to be special incentives for that—regulatory relief, tax credits."

Jonathan Morduch, a New York University professor of public policy and an economist and co-author of "The Financial Diaries," has plenty of praise for fintech apps, but doubts they will be the ultimate solution to financial stress for many. "The apps make life easier for a bunch of folks, but you have to be in the mode of needing or recognizing them," he says. "I'm a whole lot more excited about having a responsive credit union near you than an app." Sometimes, he says, one needs a human to talk to.

*Mr. Wessel is a senior fellow in economic studies at the Brookings Institution and director of the Hutchins Center on Fiscal and Monetary Policy. Email **reports@wsj.com**.*

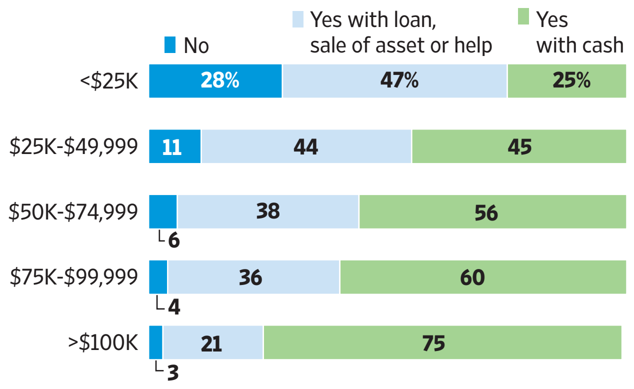
Living With Volatility

The percentage of those surveyed who said their income:



In a Pinch...

The percentage of those surveyed who said they could come up with $400 in an emergency, by income



Getting Resourceful

How those who wouldn't be able to pay a $400 expense in cash or equivalent would cover it

38% Put it on my credit card and pay off over time
31% Wouldn't be able to pay for the expense right now
28% Borrow from a friend or relative
17% Sell something
7% Use a bank loan or line of credit
4% Use a payday loan, deposit advance or overdraft
5% Other

Note: Multiple responses allowed

Sources: Report on Economic Well-Being of U.S. Households in 2015, Federal Reserve (first and last chart); Jonathan Morduch & Rachel Schneider, "The Financial Diaries" (2017), based on Federal Reserve survey (middle chart)

THE WALL STREET JOURNAL.

Hidden Cash in Your Assets

New firms give people a way to get money from their homes, cars—even unused vacation days

BY TOMIO GERON

TONI AND DAVID BELL found a new way to raise cash so they could eliminate debts and do home improvements last year.

They signed up for a transaction with **Point Digital Finance** Inc., a startup that buys equity in people's homes for cash. The Bells got $170,000 for selling a small piece of the equity in their home in Campbell, Calif., to Point.

Point is one of a number of companies that are giving people new ways to tap into the value of a home, a car or even work they haven't been paid for yet.

It's an expansion of a trend that started with companies like Airbnb and Uber Technologies giving consumers a way to make money by renting out their homes or driving people in their cars. Now, thanks in part to advances in software's ability to quickly and accurately value assets, there are even more ways for consumers to extract cash from their assets, through equity deals like Point's and new kinds of asset-backed loans.

Point Digital Finance, which operates in California, Oregon and Washington, typically buys an equity stake of about 10% of the current value of a home in exchange for cash. In the case of the Bells, for instance, the home was appraised at $1.7 million, thus the $170,000 payout to them.

No monthly payments

Because this isn't a loan, homeowners make no monthly payments. Instead, when the home is sold or refinanced, Point takes back the amount it paid to the owner—10% of the home's value at the time of the original transaction—plus a larger than 10% share of any appreciation in the home since then, meaning it ends up with more than 10% of the home's value at the time of the sale or refinancing, which must take place within 10 years.

The percentage of the home's appreciation that Point takes is written into the agreement. It can vary from home to home, but typically homeowners selling a home in 10 years would end up paying the equivalent of about a 7% to 11% annual interest rate on the initial cash payment they received, compared with a home-equity line of credit that could cost about 5% at current rates, Point estimates. The maximum a Point homeowner would pay is capped at the equivalent of an interest rate in the "midteens" regardless of how much the home appreciates, the company says.

The extra cost, in comparison to a home-equity loan, is the price for the homeowner being able to raise cash without having to make a monthly payment, says Eddie Lim, Point's co-founder and chief executive. Point also charges a fee of 3% of the amount the homeowner receives. Home-equity loans can have comparable fees and closing costs.

For people who have trouble getting a home-equity loan, such equity deals are an alternative to unsecured loans, such as personal loans or peer-to-peer loans, which can have higher interest rates.

With about $1 million in equity in their home, the Bells were willing to give up some profit from the sale of their home in the future. They didn't want to refinance or get a home-equity credit line because they wanted to cut their debt and monthly payments, Ms. Bell says.

"We're very pleased with the whole situation," she says. "It put us in a better position financial- and credit-wise and comfort-wise."

If the customer doesn't pay Point back within 10 years, Point can foreclose on the house. If a home depreciates in value more than a certain amount, Point will share in the loss. So homeowners could owe less than the cash they received from Point. The company uses algorithms to identify homes that are most likely to appreciate. To mitigate foreclosure risk, Point aims for customers who have an average of 35% equity in their homes and so are likely to be able to sell or refinance and pay the company back, Mr. Lim says.

As of September, Point had bought equity in 50 homes.

Cash from a car

There are other assets that consumers can turn into cash. Freelancers who have completed a job often wait 30 to 90 days to get paid. With an app from the startup **Qwil**, they can get paid up front, turning their labor into immediate cash. Qwil charges a fee of 0.5% to 5% of the loan, which is much cheaper than a typical payday loan. It verifies all pending payments with the employers.

Another startup, **Ziero Financial** Inc., doing business as **HoneyBee**, enables employees to borrow against their unused vacation days. HoneyBee works only with employers that pay workers for unused vacation days at termination. It allows employees to pay back loans of typically under $700 over a few months with a fee that equals an annual percentage rate of 20% to 36%—after which time they get their vacation days back.

There's also a new way for cars to provide cash for their owners. **Finova Financial** provides loans in exchange for liens on cars. Finova's loans, typically $1,500 to $2,000, are designed to be an alternative to higher-interest loans known as car-title loans.

Finova—which operates in Florida, California, South Carolina, Tennessee, New Mexico and Arizona—charges an annual percentage rate no higher than 30%, compared with about 300% for the typical title loan. Finova also gives customers 12 months to repay, versus 30 days for many car-title loans.

There are risks to this kind of borrowing. People often lose their cars after falling behind on car-title loans. "You're taking your personal items of value and putting them on the line" with any asset-backed loan, says Bruce McClary, vice president of communications at the National Foundation for Credit Counseling, which helps clients reduce their debt.

But Finova's loans are designed to be easier to pay back, with more flexibility and the ability to set up a payment plan if borrowers are late, says Gregory Keough, chief executive of Finova. "In the traditional model, if you're 31 days late they show up and take your car," he says. "Our model is different. We can give you time to pay it back."

Finova also aims to make it easy for people to apply for a loan, get their money and make payments. Tammy Coulter of Dickson, Tenn., used Finova to borrow $2,500 against her car last year. She completed an application online and sent in supporting documents. Once the loan was accepted, she picked up the cash at a **Wal-Mart** store, where she also makes her monthly Finova payment.

Ms. Coulter says she likes Finova's customer service and the flexibility of payments; Finova gave her a grace period when she needed more time to pay.

"A lot of places won't work with you," she says. "They just ignore you or come after you. (Finova's) been very lenient with us."

*Mr. Geron is a Wall Street Journal reporter in San Francisco. He can be reached at **tomio.geron@wsj.com**.*

JOHN KUCZALA

Homeowners can sell part of their equity for money they need now.

Piece of the Action

Finance companies are creating new ways for consumers to get cash out of their biggest assets. How a conventional home-equity line of credit compares with one of the new products, where the company requires no monthly payments but takes a share of the home's appreciation:

	$100K HOME-EQUITY LINE OF CREDIT	$100K POINT DIGITAL FINANCE EQUITY DEAL
Type of transaction	Loan	Equity
Homeowner equity	Good loan-to-value ratio	35% equity on average
Credit	Good credit is important	Credit not as important
Typical rates	4.58%	7%-11% (effective 10-year rate based on Point's share of appreciation)
Monthly payments	$485 (variable rate, 10-year draw period/20-year repayment period) OR $1,143, for 10-year payoff	None; home must be sold or refinanced within 10 years to pay Point

Sources: Bankrate; Bank of America; Point Financial

THE WALL STREET JOURNAL.

VC Firms Use Big Data to Seek Out the Next Big Thing

A small group of venture firms hope to use analytics to gain an advantage over mere humans

BY ALEXANDER DAVIS

COMPUTERS ARE on the rise as Wall Street's brave new stock pickers. Now some Silicon Valley startup investors are giving big-data analytics a prominent role in the venture-capital arena.

In recent years a small group of emerging venture firms have been testing ways to remake the art of venture capital and turn it into more of a science. They're relying to varying degrees on what are, for their industry, radical new uses of software and data to help guide their investments.

Early-stage firm **SignalFire**, launched in San Francisco in 2015, mines vast troves of proprietary databases in real time to identify investment targets and support their development. **Correlation Ventures** brings proprietary data analytics and predictive computing into its decision-making on joining deals as a co-investor. **NFX Guild**, an investment firm that also has an accelerator for startups, runs software in the cloud that can help its startups find new investors.

Using the latest technology to find the best deals and help startups grow can make venture investors stand out from the crowd.

"A few days of advantage can mean the difference between winning and losing a deal," says SignalFire Chief Executive Chris Farmer. Compared with this new computer-driven approach, he says, operating the traditional way "is playing a game of telephone—with tin cans and a string."

Helping the humans

In some ways this urge to automate key parts of venture investing mirrors Wall Street's recognition that computers do some things not only faster but also better than people when it comes to crunching gigantic sets of data.

BlackRock Inc., the world's largest asset manager, recently showed some of its stock pickers the door, having watched algorithmic and other computerized trading revolutionize the securities industry. Computer models are now doing more of the work that had been done exclusively by human asset managers who have long created sophisticated trading strategies.

In Silicon Valley, SignalFire uses software, data science and analytics in an effort to capture superior returns for its investors by both picking the right companies to invest in and helping them thrive. The firm's $53 million first fund aims to make 35 investments, and is about halfway there.

With former Google and Yahoo machine-learning experts on its staff, SignalFire says it finds investment opportunities by tracking millions of data sources in real time, such as monitoring capital flows into startups and movements of key employees. To gain useful insights, SignalFire has amassed its own vast sets of data on things like how companies react to competition, how satisfied their employees are and how their performance stacks up against that of their peers.

Ultimately, says Mr. Farmer, spotting a unique investment opportunity is still a human talent—but the data analysis his firm does helps the best candidates stand out more. "We're using our technology to weaponize people with superhuman anomaly-detection powers," he says.

Talent search

SignalFire also uses a similar approach to helping its startups solve an ever-present problem for Silicon Valley founders: finding and attracting talent. The firm monitors and analyzes data about potential employees, such as their career moves and accomplishments, to help its portfolio companies with recruitment of rising stars.

Partners at Correlation Ventures have enlisted computer models to help them make speedy investment decisions so the firm can position itself as the ideal co-investor.

Financing rounds for startups can drag on for many months as the companies' founders search for investors that can provide the funding they need but won't ask for too much influence in return. For many startup founders, as much as one-third of their time is spent on fundraising and investor relations.

Correlation, which closed its first fund in 2012, guarantees an investment decision within two weeks, and never takes a board seat. The firm's approach is designed to achieve solid returns and mitigate risk by making dozens of investments each year across all sectors and investment stages, says David Coats, managing director. The firm has offices in Palo Alto, Calif., San Diego and New York.

Mr. Coats says Correlation's data-heavy approach uses proprietary analytics and predictive modeling to glean positive or negative investment signals for an ocean of investment options—a promising market opportunity for a startup, for instance, or worrisome signs of excessive cash burn.

Correlation's approach is similar to the deep, broad statistical analysis of baseball players and game situations that has become de rigueur for professional teams. The investing signals that Correlation weighs in making its decisions are akin to analyzing in exhaustive detail how particular pitchers and hitters will perform against each other in specific game situations, or even certain weather conditions, Mr. Coats says, and the firm has a vast amount of data to produce those signals.

"The database contains details for tens of thousands of historical financings with associated outcomes," Mr. Coats says. "These volumes provide a more than sufficient learning corpus for our predictive analytics-based models."

Looking ahead

"If our thesis holds," says Mr. Coats, "our portfolio will be tilted to the more favorable outcomes." It's still early, though, for Correlation, which recently raised $200 million for its second fund, to say how well the formula works. Of the 121 companies that the firm's first fund invested in, most are still in the early stages of development; a handful have produced returns for investors because they were acquired or went public, and about a dozen have gone bankrupt or out of business.

And what if the venture firms embracing computer analytics succeed?

Automation by definition takes the human out of the process. So is Silicon Valley's venture-capital corridor along Sand Hill Road in danger of becoming a ghost town? Even Mr. Coats says he hopes not. Predictive modeling can be powerful, he says, but for lead investors, "internal" human judgment is "irreplaceable."

Mr. Davis is a Wall Street Journal news editor in San Francisco. Email him at alexander.davis@wsj.com.

DANIEL HERTZBERG

The goal: to make venture investing more of a science.

Vulture Funds Are Starting to Take A Longer-Term Perspective

Managers hope they can persuade investors that less liquidity will mean greater potential profits

BY ANDREW SCURRIA AND SOMA BISWAS

WALL STREET vulture funds have a reputation for snapping up a troubled company's debt on the cheap, plundering the remaining assets, then quickly moving on. Today these funds are focusing more on longer plays and bigger profits.

Historically, such funds offered their investors monthly or quarterly opportunities to pull their money out. That structure may provide a fund's investors with liquidity, but managers say it is ill-suited to investments that can take years to pay off.

As a result, funds, with their new, longer time horizons, are now persuading their investors to tie up money for longer. Fund managers hope this shift will allow them to target assets that are less tradeable and take longer to ripen but will ultimately be more profitable. They also hope the longer lifespans of their funds will lessen the risk that redemption requests will short-circuit their investments and force the funds to sell assets at depressed prices.

Better match

Mark DeNatale, global head of special situations at CVC Credit Partners LLC, a global investment firm with nearly $15 billion in assets under management in the U.S. and Europe, says lengthening investing terms allows managers to more closely match their funds' assets with their liabilities. The assets are the loans they bought; their liabilities are the possible redemption requests from their investors.

Managers hope the structural shift will also position distressed funds alongside less liquid but higher-returning asset classes such as private-equity funds and real-estate investment trusts that have become favorites of pension funds, university endowments and other institutional investors with long-term outlooks.

The longer time frames reduce the potential disruption from monthly, quarterly or even daily redemption requests, which can present a challenge for distressed funds to maintain their positions when performance wanes or volatility strikes.

Waves of withdrawals have claimed several notable victims in recent years, such as Third Avenue Focused Credit Fund, the high-yield and distress-focused fund managed by Third Avenue Management LLC that suspended redemptions and subsequently shut down in 2015.

Just last month, Blackstone Group's GSO Special Situations Fund closed a $3 billion distressed-debt hedge fund and shifted most of its assets to other funds housed within the firm with longer investment horizons. The longer duration and drawdown structures of those funds "better complement our competitive strengths and style of investing and will allow us to generate better risk-adjusted returns," says a spokeswoman for GSO Special Solutions.

Distressed and special-situation funds launched in 2016 are more likely to offer redemptions at a lower frequency than in the past, according to the global research company and data provider Preqin. Last year 39% of funds allowed for redemptions annually, compared with 0% in 2015 and 9% in 2014. None of the funds launched last year allowed investors to redeem monthly, down from 13% in 2015 and 9% in 2014.

Longer tenures

CVC's special-situations business is one-half hedge-fund capital with a more traditional redemption structure; the other half is locked up for longer tenures that resemble those of private-equity vehicles, says Mr. DeNatale. Private-equity funds have a reputation for illiquidity but also high returns, making them a favorite of institutions with long-term outlooks.

Now, Mr. DeNatale says distressed funds are telling partners that to realize private-equity-style total returns from 15% to 20%, they can't be subject to frequent liquidity requests.

In a study released last month, the law firm Seward & Kissel LLP found that more newly launched hedge funds employ either lockups or investor-level gates, two liquidity-management features that became popular after the financial crisis. A lockup freezes investment capital for a prearranged period, while gating prevents investors from redeeming more than a portion of their money at a time.

All of the surveyed hedge funds in 2016 featured one, either a lockup or a gate, and 5% included both, the firm found. That was up from 85% in 2014 and 58% in 2012. Meanwhile the proportion of hedge funds with "hard" lockups rose to 31% in 2016 from 12% in 2014 and 8% in 2012. Hard lockups prevent investors from withdrawing their money for a specified time period, often a year or longer. A "soft" lockup provides that investors can redeem during the lockup period, but for a fee.

Offsetting low yields

For investors who can stomach the limited liquidity, it may mean another source of total returns to offset ultralow bond yields. But it does require patience.

Robert Schwartz, portfolio manager at AllianceBernstein, says it can be a lengthy process for a company in bankruptcy to turn its creditors into shareholders and then to emerge from court protection with a healthy balance sheet.

"The way the business has changed is you need to have capital locked up in situations that aren't liquid," says Marc Lasry, chief executive of Avenue Capital Group. "The best investments are always made when people are forced to sell. You're either a provider of liquidity or seeker of liquidity."

Mr. Scurria and Ms. Biswas are reporters for The Wall Street Journal in New York who cover restructuring. They can be reached at andrew.scurria@wsj.com and soma.biswas@wsj.com.

Waiting for Redemption

Hedge funds launched in 2016 are more likely to offer redemptions at a lower frequency than in the past

	PCT. OF FUNDS ALLOWING ANNUAL REDEMPTIONS	PCT. OF FUNDS ALLOWING MONTHLY REDEMPTIONS
2012	5%	20%
2013	0%	20%
2014	9%	9%
2015	0%	13%
2016	39%	0%

Source: Preqin THE WALL STREET JOURNAL.

Is It a Lie or the Truth? Finance Pros Can't Tell

BY DEBORAH GAGE

IF YOU'RE COUNTING on investment professionals to sniff out financial fraud, here's some advice: Don't.

Indeed, investment professionals, according to a recent test designed by faculty of the John Jay College of Criminal Justice in New York, are so poor at distinguishing truth-tellers from liars that they might as well flip a coin.

The test was part of a study published in the Journal of Behavioral Finance in February in which experiments in detecting the truth were conducted on 154 randomly selected financial professionals who were affiliated with the Chartered Financial Analyst Institute.

The study and its findings are important in part, its authors say, because, despite "a long history" of deceptions on Wall Street, little scientific research has been done on the ability of investment pros to detect lying. And the consequences of failure by financial analysts to detect deception, the study notes, often amount to billions of dollars in losses for investors.

"I'm not trying to bash these people, [but] it's important," says the study's chief author, Maria Hartwig, a professor of psychology at John Jay College. "These people are facing a difficult task and by implication need assistance, perhaps a degree of training. A better understanding of truth and deception might benefit them in their career and reduce mistakes in the long run."

Participants in the study were asked to watch three videos: Mock suspects who talked about their involvement in a staged act of terrorism, convicted felons who talked about their involvement in a mock crime, and people who held news conferences to either plead for the return of a missing loved one or ask for information about the murder of a relative whose body had been found.

They also listened to quarterly conference calls from public companies that were later subject to enforcement actions by the Securities and Exchange Commission. The calls included statements that the SEC had identified as misleading or false.

Participants were asked to measure the truthfulness of some statements (not all of them were false). They were also asked to rate guilt versus innocence and say how confident they were in their judgments. For the corporate conference calls, they were asked whether they recognized the company on the call and whether they had been an original participant on the call, to ensure that they weren't bringing their own knowledge to the test.

Their average accuracy rate at distinguishing truth from lies across all four categories of information was 49.4%, similar to what they would have scored if they had guessed or flipped a coin. Neither age nor experience improved their performance.

On the financial statements, where they could have been expected to do better, they had a truth bias, leading to what Dr. Hartwig calls "an alarming lack of accuracy in detecting lies." They also did worse when they were highly confident of their performance.

Detecting liars is hard for anybody, Dr. Hartwig says, because liars give few cues to their behavior—someone who fidgets, shifts their eyes, slumps, hesitates or pauses isn't necessarily lying. Since there is little academic data on investment professionals and deception, Dr. Hartwig and her colleagues wanted to place the participants in a broad range of situations "including laboratory and real life, high-stakes lies and truths." The financial conference calls were included "to provide an externally valid test of investment professionals' performance in their domain of work."

Participants were at a disadvantage because they couldn't ask questions of the speakers, she says. They could only listen and observe.

However, investment professionals can be trained to become better lie detectors, she says. Dr. Hartwig has trained prosecutors, judges, police detectives, and intelligence and military officers, among others, on using interview and interrogation techniques to ferret out lies.

The key is to come well prepared, then ask a series of questions that will force liars to eventually deviate from their stories. If a wallet has been stolen from a briefcase, for instance, liars may withhold the fact that they handled the briefcase, or that they were anywhere near the briefcase.

"You're making it hard for liars to present a credible story by using the information you have in a way that makes the liar's strategy to avoid detection backfire," she says.

Given the billions of dollars that have been lost over the years to financial fraud, teaching investment professionals to detect lies, Dr. Hartwig says, has "high stakes for mankind."

Ms. Gage is a writer in San Jose, Calif. Email reports@wsj.com.

Personal Banking Becomes Even More Personal

Financial institutions know a lot about their customers, and they are eager to make more use of that knowledge

ROB SHEPPERSON

BY CHRISTINA REXRODE AND EMILY GLAZER

BANKS KNOW MORE about their customers than ever, and increasingly are trying to get more use out of that information.

The results can be convenient, or just creepy.

Banks can look at customers' debit-card and credit-card transactions, online-bill payments and account activity to see what they're buying, who they're working for and other information. Now, from the largest Wall Street behemoths to small community lenders, the banks are looking to use that data in new ways, investing in more-advanced technology to better target prospective customers and sell more services to existing ones.

Such moves have been a long time coming in an industry not known for embracing technological change. But banks are under increasing pressure from well-funded startups that make snap lending decisions based on such unorthodox metrics as a customer's online-shopping record.

Developments in artificial intelligence and machine learning are giving the banks more firepower to spot patterns in financial or personal issues a consumer might be having. Online bill payments, call-center interactions and online chats with customer-service representatives have given the banks more data to play with than ever before.

But access by banks to so much personal information raises concerns about privacy and consumers' rights in this era of big data and the Internet of Everything. Richard Cordray, head of the Consumer Financial Protection Bureau, said at a recent industry conference that banks need to be careful about how they use and store customer data. "We see the market moving quickly, with high stakes for all involved," Mr. Cordray says. New rules regarding data privacy are also on the way in Europe.

Some big players are already being careful as a result of what they know. **J.P. Morgan** Chase & Co. is using customer data to determine when *not* to bug its customers. For instance, the bank doesn't want to pitch a new credit card to a customer who has recently been the victim of card-related fraud.

Generally speaking, though, banks, including Chase, know they are sitting on a large deposit of gold—and they intend to mine it.

Chase, the largest U.S. bank by assets, tailors offers based on what it knows about customers' wealth, family size and recent spending and borrowing patterns, bank executives say.

"The last thing we want to do is sell somebody a product they don't want, or don't qualify for," says Kristin Lemkau, chief marketing officer at Chase. "We want to strengthen the relationship, not cheapen" it.

That means connecting the dots in ways customers feel comfortable with.

"If someone is buying a lot of things at the home-improvement store...maybe we should call them up and ask if they need a home-equity line, versus the old days, where everyone who walked into the branch, we would say, 'Hey, do you need a home-equity line?' " says Bob Hedges, a partner at consulting firm A.T. Kearney.

Fifth Third Bancorp plans to experiment with cellphone location technology that will allow the bank to send customers a text message when they are close to a branch and encourage them to stop by.

Melissa Stevens, Fifth Third's chief digital officer, says her bank will move cautiously. "There's that balance," she says. "You want to show that you're utilizing and embracing new technologies, but you also don't want to freak people out and accidentally alienate customers."

Contacts that make consumers look over their shoulders may still be welcome as long as the messages are appropriate or useful, bankers say. Rob Lee, chief product officer for banking and payments at financial-technology company FIS, says his company is helping banks with just-in-time marketing. If a bank notices a customer eating lunch at different college campuses all week, it might send offers or news about student loans, he says. Or customers who keep spending money on car repairs might be receptive to messages about how to qualify for a car loan.

Other pressures, besides competition from startups, are pushing banks to mine their data for more opportunities. For decades, they were more interested in buying other banks to become bigger, then integrating the target bank's technology to cut costs. The financial crisis largely put an end to such deals; now banks are looking inward to their relationships with customers.

When **Wells Fargo** & Co. customers have their paycheck deposited by a different employer, these days they might get asked if they need help switching their 401(k) over from the previous employer, says Charles Thomas, the bank's chief data officer. A spokeswoman for Wells Fargo, which in September settled with regulators over charges that it opened accounts using fictitious or unauthorized customer information, says that data is helping it prevent fraud, process speedier transactions and make basic recommendations. The bank also hopes to use newer tools including artificial intelligence to do things like send customers text alerts about unusual transactions or offer virtual financial advisers.

At **Citigroup** Inc., the bank knows when customers have redeemed credit-card points for travel rewards, and in response it highlights travel options like flights and hotels when reminding those customers to redeem more points.

Some banks are hiring data-analytics firms to help them find out more about their customers, using data they already have. When **First Financial Bancorp**, a community lender based in Cincinnati, discovered that many of its customers weren't tapping the home-equity lines of credit they opened at the bank, it asked **Segmint** Inc., a data-driven marketing firm based in Akron, Ohio, to analyze those customers' credit-card transactions, online bill payments and other information. Then it started targeting those customers with messages based on what it thought would interest them. To some the bank sent messages noting that the money from a home-equity line would be a great way to help with home repairs. To others, it encouraged using the money to travel.

The project so far has increased the usage rate on the home-equity loans, says Lynda Crossan, vice president of marketing.

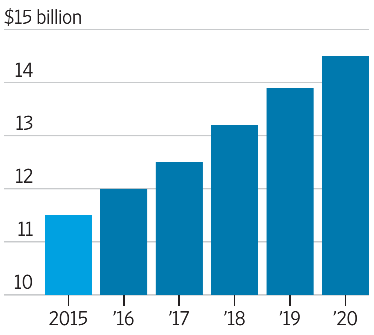
Not every profitable use of customer data requires an analytical or technological approach.

In 2014, Wells Fargo started sending birthday notes to customers via its mobile app. The following year, tellers in branches started offering birthday wishes as well. A Wells Fargo spokeswoman says customers "love the personal touch."

Ms. Rexrode and Ms. Glazer are Wall Street Journal reporters in New York. Email christina.rexrode@wsj.com and emily.glazer@wsj.com.

Banking on Big Data

How much the financial industry spends on technologies to analyze customers' data and market to them



Note: Figures for 2016-20 are estimates/projections.
Source: International Data Corp.
THE WALL STREET JOURNAL.

A City That's Built on Blockchain

Dubai wants to use the technology to conduct its business

BY NIKHIL LOHADE

DUBAI HAS GROWN from a tiny fishing village to a major trading hub by attracting businesses with near-zero taxes, advanced transportation infrastructure and a secure environment in a tumultuous region. Now it's planning another transformation to bolster its claim as the leading center for business in the Middle East—to an economy that relies heavily on blockchain technology.

Blockchain is perhaps best know as the technology behind the digital currency bitcoin, but it can serve many purposes. It uses a digital ledger to efficiently share and track information related to contracts and transactions, the records of which are permanent, verifiable and secure.

The goal of Dubai's government is to conduct a majority of the emirate's business using blockchain, which it expects will make government services more efficient and help promote enterprise in Dubai as it will become easier to do business there.

"We want to make Dubai the first blockchain-powered government in the world by 2020," says Aisha Bin Bishr, director general of Smart Dubai, a government office tasked with facilitating innovation in the emirate. "It is disruptive for existing systems, but will help us prepare for the future," she says.

Testing it out

Blockchain has yet to be deployed widely for commercial use, but many big global companies are testing the technology. It has attracted the most attention in the financial-services sector and is seeing growing interest from industries such as supply-chain management, health care and shipping.

For instance, Wal-Mart Stores Inc. is trying out blockchain to improve the way food is tracked, transported and sold to consumers across China. And **Depository Trust & Clearing** Corp., a big Wall Street firm that processes financial transactions, plans to start using blockchain by early next year. The technology shift could help cut its cost of warehousing information on the transactions it handles, savings that could be passed on to customers.

In general, blockchain has the potential to speed up transactions, increase transparency and help reduce fraud such as money laundering. But it also faces several challenges to broad adoption.

One is cybersecurity. Backers of blockchains claim they are secure by design, but the technology hasn't been adopted widely enough yet for it to be seriously tested. Several hacking attacks against digital currencies in recent years underscore the security concerns.

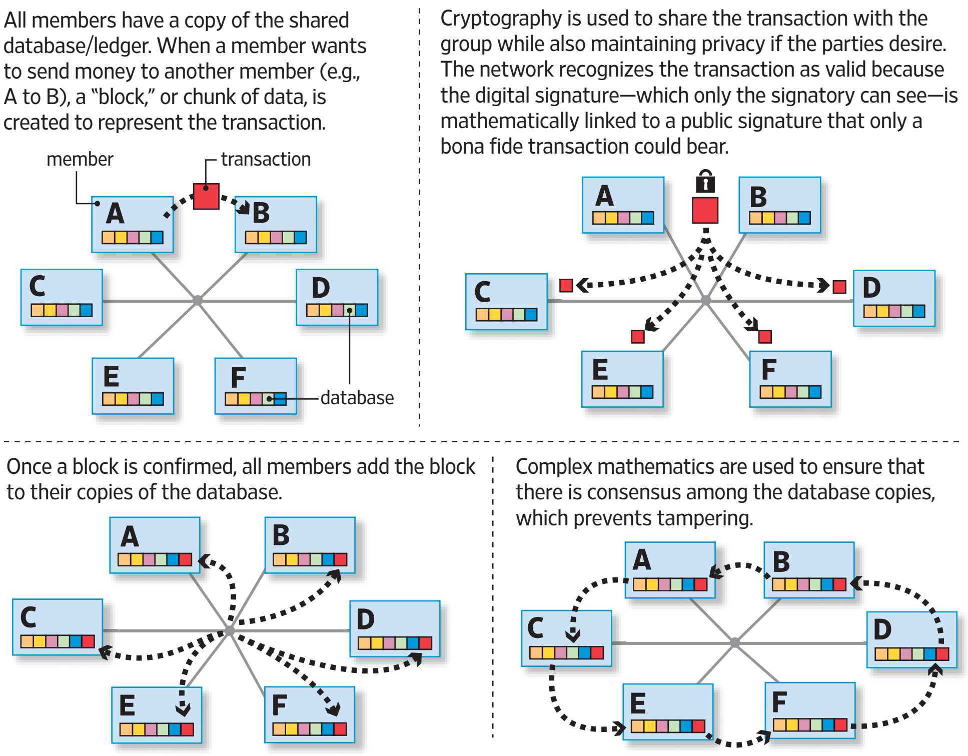
Regulatory uncertainty is another hurdle, especially in the financial-services industry. Legal frameworks globally will have to change to adapt to the growing use of the new technology.

The costs to shift to the new technology, which continues to evolve, are also high. And there are many technical challenges involved in integrating blockchain databases with existing systems.

Despite all that, the advantages of blockchain are attractive for many businesses and institutions. Dubai, a semiautonomous member of the United Arab Emirates, is the first city to back the technology on a government level.

Building Block to the Future

Dubai hopes to use blockchain, the technology behind the digital currency bitcoin, both to power its government and to enhance its status as a trade and finance hub. Blockchain allows for secure record keeping in online ledgers where members share and confirm information with no central authority. It can be used, for instance, to consolidate records for shipping goods around the globe. How it works:



Sources: Smart Dubai; Collin Thompson, Medium.com

THE WALL STREET JOURNAL.

Public-private effort

In March, Smart Dubai kicked off a citywide effort to implement blockchain. Over the coming months, it will conduct workshops with key government, semigovernment and private organizations to identify and prioritize the services that can be most enhanced by blockchain. It also will educate the public and private sectors about the technology's potential.

Following these workshops, Smart Dubai expects the public and private sectors to collaborate and start rolling out blockchain pilot projects this year. It also plans to build a shared platform—Blockchain as a Service—for Dubai government entities to use for implementing their projects.

Wesam Lootah, the chief executive of Smart Dubai, says a collaborative effort is crucial to ensure that the emirate as a whole is moving in the same direction to take advantage of synergies and avoid duplication of efforts and costs.

Smart Dubai has appointed **International Business Machines** Corp. as its blockchain lead strategic partner and **Consensys**, a custom-software development consultancy, as its blockchain adviser.

Dubai is adopting this technology as "government agencies and businesses realize the need to have a shared, secured ledger that establishes accountability and transparency while streamlining business processes," says Takreem El Tohamy, IBM's general manager for the Middle East and Africa. "The key is to always keep business value at the forefront."

First steps

Several key Dubai entities are already trying out the blockchain technology.

The Department of Economic Development, a government agency, is usually the first stop for any company planning to do business in Dubai. Its role includes facilitating the setting up of businesses, issuance of commercial licenses, protecting the rights of businesses and consumers, and promoting enterprise and trade in Dubai.

The department, to start with, is working on shifting its entire business registration and licensing services to blockchain.

"We want to transfer existing data to blockchain as well as create a system for new information," says Mohammed Shael Al Saadi, the department's chief executive for corporate strategy. "This data would be available to other Dubai entities, cutting down on duplication and easing and accelerating the process to set up businesses in Dubai," he says.

Another big early investor in blockchain is **Emirates NBD**, Dubai's largest bank, which is majority owned by the **Investment Corporation of Dubai**, manager of the Dubai government's portfolio of commercial investments. Emirates NBD in February started working with IBM and some other Dubai entities to explore the use of blockchain for trade finance and logistics.

Trade is Dubai's biggest business. It has used its ports and free zones to become a major import-export hub, connecting markets in Asia with those in Africa, Europe and beyond. Non-oil foreign trade in the emirate totaled about $348 billion in 2016.

"The aim is to replace paper-based contracts with smart contracts that will help reduce complex documentation for the tracking, shipping and movement of goods," says Ali Sajwani, the group chief information officer at Emirates NBD.

"We have a very clear objective to make Dubai the capital of the blockchain industry," says Smart Dubai's Ms. Bishr. "By 2020 we'll have 100% of applicable government services and transactions happen on blockchain."

__Mr. Lohade__ is an assistant news editor for The Wall Street Journal in Dubai. He can be reached at __nikhil.lohade@wsj.com__.

New EU Rules Will Protect Consumers in the U.S. as Well

Companies will have to be more transparent about how they collect and use customer data

BY JEFF STONE

CUSTOMERS OF U.S. banks, credit-card companies and insurance companies will soon have their personal data protected more rigorously, thanks to a sweeping new set of regulations from the European Union.

The General Data Protection Regulation, which takes effect in May 2018, will force companies to be more transparent about the type of data they collect on individuals, how that data is used and when personal information is exposed in a breach.

The regulation will apply to all companies that process data on EU citizens, but observers expect some large multinational companies will adopt the rules throughout their operations, rather than try to enforce multiple sets of rules across locations. That is expected to be the case for financial institutions, which typically handle transactions from customers around the world.

"From an architectural perspective, I think companies are going to assume everyone they're dealing with is a European Union citizen," says Denyette DePierro, vice president and senior counsel of cybersecurity and payments at the American Bankers Association. "The architecture of trying to keep that information properly segregated is probably more burdensome than just meeting the standard."

The Upside

Companies will bear a substantial compliance burden from the new rule, commonly referred to as GDPR. It is a vast regulation that requires organizations to—among other things—document cybersecurity practices, notify affected users within 72 hours of a breach and designate a data-protection officer who will supervise an organization's data-collection methods. Companies that fail to comply could face fines of as much as 4% of their global revenue.

But adopting GDPR could also present an opportunity for financial institutions to demonstrate their cybersecurity credentials and to prepare for what could be stricter cybersecurity regulation in the U.S.

Enza Iannopollo, a security and risk analyst at Forrester Research Inc., says forcing banks to explain that a breach took place and to help customers manage the risk could turn a difficult incident into a positive event. Recent research from Carnegie Mellon University shows customers are more likely to leave a bank in favor of a new financial institution after a breach, or fraud attempt. However, since all GDPR-compliant banks will need to notify customers about a breach, those that do so quickly, transparently, and effectively could be ultimately rewarded with more customer trust.

"A lot of companies we work with are approaching this from a reputational point of view," says Peter Gooch, cyberrisk partner at Deloitte LLP, adding that when breaches do occur, companies often want to demonstrate they have done everything possible to mitigate the risk to consumers in order to avoid a public-relations crisis and minimize customer losses.

As the public begins to understand how frequently banks are breached, and that events are commonplace, experts say customers will shift to organizations that best communicate their response plans.

Thus, "GDPR is an opportunity to better engage with customers," Ms. Iannopollo says. "This is something that helps both sides because when financial services are clear with customers, customers are more willing to do what a company is asking them to do."

In similar fashion, a GDPR stipulation that organizations must appoint a data-protection officer presents an opportunity to re-examine how they collect user information, and how that information is stored.

Multinational companies that assign the data-protection role are also likely to give those individuals responsibilities outside GDPR, says Steven Chabinsky, global chairman of data, privacy and cybersecurity at the law firm White & Case and a member of the Commission on Enhancing National Cybersecurity under former U.S. President Barack Obama.

"I can't see a company appointing a person and saying, 'You're only to look at how our data is collected in Europe,' " Mr. Chabinsky says. "One would not imagine that an organization would take into account a process of assessing the privacy of data in one area, and not the other."

Notification law

Meanwhile, there is momentum in the U.S. for a national data-breach notification law. Forty-eight states have laws requiring companies to report data breaches through various channels, but the patchwork nature of those rules and the rising threat of cybercrime have brought the possibility of a national law similar to the breach-notification requirement in GDPR to the fore. A number of public officials including the acting chairman of the Federal Trade Commission, Maureen Ohlhausen, have advocated for a national data-breach notification law.

International consulting firms say they expect more companies to prepare for potential standards in the U.S. as well.

"GDPR sets a new baseline," says Deloitte's Mr. Gooch. "The fundamental purpose of this regulation is not to check a box and be done with it. It is about ingraining privacy in what you do."

__Mr. Stone__ is a reporter for The Wall Street Journal in New York. He can be reached at __jeff.stone@wsj.com__.

British Banking Sector Braces for Difficult Times

The good news: Brexit may not hurt London's financial sector as much as people think. The bad news: Other things will hurt it a lot more.

BY PAUL J. DAVIES

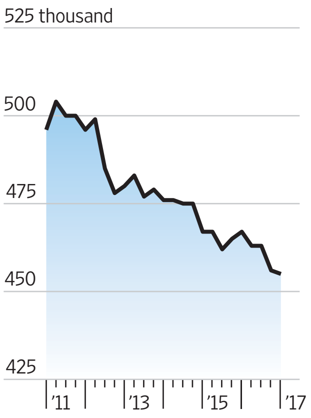
BREXIT ISN'T THE toughest challenge facing the City of London.

Banks in Britain are still languishing in the doldrums brought on by the financial crisis of 2008. Weak banking activity and low investment returns have caused revenue to shrink, leading to widespread cost-cutting and automation.

While Britain's planned departure from the European Union threatens London's position as the "investment banker to Europe," in the words of Bank of England Gov. Mark Carney, the impact that will have on London itself will likely be smaller than people think. EU clients provide only one-fifth to one-quarter of revenue for the City's finance sector.

Bigger Than Brexit

The financial industry in London has been shedding jobs for years, as it has across Europe and globally. British banking jobs:



Source: U.K. Office of National Statistics

Investment bankers and traders by year for Europe (dominated by London) and the rest of the world, in thousands

	Europe	Rest of world
2011	24.96	42.14
2012	21.98	38.22
2013	21.47	36.93
2014	20.65	35.54
2015	20.33	35.07
2016	19.94	33.26

Note: Figures cover front-office producers (bankers and traders who bring in revenue for their employer) and exclude middle or back-office jobs that involved settlement, management, administration, accounting, etc.

Source: Coalition

THE WALL STREET JOURNAL.

Other, continuing pressures look more significant—in particular, low investment returns and pressure from clients to cut costs. In a low-return world, everyone from fund managers to small individual investors wants to pay lower fees.

"Trading [is] a commodity business, it's about who can do it most efficiently," says Andrew Formica, chief executive of fund manager Henderson Group. "It's becoming a bit of an arms race in terms of technology investment."

Passive investing

Pressure to cut costs is fueling a move to passive investing, in which fund managers do much less trading and research. Where active managers remain, they have to cut costs, too, to stay competitive. This all feeds into less revenue for investment banks, forcing them to cut more costs.

And the same trends that are hurting banks in Britain are affecting big banks everywhere.

"The continued uncertainty makes it a lot harder to invest in the future," says Hakan Enver, operations director at Morgan McKinley Financial Services, a recruitment company. "It's a lot of things, not just Brexit," Mr. Enver says. "But that is good cover" for layoffs as well, he says.

The total number of people employed by all kinds of banking in the U.K. has fallen 22% from its precrisis peak in 2008, or by about 120,000 jobs, according to data from Britain's statistics office.

Technology is replacing people on trading floors and in the middle and back offices where trades are checked, confirmed and settled. Some of this is to give investors an edge in markets with computer-driven tools such as algorithmic and high-frequency trading.

Analysts here and there

But technology also means more work can be moved offshore or to cheaper locations. More reliable internet links with India, for example, mean people can work together on the same documents or files in real time.

One U.K. firm, Frontline Analysts, runs teams of equity and credit analysts based in India on behalf of investment banks in London. The bank can cut back its more expensive big-city staff to just those who interact with clients directly, but still have access to a cheaper team to do much of the number crunching and report writing.

Frontline's senior people can work from anywhere. One managing director, Daniel Davies, spent more than a decade as a bank-stock analyst at Exane BNP Paribas, Credit Suisse and elsewhere, but now trains and oversees teams of India-based analysts from his home in Exeter in southwest England.

"Investment banks can't shift the front office and they can't shift the brand, but as time has gone on and margin pressure has been brought to bear, they've realized they need to cut costs per head," Mr. Davies says.

Investment-bank executives don't want all their research to be run from elsewhere because it is harder to monitor, while their most important analysts have to spend time selling ideas to clients rather than training and checking faraway number crunchers.

"We in Frontline stand in between and do the quality assurance," Mr. Davies says. "I can do that from a cafe or from my home office."

Thinning research

In Europe, new regulations will soon force all banks to charge clients for research. That is going to put even more focus on costs because investors won't be willing to pay for many research teams. Henderson's Mr. Formica says banks could set up joint ventures just for research to reduce and share the output. But for some, cutting more people is the more likely outcome—either by outsourcing or no longer doing research.

Another big cost for banks everywhere is satisfying all of the extra reporting and compliance demands from regulators since the crisis. This involves a lot of repetitive, data-processing activity that is labor intensive, which has kept staff and real-estate costs high in banks' middle and back offices, particularly in the City, where office space is among Europe's most expensive.

How big banks are handling their compliance and other back-office work is something being looked at by Accenture, the global consulting and services firm.

The impact of AI

Accenture cut 17,000 of its own back-office processing jobs, it says, by adopting what it calls artificial-intelligence tools. The company says it is now promoting the same kind of technology to banks, while also talking up the importance of retraining those who are displaced, as it did itself.

"No question, AI will lead to substantial job displacements over time," says Richard Lumb, Accenture's global head of financial services. "But the technology is still young....The real power of AI is in how it augments workforces and makes it possible for people to do higher-value work."

Ultimately, Brexit is just one symptom of the growing desire in the U.S., the U.K., and across Europe to put up more borders between international trade and finance to protect unhappy voters at home. When it comes to banking, this protectionist theme was at work long before the Brexit campaign began. It is a theme that has led regulators increasingly to put up barriers between global banks' operations and capital bases in different countries, making them less efficient.

SIMON DAWSON/BLOOMBERG NEWS

Canary Wharf in London. Many trends hurting Britain's financial industry are being felt globally.

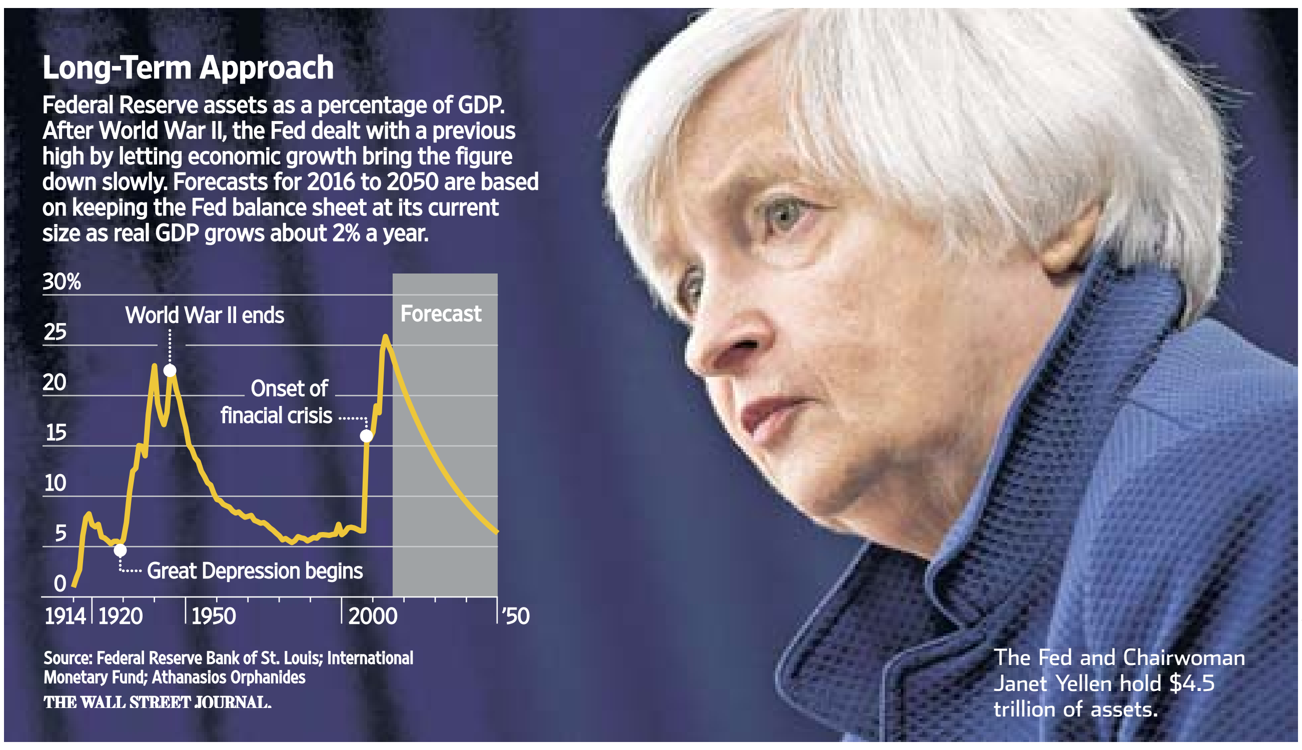
Kinner Lakhani, an analyst at Deutsche Bank, believes that the postcrisis crunch in financial activity has passed. But to stay profitable, he says, investment banks will need to cut costs further to substitute for economies lost through increased regulation. "Subsidiarization and Balkanization will challenge business models that don't have scale," he says. "Investment banks have adjusted significantly, but the process is not complete."

Mr. Davies is a London-based writer for The Wall Street Journal's Heard on the Street column. Email paul.davies@wsj.com.

Central Banks Ponder Whether To Trim Assets

They've built up their portfolios since the financial crisis. Now comes the even trickier part.

BY TOM FAIRLESS



The Fed and Chairwoman Janet Yellen hold $4.5 trillion of assets.

ANDREW HARRER/BLOOMBERG NEWS

FRANKFURT—Major central banks stocked up on trillions of dollars of government bonds and other assets since the financial crisis to support lending and growth, pushing their balance sheets to unprecedented levels.

With advanced economies now recovering, policy makers have started to phase out their most aggressive stimulus measures. A big question hanging over financial markets: What will central banks do with their massive securities portfolios?

Any move to shrink their balance sheets has risks, economists say, and a misstep could endanger the economic recovery. But keeping a big balance sheet may be risky, too.

The Federal Reserve's balance sheet has roughly quintupled to $4.5 trillion, or around a quarter of U.S. gross domestic product, from about 7% before the crisis. The Bank of England's balance sheet has undergone a similar expansion. The value of assets held by the European Central Bank has more than doubled to around 36% of GDP. For the Bank of Japan, the balance sheet and the size of the nation's economy are roughly equal.

The Fed started raising interest rates more than a year ago, but has yet to elaborate plans for its portfolio of U.S. Treasury and mortgage-backed securities. Fed officials cleared up one big question at their March policy meeting, agreeing they would likely begin shrinking the balance sheet later this year, according to minutes released April 5.

But how fast the Fed moves, and how far, remained undecided, the minutes showed. Some economists say the Fed and other central banks might hold on to much of their portfolios for decades.

"I doubt whether the big increase in balance sheets will be fully reversed at all," says David Miles, a former Bank of England policy maker who is now a professor at Imperial College in London.

Unlike with interest-rate hikes, the effects of selling assets are uncertain. When former Fed Chairman Ben Bernanke indicated in 2013 that the central bank might slow its bond purchases, that sent long-term interest rates sharply higher.

On the other hand, large central-bank balance sheets have often been correlated with high levels of inflation, although that relationship weakened in recent decades, according to a 2014 paper whose authors include Niall Ferguson, a professor of history at Harvard University.

Central banks might also have to report losses—which accrue to taxpayers—if the value of their massive portfolios falls. Those assets have so far been spinning off large profits for central banks, but that could change if interest rates start to rise rapidly. The resulting political pressures might call into question their independence and undermine their ability to fight inflation.

The last time the Fed's balance sheet was so large, in the wake of World War II, the U.S. central bank didn't actively run it down. Instead, it allowed its balance sheet to shrink as a share of GDP over some 30 years, as the economy grew.

"If the Fed keeps its balance sheet at the current dollar size, the ratio of the balance sheet as a multiple of GDP will be reduced over time, as happened after the previous episode," says Athanasios Orphanides, a former European Central Bank policy maker who now teaches at the Massachusetts Institute of Technology.

Here are four reasons why central banks are right to be cautious—and may ultimately unwind their balance sheets only to a limited extent.

1. Central-bank balance sheets may not be that big after all.

According to Mr. Ferguson and his colleagues, central-bank balance sheets aren't that large by historical standards, despite the recent rise. The academics studied the balance sheets of 12 central banks in advanced economies and found that they typically fluctuated between 10% and 20% of GDP.

"Relative to the size of the financial sector, central-bank balance sheets had shrunk dramatically in the three decades preceding the global financial crisis," the academics wrote.

Any decision by a central bank to actively reduce its holdings would also be historically unusual: Central banks have rarely reduced the size of their balance sheets in nominal terms.

2. Assets are still needed to support the financial sector and demand for currency.

The lower bound of the balance sheet is determined by the public's demand for currency—and that demand is growing globally, though mostly for dollars. In the U.S., currency in circulation has risen to around $1.5 trillion from $800 billion before the crisis, Mr. Bernanke noted in a recent blog post. Fed staff estimate that will grow to $2.5 trillion or more over the next decade.

Financial institutions are also holding much higher levels of reserves with central banks than before the crisis, partly as a result of new regulations aimed at strengthening the financial sector.

Given higher demand for currency and reserves, Mr. Bernanke argues that the "optimal" size of the Fed's balance sheet may reach $4 trillion or more over the next decade—not far off its current size.

Former Fed board member Jeremy Stein thinks a big central-bank balance sheet might help bolster the stability of the financial system. Before 2008, corporations raised short-term debt from private firms. But those debt markets froze over during the financial crisis, forcing central banks to step in. Rather than return to the old system, Mr. Stein says the Fed could take on the role of supplying short-term assets, which would require it to keep a sizable balance sheet.

3. Owning more assets gives central banks more flexibility.

A large balance sheet could serve as an additional policy tool for central banks, even when interest rates are above zero.

For instance, the Fed could sell some of its mortgage-backed securities to push up mortgage rates and curb any excesses in the housing market, says Benjamin Friedman, professor of political economy at Harvard University. Such a tool might have been useful going into the financial crisis, when the Fed refused to rein in the housing bubble using short-term interest rates, which it regarded as a blunt instrument for the purpose.

4. A reduction in central-bank assets could prove costly for governments.

The profits that the Fed remits to the Treasury have soared in recent years to around $100 billion annually, juiced by returns on the Fed's securities portfolio. Other central banks have found it similarly lucrative to stock up on interest-paying securities using newly printed money. If the Fed were to sell most of its assets, the Treasury would miss out on around $900 billion over the course of a decade, compared with a scenario where the Fed holds on to its securities, says Dean Baker, co-director of the Center for Economic and Policy Research.

In other regions, central banks might be more willing to pare their balance sheets aggressively. In Europe, for instance, corporations rely more on banks than on financial markets for funding, reducing the need for central banks to step into those markets.

Mr. Fairless is a reporter for The Wall Street Journal in Frankfurt. He can be reached at tom.fairless@wsj.com.