

# THE WALL STREET JOURNAL.

DOW JONES | News Corp \*\*\*\*\*

THURSDAY, MARCH 29, 2018 ~ VOL. CCLXXI NO. 73

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★★★★ \$4.00

DJIA 23848.42 ▼ 9.29 0.04%

NASDAQ 6949.23 ▼ 0.9% 0.04%

STOXX 600 369.26 ▲ 0.5%

10-YR. TREAS. ▲ 4/32, yield 2.777%

OIL \$64.38 ▼ \$0.87

GOLD \$1,324.20 ▼ \$17.10

EURO \$1.2310

YEN 106.85

## What's News

### Business & Finance

The clobbering that technology shares have taken in recent days has magnified how much sway they have gained in global stock markets. **A1**

♦ U.S. stocks continued to struggle, with major indexes ending lower. The Dow fell 9.29 points to 23848.42. **B11**

♦ Japan's Takeda said that it is weighing a bid for London-listed Shire. The potential deal would create a global drug giant. **A1**

♦ Heavy selling of Tesla shares and bonds persisted, posing a new challenge for the electric-car maker. **B1**

♦ Facebook is curbing the information it exchanges with companies that collect and sell consumer data for advertisers. **B4**

♦ Equifax named Mark Begeor as CEO, the second change to the post since the disclosure of a big data breach. **B3**

♦ Uber's head of freight trucking, Lior Ron, who helped work on autonomous-vehicle technology, is leaving the company. **B4**

♦ Concho Resources has agreed to buy RSP Permian in a deal valued at roughly \$9.5 billion. **B6**

♦ CME has offered to buy U.K. financial-technology firm NEX in a bid valuing it at about \$5.4 billion. **B10**

♦ CACI withdrew its bid for CSRA, paving the way for a General Dynamics deal to continue. **B3**

♦ Hospital systems Ascension and Providence St. Joseph have halted talks about a possible merger. **B2**

### World-Wide

♦ The U.S. wants to step up NATO readiness to ensure that European allies can quickly get more forces to trouble spots, amid rising tensions with Russia. **A1**

♦ Trump said he had ousted Shulkin as VA secretary and tapped the White House physician, Ronny Jackson, to replace him. **A4**

♦ The president's shake-up of his national-security team is likely to reshape the role played by Kushner. **A4**

♦ Trump campaign adviser Gates was in touch in the fall of 2016 with a person he said was a Russian former spy, Mueller's office said. **A6**

♦ The Justice Department's internal watchdog unit will probe how warrants were obtained to surveil former Trump aide Page. **A4**

♦ Some clients of Cambridge Analytica say the firm struggled to make good on CEO Nix's claims about its voter profiling. **A9**

♦ North Korea's Kim has taken his first, tentative steps onto the world diplomatic stage with his Beijing trip. **A7**

♦ British investigators said they believe that the nerve agent used against a Russian ex-spy had been applied to the front door of his house. **A9**

♦ The Treasury plans to use laws designed for national emergencies to block Chinese firms from acquiring advanced U.S. technology. **A6**

♦ The Supreme Court appeared far from consensus in a gerrymandering case. **A3**

♦ Died: Peter Munk, 90, founder of Barrick Gold. **B6**

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## Adieu to a French Hero



SOMBER HONOR: French President Emmanuel Macron presided over a national ceremony Wednesday to honor Lt. Col. Arnaud Beltrame, a gendarme who was killed after offering himself as a hostage during a terrorist attack in southern France on Friday. **A9**

## NATO Braces for Russian Threat

U.S. leads effort for European allies to get more troops quickly to potential trouble spots

By JULIAN E. BARNES

BRUSSELS—If Europe came into conflict with Russia, only several thousand of the more than one million troops in its armies would be ready for rapid deployment, military planners fear.

The U.S. now wants to step up readiness and ensure that at least 30,000 troops, plus additional aircraft and naval

ships, can reach a trouble spot within 30 days of NATO commanders putting forces on alert, current and former allied officials say.

Tensions between Russia and the West are as high as they have been in years. This week, NATO joined the U.S., Canada and a dozen European countries in the largest expulsion of Russian diplomats since the Cold War, a coordinated protest to a nerve-agent attack on a former Russian spy in the U.K. Washington and its allies have also imposed sanctions over Moscow's military intervention in Ukraine and alleged meddling in the 2016

U.S. presidential election.

Russia denies any role in the nerve-agent attack or election meddling. The Kremlin has painted the moves as a concerted campaign against the country as it reclaims its place among the world's great powers and has vowed to respond forcefully.

Boosting allied readiness in the face of resurgent threats from Russia has become a priority of U.S. Defense Secretary Jim Mattis. He has told the North Atlantic Treaty Organization it must speed decision-making, improve its ability to move forces and ensure it has units ready to deploy with little

notice, alliance officials said.

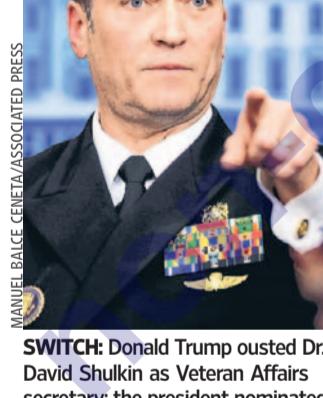
NATO officials are debating the issue. Officials say there is general acceptance of the U.S. position and allies hope to reach an agreement before a summit of leaders in July. A U.S. proposal would have the alliance commit to having 30 battalions, 30 fighter squadrons and 30 naval ships ready to deploy. That would translate to roughly 30,000 troops and more than 360 fighter planes.

During the Cold War, American plans foresaw moving 10

Please see NATO page A8

♦ U.K. traces poison to former spy's front door..... A9

## Trump Names New VA Head



SWITCH: Donald Trump ousted Dr. David Shulkin as Veteran Affairs secretary; the president nominated Rear Adm. Ronny Jackson, above, his doctor, to the post. **A4**

## State Budgets Face Historic Squeeze

Medicaid, pensions consume highest proportion of nonfederal tax revenues since 1960s

By CEZARY PODKUL AND HEATHER GILLERS

The only speaker standing between state budget officers and the opening cocktail hour at a Washington conference was the U.S. Secretary of Health and Human Services. What he said left no one in a celebratory mood.

Medicaid costs, said then-Secretary Michael Leavitt, were projected to grow so fast that within 10 years they would "crowd out virtually every other category of spending." State spending on higher education, infrastructure and safety, he predicted, would all get squeezed.

Nearly 10 years after that October 2008 speech, Mr. Leavitt's prediction—part of HHS's first-ever annual projection of Medicaid's costs—is looking prescient.

As state and local officials prepare their next budgets, many are finding that spending

decisions have already been made for them by two must-fund line items that barely mattered when baby boomers such as Mr. Leavitt were growing up: Medicaid, the state-federal health insurance program for the poor and disabled, and public-employee health and retirement costs.

These days, they consume about one out of every five tax dollars collected by state and local governments. That is the highest share since Medicaid was created in 1965. Postretirement health benefits, which are harder to quantify, add to that burden and have cumulatively cost states more than \$100 billion since 2008, according to government financial disclosures compiled by Merritt Research Services.

Please see BUDGET page A10

♦ Greg Ip: U.S. borrows, may pay dearly later... A2

## Considering #DeleteFacebook? First, Write a Post About It

Abandoning the network brings joy, agony and relief, if users get that far

By BETSY MORRIS

Matt Carter is trying to end a relationship he suspects has run its course. But breaking up with Facebook is hard to do.

He discovered that on his drive home from his senior product manager job at Idexx Laboratories Inc. in Westbrook, Maine, last week. As he listened to the latest news about the social-media giant, he thought seriously for the first time: Maybe I will delete Facebook.

Almost instantaneously, though, "I began to think I should probably tell people" on Facebook, he recalls. Then, "I thought I should probably wait and see how they react." Simultaneously he began to laugh at "what a ridiculous chain of

thought—that Facebook had gotten so far into the fabric of how we are" and realized it was...perfect for a Facebook post.

He wrote it when he got home.

#DeleteFacebook? It's complicated. For most people, a breakup with Facebook is socially messy and psychologically fraught. Even contemplating the move reveals the deep and unanticipated ways in which the relationship has worked its way like tentacles into one's social and professional affairs.

Facebook has issued mea culpas for its botched handling of user data that landed it in the hands of an analytics firm tied to President Donald Trump's

## Japan Giant Looks West For Possible Major Deal

Takeda Pharmaceutical Co.'s potential pursuit of Shire PLC would rank as one of the biggest-ever attempts by a Japanese company to take over a Western rival, as a strengthening yen helps fuel ambitious overseas expansion.

By Peter Landers  
in Tokyo and Noemie Bissiere in Paris

Takeda said on Wednesday it is weighing a bid for London-listed Shire, whose drugs include Adderall, for attention deficit hyperactivity disorder. The potential deal would create a global drug firm worth more than \$80 billion and add to a torrid run for mergers and acquisitions so far this year—much of it in health care as companies in the industry respond to a rap.

Please see DEAL page A8

## Tech Slide Hits Wide Swath of Investors

By STEVEN RUSSOLILLO

The clobbering that tech shares have taken in recent days has magnified not only how influential these companies have become in people's everyday lives, but how much sway they have gained in global stock markets.

Investors are concerned that the tech giants have grown so much and so fast in recent years that they now carry outsize weight. Combined, the five largest U.S. technology and internet companies account for more than 14% of the S&P 500 index's weighting. Their rapid gains have come alongside heavy inflows into passive funds that track indexes like the S&P 500, leaving millions of investors susceptible to greater downside.

Tech shares came under more pressure Wednesday amid fears of increased regulatory oversight. The NYSE FANG+ Index—which tracks 10 global tech heavyweights—fell 2.4%, extending losses after suffering its worst one-day drop on Tuesday.

Major U.S. indexes continued to slump as well in another volatile session that saw the tech-heavy Nasdaq Composite slip 0.9% and underperform the S&P 500 and Dow Jones Industrial Average, which posted modest losses. The S&P 500 technology sector is down 6% so far this month.

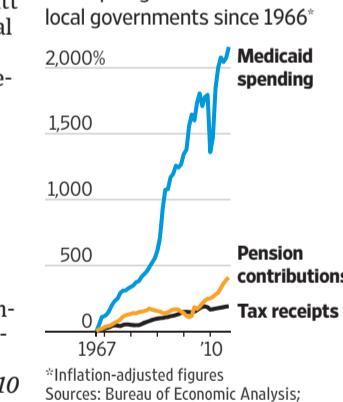
Amazon.com Inc. and Tesla Inc., both components of the NYSE FANG+ Index, were among the weakest performers

Please see TECH page A2

♦ Tesla's bonds, stock continue to tumble..... B1  
♦ Lawsuits over iPhones begin to cluster..... B1  
♦ James Mackintosh: Market awakens to tech's risks..... B1

## Crisis Point

Per capita growth for state and local governments since 1966\*



\*Inflation-adjusted figures

Sources: Bureau of Economic Analysis; Centers for Medicare and Medicaid Services

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## U.S. NEWS

CAPITAL ACCOUNT | By Greg Ip

## U.S. Borrows Now, and May Pay Dearly Later



If you think the federal debt is bad, the bigger picture is worse.

A recent report from Moody's Investors Service shows why. Moody's is to governments what Experian is to individuals: a monitor of creditworthiness. The U.S., Moody's report shows, is blessed with extraordinary advantages when it comes to borrowing. Yet it is about to experience a dramatic loss of financial freedom because it is shrinking its tax base just as interest expenses surge and social programs get harder to cut. It is like someone who borrows freely thanks to his rich parents but can't keep a steady job and won't curb his lifestyle.

No, the U.S. isn't about to turn into Greece. Indeed, Moody's rates U.S. government credit as AAA, the highest possible, which means the probability a Treasury bondholder gets back less than 100 cents on the dollar is effectively zero. Moody's notes the U.S. capacity to borrow is in a class of its own: trading in Treasury bonds exceeds that of the rest of the Group of Seven major industrial countries together. The dollar's share of global currency reserves is double that of all

others combined. All this means that there are ample lenders when the U.S. wants to borrow.

The U.S.'s underlying economic prowess is also without peer: it is rich and diversified, produces most of its own food and energy, has a growing population, and it is entrepreneurial and competitive.

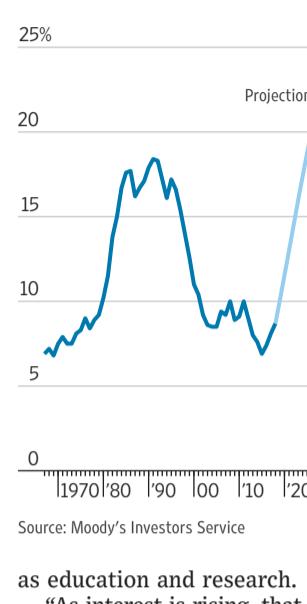
**B**ut those assets are all legacies of the U.S.'s past, and some are eroding: business dynamism by some measures and economic growth have both declined, and the population is aging. If the U.S. pivots toward less trade and immigration, the ratings company warns, that may "swing the balance of risks for long-term growth to the downside."

Slow growth can be managed with the right fiscal policies. This is where it gets worrisome. In the U.S., interest swallowed 8% of federal revenue last year, the highest of all AAA-rated countries. As interest rates return to normal and debt keeps rising, Moody's thinks it will hit 21.4% in 2027. This severely limits the government's flexibility to respond to emergencies, whether a financial crisis, a recession, or a war, not to mention longer-term priorities such

## Credit Check

Interest swallows a growing share of federal revenue, more than in similar countries.

## Interest on U.S. debt as a percentage of federal revenue



Source: Moody's Investors Service

as education and research.

"As interest is rising, that crowds out other spending," says William Foster, an analyst at Moody's.

U.S. taxes are relatively low, which in theory leaves plenty of room to raise them if needed. But creditworthiness depends not just on the ability but the willingness to pay. No country's voters like

## Interest as a percentage of revenue in 2017

Moody's credit rating



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to pay taxes but Americans are much more resistant than their counterparts in, for example, Scandinavia, where high government spending corresponds to high taxes.

While Moody's doesn't address partisan divisions in the U.S., those have also narrowed fiscal options. Republicans adamantly oppose tax increases, and indeed just

passed a tax cut on party lines that is projected to slash revenue to just 16% of GDP, a level normally seen only when the economy is weak, not at full strength as it is now.

Democrats have proposed rolling back some of those tax cuts—to fund new spending.

Republicans have long argued the solution to deficits is less spending, not higher taxes. This, however, vastly oversimplifies matters. Much of the upward pressure on federal social spending comes from aging, which can't be reversed, which means benefits would have to be cut.

Moody's says in a crisis wealthy countries in theory can tolerate lower social benefits because that doesn't impoverish people. But it goes on to note that income inequality and poverty are both higher in the U.S. than among its wealthy peers, and thus "it may have less flexibility" to cut entitlements.

**E**ven Republicans have little appetite for cutting spending. President Donald Trump threatened Friday to veto a bill funding the government for the rest of the fiscal year because it didn't spend enough on a border wall.

"We're in a full-blown era of free-lunch economics

where no one says no to anyone anymore," says Maya MacGuineas, president of the Committee for a Responsible Federal Budget, a watchdog group.

Does it matter? Japan's debts are higher and the country long ago lost its AAA rating, yet it has no problem whatsoever borrowing. After Moody's competitor Standard & Poor's Corp. stripped the U.S. of its AAA in 2011, interest rates went down, not up. As Moody's says, the global pool of savings from which the U.S. borrows tends to grow in times of stress.

There are at least two reasons it matters. First, when the next recession hits, the U.S. may want to open the fiscal taps but instead have to do the opposite as tax collections sink and deficits mount. Second, while markets and the Federal Reserve both doubt interest rates will go much above 3% for the foreseeable future, the U.S. is acutely vulnerable if they are wrong because the debt is so large and so much of it comes due each year, and would have to be refinanced at higher rates.

"We are the greatest country with the strongest economy yet we seem intent on finding out when we can't borrow any more in a painless way," Ms. MacGuineas says.

## Search for Missing Teens Turns Up 2 Bodies in Abandoned Utah Mine



**GRIM DISCOVERY:** Police believe they have found the bodies of teenagers Riley Powell and Breezy Otteson of Eureka, Utah, who have been missing since Dec. 30. Police say they have persons of interest. Mr. Powell's Jeep was found abandoned at a reservoir.

## TECH

Continued from Page One

Wednesday, Amazon fell 4.4% and closed in correction territory—off more than 10% from its March 12 high—amid speculation that the White House wants to clamp down on the e-commerce giant's growing dominance.

White House press secretary Sarah Huckabee Sanders said on Wednesday that President Donald Trump wants "a level playing field" for all businesses but noted "there aren't any specific policies on the table at this time."

Tesla, meanwhile, slumped 7.7%, extending its Tuesday's tumble, amid an investigation into a fatal Tesla crash and following a Moody's Investors Service rating downgrade on the electric auto maker's debt. Selling in Tesla bonds also intensified, driving the price of its unsecured debt to new lows.

Facebook Inc. has been the worst performer among the big tech companies, falling 13% this year amid controversy over how it handles users' data. Chief Executive Mark Zuckerberg expects to testify before Congress about the company's privacy and data-use standards, in what would be his first public testimony before lawmakers.

Shares of Apple Inc. and Google parent Alphabet Inc. are also down for the year, faltering in recent weeks on concerns that tech firms face tighter regulation.

Plenty of investors remain confident tech companies can maintain strong growth rates.

Nearly 90% of U.S. tech companies beat consensus rev-

idence in the sector, which until recently had been a reliable generator of big returns and a major driver of the market's run. It isn't yet clear whether the selloff marks a permanent shift from tech stocks' leadership of the market, or a temporary hit to the companies' reputations.

Up until recently "these ... names have been as close as one can get to a stabilizing force in the market," said Mike O'Rourke, chief market strategist at U.S. brokerage firm JonesTrading.

Highflying companies including Microsoft Corp., Alphabet and Facebook were among the most widely held last year by institutional investors, such as pension funds and endowments, according to eVestment data. Apple Inc. and Amazon, technically a consumer stock, also cracked the top 10 in ownership breadth.

As of March 12, Facebook, Amazon, Apple, Microsoft and Alphabet accounted for 45% of the S&P 500's year-to-date gain, he said, indicating just how central they have become to stock index moves.

The overall tech sector now has a 27% weight in the S&P 500, making it by far the largest component. Financial stocks, in second place, account for 17%, according to Thomson Reuters.

"Due to Facebook's privacy scandal, the tech-lash theme has been gaining momentum," Mr. O'Rourke said.

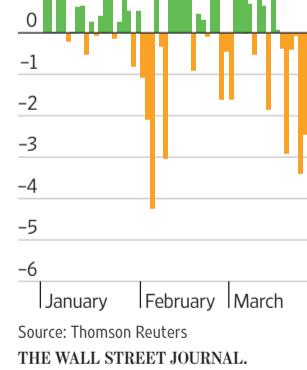
Plenty of investors remain confident tech companies can maintain strong growth rates.

Nearly 90% of U.S. tech companies beat consensus rev-

## Sharp Bite

NYSE FANG+ Index, which tracks 10 of the biggest global tech stocks, fell 5.6% on Tuesday, its worst drop on record.

## NYSE FANG+ Index, daily change



Source: Thomson Reuters

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enue estimates in the fourth quarter, noted Toni Sacconaghi, a tech analyst at Sanford C. Bernstein. That is the best beat rate for any sector and the highest for tech companies in the past five years.

Expectations for tech spending growth for 2018 were the highest in the 14-year history of a Bernstein survey of chief information officers.

The tech sector's growing clout isn't just a U.S. story. Tech stocks have become so dominant in emerging markets that for the first time since 2004, the industry last year overtook finance as the biggest sector in the MSCI Emerging Markets Index.

Tech had a 28% weighting

near the end of 2017, more than double its level six years ago, according to data provided by MSCI.

Samsung Electronics Co. carries a roughly one-fourth weighting in South Korea's benchmark Kospi stock index. As the country's biggest exporter, it has fallen 4.4% this year, largely due to concerns about heightened global trade tensions.

Asia's most valuable company, Tencent Holdings Ltd., holds nearly a 10% weighting in Hong Kong's Hang Seng Index. Its share price is close to slipping into the red for the year after disappointing earnings last week and news that an early shareholder was selling a stake in the Chinese internet giant. A two-day selloff last week wiped out \$52 billion of the company's market value.

Tencent's stock more than doubled last year, catapulting its market value above \$500 billion.

The company's sheer size has prompted caution among some investors. Eric Moffett, a portfolio manager for T. Rowe Price in Hong Kong, said his fund has owned shares since he started managing it in 2014.

But the fund has sold some of its stake in Tencent for the past six months due to valuation concerns, he said. He said the shares, trading at 40 times projected earnings, look "priced for perfection"—meaning investors expect flawless performance by the company. This can prompt sharp pullbacks, like the selloff seen last week.

—Ben Eisen  
contributed to this article.

In a video on Water-Gen Ltd.'s website, Israeli Prime Minister Benjamin Netanyahu said that Moses "brought water from a rock." In some editions Wednesday, a U.S. News article about the Environmental Protection Agency signing a deal to test technology from the Israeli company incorrectly gave the quote as "brought water from Iraq."

**Remington Outdoor** Co. is being advised by Alvarez & Marsal North America LLC. In some editions Monday, a Business & Finance article about the firearms maker's bankruptcy-protection filing

incorrectly said Alvarez & Marsal Capital Partners.

A graphic with a World News article on Friday about Nafta negotiations on auto-industry rules showed U.S. imports of passenger cars and parts in billions of dollars. The graphic was incorrectly labeled in millions of dollars.

The name of the National Association of State Budget Officers was incorrectly given as the National Association of Budget Officers in a U.S. News article on March 19 about state spending on teachers' pensions.

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## U.S. NEWS

# Consensus Eludes Justices on Districts

BY JESS BRAVIN

WASHINGTON—The Supreme Court appeared far from consensus on cracking the constitutional conflict of interest presented by politicians drawing their own electoral districts, in its second gerrymandering case of the term.

Wednesday's case involved Maryland's Sixth Congressional District, which justices across the spectrum agreed was drawn to push the seat into the Democratic column.

The evidence was "pretty damning," Justice Sonia Sotomayor told Maryland's lawyer, Steven Sullivan. "Your own governor [said] that he felt duty-bound to ensure that his party won."

And it did so, with Democrats picking up a seat to hold seven of Maryland's eight votes in the U.S. House.

Mr. Sullivan, the state solicitor general, said the district was drawn to be "competitive," and observed that Maryland voters rejected a Republican-led voter referendum to junk the map.

While Mr. Sullivan took flak for partisan motives the Democratic former governor, Martin O'Malley, has acknowledged, the challengers' lawyer, Michael Kimberly, fared no better with his claim that the Maryland map violated Republican voters' free-expression and political-association rights.

Justice Samuel Alito said he had difficulty making sense of Mr. Kimberly's theory. "But, if I understand it, I really don't see how any legislature will ever be able to redistrict," Justice Alito said. "Hasn't this court said time and again you can't take all consideration of partisan advantage out of districting?"

Mr. Kimberly's approach was developed in part to address First Amendment concerns that Justice Anthony Kennedy, a pivotal vote on gerrymandering issues, has raised regarding partisan redistricting practices. While Justice Kennedy appeared sympathetic to the theory, he questioned whether it was appropriate to throw out Maryland's congressional map so close to the 2018 elections.

"People are planning campaigns and so forth," he said. "Are you suggesting that it would not be disruptive...for this court to remand to consider whether the map should be changed at this late date?"

Mr. Kimberly said that "I think it would perpetuate the same sort of uncertainty, frankly, that's been hanging over Maryland politics from the pendency of this suit all along."



M. SCOTT BRAUER FOR THE WALL STREET JOURNAL

## College admissions officers generally say it isn't easier to get in by early admissions, but rather that the early applicant pool includes particularly strong candidates.

# Apply Early, It's the New Normal

**At Harvard, Yale and other elite schools, growing numbers try for early admittance**

BY MELISSA KORN

The odds of getting into Harvard and other elite universities are slimmer for students who apply in the regular pool than for those who apply in early rounds.

This harsh reality was driven home when Harvard, Yale, Penn and other Ivy League institutions released their regular-decision admission notices Wednesday evening: Large proportions of their incoming first-year classes were locked in months ago under early-admittance programs.

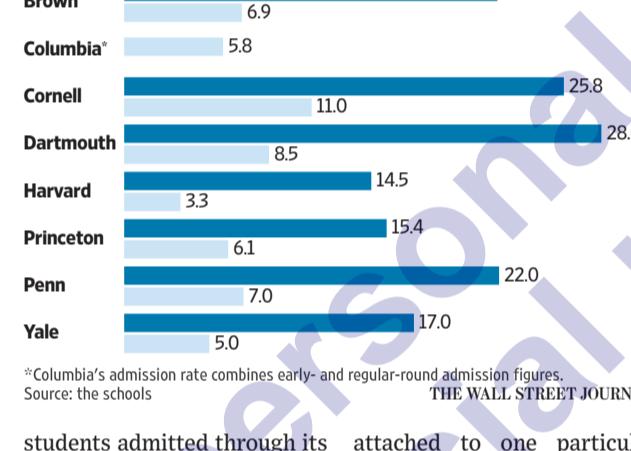
High-school seniors desperate for a leg up in the brutal competition for spots at selective colleges have increasingly been applying through binding early-decision or more flexible early-action programs, rather than meeting Jan. 1 application deadlines and waiting until spring for an answer.

The admission rate for early-round candidates, who typically learn their fates in December, is often two or three times that of regular applicants. Harvard last year admitted 14.5% of early-action applicants and about 3.3% of regular-decision applicants. Many institutions fill 40% or more of their incoming classes with early applicants.

Dartmouth College expects

### Playing the Odds

Ivy League schools take a much higher share of applicants during early-admission rounds. Admission rates for class of 2021:



students admitted through its early-decision process to make up nearly half its first-year class next fall. The school received 2,270 early applications, compared with roughly 20,000 in the regular cycle. Early-decision applicants make up 53% of Northwestern University's current freshman class, and just over half at Vanderbilt University.

"It's staggering," said Brennan Barnard, director of college counseling at the Derryfield School in Manchester, N.H. This year, 62 of his 65 seniors submitted an application by Dec. 1 and about three-quarters of the class had an acceptance coming out of the early rounds. Many apply early not necessarily because they are

attached to one particular school, but because they fear missing out on the chance to get in somewhere, he said.

Students see schools' single-digit acceptance rates, worry about their chances and apply early, perpetuating the rush for another year, says Stephen Friedfeld, chief operating officer at Newton, Mass.-based admission-consulting firm AcceptU.

Early-round applicants are either accepted, rejected or deferred to be reconsidered in the general pool.

College admissions officers generally say it isn't easier to get in by early admissions, but rather that the early applicant pool includes particularly stellar candidates who have shown

### Senior Stress Test

Hannah Strauss, a 17-year-old senior at Edgemont High School in Scarsdale, N.Y., applied early decision to Cornell University in part because a number of family members had attended and she was familiar with the school. She also worried her chances of getting in would decrease if she waited for the regular application cycle, she said.

"There's a lot of pressure to find a place to apply early because everyone wants to be settled," she said. She was accepted at Cornell.

Harvard said in December it

received a record 6,630 "restrictive early action" applications for the class that will enter next fall.

Students who apply in the early round aren't required to enroll if admitted. While they can't apply to early-admissions programs at other private schools, they can do so at public or foreign universities.

In a press release announcing the previous year's early-action admits, the admissions dean at Harvard called early admission the "new normal."

Binding early-decision applications were up by double digits on a percentage basis this year at schools including Brown, Dartmouth and Duke.

sity fills the freshman class," he said.

Securing a big portion of the class early lets schools better plan their regular admissions decisions and predict yield, or the share of admitted students who actually enroll. At Colorado College, the number of students admitted through early rounds has doubled over the past decade, while the class size has been steady.

In 2006, Princeton and Harvard dropped their early-decision options, citing them as barriers for low-income and minority applicants.

When peer schools didn't follow suit and continued snapping up top students early, they reintroduced slightly more flexible versions of the programs.

# Transportation Grants Get Rural Shift

BY TED MANN

The Trump administration has more than tripled the amount of money flowing from an Obama-era transportation program to projects in rural areas, shifting aid to localities that the White House says have been left behind in years of postrecession economic expansion.

The \$211 million swing toward rural communities in the Transportation Department grant program is one of the most concrete policy shifts in the agency's stated goal of helping less densely populated areas of the country—most of them regions that voted for President Donald Trump in 2016.

The 2017 grants announced this month under the program, called Transportation Investment Generating Economic Recovery, or Tiger, total nearly \$500 million in funding for highway and transit projects across the country. Some \$314 million of those grants, or about 64% of the total, will go to projects in rural locations, defined as those outside areas with 50,000 or more residents. About 19% percent of the U.S. population lives in those rural areas.

The funding is more than three times the \$100 million minimum required to be set aside for rural areas under the most recent appropriation for the grants; in the final year of

gress rebuffed those cuts, tripling the size of the Tiger program to \$1.5 billion this year in the spending bill enacted last week. The program hasn't been funded at that level since 2009, when it was conceived as part of the Obama administration's effort to stimulate the economy and pull out of recession.

The Trump administration says it is shifting the government's focus to areas of the country that have been neglected in the years since. "We put a real focus on rural projects," a senior official said.

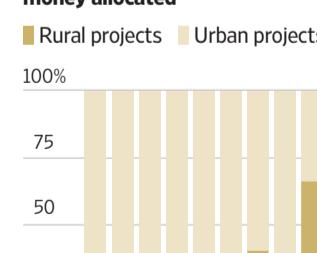
The administration has made caring for rural areas a central tenet of its plans for funding infrastructure improvements. That includes its long-stalled bid to generate more than \$1 trillion in public works over 10 years, funded primarily by state and local governments, but with a designated federal funding stream for projects in rural locations.

"For years and years and years, for decades, rural America has been ignored and forgotten," Transportation Secretary Elaine Chao said in a recent House committee hearing, one of several frosty exchanges with representatives of suburbs and cities, who warn that the administration is shortchanging densely populated areas. "This infrastructure proposal tries to address the needs in rural America," she said.

### Country Roads

Nearly two-thirds of the 2017 Tiger transportation grants went to projects in rural parts of the country. That reverses the trend of the Obama administration.

#### Percentage of Tiger grant money allocated



Source: Transportation Department

THE WALL STREET JOURNAL

Some transit advocates and lawmakers were alarmed by the 2017 grant awards, which they said would skew the program away from the regions that hold the majority of citizens and away from transportation modes, such as mass transit, that serve the most people.

"This is driven by political retribution," said Rep. Mark DeSaulnier, a California Democrat, who argues that the Trump administration's approach saps support from the most congested areas of the country. "It's clearly meant to benefit the Trump-supporting areas."

The shift in grants will benefit some regions that voted for Hillary Clinton in 2016. But, on balance, it is a benefit to regions that supported Mr. Trump.

Of the 28 all or partly rural projects funded in the current round, more than two-thirds are in counties that voted for Mr. Trump.

A Transportation Department official noted that eligibility criteria for the grants are publicly available and said the 2017 awards were unrelated to the results of the 2016 presidential election.

The administration says its approach helps the program cover more of the country; in 2017, grants were awarded to projects affecting 43 states.

"No one state can unduly bow out other states in the Tiger program," Ms. Chao said.



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## U.S. NEWS

# President Ousts Shulkin as VA Secretary

Trump says he will nominate White House physician to lead veterans agency

BY REBECCA BALLHAUS AND BEN KESLING

WASHINGTON—President Donald Trump on Wednesday said he had ousted his Veterans Affairs secretary, David Shulkin, and tapped the White House physician, Ronny Jackson, as his replacement.

"I am pleased to announce that I intend to nominate highly respected Admiral Ronny L. Jackson, MD, as the new Secretary of Veterans Affairs," Mr. Trump tweeted Wednesday. He said Robert Wilkie, who currently serves as under secretary of defense for personnel and readiness at the Department of Defense, would serve as acting secretary "in the interim."

In a statement issued by the White House, Mr. Trump praised Dr. Shulkin's work and "the many great things we did together at Veterans Affairs, including the VA Accountability Act that he was helpful in getting passed." The president called Dr. Shulkin a "great supporter of veterans across the country and I am grateful for his service."

Dr. Shulkin didn't return a



President Donald Trump considered replacing VA Secretary David Shulkin for weeks.

request for comment on Wednesday.

Dr. Jackson is a U.S. Navy rear admiral who has served as a White House physician

during the past three administrations. In that role, he has overseen health care for the cabinet and senior staff, served as a physician supervi-

sor at Camp David and led the White House Medical Unit, the White House said.

Dr. Jackson, if confirmed by the Senate, would take over

the second-largest federal agency, which has more than 370,000 employees. The agency has struggled in recent years following a 2014 scandal over wait-times for VA hospital appointments.

At a White House briefing in January, Dr. Jackson praised the president's "incredible genes," saying he was "very healthy and will remain so for the duration of his presidency."

Top veterans groups praised Dr. Shulkin on Wednesday, while some expressed concerns about his replacement.

"We're really surprised at this nominee," said Joe Chenelly, national executive director of Amvets, a veterans advocacy group. "Looking at his background we don't see anything that indicates he's capable of running a \$200 billion agency. The VA is a lot more than just a medical system."

Mr. Trump considered replacing Dr. Shulkin for weeks, following an inspector general's report last month that said the secretary had mis-spent taxpayer money during an official trip to Europe last year.

Within minutes of tweeting his decision to replace Dr. Shulkin, the president called Sen. Johnny Isakson (R., Ga.), according to an aide to the

senator. Mr. Isakson serves as chairman of the Senate Committee on Veterans' Affairs, which will be charged with confirming Dr. Jackson.

Dr. Shulkin was the only cabinet-level holdover from President Barack Obama's administration, having served as the head of the VA's health-care arm under the former president.

Dr. Shulkin was initially praised for moving quickly to improve veterans' access to private-sector health care and overhaul systems like the department's antiquated electronic health-records system.

But in recent months, the secretary drew criticism on a variety of fronts. As a result, Dr. Shulkin had been on the defensive, even going so far as to call reporters to plead his case and defend himself, claiming that the VA's public affairs section wasn't serving his interests.

In the fall, the department sent a proposed bill to Capitol Hill that would have overhauled the VA's massive program known as Veterans Choice, a multibillion-dollar proposal to allow veterans to seek care with private-sector doctors. Some top lawmakers on the House and Senate committees on veterans' affairs balked at the measure, saying it went too far toward privatization.

# Surveillance of Ex-Trump Adviser Faces Investigation

BY ARUNA VISWANATHA

WASHINGTON—The Justice Department's internal watchdog unit will investigate how the FBI and federal prosecutors obtained warrants from the nation's secret spy court to surveil a former Trump campaign adviser, the inspector general's office said Wednesday.

The statement confirms an investigation that Attorney General Jeff Sessions had requested

and disclosed last month.

The inspector general will examine the Justice Department and the Federal Bureau of Investigation's compliance with legal requirements in its application for warrants from the Foreign Intelligence Surveillance Court, the inspector general, Michael Horowitz, said in the statement.

Republican lawmakers have alleged abuses in how top law-enforcement officials sought in 2016 to monitor the

former campaign adviser, Carter Page.

They have alleged that officials didn't properly disclose to the court the partisan motivations of information they received from an ex-British spy, whose work in gathering the information was being funded by Democratic Party intermediaries.

A separate memo from Democrats defended federal investigators' handling of the surveillance.

It said the FBI had relied on information beyond what the ex-spy, Christopher Steele, provided, had corroborated some of his report and had told the court about Mr. Steele's motivations.

The inspector general will also look at what information the FBI and Justice Department knew about a source that provided information used in the application, the statement said.

Separately, the inspector

general has been reviewing the FBI's handling of its probe into Hillary Clinton's use of a private email server when she was secretary of state.

Some of its findings led to the dismissal of former FBI deputy director Andrew McCabe this month.

Mr. Sessions' referral of the issue to the inspector general raised President Donald Trump's ire last month. "Why is A.G. Jeff Sessions asking the Inspector General to in-

vestigate potentially massive FISA abuse," he tweeted, adding the decision was "DISGRACEFUL!"

Complaints about alleged wrongdoing by Justice Department personnel are generally referred to the inspector general to examine.

At the time, Mr. Sessions said he would continue to discharge his duties with "integrity and honor" and the agency would work in a "fair and impartial manner."

# AMBITION CAN'T WAIT

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**AMBITION CAN'T WAIT**

# Shift Remakes Kushner Role

BY PETER NICHOLAS AND FELICIA SCHWARTZ

WASHINGTON—President Donald Trump's shake-up of his national-security team is likely to reshape the role played by Jared Kushner, a key counselor whose global portfolio created friction with departing Secretary of State Rex Tillerson, administration officials and others close to him said.

But the arrival of Mike Pompeo as Secretary of State and John Bolton as national security adviser could curb Mr. Kushner's sway if foreign diplomats, who have been courting the president's son-in-law as an alternative to Mr. Tillerson, turn more to the traditional U.S. diplomatic machinery. Policy differences could also emerge.

In talking with friends, Mr. Kushner has joked about the hawkish Middle East views of Mr. Bolton, who has said he opposes a two-state solution for achieving peace in the region in favor of Egypt and Jordan absorbing the Palestinian territories.

The "Orthodox Jews" working toward a Middle East peace deal—himself, White House chief negotiator Jason Greenblatt and U.S. ambassador to Israel David Friedman—are now looking like "the moderates," Mr. Kushner told his friends, according to a person familiar with the matter.

Mr. Pompeo must still be confirmed in his post by the U.S. Senate.

He and Mr. Bolton are expected to be immediately thrust into negotiations over a meeting between North Korea leader Kim Jong Un and Mr. Trump, a historic session the president wrote he looked "forward to" in a Wednesday tweet.

"Now there is a good chance that Kim Jong Un will do what is right for his people and for humanity," the president said Wednesday.

Mr. Kushner is helping craft a Middle East peace plan and is also a conduit to Mexican leaders and to Saudi Crown Prince Mohammed bin Salman, who is currently visiting the U.S.

Mr. Kushner's ability to do his job was hampered some-

what when White House chief of staff John Kelly downgraded his security clearance last month, giving him less access to government secrets. Coming off the latest White House shake-up, Mr. Kushner is engaging in diplomacy of a more personal sort as he and Messrs. Bolton and Pompeo carve out their respective roles.

Mr. Kushner's dealings with the incoming Secretary of

Jared Kushner has made clear he wants to collaborate with Mike Pompeo.

State should improve in no small part because his relationship with Mr. Tillerson had significantly frayed, people close to Mr. Kushner said.

As Mr. Tillerson's tenure wore on, he spoke less and less to Mr. Kushner, though White House officials said the former Exxon Mobil CEO was growing increasingly isolated in the job and wasn't talking much to people outside his circle.

The departing secretary would complain about Mr. Kushner's interactions with Mexican government leaders, objecting that he hadn't heard about agreements reached on

security, crime and other issues, a person familiar with the matter said. That complaint mystified White House aides, who said Mr. Kushner was working closely with State Department officials who had been in a position to alert Mr. Tillerson had he wanted the information.

Others who watched the duo said that Mr. Tillerson was unhappy about what he considered to be Mr. Kushner's freelancing: straying into foreign-policy matters that are the State Department's realm.

Foreign diplomats have courted Mr. Kushner because of his close ties to Mr. Trump, another source of tension inside the State Department. But several have expressed optimism that Mr. Pompeo will be more representative of the president's views.

Mr. Kushner has made clear he wants to work collaboratively with Mr. Pompeo, a person familiar with the matter said. Over the past year, when Mr. Pompeo served as director of the Central Intelligence Agency, Mr. Kushner would brief Mr. Pompeo about his work.

Mr. Kushner has a longer history with Mr. Bolton, having dealt with the new national security adviser during the 2016 presidential campaign. When Mr. Bolton would visit the White House he would often stop in to see Mr. Kushner.



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## U.S. NEWS

# Mueller Links Gates With Ex-Spy

By ARUNA VISWANATHA

WASHINGTON—A Trump campaign adviser was in touch in the fall of 2016 with a person he said was a Russian former spy, special counsel Robert Mueller's office said in a court filing that links cases against top former Trump aides with the wider probe into Moscow's election meddling.

Richard Gates, the campaign adviser, told London-based lawyer Alex van der Zwaan that his longtime business associate in Ukraine was a "former Russian intelligence officer," with the GRU, Russia's military-intelligence agency, prosecutors on Mr. Mueller's team wrote in a memo filed in federal court late Tuesday. The three men communicated in September and October 2016, when Mr. Gates worked with Donald Trump's campaign, according to the prosecutors' document.

Mr. van der Zwaan has admitted he hid from prosecutors the fact that the three men were in touch that recently. The conversations among the men concerned the potential criminal prosecution in Ukraine of Mr. van der Zwaan and others, according to court documents.

The disclosure helps connect the dots between the cases against Mr. Gates and former Trump campaign chairman Paul Manafort and Mr. Mueller's inquiry into Russian



**Richard Gates, a Trump campaign adviser, is now cooperating with the Mueller investigation.**

interference in the 2016 presidential election. Messrs. Gates and Manafort were accused of alleged financial misdeeds connected to their political consulting work for a pro-Russian political party in Ukraine before the 2016 campaign. Mr. Manafort also faces tax and bank-fraud charges relating to actions he took as recently as January 2017.

Mr. Mueller, appointed in the wake of Mr. Trump's firing of James Comey as FBI director,

has been examining potential links between Russia and Mr. Trump's campaign apparatus. U.S. intelligence has determined Russia interfered in the U.S. election. Moscow has denied the accusation, and Mr. Trump has also denied colluding with Russia.

Mr. Gates pleaded guilty last month in connection with the case and agreed to cooperate in Mr. Mueller's inquiry. Mr. Manafort has denied the charges. Mr. van der Zwaan

pledged guilty last month to lying to Mr. Mueller's investigators about his contacts with Mr. Gates and the business associate in Ukraine.

The new details about the connections among Messrs. van der Zwaan and Gates and a business associate identified as a former spy and referred to as "Person A" were laid out in a memo filed by Mr. Mueller's office urging a court to sentence Mr. van der Zwaan to jail. He faces up to six months.

# U.S. Looks to Curb China's Tech Access

By BOB DAVIS

WASHINGTON—The Treasury Department is planning to use laws designed to address national emergencies to block Chinese firms from acquiring advanced U.S. technology, part of a Trump administration initiative to thwart what it sees as Beijing's efforts to attain an economic and military edge, according to administration officials.

The Trump administration is looking to use a number of legal measures in its arsenal, including the International Emergency Economic Powers Act of 1977, or IEEPA, which gives the president broad authority in the case of an "unusual and extraordinary threat," according to a senior official familiar with administration plans.

The law was widely employed after the Sept. 11, 2001, terrorist attacks to impose sanctions on other countries, and observers say courts haven't questioned the usage of the law.

Gary Hufbauer a trade expert at the Peterson Institute for International Economics, said in a report that the strategy could give President Donald Trump "a free hand" to address the administration's concerns over Chinese trade and investment practices.

The plan to expand restrictions on Chinese investment comes on top of both existing export-control regulations and a congressional effort to strengthen national-security approvals by the Committee on Foreign Investment in the U.S., a multiagency watchdog that reviews foreign acquisitions in the U.S. for national-security risks.

White House press secretary Sarah Huckabee Sanders declined to comment. The Justice Department is representing the president. "As we argued, we believe this case should be dismissed," a spokeswoman said.

Judge Messitte said his ruling resolved only one preliminary issue and that other arguments for the suit's dismissal would need to be addressed.

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White House press secretary Sarah Huckabee Sanders declined to comment. The Justice Department is representing the president. "As we argued, we believe this case should be dismissed," a spokeswoman said.

The Treasury has been working on the investment

project for several months, an administration official said. The U.S. would argue that Beijing's investment rules are fundamentally unfair to U.S. companies and that China has slid backward in its reform efforts. Its licensing requirements, subsidized financing, involvement of state-owned firms and pressure on U.S. firms to transfer technology are all increasingly harming U.S. technology firms, the official said.

"The hope was that China would develop into a fair, re-

*The U.S. and China have quietly begun negotiations to head off a trade war.*

ciprocal and market-oriented partner for trade and investment," said Treasury Undersecretary David Malpass at the Foreign Policy Association earlier this month, foreshadowing the Treasury effort. "Instead, China's market liberalization has stalled and even reversed, with the role of the state increasing."

Despite the threats of tariffs from the U.S. and retaliation from China, the two sides have quietly begun negotiations aimed at heading off a trade war. If those talks bear fruit, it is possible that none of the restrictions being discussed will be put into effect—or only some of them, U.S. officials say.

Myron Brilliant, executive vice president of the U.S. Chamber of Commerce, which has been warning about Chinese trading practices and technology plans, said it was important to address Beijing policies "that prop up Chinese companies and harm U.S. firms' ability to operate in China." But he warned about going too far.

# Judge Declines to Dismiss Suit Against Trump

By BRENT KENDALL

WASHINGTON—A federal judge declined to dismiss a lawsuit alleging President Donald Trump is violating the Constitution because his businesses are benefiting from his presidency, the first ruling to find a litigant can sue the president on the issue.

The Wednesday ruling by U.S. District Judge Peter Messitte found the state of Mary-

land and the District of Columbia had standing to bring claims against Mr. Trump, who hasn't divested his business holdings. The plaintiffs allege Mr. Trump is violating constitutional clauses that prohibit the president from receiving emoluments—things of value—from foreign or state governments.

Judge Messitte, a Clinton appointee, said Maryland and Washington had sufficiently alleged that the two jurisdictions

and their residents were being harmed by the Trump International Hotel and related operations in the nation's capital.

Restaurants, hotels and hospitality workers "are being affected and will continue to be affected when foreign and state governments choose to stay, host events, or dine at the hotel rather than at comparable Maryland or District of Columbia establishments, in whole or in substantial part simply be-

cause of the President's association with it," the judge wrote.

Judge Messitte said his ruling resolved only one preliminary issue and that other arguments for the suit's dismissal would need to be addressed.

White House press secretary Sarah Huckabee Sanders declined to comment. The Justice Department is representing the president. "As we argued, we believe this case should be dismissed," a spokeswoman said.

Mr. Trump signaled the new restrictions last week, when he announced the U.S. would levy tariffs on up to \$60 billion on Chinese imports.

The Treasury has been working on the investment

**THE WALL STREET JOURNAL.**

# WOMEN IN FINANCE

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**Stephanie Cohen**

Chief Strategy Officer at Goldman Sachs



**Sandra Horbach**

Managing Director and Co-Head of U.S. Buyouts at The Carlyle Group



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## WORLD NEWS

## Kim Takes First Step Onto World Stage

North Korean leader's diplomatic overture in China prepares way for summit with U.S.

BY JONATHAN CHENG

SEOUL—With a clandestine trip to Beijing this week, North Korean leader Kim Jong Un has taken his first, tentative steps onto the world diplomatic stage.

Long shunned as a pariah by the international community, Mr. Kim and his regime have sought legitimacy and recognition as a nuclear-weapons state as the country's dilapidated economy has faced ever-tougher sanctions.

Like his father, it took Mr. Kim six years from becoming leader to venture outside North Korea. His meeting this week in Beijing with President Xi Jinping, conducted in secrecy after a ride on an armored train to the Chinese capital, lays the groundwork for his biggest diplomatic date yet: a summit with U.S. President Donald Trump.

Mr. Trump said Wednesday morning on Twitter that "there is a good chance that Kim Jong Un will do what is right for his people and for humanity. Look forward to our meeting!" The president also said that in the meantime, economic sanctions need to be "maintained at all cost!"

After taking control of North Korea after his father's death in 2011, outsiders wondered about Mr. Kim's grip on power and his relative inexperience—questions that were reinforced by his lack of direct contact with foreign leaders, and his apparent unwillingness to stray too far from Pyongyang. Compared with his father, Kim Jong Il, the current dictator had little lead time before taking the reins.

But in three months this year, Mr. Kim has executed a diplomatic offensive that ex-



Kim Jong Un, center left, in Beijing on Monday. His visit allowed China a hand in efforts to deal with Pyongyang's nuclear weapons.

perts say reflects growing confidence.

Last month, he sent his younger sister to the Winter Olympics in South Korea, and invited South Korea's president to Pyongyang. He hosted senior Seoul officials at a banquet, where he extended an invitation to Mr. Trump for a summit meeting.

This week's journey to China, his treaty ally, showed the North Korean leader positioning himself ahead of a potential meeting with the U.S. president. The visit also allowed Beijing, with which relations had soured, to play a central role in efforts to find a solution to the nuclear stand-off.

"He's turning his attention toward showing that he can play the role of international statesman," Jean H. Lee, a North Korea expert at the Wilson Center in Washington said of Mr. Kim.

In Beijing, Mr. Kim and his wife met Mr. Xi and his wife during a lunch that "was overflowing with a harmonious and intimate atmosphere from its beginning to the end," according to North Korea's official account. Mr. Kim also invited Mr. Xi to Pyongyang for an official visit, which North Korean state media said was accepted "with pleasure"—though Chinese state media didn't mention the invitation, one of several differences that

hinted at enduring tensions between the neighbors.

"Just looking at the body language, he seems very comfortable meeting with Xi," said Jung Pak, a North Korea expert at the Brookings Institution and a former Central Intelligence Agency officer tasked with analyzing the dictator.

Mr. Kim's willingness to bring his wife to dinners with the South Korean envoys and with the Chinese president helps to make him "look like a fuller leader—a three-dimensional person, not this caricature," she said.

Mr. Kim arrived in the Chinese capital with a strengthened hand in the nuclear dis-

pute, having spent the previous year testing North Korea's first intercontinental ballistic missiles and its sixth nuclear device. In addition, he had already secured an agreement from the U.S. president to meet—a diplomatic accomplishment that eluded his father and grandfather.

North Korea's state media portrayed the Beijing visit as unofficial, though it made clear that Mr. Kim was accorded the trappings of a guest of honor, including a motorcade, a grand banquet at the Great Hall of the People and gifts from the Chinese president and his wife.

—Andrew Jeong contributed to this article.

### Pyongyang, Beijing Portray State Visit In Different Lights

BEIJING—Differences in official accounts of North Korean leader Kim Jong Un's trip to China—some glaring and others subtle—hint at enduring friction between Beijing and Pyongyang, despite the fence-mending visit.

Wednesday's accounts from Chinese and North Korean state media, which serve as official takes on such meetings, featured a number of discrepancies, though both hailed the visit as a new chapter in their countries' friendly relations.

While Chinese accounts focused on the two leaders' discussions of relations and tensions on the Korean Peninsula, North Korean accounts played up the pageantry and atmosphere of the visit, which was made public only after Mr. Kim had left.

Chinese state-media reports said Mr. Kim told President Xi Jinping that he was committed to denuclearization and is willing to hold a North Korea-U.S. summit. Those remarks have yet to appear in accounts from Pyongyang.

While Pyongyang's state-controlled news agency said Mr. Xi accepted Mr. Kim's invitation to visit North Korea, official Chinese accounts didn't mention it, saying only that Mr. Kim hopes to "have opportunities to meet the Comrade General-Secretary [Xi] regularly."

Although both sides characterized this week's visit as amiable, Chinese state media portrayed Mr. Kim as a supplicant, casting Mr. Xi as an elder statesman exerting a calming hand over tensions on the Korean Peninsula.

—Chun Han Wong

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## WORLD NEWS

## NATO

*Continued from Page One*  
U.S. divisions—about 200,000 troops—to Europe in 10 days. The new proposal instead focuses on European allies' ability to mobilize, with a less ambitious target of 30 days.

"The idea is to get a readiness mind-set, to identify forces where readiness needs to be enhanced, but spread that out among the nations," said Hans Binnendijk, a former Clinton administration official and co-author of a report on NATO responsiveness.

Questions about the alliance's ability to deploy rapidly prompted NATO last year to put 4,600 troops on forward deployment in Poland and the Baltic states, near the Russian border. NATO also has a 5,000-troop spearhead force meant to serve as quick-reaction team to come to the aid of those troops within 10 days.

Those forces need backup from the 30 ready battalions, said Alexander Vershbow, a former NATO deputy secretary-general, because they are deployed not to engage in prolonged combat but only to trigger deployment of more troops, planes and ships.

"Reinforcements are still the indispensable element," Mr. Vershbow said. "And it is



A training area in Estonia; Nato allies are stepping up readiness in the event of Russian aggression.

Afghanistan.

Now NATO is asking allied governments to invest once again in forces for the collective defense of Europe against Russia, but building up those forces will take time—and more money.

The Trump administration has made increasing European military spending a headline goal. As countries work to boost their spending to the NATO target of 2% of gross domestic product, Mr. Vershbow said, they should focus on enhancing the readiness of allied forces.

The new initiative embraces ships and planes as well as ground troops. NATO officials believe improving how the alliance fights as a joint force, combining land, air and sea assets, is critical to deterring any military move by Russia.

Defense experts say having enough fighter planes ready to push forward is critical to speeding NATO's response. But readying planes isn't just about allies investing in more training and maintenance of their fighter fleet; it also involves building up airfields and other infrastructure.

The alliance is also working with the European Union to improve military mobility, so troops, tanks, artillery and other equipment can travel more quickly on European

roads, bridges and railways.

Assessments of how many of each nation's combat units can move quickly are closely guarded secrets in all armed forces.

But current and former allied officials said there is hardly a European ally that doesn't have a readiness problem.

Smaller Western European militaries, such as Belgium and Romania, have cut their land forces and face calls from NATO to create new brigades that could contribute to a ready force. But questions remain about whether defense budgets will rise enough to fund new formations.

NATO's bigger, more reliable allies also have problems. France's well-trained and equipped forces have been badly overstretched by deployments in Africa.

On paper, Germany has the heavy tank and artillery forces to move into a fight, but German government watchdogs have said the army lacks some necessary equipment. And while an influential report by RAND last year said the U.K. could quickly shift heavy forces to a fight, it noted that the British Army has been shrinking.

Spending on land forces has been under pressure as Britain brings two aircraft carriers into service.

clear that NATO's capacity to reinforce is still far less than is required."

committed its ready forces, such as the Fort Bragg, N.C.-based 82nd Airborne Division, to a crisis in Asia.

Building up NATO's ready forces would put more teeth in the alliance's recent deterrent efforts. Front-line allied troops in place would slow any incursion by Russian forces, and the quick and sustained reinforcement of those forces with aircraft, ships and troops would confront Moscow with a choice: withdrawal or a high-

cost conventional war.

The push for the buildup comes in the wake of a long decline in European military budgets for decades after the Cold War, until the Russian annexation of Crimea in 2014. In those years, many army units became underequipped and inadequately trained. Until Crimea, NATO also prodded many countries to shed their tank formations and invest more in light infantry troops suited for training missions in

## DEAL

*Continued from Page One*  
idly changing landscape.

A bid would represent Takeda's biggest-ever deal, capping a string of smaller acquisitions in recent years aimed at broadening its international footprint. Takeda, founded in 1781 and Japan's largest drugmaker by revenue and market capitalization, needs to keep expanding overseas to make up for a slowing market at home, analysts said.

If Takeda did nothing, "they'd only be waiting to die," said Masayuki Kubota, chief strategist Rakuten Securities in Tokyo.

Shares of Shire gained 14%

on Wednesday following the disclosure, boosting its market value to £32 billion, or about \$45 billion. Takeda's shares fell about 6% in early Thursday trading in Tokyo, bringing its market value down to about \$39 billion.

The recent rise in the yen, to its highest level against the dollar since November 2016, provides a tailwind for Japanese companies looking to boost their global presence. The yen they earn at home can now buy more in dollars or pounds than just a year ago.

Takeda described its interest in Shire as "preliminary and exploratory." Yet it laid out an aggressive case for a deal, listing six motivations, including bolstering its position in the U.S. pharmaceutical market and

replenishing its drug pipeline. Shire's group headquarters is in Ireland, and it runs its U.S. business—which accounts for about two-thirds of total sales—out of Lexington, Mass.

Though best-known in the U.S. for Adderall, the company has more recently developed into one of the world's biggest makers of drugs for rare diseases, expanding quickly under the leadership of Chief Executive Flemming Ornskov.

In a statement, Shire said it had noted Takeda's disclosure but confirmed no approach had been made, adding there was no certainty an offer would ensue. Takeda said that under U.K. takeover rules, it must announce by April 25 whether it intends to make an offer for Shire.

News of Takeda's interest came just a day after GlaxoSmithKline PLC said it would pay Novartis AG \$13 billion for its 36.5% stake in their consumer health-care joint venture.

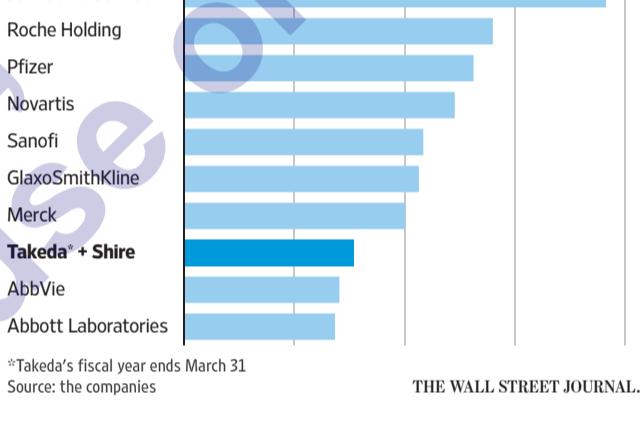
Shire has regularly been involved in deal talks in recent years. In 2014, a \$54 billion takeover of Shire by Illinois-based AbbVie Inc. was called off because of new U.S. tax rules aimed at deterring American companies from moving their legal headquarters to lower-tax countries.

A deal for Shire would place Takeda among the world's biggest pharmaceutical companies, with annual revenue of more than \$30 billion.

—Kosaku Narita and Adam Clark contributed to this article.

## Big Pharma

Top drug companies by revenue



\*Takeda's fiscal year ends March 31

Source: the companies

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## WORLD NEWS

# Firm's Profiling Of Voters Didn't Work, Clients Say

Campaign aides say Cambridge Analytica CEO Alexander Nix failed to deliver results

LONDON—Cambridge Analytica CEO Alexander Nix's sales pitch was simple and powerful: his firm's personality-profiling ability would let politicians win votes by tapping into people's deepest fears and desires.

By Sam Schechner,  
Jenny Gross  
and Rebecca Ballhaus

Clients of the company, including Donald Trump's presidential campaign, said Cambridge Analytica struggled to make good on Mr. Nix's claims.

Among the data Mr. Nix's team crunched was information on 50 million Facebook users obtained and allegedly stockpiled in violation of Facebook policies, former Cambridge Analytica worker Christopher Wylie told the New York Times and the U.K.'s Observer this month.

The ensuing scandal has sheared \$80 billion off the market value of Facebook and led to calls for Mr. Nix to testify again before U.S. and U.K. lawmakers. Investigators from Britain's data-privacy watchdog last week searched the Cambridge Analytica's London offices.

The company has said it followed Facebook rules and didn't use the data in question during the 2016 U.S. election

campaign. It also suspended Mr. Nix, pending an internal investigation, after he was caught on video by a British broadcaster describing tactics that included entrapping clients' opponents with bribes and sex.

Mr. Nix said his comments were taken out of context as he was entertaining "a series of ludicrous hypothetical scenarios."

Acting CEO Alexander Tayler has told employees in recent weeks that he thinks Mr. Nix is unlikely to return, according to a person close to the company. Mr. Nix and a representative for Cambridge Analytica didn't respond to requests to comment.

Mr. Nix's sales pitch boiled down to two essential claims. First, he said Cambridge Analytica has developed a way to use publicly available data—on demographics, purchases, voting history—to predict an individual's personality traits.

Second, Mr. Nix has said, Cambridge Analytica can make ads more effective by tweaking them to appeal to specific personality types—delivering an emotional ad, for instance, to someone disposed to resonate with that approach.

"We can use 'big data' to understand exactly what messages each specific group within a target audience need to hear," Mr. Nix said in a talk dubbed "From Mad Men to Math Men" at a marketing conference last year.

There is little public evidence or scholarship to show that attempts to tailor ads that way is effective, accord-



Alexander Nix, the chief executive of Cambridge Analytica, arriving at the company's offices in central London last week.

ing to Daniel Kreiss, an associate professor at the University of North Carolina at Chapel Hill who has studied political campaigns' use of data. People close to the company said Mr. Nix didn't understand the data work he talked about.

"The pitch was always about getting rid of the Mad Men style approach and moving toward understanding people's personalities," said a person who worked closely with Mr. Nix in recent years. "That's a good pitch, but you have to be able to deliver."

Beginning in 2012, Mr. Nix launched a series of U.K. and U.S. companies, one of which was Cambridge Analytica LLC, according to corporate filings.

He attracted backing from New York's Mercer family, known for financing conservative causes. Rebekah Mercer,

the daughter of hedge-fund billionaire Robert Mercer, is on Cambridge Analytica's board.

Most of the 20 organizations that reported having hired Cambridge Analytica to the Federal Election Commission also received donations from Mr. Mercer, commission records show. According to former officials of several campaigns, hiring Cambridge Analytica came to be seen as almost a prerequisite for candidates seeking the Mercers' support. The Mercers didn't respond to requests to comment.

Mr. Nix's clout rose significantly during the 2016 U.S. election cycle. Three Republican presidential campaigns—those of Mr. Trump, Sen. Ted Cruz and neurosurgeon Ben Carson—hired his firm, FEC records show.

But some clients were dis-

appointed. Cambridge Analytica built a data model for the Cruz campaign intended to predict which voters would back Mr. Cruz. The campaign tested the model in Oklahoma and found it was less than 60% accurate, a former member of the Cruz campaign said.

The company also built psychographic models to target voters. The campaign used the models in three nominating contests—Iowa, New Hampshire and South Carolina—but stopped when testing showed they didn't work, the former campaign official said.

Mr. Nix first met with Trump advisers in May 2016, at the introduction of Steve Bannon, who sat on Cambridge Analytica's board, according to people familiar with the conversations.

In the summer of 2016, Cambridge Analytica dis-

patched a team to work with the Trump campaign's digital operation in San Antonio. But according to the people in the company and the Trump campaign, the company didn't perform what it touted as its expertise: building psychographic profiles of likely voters to tailor ads to their personalities.

Instead, the company's work with the Trump campaign focused on placing tens of millions of dollars' worth of digital ads and on building data models that could predict voter turnout and candidate preference, the people said.

"These are the things that all campaigns end up doing," said Patrick Ruffini, a conservative political strategist who runs an analytics firm.

◆ Facebook restricts data to brokers amid uproar..... B4

## Scandal Bowls Over Australian Cricket

By ROB TAYLOR

Australia's national sport, cricket, is embroiled in a scandal rivaling "Deflategate"—the controversy that engulfed the New England Patriots for using a deflated football to gain an advantage in the NFL.

The captain of the nation's cricket team, Steve Smith, and two teammates were sent home from South Africa after an Australian player was caught by cameras using sandpaper to scuff the ball during a weekend match, a strategy used to make it harder for opposition batsmen to hit.

Down Under's "Tom Brady moment" has reverberated all the way to the top. "This has been a shocking affront to Australia," Prime Minister Malcolm Turnbull said Tuesday. "How many of us as children, how many of us as fathers and mothers have had children who have looked up to the Australian team, who have looked up to their role models, their idols?"

Cricket is held up as an embodiment of Australian national identity and fair play. It is often said, only half-jokingly, that the two most important jobs are held by the prime minister and the captain of the cricket team—not necessarily in that order.

As a result, this so-called ball-tampering scandal has raised the unthinkable specter of cheating, triggering something of an existential crisis across the country.

Former Australian batsman Jimmy Maher called it "a national day of shame." Steve Waugh, a former skipper, said he had received thousands of messages from "heartbroken cricket followers world-wide."

The events bear the hallmarks of the "Deflategate" scandal, which rocked the U.S. when New England Patriots quarterback Tom Brady served a four-game suspension in 2016 after being accused of conspiring to deflate footballs ahead of the AFC Championship.

It comes as a survey last year by Roy Morgan Research found the number of cricketers had fallen 10% since 2001, with people turning to sports including basketball and baseball.

—Mike Cherney contributed to this article.

## U.K. Traces Poison to House of Former Spy

By JENNY GROSS

LONDON—After combing through hours of security-camera footage and speaking to hundreds of witnesses, British investigators said Wednesday they believe that the nerve agent used to poison a former Russian spy and his daughter had been applied to the front door of their house.

Earlier in the day, the government of Prime Minister Theresa May stepped up its rhetoric against the Kremlin, which it says is likely responsible for the attack in the English town of Salisbury, saying it would review hundreds of visas granted to wealthy Russians living in the U.K.

The ex-intelligence officer, Sergei Skripal, and his daughter, Yulia, were found slumped on a park bench earlier this month after the first known use of a chemical weapon in

Europe since World War II. They remain hospitalized in critical condition.

In the wake of the attack, the U.K., the U.S. and more than a dozen European countries have expelled a total of more than 100 Russian diplomats and intelligence officers, deepening tension between Moscow and the West. Russia denies any involvement.

Dean Haydon, deputy assistant commissioner and senior national coordinator for U.K. counterterrorism policing, said that after finding evidence the Skripals were exposed to the nerve agent from their front door, "we are therefore focusing much of our efforts in and around their address."

Police didn't comment on how the poison was delivered or by whom.

Mrs. May has pledged to freeze Russian state assets if they pose risks to the life or

property of people in Britain, but she has been criticized for not going further, including by imposing financial sanctions on people with close ties to Russian President Vladimir Putin. Some have invested

large amounts of money in British real estate and institutions.

Asked by a lawmaker about the some 700 Russians who came to the U.K. between 2008 and 2015 on wealthy-investor visas, Home Secretary Amber Rudd said the government is reviewing individual cases and what changes it could make to the program.

In late 2014, the U.K. tightened visa requirements, doubling the minimum investment to £2 million (\$2.8 million) and imposing tougher checks. Russians were overtaken as the program's main beneficiaries by the Chinese in 2016.

"I have asked my officials to look at what reforms we might continue with and also to take a look at previous ones over the past few years" and see if any actions need to be taken, Mrs. Rudd told a parliamentary committee.

**Home Secretary Amber Rudd said visas are being reviewed.**

FRANCE

### National Homage For Slain Gendarme

The slain hero of last week's extremist attack in southern France was honored in a daylong national homage led by French President Emmanuel Macron.

The coffin of Lt. Col. Arnaud Beltrame was driven in a procession across Paris. Mr. Macron delivered a eulogy calling for national solidarity after the attack.

The president posthumously awarded the gendarme the Legion of Honor. Schools and police stations around the country held minutes of silence.

The tribute came amid questions about possible failures by officials in tracking the gunman, who had been on a watch list before Friday's rampage.

—Associated Press

### Tensions at March to Honor Murder Victim

Tensions over the killing of an elderly Jewish woman spilled over during a march in Paris in her memory, as leaders of the far-right National Front were met with catcalls when they tried to join the demonstration.

Mireille Knoll was found stabbed to death and burned Friday at her Paris home. French prosecutors have pressed preliminary charges against two men for voluntary homicide motivated by the real or supposed

religion of the victim, a judicial official said.

French President Emmanuel Macron said the suspects killed "an innocent and vulnerable woman because she was Jewish."

Officials from both the National Front and the leftist France Unbowed were forced to pull back from the front of a march in honor of Ms. Knoll after their leaders were booed.

National Front leader Marine Le Pen sparked controversy during last year's election campaign when she claimed the French state wasn't responsible for the 1942 roundup of Jews, in which

more than 13,000 people were arrested and held in the Vel d'Hiv cycling stadium to be deported to Nazi concentration camps. Yet she has also tried to eradicate the party's anti-Semitic reputation.

Marchers objected to representatives of France Unbowed because the leftist party has criticized Israel.

The killing of 85-year-old Ms. Knoll has underscored rising anti-Semitic violence in France. The number of violent anti-Semitic acts recorded by French police rose last year to 97 from 77 in 2016.

—William Horobin

### ETHIOPIA

### Choice of New Leader Aims at Reconciliation

Ethiopia's ruling party chose a new prime minister, selecting a young politician from one of the country's most marginalized ethnic groups in a bid for national reconciliation in the world's fastest-growing economy.

After weeks of negotiations, the Ethiopian People's Revolutionary Democratic Front—the power behind the country's one-party authoritarian rule—late Tuesday picked Abiy Ahmed, a 42-year-old engineer, to lead the party and the nation.

Mr. Ahmed is relatively untested, having served just one year as a minister of science and technology under the departing prime minister. But he has represented the Oromos, an ethnic group that is Ethiopia's largest, but most marginalized, in regional parliament.

His selection ends a process that unnerved Ethiopia's neighbors and investors, coming nearly two months after the resignation of Prime Minister Hailemariam Desalegn. The EPRDF imposed a draconian state of emergency soon after the resignation.

The choice of Mr. Ahmed could reassure those worried that Ethiopia—a major Western ally in terrorism and migration and the target of large-scale Chinese investment—would succumb to ethnic conflict.

—Matina Stevis-Gridneff and Yohannes Anberbir



SIBERIA IN MOURNING: Funerals began on Wednesday for victims of Sunday's shopping-mall fire in Kemerovo, Russia. At least 64 people were killed, including many children.

### MALAYSIA

### Parliament Clears Redistricting Plan

Malaysia's Parliament approved plans to redraw the electoral map amid protests that it provides Prime Minister Najib Razak an unfair advantage in coming elections. Opposition politicians say the changes squeeze voters in their camp into fewer districts, giving disproportionate weight to rural constituencies, which tend to back the ruling National Front coalition.

—Yantoultra Ngui

## IN DEPTH

# BUDGET

*Continued from Page One*

Those costs are outpacing growth in tax revenue year after year. In 2016, state and local governments collected about \$136 billion more in taxes than they did in 2008, adjusting for inflation. Two-thirds of those additional dollars went to fund pensions and Medicaid, according to a Wall Street Journal analysis of Commerce Department spending data.

"The more we stare at the data, the more we realize all roads lead back to Medicaid and pensions," says Dan White, a director at Moody's Analytics who has studied the issue.

The resulting revenue squeeze is making it harder for governments to pay for core services such as education, infrastructure, police and fire protection.

It also is fueling bitter state budget battles. Twenty-two states faced budget shortfalls in 2017. Ten couldn't agree on a new budget before the start of their next fiscal year. Illinois's credit rating was downgraded nearly to junk status.

To save money, states are sending less aid to cities. Many cities, in turn, are increasing fees and fines on everything from garbage collection to parking tickets. Others, such as Hartford, Conn., have teetered on the brink of bankruptcy.

The cash crunch is likely to get worse. Federal actuaries predict that Medicaid's annual cost, which was \$595 billion in 2017, will exceed \$1 trillion in 2026. States and many localities pay about 38% of that tab. The remainder is covered by the federal government.

Policy makers in Washington have talked about revamping entitlement programs such as Medicaid, but so far their efforts have gained little traction. That leaves it up to states to try to contain spending—and make do with less.

Nearly 70 million Americans, about one-fifth of the population, depend on Medicaid for health coverage, including more than 28 million children. The biggest financial beneficiaries are the disabled, the elderly and poor working-age adults.

## Budget crunch

Medicaid costs have transformed state budgets. In 1964, states' top three spending items were education, highways and public welfare, according to data from the Council of State Governments. As of 2014, public welfare, which includes Medicaid, had moved into the No. 2 position.

"Governments are spending less on what they want so they can spend more on what they must spend," says Don Boyd, a senior research fellow at Rockefeller College in Albany, N.Y. "There's been a lot of crowding out."

Public-employee pensions are legally protected in most states. With Medicaid, states can set criteria for coverage, but then must pay for anyone who qualifies.

"Whatever that bill is, you have to cover it," says John Nixon, a former state budget director.



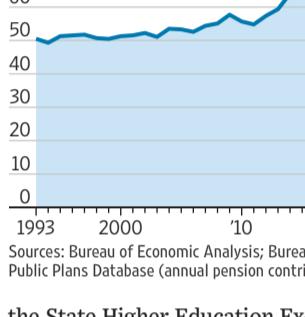
AL GOLDIS/ASSOCIATED PRESS

**Michigan Gov. Rick Snyder, center, tapped John Nixon, left, to run the state's budget and help close a \$1.5 billion gap.**

## Sticker Shock

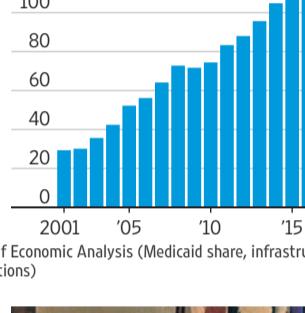
The rising cost of Medicaid and pension obligations has strained state and local budgets and forced public officials to look elsewhere for cuts.

### Medicaid's share of federal aid to state and local governments



Sources: Bureau of Economic Analysis; Bureau of Economic Analysis (Medicaid share, infrastructure); Public Plans Database (annual pension contributions)

### Annual city and state government contributions to major public pension plans



### Per capita gross investment in new infrastructure by state and local governments, change from a year earlier\*



THE WALL STREET JOURNAL

the State Higher Education Executive Officers' Association.

"For the first time in our nation's history, we are at the cusp of college students and their families paying the majority of college costs," Robert Anderson, the group's president, testified at congressional hearing in February.

For cities, the budget squeeze means they must rely less on state aid to balance their books. The Lincoln Institute of Land Policy, which tracks the budgets of 150 U.S. cities, found that 85 received less state aid in 2015 than they did in 2005. In 54 cities, aid declined by more than 10%.

Last summer, a legislative standoff over Connecticut's debt and pension costs delayed the state budget and froze aid to municipalities. In the state's capital, Hartford, Mayor Luke Bronin warned he would seek bankruptcy protection if the city didn't receive additional aid from the state.

The aid finally arrived when lawmakers reached a budget deal in October. To find money for Hartford, lawmakers took aid away from other cities, prompting some towns to shelf infrastructure projects and consider tax increases.

State and local governments made big commitments, particularly on pensions and retiree health care, but didn't adequately fund those liabilities," says Mr. Bronin, a Democrat.

Connecticut has just 31.7% of what it needs to pay its employees' future retirement benefits,



MICHELLE McLoughlin FOR THE WALL STREET JOURNAL

## Hartford Mayor Luke Bronin said the city might have to seek bankruptcy protection.

according to state financial reports. A fund for teachers has 52.3%. Together, that adds up to more than \$37 billion in unfunded pension liabilities, or about \$10,300 per Connecticut resident.

Connecticut's unfunded pension liabilities resulted from nearly 40 years of politicians making promises about benefits without adequately funding them, according to a 2015 study by the Center for Retirement Research at Boston College.

After the long bull market of the 1990s, seemingly flush with cash, Pennsylvania, California, New Jersey and many other

states sweetened retirement benefits. In 2008, stock markets plunged and those promises became harder to fund. To balance budgets, many governments skimped on annual pension contributions. The average funding level of large public pensions dropped from 100% in 2001 to 72% in 2016, according to the Public Plans Database, which tracks 170 large public plans.

Cost was an afterthought when Medicaid was enacted in 1965 under President Lyndon Johnson, who championed free health care for the poor and elderly as part of his "Great Society" program. "I'll go a hundred million or a billion on health or education," Johnson told his vice president in a March 1965 phone call, according to a recording in his presidential library. "I'll spend the goddamn money. I may cut back some tanks, but not on health."

The Medicaid legislation didn't levy taxes to pay for the program. Most states copied that approach, tapping general funds as the main revenue source and sharing some costs with local governments.

Cost wasn't a problem in the 1960s, when health care wasn't as sophisticated. "People used to go to the hospital to die back then," said Joseph Califano, who served as President Johnson's chief domestic policy aide in 1965. As treatments and longevity improved, many states also expanded Medicaid eligibility. Enrollment and costs rose.

Since 1967, the state and local share of Medicaid has grown

at a compound annual rate of about 7%, exceeding the 3% annual growth in their tax revenues, adjusting for inflation, according to the Journal's calculations.

The math can overwhelm states when they hit a rough patch in tax growth. Declining tax revenue is what led to Michigan's budget cuts in 2011.

Today, the state is doing better. It has a "rainy day" fund of \$889 million and is gradually increasing transportation, higher-education and K-12 funding. Michigan even expanded Medicaid under the Affordable Care Act, bringing health coverage to an additional 675,000 adults through federal matching funds that President Donald Trump wants to scale back.

John Walsh, the state budget director, says Medicaid expansion has been "physically healthy for the individuals and financially healthy for the state," since it helps lower Michigan's uncompensated health-care costs. One out of every four Michiganders now benefits from Medicaid.

## Bleak picture

The financial picture is bleaker for many Michigan cities, including East Lansing, home of Michigan State University. Since 2009, annual state funding for the city and the school has fallen by about 17% each, adjusting for inflation. To offset the cuts, the university has increased tuition repeatedly. The city, which is struggling with almost \$125 million in unfunded pension and retiree health-care liabilities, has been cutting services because state law caps property tax increases.

Things came to a head last summer when East Lansing asked MSU to pony up \$100 million over 20 years to help shore up the city's underfunded pension plan. The alternative, the city said, was asking voters to approve a 1% income tax that would hit university employees and working students.

After negotiations went nowhere, the city brought the income-tax proposal before voters in a referendum last November.

Undergraduate student body president Lorenzo Santavicca, 21 years old, said the measure would take away from his generation. "We are getting the short end of the stick because of commitments that were made years ago," he said.

When his 53-year-old father attended Eastern Michigan University in the 1980s, state support for higher education was so generous that he was able to cover his tuition with the money he made raking hay on his grandmother's farm during summers and selling it for \$3 to \$4 a bale. He graduated debt-free in 1987.

Mr. Santavicca says that to pay for his four years at MSU, he and his father have borrowed about \$63,000. He expects to graduate this spring with a degree in international relations and would like to someday work in government, but he is unsure he can afford to.

On Nov. 7, East Lansing residents shot down the income-tax referendum, forcing the city to debate what services to cut to save money for the pension obligations.

He had forgotten to write down the address of the party and didn't know where to go.

Mr. Carter, the biotech product manager in Westbrook, struggled with the decision. If he quit Facebook, he might have more time, he reasoned. On the other hand, "my [social] circle will shrink dramatically." He would miss news from past acquaintances and distant relatives. They would "all be gone the minute I hit the delete key," he says.

As one friend wrote to him, "It's like that awful thing that happened when we were teenagers on the phone... You hang up first. No, you hang up first."

For now, Mr. Carter has decided to take a half step. He dialed his Facebook use way back and intends to post only occasionally to keep in touch with relatives. He suspects, though, that he will be postponing the inevitable, because "it will always be there begging for my attention."

The validation Facebook provides is a strong temptation. At last count, Mr. Carter's post about why he hadn't yet deleted Facebook had 60 "Likes," "Hahas" and "Loves," plus 12 comments.

One, from his friend David: "I was going to delete FB, but then I couldn't comment on this to let you know I agree with you, and disagree..."

# DELETE

*Continued from Page One*



THOMAS PARISOT

Thomas Parisot worried about changing his mind after deleting.

## How Do I Delete?

If you just need a break from Facebook, you can "Deactivate" your account. It's easy to reactivate, and you won't delete any info.

Choose the downward arrow at the top right corner of your page. Go to Settings, then Manage Account. Scroll down to Deactivate Your Account.

Facebook will flash a screen of all the people who will miss you and ask if you're sure about the decision. Don't worry. I deactivated my account and reactivated it five minutes later.

Once you deactivate, people can't find you on search, and your friends will see your name in their friend list labeled "This account has been deactivated." Keep in mind, this move doesn't deactivate Facebook's Messenger app.

If you are ready to get serious and truly "Delete," I suggest you first download a copy of your Facebook data—which includes pictures, posts, messages, timeline and more.

Go to the same General Account Settings page where you can "Deactivate" and scroll to the bottom of the choices.

Facebook says it delays de-

letion "a few days after it's requested." It also says it takes 90 days "to delete data stored in backup systems," during which time your account will be inaccessible. And things that aren't part of your account—such as messages you've exchanged with friends—don't disappear when you delete.

Once you're ready to pull the plug, go to Facebook's Help Center, which is under the question mark symbol. From here, choose Managing Your Account, then Deleting Your Account. Follow the instructions, and you're done. Really done.

—Katherine Bindley

Sugar at the time.

She didn't close her account completely, but since she could read it only on her desktop, checking it became an infrequent annoyance. In the end, she says, it wasn't that big a deal. The biggest issue was people saying in shock, "You mean you don't have Facebook?" she recalls. She would tell them, "Nope, and I'm fine." She says she returned to Facebook recently to keep up with news about the shooting at the local Marjory Stoneman Douglas High School.

For others, a Facebook divorce can weigh heavily on the psyche. Thomas Parisot, a

social media at Topic, a New York-based media company. He is philosophical about the career change. "I was barely making a living as it was," he says. He now has the freedom to pursue art without worrying about the network effects and fiscal considerations," he says. That's good, he says, since much of the art he chooses to work on now is "deeply unmarketable."

Denise Stirk, a writer and blogger in Parkland, Fla., struggled with the decision to remove the Facebook app from her phone when she realized it was interfering with her parenting. "I love Facebook. Like a lot," she wrote in a blog post on Pop-

France-based web developer, decided to leave Facebook at the end of 2014 because he had begun to feel like he was "consuming people like you consume news," he recalls.

But the decision was fraught. What if he was being impulsive? What if he changed his mind? "It would be like, I'm going vegan," and then two weeks later saying, "oh, now I'm eating meat again," he says.

What would that say about his attitude toward his friends? Delete the data and then "you're digitizing your friendships again, trying to re-create them," he remembers thinking.

As he started deleting his ac-

count, the social-media giant tormented him with warnings that aggravated his doubts. Was he sure he wanted to leave? It showed pictures of friends he would no longer be connected with. At one point, he remembers thinking, "Oh s—, maybe I'm making a mistake and my life really will be over."

A commitment to leave takes emotional strength, he says, because Facebook "gives you the feeling you are entering something that's really not normal."

He finally pulled the trigger as he was about to take off for a 2014 New Year's Eve party. Almost immediately, he felt the sting of life without Facebook.

# GREATER NEW YORK

## Cuomo Faces Flap Over Harassment Talks

Female senator says the governor hasn't kept pledge to include her in all-male meetings

By MIKE VILENSKY

ALBANY—As Gov. Andrew Cuomo and three male lawmakers meet to hash out a state sexual-harassment policy as part of the annual budget, they are facing calls to include the state's only female caucus leader in the talks.

Mr. Cuomo vowed in February to include Senate Minority Leader Andrea Stewart-Cousins, a Democrat, in the otherwise all-male group amid calls for her inclusion from women's-rights groups. But with just a few days left before the budget deadline, Ms. Stewart-Cousins said Mr. Cuomo hasn't followed through on that pledge.

"I'm not in the meetings, and I have not been included in

other ways," she said in an interview this week.

Asked about Ms. Stewart-Cousins' exclusion, Mr. Cuomo on Wednesday told reporters that a "working group" of women in government was helping to negotiate the sexual-harassment policy and that her caucus had a representative to the group.

Mr. Cuomo's counsel, Alphonso David, said that he has met with two attorneys who represent Ms. Stewart-Cousins' caucus in recent weeks to negotiate the budget, and that Mr. Cuomo has spoken with her by phone.

"That's not a negotiation, that's a briefing," Ms. Stewart-Cousins said, adding that Mr. Cuomo only spoke to her about "generalities."

Mr. David said Ms. Stewart-Cousins hasn't been included in

the four-way talks among legislative leaders because those have historically included only majority conference leaders. "If a woman was representing a [legislative] majority, that would be great," he said.

Ms. Stewart-Cousins' supporters say this year is different because sexual-harassment policy is expected to be part of the budget, and a woman's voice should be at the table.

Of the four men in the group, Senate Majority Co-Leader Jeffrey Klein, a Bronx Democrat, is under state investigation for allegedly sexually harassing a former staff member. Mr. Klein has denied kissing Erica Vladimer, the former staffer, and said he welcomes the probe.

Meanwhile, Mr. Cuomo is being sued for allegedly ignoring complaints that his former aide sexually harassed Lisa Marie Carter, a former state employee. Mr. Cuomo's office has said it investigated Ms. Carter's claims but she was uncooperative.

### Lawmakers Near Budget Deadline

New York lawmakers on Wednesday continued haggling over the state's \$160 billion budget, with issues including a possible government pay raise added to the mix.

They are running up against an April 1 deadline, but Gov. Andrew Cuomo said lawmakers deserve a raise if they don't pass the budget on time.

Other issues still being negotiated among the GOP-led Senate and Democratic-led Assembly include a tax overhaul to offset the effects of the federal-tax law and new laws regarding sexual harassment.

Employees to be paid more and that the budget could establish a commission to evaluate compensation for both government workers and legislative salaries. A similar commission ruled against pay increases in 2016, with Mr. Cuomo's appointees outvoting legislative appointees.

Mr. Cuomo suggested, however, that he didn't believe lawmakers deserve a raise if they don't pass the budget on time.

The governor told reporters that he wanted certain high-ranking state government em-

ployees to be paid more and that the budget could establish a commission to evaluate compensation for both government workers and legislative salaries. A similar commission ruled against pay increases in 2016, with Mr. Cuomo's appointees outvoting legislative appointees.

The talks are complicated by the power dynamics of the state Senate. Republicans hold power in a conference that includes eight Democrats who caucus with the GOP. But under pressure from liberal advocates, Mr. Cuomo earlier this year backed a deal in which Democrats could reclaim control of the Senate if they win a special election on April 24 that would also require the eight Democrats to caucus with their party.

Asked if she would include minority conference leaders in budget talks should she become a majority leader, Ms. Stewart-Cousins said that decision appears to rest with the governor. "It's not my room," she said.



**Andrea Stewart-Cousins**

## FBI Agent Poised To Take Reins At Suffolk Police

By CORINNE RAMEY

BRENTWOOD, N.Y.—On a recent chilly March afternoon, Federal Bureau of Investigation agent Geraldine Hart and Suffolk County Police Lt. Thomas Zagajeski drove around the Long Island police precinct where the gang MS-13 is linked to at least 10 murders within the past two years.

"My guys," said Ms. Hart, get much of their gang intelligence through proffers, or when gang members share information with prosecutors in exchange for shorter prison sentences. "My guys," said Lt. Zagajeski, who leads the Suffolk County police gang team, get most of

a rare jump between two agencies that have had a fractured relationship for years.

Nominated by Suffolk County Executive Steve Bellone, Ms. Hart would be the first woman to hold the job.

Her nomination comes as Suffolk County's battle against MS-13 is drawing national attention, with President Donald Trump visiting the area last summer and pledging to deport gang members, many of whom have roots in El Salvador. It also comes on the heels of what county officials have called a crisis in local law enforcement.

In 2016, former police chief James Burke pleaded guilty to a civil-rights violation and conspiracy to obstruct justice. Federal prosecutors said he beat up a suspect accused of stealing his duffel bag, which contained pornographic videos and sex toys, and then sought to cover up his actions.

Former Suffolk County District Attorney Thomas Spota and Christopher McPartland, a prosecutor who ran the office's government-corruption unit, have been accused of federal crimes related to the incident's coverup. An attorney for Mr. McPartland declined to comment. A lawyer for Mr. Spota didn't respond to a request for comment. Mr. Burke is serving a 46-month prison sentence.

Ms. Hart said as commissioner, her priorities would include working to address the opioid epidemic, which killed 333 people in Suffolk County in 2016, compared with 188 in neighboring Nassau County.

their intelligence on the street. Ms. Hart, who heads the FBI's Long Island office, said she hopes their teams can work more closely together. "If you guys can trust each other that's half the battle," she said.

Ms. Hart, 50 years old, is the nominee for commissioner of the Suffolk County Police Department, whose approximately 2,500 members place it among the largest suburban police forces in the U.S. If confirmed by the county's legislature in April, she would make



Geraldine Hart, who has been touring local police precincts and facilities, received a demonstration on bomb-detection equipment.



The crisis, she said, is a public-health issue and not just a law-enforcement problem.

When an officer sees a drug user, "in the past it would just be another collar," she said. "But is it now a better opportunity for us to identify them as someone eligible for treatment?"

Ms. Hart said she wants to see school programs expanded to educate teenagers about the

dangers of opioids. To combat MS-13, she said she wants to better aggregate and disseminate intelligence and work to prevent young people from joining gangs.

The daughter of a New York Police Department sergeant, Ms. Hart grew up in Suffolk County. She became interested in the FBI during a grade-school trip to the agency's Washington, D.C., headquarters. "My fifth-grade dream was to be an FBI agent," she said.

Ms. Hart graduated from St. John's University School of Law in Queens. In 1996, she joined the FBI in New York City, where as an agent she worked on health-care fraud and organized crime matters. Among her cases was that of the so-called mafia cops, two NYPD detectives who did work for the Lucchese crime family. Both

were sentenced to life in prison. In 2014, she took charge of the FBI's Long Island office.

When her nomination was announced earlier this year, the headlines about her gender took her by surprise. While the roughly 30-member FBI Long Island Gang Task Force is mostly male, being a woman has never been an issue, she said. She believes she gained the respect of her co-workers because she put in years as a case agent.

In an interview, Mr. Bellone said Ms. Hart is a steady, serious consensus builder. When Mr. Burke was police chief, she helped bridge the gap between police and the FBI by quietly finding officers and agents who would work with each other on an unofficial basis, he said. "I think she's never thought of herself as a woman leading

men," Mr. Bellone added.

William Sweeney Jr., assistant director in charge of the FBI's New York division, recalled watching Ms. Hart when the authorities last year charged MS-13 members for the killings of two teenage girls in Brentwood. "I remember everybody was focused on the indictments, and I remember her saying she needed to meet with the families," he said. "Putting someone first like that makes a big difference."

To prepare for her new job, Ms. Hart has been touring local police precincts and facilities. On that recent afternoon, she checked out helicopters, drones and a bomb-disposal robot at a regional airport. Asking detailed questions in her Long Island accent she broadcast local authenticity and knowledgeable authority.

## 'Tina Fey Factor' Boosts Preview Sales for 'Mean Girls'

By CHARLES PASSY

It's mean season on Broadway.

"Mean Girls," the musical based on the 2004 movie of the same name, has drawn capacity crowds and grossed nearly \$2.6 million during the first two weeks of previews before its official opening on April 8, according to trade group Broadway League.

The show is topping many long-running favorites at the Broadway box office. For the seven-day period ended Sunday, it grossed \$1.26 million, which put it ahead of "Beautiful," "Come From Away," "Kinky Boots," "School of Rock," "The Book of Mormon," "The Phantom of the Opera" and "Waitress," among other hit musicals, for the week.

Broadway insiders and ob-

servers say the show's early success speaks to the enduring popularity of the movie, a sharp-eyed take on the contemporary social landscape for high-school girls. But just as important, they say, it speaks to the broader popularity of Tina Fey, who wrote the

screenplay for the film and the book for the musical. Ms. Fey has been heavily involved in bringing "Mean Girls" to

Broadway.

"The Tina Fey factor is a major one," said Chris McKittrick, a writer with Daily Actor, a website that covers the performing arts.

Ms. Fey, a writer and actress who gained fame on "Saturday Night Live," has become a pop-culture juggernaut behind a range of TV and film projects. She is also the author of the best-selling book "Bossypants."

"Mean Girls" isn't the only show that is off to a strong start in previews. "Harry Potter and the Cursed Child," the much-anticipated two-part play that brings the world of Harry Potter to Broadway, took in \$1.54 million in its first week, according to the Broadway League. The production, which opens on April 22, played to sold-out crowds for the week.

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JAN MARCUS

## GREATER NEW YORK

# Manhattan Apartment Market Sags

Buyers deterred by high asking prices for new luxury units but developers are slow to respond

By JOSH BARBANEL

Sales of Manhattan apartments eased during the first quarter to the slowest pace in five years, according to an analysis by The Wall Street Journal.

Brokers said sales were damped by a slowdown in closings in new luxury buildings, as well as a rebellion by condo buyers against high asking prices.

**PROPERTY** As sales slowed, the number of available listings rose, compared with the same period last year.

"I think prices have gone up too far, and there is straight-up buyer resistance," said Donna Olshan, a broker who tracks contracts signed in the luxury market. "It has slowed the market down."

This was especially true in new developments and expensive older buildings, brokers said.

Overall, apartment sales were down more than 10% compared with the first quarter of 2017, according to a Journal analysis of city records of closed sales. That is the slowest pace since the first quarter of 2013.

Sales of co-ops, which include many lower-priced apartments, fell only slightly, by 2.3%, but sales of new condominiums were down by more than 35%.

Some of the decline in closings of new condominium sales reflect the vagaries of construction schedules. But brokers said it also follows a slump in the pace of contract signings—especially on new high-end developments—that continued for much of 2017.

Last year, many market analysts attributed the slowdown to uncertainty over governance in Washington, concerns about potential conflicts around the world or



Apartment sales in the first quarter were down more than 10% compared with the same period in 2017, the slowest pace since 2013.

worries about changes to federal tax laws. More recently, they said, many sellers of individual apartments have made deep cuts in asking prices, to make deals in a less favorable environment.

Developers, however, faced constraints from lenders and equity partners, and are slower to cut prices on new apartments, Ms. Olshan said.

Median prices of the apartments that sold fell slightly, by 1.5%, from the same quarter in 2017. But average prices dropped by 10% in the same period.

The Journal's analysis, based on sale documents filed with the city's Department of Finance as of March 23, put the median price of a Manhattan apartment at

\$1,095 million, about 8% below the all-time peak price recorded in the second quarter last year.

The median price for a condominium in the first quarter was \$1.625 million, down 4.6% from the year-earlier quarter. The median price of a co-op was \$810,000, up 7.3% during the same period. Sales of co-ops above \$4 million rose by more than 30%, while sales below \$1 million were down 7.4%.

Pamela Liebman, president of the **Corcoran Group**, said these numbers show there is plenty of activity in the market, but only if sellers price their properties properly. "We have plenty of good stories where there are still bidding wars and stories

where things don't sell because they are just overpriced," Ms. Liebman said.

"Buyers are much more aggressive, and in a lot of circumstances they are getting what they want," she added. "The good news is there are a lot of buyers, and they have plenty of cash and are ready to make deals."

Many sales that closed during the first quarter were negotiated last year, but there are some signs that weakness is continuing.

The number of contracts signed on Manhattan properties priced at \$4 million or more fell 15% in the first quarter, compared with the first quarter of 2017, according to data compiled by Ms. Olshan. Many of those won't close for months. Ms. Olshan

found the average price drop on these properties was 10% from the original asking price.

The top sale in the first quarter to date—a red-brick-and-limestone mansion on East 69th Street near Central Park—illustrates this pattern of price cutting. The house sold for \$39 million in mid-March. It was listed for as much as \$55 million in 2016, before several price cuts. It had previously sold for \$48 million in 2011.

Sales inventory is also increasing. A new report by Brown Harris Stevens found that inventory in Manhattan is up 14% in March, compared with a year earlier. The biggest increase in supply is among studio and one-bedroom apartments.

## GREATER NEW YORK WATCH

### NEW YORK CITY

#### Racial Divide Shows In First Lady's Poll

A Quinnipiac University poll Wednesday found that 57% of black voters approve of the job Mayor Bill de Blasio's wife is doing as first lady, compared with 39% of white voters. Among Hispanic voters, 47% approved.

The poll comes weeks after Chirlane McCray said she is considering running for elected office. Ms. McCray has taken an increasingly high-profile role in her husband's administration.

Earlier this month, Mr. de Blasio said he believed she should be paid for her work. A slight majority of voters, 46%, said Ms. McCray should be paid for her work on behalf of the city, compared with 45% who didn't.

—Mara Gay

### CONNECTICUT

#### GOP Urged to Revisit Vote for Top Justice

A day after the Connecticut Senate rejected Gov. Dannel Malloy's choice to lead the state Supreme Court, Democratic lawmakers on Wednesday asked their GOP colleagues to reconsider their vote.

State Sen. Martin Looney, the top-ranking Democrat in the chamber, called on at least one of the 19 lawmakers that voted against confirming Justice Andrew McDonald as chief justice of the state's highest court to have a change of heart. That would effectively cancel the vote under Connecticut Senate rules.

Eighteen Republicans and one Democratic senator voted no on elevating Justice McDonald, who has served on the state Supreme Court since 2013, to the top spot.

"The State Senate already voted on this issue," said State Sen. Len Fasano, the chamber's top-ranking Republican. "Both Republicans and Democrats voted against the governor's nominee. The vote is done."

—Joseph De Avila

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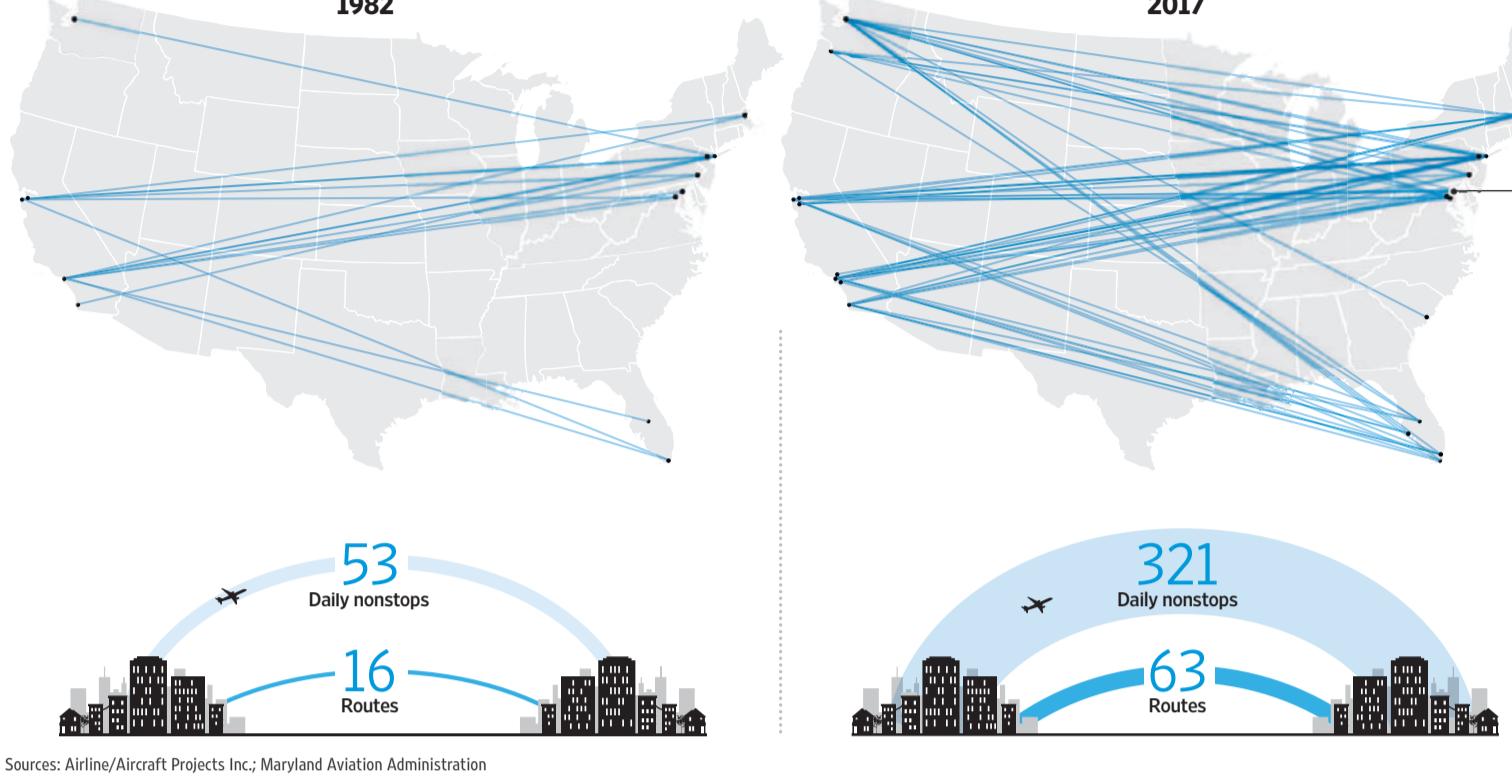
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# LIFE & ARTS

## Nonstop Growth

New airlines, new competitors and customers' eagerness to avoid connections have led to significant growth in transcontinental flights in recent years.

**Number of city pairs linked with direct flights in 2017 compared with 1982**



Sources: Airline/Aircraft Projects Inc.; Maryland Aviation Administration

**BALTIMORE'S AIRPORT** used to beg airlines for more nonstop flights to the West Coast, but carriers said no. Now BWI may have too many on some routes.

Southwest Airlines flies nonstop to seven West Coast cities from Baltimore-Washington International Thurgood Marshall Airport. Alaska flies to five West Coast airports from BWI. Spirit to four. You can pick from five daily flights to San Diego on three different airlines.

"We have more service to San Diego than we ever imagined," says Ricky Smith, the airport's chief executive.

Coast-to-coast flights linking secondary cities are letting travelers in places like Baltimore, San Diego, Seattle, Orlando, Fla., and Oakland, Calif., bypass midcontinent hubs.

There were 158 daily transcontinental nonstops 20 years ago, mostly between the New York area and Los Angeles and San Francisco. Now there are 321 daily nonstops across the country, linking airports as small as Charleston, S.C. And more are coming.

Fuel costs, more efficient new planes and population shifts have let smaller airlines play in the airline big leagues. Transcon flights carry high percentages of business travelers and garner loyalty from customers because they shrink the country in travel time. For airlines, they are high-profile, high-risk and high-reward. "These are really important markets," says Marty St. George, JetBlue executive vice president of commercial and planning.

Coastal travelers have benefited not only from the greater convenience of more nonstop flights, but also more fare competition, even as the industry has consolidated.

Industry consultant Craig Jenks, president of Airline/Aircraft Projects Inc., thinks mergers among big airlines have created more fragmentation of coast-to-coast flying. While Delta, United and

**THE MIDDLE SEAT** | By Scott McCartney

## The Rare Case Where Airlines and Passengers Both Win

What the surge of nonstop coast-to-coast flights says about the state of flying in the U.S., and why you can expect even more of it



SAM HODGSON/BLOOMBERG NEWS

San Diego ranks among the cities to see a boost in transcontinental U.S. commercial air traffic.

about \$9,100 worth of fuel on the same trip; for a 737-800 MAX, fuel costs about \$7,800.

Third, population shifts have moved more people to the East Coast and West Coast, boosting traffic at lots of coastal airports.

"We're going through a new phase in the industry," says John Kirby, Alaska's vice president of capacity planning. Airlines are now financially healthy. Deeper pockets mean they can invest in new markets.

Los Angeles-Orlando

is perhaps the most hotly contested route in the country, with six airlines going head-to-head. The number of travelers flying that route nonstop has increased more than 15% each of the past three years.

Virgin America had the smallest market-share—its new owner Alaska decided it will drop that route in July. Alaska added 44 new routes in 2017 and Virgin America added 38, so dropping Los Angeles-Orlando was a minor change, Alaska's Mr. Kirby says.

JetBlue says financial results on transcon routes often trailed the rest of the airline's network, especially when fuel prices were high. That changed in 2014 when JetBlue added its Mint cabin—lie-flat seats with 15-inch seat-back touch screens and meal service. The added revenue from premium passengers who typically pay \$549 to \$1,639 each way turned transcon routes into profit machines, Mr. St. George says.

The airline has engineered a transcon surge since 2014. The New York-based carrier grew to 27% of passengers flying between New York-Kennedy and Los Angeles International last year, up from 15% in 2014, according to PlaneStats.

Alaska doesn't offer lie-flat business-class like Delta, United, American and JetBlue. Other carriers say it's critical to profitability for long-haul flights. But Mr. Kirby says Alaska doesn't want to get into that fight. Instead, Alaska is updating its domestic first class with new seats and is content to use its first-class cabin largely as an upgrade inducement for frequent fliers. "We're old-school in how we treat our elites," Mr. Kirby says.

All-coach Southwest says it has added coast-to-coast flights where it's the largest airline at one end or both. The airline, traditionally a short-hop carrier, isn't wild about transcontinental flying because it takes up so much aircraft time.

But local business and leisure travelers want to get to the other coast nonstop, and Southwest has found it needs to stretch to keep customers loyal. "We've added it methodically where it makes sense, not as a surge," says Andrew Watterson, chief revenue officer.

One advantage of transcon flights: Adding nonstops opens up seats on shorter Southwest flights, because passengers who would have stopped at one or two airports are now flying straight on.

## TELEVISION

### 'JESUS CHRIST SUPERSTAR' IN A LIVE TV REVIVAL

BY JOHN JURGENSEN

**SINCE ITS BIRTH** in 1970 as a rock-opera album, "Jesus Christ Superstar" has taken form on Broadway, in a feature film, thousands of community productions, a hit concert tour with a Jesus chosen via reality show, and a failed concert tour starring former members of the Sex Pistols and Destiny's Child.

Somehow there's room for another first in the musical's 48-year-old existence, this time as a live production on broadcast television.

Airing on NBC in prime time on Easter Sunday, the show features stars from across the spectrum of pop music (John Legend as Jesus, Sara Bareilles as Mary Magdalene, Alice Cooper as King Herod) and musical theater, including "Hamilton" star Brandon Victor Dixon as Judas.

The once-controversial rock opera about



Above, John Legend will play Jesus in the live NBC production, with an ensemble cast; left, Alice Cooper as King Herod.



the last week of Jesus' life, written by lyricist Tim Rice and composer Andrew Lloyd Webber, adds to NBC's unlikely repertoire of musicals. Starting with "The Sound of Music Live!" in 2013, the broadcaster mounted a new exclamation-pointed production every year: "Peter Pan," "The Wiz," "Hairspray." A "Bye Bye Birdie" with Jennifer Lopez is expected next year.

Networks, including Fox, have used the mix of classic show tunes, big stars and the

without-a-net element of live TV to try to harness mass audiences that now tend to gather only for major sports showdowns and rare television events. They've had mixed results in ratings and execution.

Led by NBC Entertainment chairman and theater buff Robert Greenblatt, producers choose musicals based on name recognition, their ability to attract a heavy-hitting cast and the most important factor: "Is it appropriate for a family to gather around and watch the show together," says executive producer Neil Meron, who has helped over-

see all of NBC's live musicals.

Though it's a staple, "Superstar" takes the broadcaster into somewhat edgier territory. "Sound of Music" had its Nazis and "Hairspray" its racial tensions. "Superstar" is, of course, the first NBC musical that will enact a crucifixion.

"Superstar" ranks as one of the most influential pop-culture phenomena of the early 1970s. Like The Who's "Tommy," it was among the first rock operas, and introduced funk guitars and gravelly vocals into a

Please see SUPERSTAR page A12

## LIFE &amp; ARTS

## TELEVISION

# A New Beginning for 'Howards End'

Now a four-part miniseries on Starz, the 1910 novel's themes 'are always with us,' screenwriter Kenneth Lonergan says

BY CARYN JAMES

**"ONE SOUND MAN** of business does more good for the world than a dozen of your social reformers," Henry Wilcox says in the television adaptation of "Howards End," set to begin airing April 8 on Starz.

The line is lifted almost exactly from E.M. Forster's 1910 novel about three families in turn-of-the-century England, in which characters grapple with such 21st-century issues as the ethics of getting and giving money, the disparities of class and women's rights.

The four-part series never wavers from its Edwardian setting, but when it was shown last fall in the U.K., reviews cited how topical those issues are today. The Evening Standard said the new version suits this "post-Crash, post-austerity" moment, "in the midst of Brexit, Trump and a growing debate around sexual inequality."

The creative team behind the TV adaptation, including writer Kenneth Lonergan and director Hettie Macdonald, sought to liven up the book's enduring themes. In the process they created a more likable Henry—played this time by Matthew Macfadyen, Mr. Darcy in 2005's "Pride & Prejudice."

"We didn't want this to be Merchant Ivory redux," says Colin Callender, an executive producer of the TV series, referring to the 1992 film starring Anthony Hopkins as Henry and Emma Thompson as the independent-minded Margaret Schlegel. The goal was, he says, "to be true to Forster but give the piece an energy and freshness and wit."

As in the movie and novel, Margaret (played on TV by Hayley Atwell) and her socially conscious siblings are intellectuals living on inherited money. She marries the much wealthier Henry despite their philosophical differences. Helen Schlegel (Philippa Coulthard) takes up the cause of the working-class Leonard Bast (Joseph Quinn), with both tragic and hopeful results.

"Issues of feminism, different levels of society interacting or failing to interact—I didn't think specifically, 'Aha! This particularly speaks to things that are going on today,'" says Mr. Lonergan, known for his work on screen ("Manchester by the Sea," "You Can Count on



Me") and stage (his play "Lobby Hero" opened on Broadway earlier this week). "Those issues are always with us, under totally different circumstances."

Margaret and Helen, living at the height of the women's suffrage movement, "are in a previously unavailable position to get themselves out into this culture, but it's still not the same as the avenues open to men," he says.

"They're trying to navigate that." He did make small adjustments to the story. "There's a certain amount of contempt that Forster has for Mr. Bast, which I didn't care for,"

Mr. Lonergan says of the impoverished clerk who longs for culture. Bast's wife, a former prostitute, "is meant to be a grotesque" in the book. Mr. Lonergan made the characters stronger and more sympathetic, which also makes them seem less trapped in the past.

He enhanced the attraction be-



The TV adaptation of 'Howards End' stars Matthew Macfadyen and Hayley Atwell, above, and Philippa Coulthard, left. Below, behind the scenes of the production.



STARZ (3)

tween Margaret and Henry. "He's got a friendly, unmalicious quality in the novel that I probably made a bit more of," Mr. Lonergan says.

Casting Mr. Macfadyen was crucial, says Ms. Macdonald. "Henry needed not to be a sad old person. He has to have swagger. The Wilcoxes are all incredibly confident, and it's very seductive."

Henry is easily demonized but also given his due. "He's insensitive, he's a man of action and not of thought," Mr. Lonergan says, "but he also is engaged in what really makes the world run," which Margaret admires.

The question of how money affects character runs through all the novel's relationships, Mr. Callender says, even more than "a traditional upstairs-downstairs view of class" does. When Margaret tells Henry that he lacks poetry, "he challenges her and says he sees poetry in a different way."

Ms. Macdonald deliberately worked against the staid visual style of many period dramas. "I tried to keep the camera moving, which gives a physical energy," she says. And she rooted each scene in a character's point of view, most often Margaret's, "rather than sitting back and showing off all your carriages and long dresses."

The novel's famous epigram, "Only Connect," comes from Margaret's attitude toward Henry, whom she doesn't intend to alter but to accept, and from her idea about how the poetry and the prose of life should mingle.

"If you think more globally, we're in a world now where people are

shutting down their borders," Ms. Macdonald says. Forster's novel is "about people who are outsiders, or feel that they're trapped in a box and can't get out."

She adds: "That's why I think 'only connect,' is relevant today. It can apply anywhere there's a line that needs to be crossed."

## SUPERSTAR

Continued from page A11  
genre where the unbridled rock sound was still viewed as heretical. It also brought biblical icons down to earth, especially Jesus. First embodied by Deep Purple singer Ian Gillan, Christ was reimagined as "red blooded and full of spunk, not some bloke in a white robe clasping a baby lamb," wrote Mr. Lloyd Webber in his recent memoir, "Unmasked."

It was released first as a double album, which was Billboard's best-selling album of 1971, topping landmark releases from that year like Carole King's "Tapestry" and the Rolling Stones' "Sticky Fingers." The concept record was also adapted into a Broadway production that ran for more than two years. A 1973 feature film, like the record, helped bring the music into communities far from Broadway.

"It was the 'Hamilton' of its time, though 'Hamilton' wasn't nearly as controversial," says Gary Kline, a professor of musical theater at Carnegie Mellon University's School of Drama (near where the first authorized performance of "Superstar" took place in Pittsburgh in 1971).

Mr. Kline, raised in a conservative Christian household where popular music was forbidden, first became aware of "Superstar" because his father, a fundamentalist minister, railed against it from the pulpit as blasphemous. "It was the word 'Superstar' that really got to him—humanizing Christ in a horrible piece of music which, by the way, he hadn't heard either," the 61-year-old professor recalls.

He finally heard the album when, in high school, an English teacher played it in class. He recalls being "mesmerized and terrified" by the 39 lashes endured by Jesus as heard in the song "Trial Before Pilate." Many years later, Mr. Kline would play Pontius Pilate in a "Superstar" production in Pittsburgh.

Because it was conceived as an album, not a theatrical production, "Superstar" has been open to interpretation on stage, Mr. Lloyd Webber said in a recent interview.

"It was freeing for us because we didn't



Sara Bareilles plays Mary Magdalene in the NBC production that airs Easter Sunday.

wrote a piece that was being fashioned by a stage director. Instead, I was able to use my musical dramatic instincts on the record. You never know, if 'Superstar' had made it to the stage first we might not be having this conversation today," said the composer, whose recent 70th birthday was marked by NBC with a tribute special on Wednesday.

"Superstar" has endured through many shifts in musical trends and interpretations. In 2012, Mr. Lloyd Webber produced a British TV series in which contestants competed to play Jesus in a concert tour that toured the U.K. and Australia. Another tour, planned for 54 U.S. cities as Jesus, singer Michelle Williams as Mary Magdalene and Johnny Rotten as Herod, was canceled be-

fore it started due to poor ticket sales.

Mr. Meron says that aborted 2014 tour wasn't a warning sign for the NBC production. "No, it didn't give me pause. The TV audience is different from a concert audience, and the tour didn't have John Legend, Sara Bareilles and Alice Cooper."

The original Broadway production earned five Tony nominations, yet its glitz mortified the musical's composer. NBC's version hews more to the creators' intent, "quite rough and raw," says Mr. Lloyd Webber.

At a former armory building in Brooklyn, Sunday's live "Superstar" will be performed in front of cameras and an audience of 1,200 people. A stripped-down set and rock concert vibe (including an area Mr. Meron refers to as "a mosh pit") is designed to bring the show back to its roots and accentuate timely themes, including "forgiveness, love and trying to get a message out without it being squashed," the producer says.

Preparations took place in the basement of a Catholic church in Manhattan, a cavernous space where the Rockettes also rehearse. Last week, during a run-through of the song "The Arrest," Mr. Dixon's Judas kissed the cheek of an actor standing in for Mr. Legend, and a chorus of singers acting the part of journalists mobbed Jesus.

During the cast's lunch break, Ms. Bareilles recalled her introduction to "Superstar" with the home-video version of the 1973 film, which brought two worlds together for her as a Catholic and budding musical theater fan. "I went to Catholic school so the story of Jesus and the crucifixion was very vibrant in my mind anyway. Then to see it so humanized seemed magical to me."

A chart-topping pop singer who has crossed over to Broadway by writing music for shows such as "Waitress" (which she also starred in), Ms. Bareilles now contemplates how to mix the mediums of theater and television. For Mary Magdalene's big number—"I Don't Know How To Love Him," first made famous by singer Yvonne Elliman—she says, "There's a knee-jerk reaction to fill the space with gestures and other stuff because it's TV, but actually that moment is really reflective, sort of like a prayer."

### On-Air Ups and Downs

In 1957, a live CBS production of Rodgers and Hammerstein's "Cinderella" drew more than 100 million viewers. Broadcasters have returned to live musicals in hopes of harnessing audiences even a fraction of that size. These intended spectacles have had mixed success, with some suffering live drubbings on social media. Here are some of the hits and misses.

**"The Sound of Music Live!" (NBC, 2013)**  
**18.6 million viewers**  
The broadcast musical trend kicked off with country-singer Carrie Underwood (left) in a dirndl. Though her performance paled next to Audra McDonald and other theater vets, the show hit big ratings.

**"Peter Pan Live!" (NBC, 2014)**  
**9.2 million viewers**  
Allison Williams (Peter Pan), Christopher Walken (Captain Hook) and company put on a clunky show, and viewers rendered their sarcastic critiques on Twitter in real time.

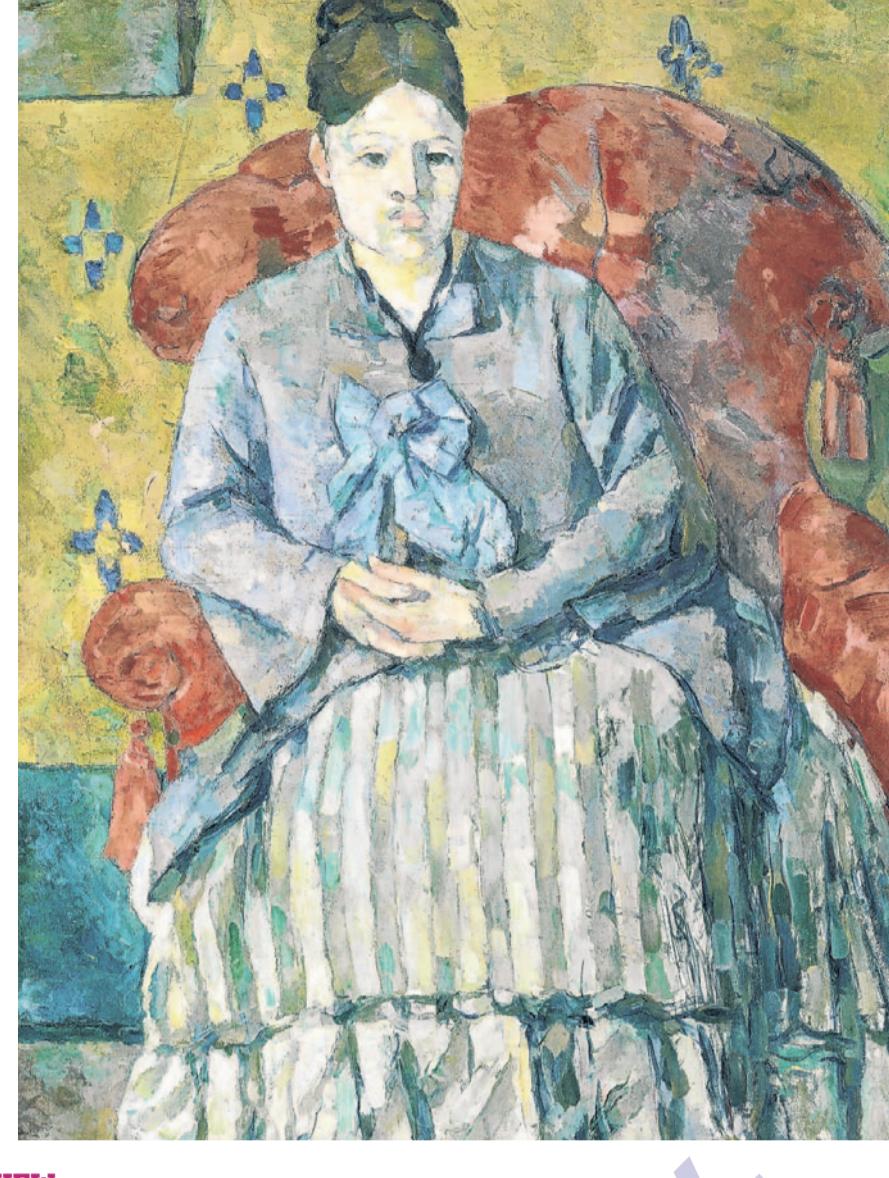
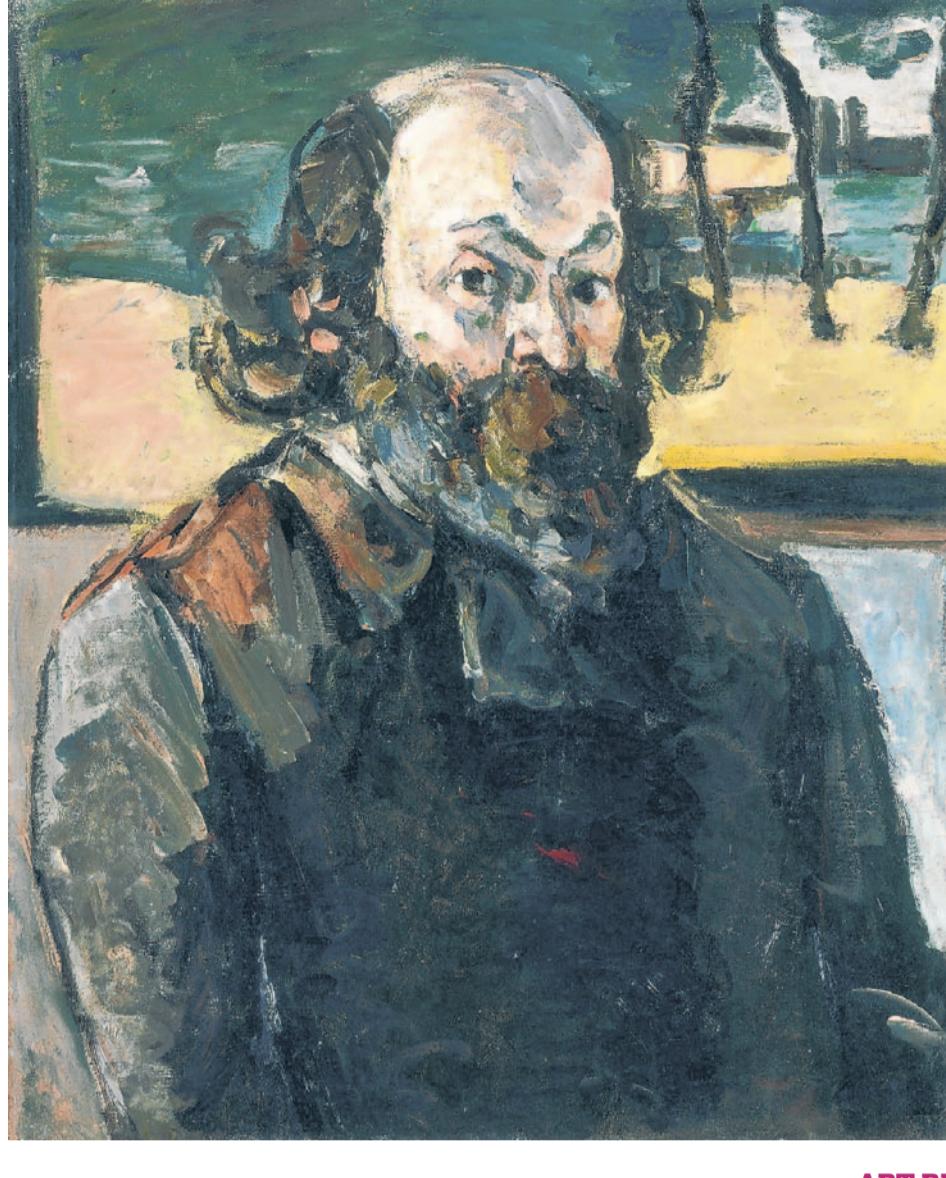
**"The Wiz Live!" (NBC, 2015)**  
**11.5 million viewers**  
A slicker production and seasoned cast, including Uzo Aduba and Mary J. Blige as the good and wicked witches, respectively, resulted in one of the network's strongest live shows.

**"Grease: Live!" (Fox, 2016)**  
**12.2 million viewers**  
As TV musicals felt a little lifeless without an audience on set, this show integrated spectators. The special won five Emmy awards.

**"Hairspray Live!" (NBC, 2016)**  
**9 million viewers**  
The John Waters movie-turned Broadway show-turned Hollywood film-turned TV musical drew the fewest viewers of any NBC musical.

**"A Christmas Story Live!" (Fox, 2017)**  
**4.5 million viewers**  
Judging by the smaller audience for this musical about a BB gun-obsessed boy (narrated by Matthew Broderick), perhaps TV watchers were content to stick with the 1983 film.

## LIFE &amp; ARTS



CLOCKWISE FROM LEFT: RMN-GRAND PALAIS (MUSÉE D'ORSAY); MUSEUM OF FINE ARTS, BOSTON; NATIONAL GALLERY OF ART, WASHINGTON

## ART REVIEW

## Cézanne's Colorful Coterie

BY LANCE ESPLUND

**PAUL CÉZANNE** (1839-1906) was predominantly a landscape painter, but he also created still lifes, bathers and portraits. "Cézanne Portraits," at the National Gallery of Art (the last stop on its globetrotting tour), is among the most enthralling and dignified Cézanne exhibitions I have ever seen. Comprising 59 of the French artist's nearly 160 extant oil portraits, many of them masterpieces, the show is the largest-ever gathering of his portraits, and the first to focus exclusively on them.

Organized by John Elderfield, chief curator emeritus of painting and sculpture at New York's Museum of Modern Art, with Mary Morton, head of the Gallery's department of French paintings, and Xavier Rey, director of the museums of Marseille, the canvases in this beautiful show span Cézanne's career and are installed chronologically and thematically on blue- or rose-colored walls in a suite of seven skylighted galleries. As the natural light changes, Cézanne's shimmering forms and crystalline colors—especially his infinite range of blues—pulse and breathe and shift in hue. The painted subjects—family and friends, adults and children, laborers, peasants, his dealer and Cézanne himself—come alive and beckon you to come closer.

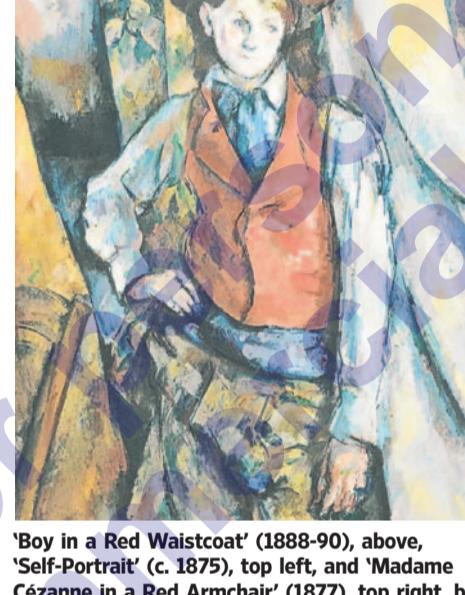
The exhibition opens with early rugged, tonal works from the 1860s, inspired by Spanish and Dutch old masters and the modernists Gustave Courbet and Édouard Manet. Some of these—cake-icing-thick—are painted with a palette knife and heavily impastoed, proof that Cézanne was among the original expressionists.

Here is Cézanne's first portrait—of him-

self—an intense study in browns and yellow-greens, punctuated by hot reds, as if Cézanne were smoldering beneath the somber surface. By 1875, wallpaper patterns in one self-portrait take on abstract lives of their own; in another that year, his palette brightens and twinkles, as Impressionistic brushstrokes free themselves from descriptive contours and sculptural mass.

These first portraits alert us to the fact that Cézanne was always an extremely inventive, intuitive and emotionally driven, as well as metaphoric, painter. In "The Artist's Father, Reading L'Événement" (1866), the son appears to solve his Oedipus complex. Paul places the older Cézanne—a wealthy banker who wanted Paul to follow in his footsteps—in an imposing armchair, in front of one of the artist's still lifes and a view into his studio. The chair envelops the father and rotates, as if backing away and attempting to dump him—suggesting throne, cloud and headstone.

Among the many highlights is a grouping of four unique, monumental depictions of "Madame Cézanne in a Red Dress" (all 1888-90). In the largest and greatest of these, the interior lists; the artist's wife, though



'Boy in a Red Waistcoat' (1888-90), above, 'Self-Portrait' (c. 1875), top left, and 'Madame Cézanne in a Red Armchair' (1877), top right, by Paul Cézanne

seated in a golden chair, floats like a balloon, buoying the space. She rises and glides forward like a goddess. The portrait is almost surreal. A flower held in her lap flutters cinematically, like a Futurist bird, as a set of Cubist and irons shatters the interior.

In the next gallery is "Boy in a Red Waistcoat" (1888-90). It's a swaggering fusion of adolescent sexuality and pathos not seen again until Balthus; a portrait in which his hip is cocked like a gunslinger's, but his small, youthful face betrays the fragility of a porcelain

doll. Further on is the breathtaking "Woman With a Coffee Maker (Cafetièr)" (c. 1895), a stunning, life-size, three-quarter portrait of a woman in a blue dress. Like "Madame Cézanne," though seated, she appears to rise up and to hover magically above her chair—as if she and her large working hands are uneasy when at rest. A synthesis of Madonna and peasant, she is pensive and stern yet humble and sturdy. Though guarded, there is something erotic and tender about her; her pleated bodice expands, opening her chest like an accordion, as wallpaper flowers become volumetric, lift off and dance.

Cézanne is often presented as rather ce-

rebral and dry, unfeeling. "Cézanne Portraits" magnificently challenges these textbook notions about the painter, whom both Matisse and Picasso referred to as the father of modern art. The individual portraits are commanding, but the show has unexpected, exponential power.

It reveals that Cézanne developed tremendously as a painter. He moved from predominantly dark and heavy realism through lighter, brighter and freer paint-handling, arriving, in the late work, at nearly abstract patchworks of vibrant color—thus charting a course from tonal expressionism, into Impressionism and then Post-Impressionism. He simplified his forms into almost pure geometry; and he fractured and flattened his spaces—inspiring Cubism and abstraction. But "Cézanne Portraits" also reveals that he always had numerous impulses, which he indulged at different times for different metaphoric purposes.

In the last gallery is a suite of very late portraits of "The Gardener Vallier." In some, dissolving figure and ground, presaging the abstractions of Robert and Sonia Delaunay, Cézanne weaves him and his surroundings into a nearly flat and abstract decorative membrane of tessellating colored light, like leaves rustled by wind. In others, channeling Rembrandt and Courbet, it's as if Cézanne returns to his own expressionistic roots; fusing portrait and landscape, Cézanne transforms his gardener into a dense, luminous mountain of foliage, rock and earth.

## Cézanne Portraits

National Gallery of Art, through July 1

Mr. Esplund writes about art for the Journal. His book "The Art of Looking: How to Read Modern and Contemporary Art" will be published this fall by Basic Books.

## MUSIC REVIEW | By Jim Fusilli

## BIG EARS GOES ELECTRONIC

Knoxville, Tenn.

**MUSICIANS** eager to improvise and experiment ruled the day again at the latest installment of the annual Big Ears Festival, held here last week. There were multiple jazz performances by Roscoe Mitchell, Jason Moran, Tyshawn Sorey, Craig Taborn and others. Appalachian folk and country music were represented by Anna & Elizabeth, the Jerry Douglas Band, Rhiannon Giddens and Abigail Washburn and her husband, Béla Fleck. Delivering rock were Algreens, Godspeed You! Black Emperor, Meshell Ndegeocello, Suuns and, from Niger, Tal National. Sitarist Anoushka Shankar presented her 2016 "Land of Gold" album; the banjoist Mr. Fleck played with Brooklyn Rider, a string quartet; Wu Fei, master of the *guzheng*, a Chinese zither, jammed with jazz musicians; Bang on a Can All-Stars and the choir SONUS performed Julia Wolfe's Pulitzer Prize-winning "Anthracite Fields"; and the Knoxville Symphony Strings and bass-baritone Davóne Tines offered a program of hymns and

spirituals. Thus, as is the custom at Big Ears, boundaries between forms were obliterated.

So where did that leave modern electronic composer-producers, whose music is preprogrammed to a degree and who typically perform without such meritorious competition for attention? In good stead, it turned out, as their originality, affinity for improvisation and avoidance of pop clichés gave several acts standing in the broad spectrum of music offered here.

Electronic music has long been a staple of Big Ears, which has emerged as one of the most vital music festivals. Now in its seventh year, it wisely presents veterans who shaped the genre. Long an innovator in New York's downtown scene, by shifting readily among art rock, trip-hop and electronica, Yuka Honda embodies the Big Ears ethos. Early in her Saturday set, she sang above modernist orchestral sounds while shifting among electronic keyboards and a device that altered her voice. About 20 minutes in, she shook up the serene mood with "I Dream



Kid Koala performing at the Big Ears Festival

About You," a track from 2004's "Eucademix" album. Happily jolted by lively percussion she seemed to compose on the spot—imagine Gene Krupa reincarnated in a drum machine—the audience began to bob and shuffle in place.

If Big Ears attendees wanted to dance, they could have done so later that evening. Four Tet, the stage name of English musician Kiernan Hebden, offered a program of subtle dance music. He carefully built highly textured percussion tracks on the fly, then folded over them music from his "Beautiful Rewind" (2013)

and "New Energy" (2017) albums.

On Sunday afternoon, he returned with Mats Gustafsson, the Swedish saxophonist of jazz trio the Thing, to offer a program of pure improvisation. At one point, Mr. Gustafsson blew aggressively; Mr. Hebden responded by creating complex electronic beats that ducked under the sheets of sound.

Jenny Hval and Laurel Halo took similar approaches in their separate, satisfying sets. The recordings of Ms. Hval, a Norwegian singer-composer, are finely wrought, yet here she was in an improvisational

mood. Over persistent beats and synthetic waves of sound, Ms. Hval sang, and sometimes screamed, as she unveiled impressionistic stories that were charming and tense. Michigan-born but now based in Berlin, Ms. Halo had drummer Eli Keszler nearby, and their music veered toward free-jazz meets electronic experimentalism. Somber and thoughtful, she added chords and tones via synthesizers, and sang with alluring restraint as the duo transformed tracks from her 2017 album, "Dust."

Taking electronic improvisation to a delightful extreme, Eric San, the Canadian who records as Kid Koala, enlisted the aid of festival attendees by placing them at turntable stations and inviting them to use color-coded discs to reinvent tracks largely drawn from his misty 2017 album, "Music to Draw To: Satellite." At the event I attended, one of five Mr. San held over the weekend, it was difficult to determine what we amateur turntablists were contributing, but we were all deeply engaged as electronica became less abstract and not so mysterious.

Once again providing music fans with concert experiences that both enlighten and entertain, Big Ears 2018 showed that electronic artists are just as willing to bend genre as their musical peers.

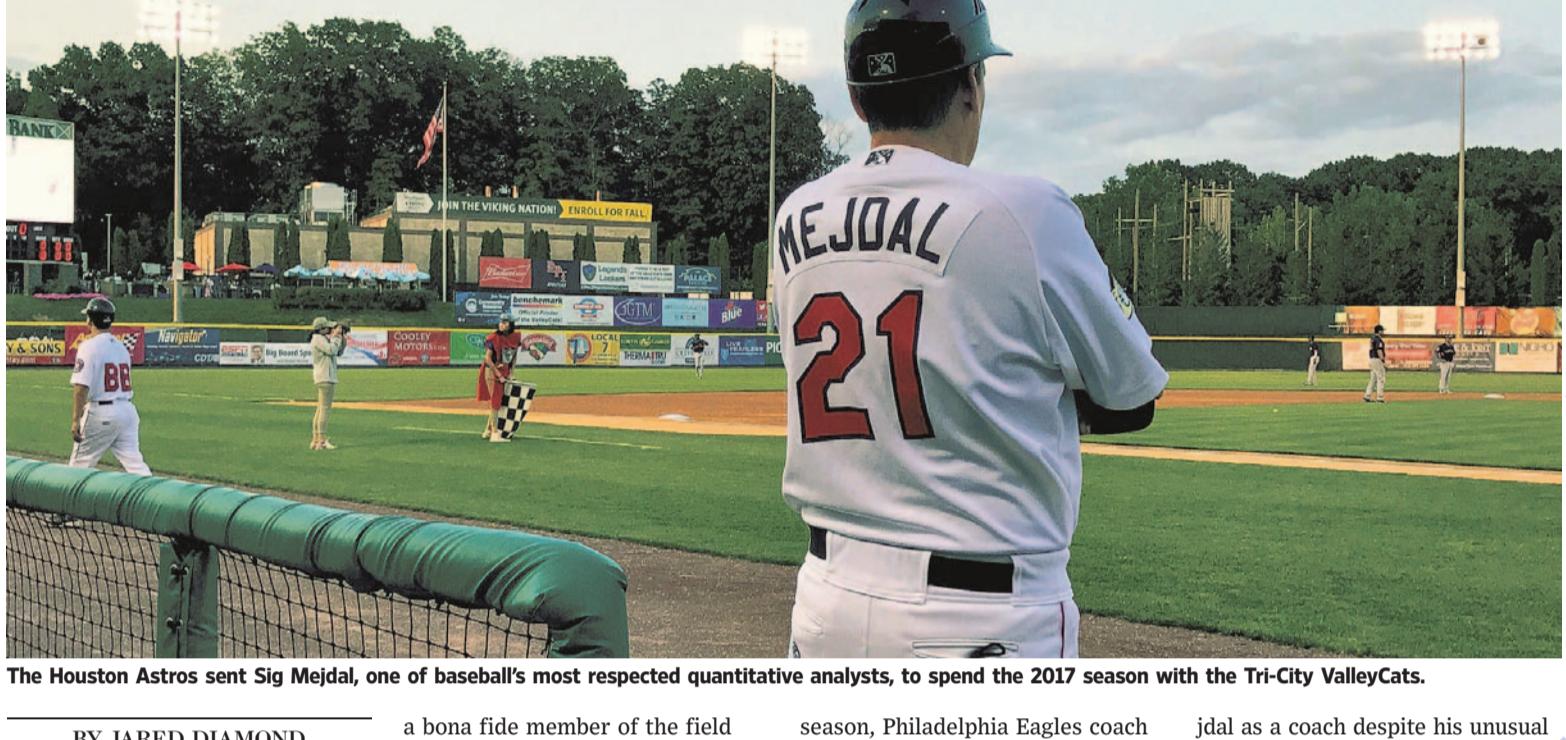
Mr. Fusilli is the Journal's rock and pop music critic.

## SPORTS

## BASEBALL

# The Data Wonk Who Became a Coach

**The Houston Astros wanted to learn more about what happens on the field. So they put their stats guru in the dugout.**



T-B: ARATI MEJDAL; CLAIRE GREENWAY/GETTY IMAGES

The Houston Astros sent Sig Mejdal, one of baseball's most respected quantitative analysts, to spend the 2017 season with the Tri-City ValleyCats.

BY JARED DIAMOND

**THE DATA** revolution that reshaped baseball and sparked innovation far beyond sports also inspired an element of distrust. In marched an army of Ivy League-educated math whizzes, whose devotion to numbers threatened to upend decades of tradition and conventional wisdom that the longtime residents of this hidebound ecosystem held dear.

The Houston Astros, the defending World Series champions, believe narrowing that chasm could afford them a competitive advantage. True to their reputation as perhaps the most unorthodox organization in the major leagues, they embarked on an unprecedented experiment: They turned a wonk into a coach.

The Astros sent Sig Mejdal, one of baseball's most respected quantitative analysts, to spend the 2017 season with the Tri-City ValleyCats, a Single-A affiliate near the bottom of the minor-league ladder. Mejdal, who entered baseball after jobs at Lockheed Martin and NASA, worked alongside manager Morgan Ensberg, offering statistical information to assist in the decision-making process and the development of young talent.

He filled that role not as a high-ranking member of the front office, but by crossing the sacred threshold of the dugout, serving as

a bona fide member of the field staff. In doing so, the Astros provided a proof-of-concept for a potentially paradigm-altering idea with far-reaching implications.

"Since 'Moneyball,' the presentation of analytics in baseball was 'us versus them,'" said Mejdal, referring to Michael Lewis's seminal 2003 book. "It's understandable that with one of the 'thems' coming in, there is going to be push-back."

Mejdal is cautious about predicting how far the "thems" will advance, but some around him are not.

"The reality is this is going to be the norm in baseball," said Ensberg, an eight-year major-league veteran. "We see what the future is going to be. Other teams may see that as something that's silly. But if other teams really look at what the future's going to look like, it's going to be having an analyst on the bench."

The idea is indeed expanding around the sports world. During spring training this year, both the Philadelphia Phillies and Tampa Bay Rays experimented with putting an analyst in uniform for an exhibition game. In the NFL last

season, Philadelphia Eagles coach Doug Pederson spoke with analysts on headset during games to help with strategic decisions. The Eagles won the Super Bowl.

Upon taking over as the Astros' general manager in December 2011, Jeff Luhnow quickly learned that the people on the field don't always respond positively to radical new concepts.

The Astros frequently faced what Luhnow described as "implementation challenges that we didn't anticipate." An early adopter of the defensive shift, for instance, Luhnow now remembers "pitchers that would glare at the dugout" when groundouts in a normal alignment scooted through the reconfigured infield.

To combat that problem, the Astros added full-time "development coaches" in the minors, a hybrid position between typical baseball training and analytics. The candidates for that job, Luhnow said, needed "to be able to throw batting practice, hit a fungo and program a SQL."

That went so well that Luhnow went a step further and tapped Mejdal as a coach despite his unusual background—two master's degrees earned, zero baseball games played past Little League. A man who initially joined the Astros with the eyebrow-raising title of "director of decision sciences" would now embed himself on the frontlines.

"So much of our knowledge is still theoretical," said Mejdal, who the Astros now call a special assistant for "process improvement."

For almost three months, the length of the New York-Penn League season, Mejdal lived like a minor leaguer, not a top official.

Instead of a polo shirt and khaki pants, he wore a uniform for the first time since childhood, donning No. 21 as an homage to his past as a blackjack dealer. He coached first base, helped with batting practice and hit grounders to anybody who requested extra work. He endured the six-hour bus rides from Lowell, Mass., to Williamsport, Pa., living in cheap motels and subsisting on late-night drive-throughs and convenience stores.

"The first time we were driving around this tiny town looking for food, where fast food was a plus if that was open, was eye opening," Mejdal said. "The notes and ideas started."

Mejdal struggled to shake the feeling that as an analyst from the front office, he didn't belong in this world. At first, he compared it to sneaking into a movie theater

without a ticket—"you're half expecting someone to come tap you on the shoulders and say, 'OK, enough of that.'"

It helped that he had the unwavering support of Ensberg, who said that a manager put into that situation unwillingly could "completely Deep Six" an intruder like Mejdal.

Ensberg instead embraced Mejdal and used him as a resource. Frequently, Ensberg would consult with Mejdal for statistical advice about how to handle in-game decisions, such as whether to bring the infield in. Mejdal would then explain what the numbers revealed.

Sometimes, Ensberg would pose additional questions, asking how the speed of the runners or the style of the pitcher might affect the outcome. In those cases, Mejdal would write everything down and insert the variables into his statistical model after the game, adding better data that would lead to more precise decision-making the next time.

"If I were ever blessed enough to become a major-league manager, I would have an analyst on the bench," Ensberg said. "The person that needs to push this through and believe it is the manager."

With Ensberg's blessing, the players—many of whom had been drafted days before arriving—bought in. The Astros chose the ValleyCats for this project thinking that prospects at an introductory level wouldn't question Mejdal the way more seasoned players might.

In reality, most of the players knew little about Mejdal. Parker Mushinski, a 22-year-old pitcher, said that he learned about him during a particularly long bus ride, when sheer boredom prompted him to punch Mejdal's name into Google.

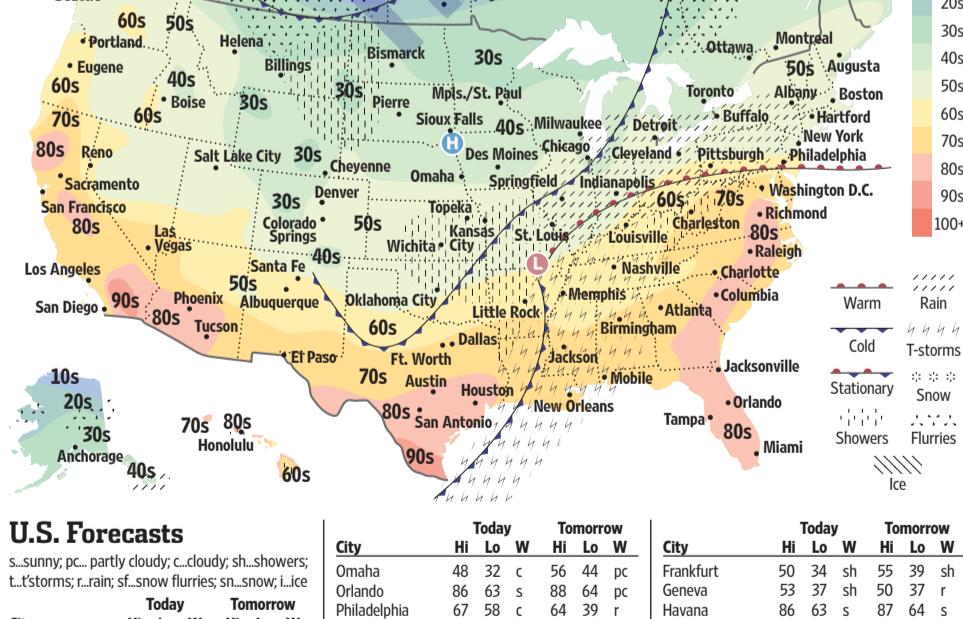
Mushinski can speak personally to Mejdal's value and how traditional baseball coaching and data analysis can work in tandem. During the season, Mejdal presented Mushinski with data showing that he took upward of 1.5 seconds to deliver the ball to the plate with men on base, frequently allowing runners to steal.

Earning the trust of players also enabled Mejdal to survive when he messed up. He recalled a game in Batavia when, during a long inning, he forgot the number of outs while coaching first base. When his erroneous instructions to a runner led to a double play, Mejdal said he "felt sick."

It is exactly that kind of experience Luhnow wanted for Mejdal at Tri-City, hoping to create a better understanding between the field staff and the front office. This season, Mejdal will spend time at all four of the Astros' full-season minor-league affiliates to continue the learning process.

Whether that ultimately leads to somebody like Mejdal joining the major-league staff remains to be seen. "The idea is not to have this separation between us and them," Luhnow said. "Just because one person stopped playing baseball in middle school and another person played 10 years in the big leagues doesn't mean they can't work together collaboratively to help players get better."

## Weather



## U.S. Forecasts

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

t-tstorms; r...rain; sf...snow flurries; sn...snow; l...ice

Today Hi Lo W Tomorrow Hi Lo W

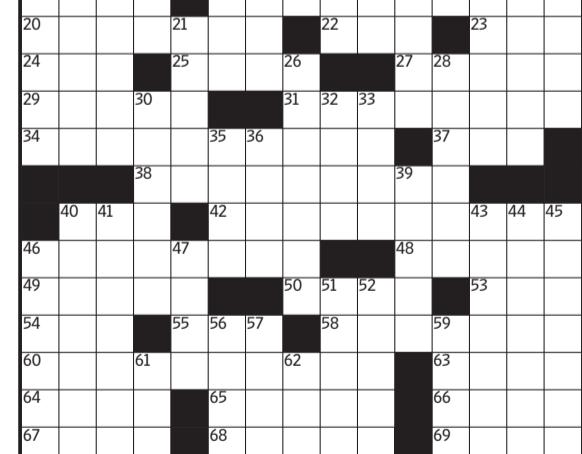
City	Today			Tomorrow		
	Hi	Lo	W	Hi	Lo	W
Anchorage	37	24	pc	36	21	pc
Atlanta	73	56	c	68	44	pc
Austin	83	50	pc	75	51	s
Baltimore	72	60	c	65	37	pc
Boise	59	39	pc	64	44	pc
Boston	55	47	c	60	37	r
Burlington	54	42	r	50	29	r
Charlotte	78	63	c	76	44	pc
Chicago	47	31	r	50	36	pc
Cleveland	54	33	r	43	32	pc
Dallas	73	47	pc	72	56	s
Denver	51	28	sf	62	35	pc
Detroit	50	31	r	50	33	pc
Honolulu	83	68	pc	83	70	s
Houston	83	59	sh	80	57	s
Indianapolis	55	35	r	51	34	pc
Kansas City	51	30	pc	58	44	pc
Las Vegas	79	58	s	82	61	s
Little Rock	68	44	r	68	45	pc
Los Angeles	77	55	s	75	56	pc
Miami	81	70	pc	83	69	pc
Milwaukee	44	29	pc	47	34	pc
Minneapolis	43	29	pc	42	28	c
Nashville	68	47	t	62	38	pc
New Orleans	76	59	t	77	58	pc
New York City	54	50	c	62	40	r
Oklahoma City	54	35	pc	64	47	s

## International

Today Hi Lo W Tomorrow Hi Lo W

City	Today			Tomorrow		
	Hi	Lo	W	Hi	Lo	W
Amsterdam	48	39	sh	54	37	pc
Athens	66	51	s	67	52	pc
Bahrain	100	65	c	76	57	s
Bangkok	92	79	c	93	75	sh
Beijing	67	42	s	67	48	s
Berlin	46	31	pc	51	37	pc
Brussels	50	40	pc	53	37	s
Buenos Aires	84	60	s	85	62	s
Dubai	95	74	s	96	75	s
Dublin	44	37	t	45	37	sh
Edinburgh	46	35	pc	44	35	r
Zurich	49	32	pc	58	37	r

## The WSJ Daily Crossword | Edited by Mike Shenk



## BODY BUILDERS | By Judith Seretto

- |                                     |                                     |   |
|-------------------------------------|-------------------------------------|---|
| <b>Across</b>                       | 25 Hurler Hersher                   | 53 Where Ben Bernanke got his Ph.D.             |
| 1 Food sticker                      | 27 Crush the midterm                |   |
| 5 Reminiscent of earlier times      | 29 Like some kitchens               | 54 Boolean operator                             |
| 10 A month of Sundays               | 31 Suspended state                  | 55 Crater feature                               |
| 14 "Hamilton" won one in 2015       | 34 Leggy baseball slugger?          | 58 Expresses disapproval                        |
| 15 Penn and others                  | 37 Vitamin fig.                     | 60 Jazz trumpeter with pronounced pecs?         |
| 16 Long ago                         | 38 Handy blaxploitation movie star? | 63 Monopoly token replaced with the cat in 2013 |
| 17 Drag, say                        | 40 Fidelity offering                | 64 Showgirl of song                             |
| 18 Leggy losing candidate of 1936?  | 42 Bloody action movie star?        | 65 Shining example                              |
| 20 Like Jane Eyre and Princess Leia | 46 Cloverleaf feature               | 66 Game akin to monte bank                      |
| 22 Litter bearer                    | 48 Tree-ringed tract                | 67 Snaky swimmers                               |
| 23 BART stop                        | 49 Ultimately cost                  | 68 Hardly reputable                             |
| 24 "Scram, varmint!"                | 50 Jumble                           | 69 Duke, so to speak                            |

► Solve this puzzle online and discuss it at [WSJ.com/Puzzles](http://WSJ.com/Puzzles).

33 Geraint's wife

35 Middle name in the National Inventors Hall of Fame

36 Home of college football's Cyclones

39 Octal base

40 Title knight of literature

41 "An Unkindness of Ravens" author

43 Military noble

44 Pros with prose

45 "I think we should say no"

46 Source of wise counsel

47 Left on an ocean voyage

51 Elite squad

52 Bearish

56 Creature sacred to Thoth

57 Whipped up

## OPINION

# Is Facebook a Frankenstein?

**WONDER LAND**  
By Daniel Henninger

Like Mark Zuckerberg, Doctor Frankenstein was a good guy whose experiment just got out of hand. Now the mobs are howling after Facebook, Mr.

Zuckerberg's creature.

It is true that Facebook's release of personal "friend data" into the ozone through Cambridge Analytica remains in the news only because of the prevailing superstition that the Facebook monster allowed Donald Trump to be elected president. The idea that omnipotent technology manipulated the 2016 election has greater appeal to advanced progressive thinking than Hillary Clinton's explanation that married white women sold her out.

But really, all that is a sideshow. The backlash against this technology, the belief that the creature must be controlled, has been building for several years. Along with Google, Facebook is the biggest web target, so Mark Zuckerberg is about to get torched by Congress and any regulator within reach for abusing "data."

Data is the oxygen of the internet. Any online click for any reason inputs data. In the beginning this data, organized into things like family Facebook groups or Google Maps or Wikipedia, was seen as good.

For several years BTTP—BTTP being human history

Before The Trump Presidency—articles and books poured forth describing the dark side of this technology. In the past year, that criticism has reached critical mass.

Researchers and parents agree that social media is distorting the lives of young people, especially adolescent girls. No one knows what to do about it.

Web forums fill with millions of young men exchanging sexual and political rants. No one knows what to do about it.

Terrorists wallow in jihadist videos on YouTube, brainwashing themselves into acts of mass murder. No one knows what to do about it.

People write articles saying they have forgotten how to read books.

Major advertisers accuse social-media companies of allowing their ads to appear alongside pornography, a bog beyond anyone's control.

The cyberwarfare spies of Russia's Internet Research Agency ran around the U.S. uncaught for years.

Social media's contribution to the Arab Spring and Ukraine's Orange Revolution was an era ago. The technology has been captured since by dictators who use it as an instrument of surveillance and control that would startle Philip K. Dick.

In one week, Facebook the good communitarian has become Facebook the abuser of everyone's privacy.

The story of Frankenstein endures as a metaphor of good intentions gone haywire because it keeps happening.

Some people used to argue that because Albert Einstein explained how energy could be released from atoms, he bore responsibility for the atomic bomb. By this logic blame should fall on Tim Berners-Lee, the inventor of the World Wide Web, for electing Donald Trump.

**Mark Zuckerberg, the biggest web target, is about to get torched by the U.S. Congress.**

Do not for a moment think that Mr. Zuckerberg, Mr. Berners-Lee or any of the others who created modern life online are unaware that history may conclude their creations were a mistake.

Mr. Berners-Lee, reacting to the Facebook mess, accused social-media companies of abusing his creation: "The fact that power is concentrated among so few companies has made it possible to weaponize the web at scale."

"Weaponize" evokes the idea of dual-use technology, which is tech that can be put to both a peaceful and military purpose, such as rocket guidance systems. The internet has finally been recognized as a dual-use technology, good and bad.

Tim Cook, Apple's CEO and inheritor of Steve Jobs's creations, weighed in this week, ironically from China, the global leader in Orwellian surveillance systems. "The ability

of anyone to know what you've been browsing about for years," said Mr. Cook, "who your contacts are, who their contacts are, things you like and dislike and every intimate detail of your life—from my own point of view it shouldn't exist." Of course, the iPhone became the universal gateway into this dystopia.

One can imagine that when Sergey Brin and Larry Page created Google's early motto, "Don't Be Evil," they sensed what Robert Oppenheimer and his colleagues on the Manhattan Project knew: The power of what they had created might be a problem.

Back when superstition ruled the world, the solution to a larger-than-life problem was known as forcing the genie back into the bottle. Today, when algorithms rule the world, one would think that an industry with aggregate IQ greater than any ever assembled could figure this out. But maybe IQ correlates with the problem.

If the issue is privacy, why does every app and site incentivize users to scroll past pages of legal boilerplate to hit "I Agree," rather than writing up top in large type: "THIS IS THE ONE SENTENCE YOU'VE GOTTA THINK ABOUT BEFORE YOU AGREE"?

There is another alternative to trying to dam up the internet torrent with regulation: Every time anyone clicks into an app or search engine, they should see this more needed personal motto for our times: Don't Be Stupid.

Write [henninger@wsj.com](mailto:henninger@wsj.com).**BOOKSHELF** | By Katherine A. Powers

# Is the National Pastime Passé?

**Why Baseball Matters**

By Susan Jacoby

(Yale, 200 pages, \$26)

Susan Jacoby's book on baseball is part of the Yale University Press series "Why X Matters," each volume of which presents, as the Press puts it, "a concise argument for the continuing relevance of an important person or idea." In other words, Ms. Jacoby is not to blame for a title that promises metaphors and mawkishness of the sort that baseball, considered abstractly, routinely elicits. "Why Baseball Matters" is relatively free of all that, owing, perhaps, to its not having very much to do with why baseball matters. Instead, what we have here is part memoir, part discussion of the game's evolution and current predicament, and part jeremiad against the age of distraction.

The most frequently heard complaints about baseball today are that the games are too long and the pace is too slow. And, certainly, the length of games has crept up over the years. In the 1950s they ran about 2½ hours while in 2017 they clocked

in at 3 hours, 5 minutes (and 11 seconds). A number of factors contribute to this: longer commercial breaks, replay reviews, more pitching changes, more trips to the mound and general dawdling.

These things lengthen and slow the pace of games, but what people usually mean when they grumble about the slow pace of baseball is that it is, in fact, a slow-paced game. This complaint is not new but it has more force now that the rising generation of hoped-for baseball fans has been nurtured—if that is the word—by digital media

that deliver instantaneous, ever-changing stimulation. While most baseball games provide moments of high drama, explosions of power and feats of grace and derring-do, the big moments take place in the course of a leisurely—though suspenseful—period of time ungoverned by the clock.

And that is what Ms. Jacoby, an independent scholar who writes widely about American culture, appreciates and wants to preserve, as do countless other true fans, this one included. For her part, Ms. Jacoby came to know and love baseball as a child in the 1950s by watching the White Sox on television in her grandfather's bar outside Chicago. While looking back to this time with pleasure, she does not idealize it as an era of sweetness and light, noting that racism was far more overt and the reserve clause made playing professional ball a form of indentured servitude. But, she says, "part of the reason I love baseball as much as I did when I was a child is the game's periodic ability to reinvent itself and transcend some of its self-inflicted abominations as well as external social pressures."

There are plenty of innovations—some of them true abominations—in the works, all intended to shorten and hot up the game. Already an intentional walk can merely be signaled rather than pitched, and there are new limits on visits to the mound. If owners have their way, there will soon be restrictions on the number of pitching changes, on throws to first, on time between pitches and times a batter can step out of the box. A grotesque change in the rules, that of placing a runner on second to begin an inning once a game reaches 10 innings, has already been employed in the minor leagues, and a variation on this has been floated for use in the next All-Star Game. It's a slippery slope, portending such loathsomeness as extra-inning games ending with a home-run derby—as has also been proposed.

**Today's digitally distracted youth show little enthusiasm for a game 'that requires intense, sustained concentration from its fans.'**

But, as Ms. Jacoby points out again and again in different ways, the length and pace of a baseball game are not the problem. Major League Baseball has "the oldest, whitest fan base of any major sport." Although there is an encouraging increase in the number of Hispanic fans, undoubtedly the result of the increase in Hispanic players, African-American fans are dwindling, reflecting the makeup of the rosters. (In 1986, 18.3% of the players were African-American while in 2017 it was down to 7.7%). She is pleased to note that, to counter this, MLB is employing several strategies to cultivate young, black baseball players.

The most serious threat to the game, however, continues to gather force: Young people don't care about baseball; their tastes are shaped by electronic entertainment. Ms. Jacoby points out repeatedly that today's enslavement to social media and digital entertainment—fragmented, distracting and offering immediate gratification—threatens a game "that requires intense, sustained concentration from its fans." She is happy that MLB has courted the favor of the young with At Bat, an app that delivers game highlights, scores, statistics and the like; still, she doesn't think it creates a desire to watch whole games.

And she is exceedingly unhappy about MLB's foray in the digital world through its embrace of fantasy-baseball gambling. In what is truly a pact with the devil, MLB has become a partner with DraftKings ("Daily Fantasy Sports for Cash"), making the company MLB's "Official Daily Fantasy Game." In this form, online gambling, odious and often ruinous in itself, also reduces players to isolated generators of statistics and the games and actual teams to an irrelevance.

Toward the end of this short, heartfelt book, Ms. Jacoby finally takes on the title with an assist from Bill "Spaceman" Lee. She quotes him as saying, "Baseball is the belly-button of our society. Straighten out baseball, you'll straighten out the rest of the world." For Ms. Jacoby this twaddle somehow suggests that "baseball matters" because it provides genuine nourishment rather than junk food." This means—should you wonder—that baseball calls for concentration and a sustained attention span, and, as such, is salutary in an age of distraction. This has been her point throughout the book, but, as she has also noted repeatedly, it is why the game is threatened. So we're going in circles. The simple truth is that baseball matters because—as she also maintains, though less didactically—the game has, for better or worse, "played a role in American history that goes far beyond amusement or entertainment." Put another way, baseball, the greatest of all games, matters because it links us to the past and is part of our identity.

Ms. Powers, a recipient of the National Book Critics Circle's Nona Balakian Citation for Excellence in Reviewing, is the editor of "Suitable Accommodations: An Autobiographical Story of Family Life: The Letters of J.F. Powers, 1942-1963."

**By Karl Rove**

I recently received a dossier concerning an emergency meeting by some of America's trading partners at the Illuminati headquarters in Venice. The document came to me by sources and methods of intelligence I'm not at liberty to share. But for the record, Fusion GPS and its agents played no role in procuring or preparing this dossier.

What united the 138 nations gathered in Venice? Each country imports more from the U.S. than it exports. Together they formed the international advisory group known as Countries Shafted by Bad Trade Deals with the U.S., or Cosbatdus. They were meeting to discuss how to respond to President Trump's protectionist actions.

A representative from Hong Kong, which has the largest trade deficit with the U.S., led the meeting. His vice chairmen—from the United Kingdom, United Arab Emirates and Belgium, other large-deficit nations—assisted. The agenda and recommendations were prepared by the Cosbatdus executive committee. It consists of Australia, Chile, Egypt, Ethiopia, Honduras, Iceland, Mongolia, Morocco, the Netherlands and Vatican City—with all of which the U.S. has a trade surplus.

Some countries proposed duties on imported American goods, as a response to Mr. Trump's imposition of steel

and aluminum tariffs. But speaker after speaker pointed out that consumers in countries levying the tariffs, not American companies producing the goods, would pay the tariffs. Why raise prices on your own people?

Another hot topic was whether Cosbatdus countries should pursue free-trade agreements with the U.S., lowering barriers to importation of American goods and services if the U.S. reciprocated. But after

**There are 138 nations that run trade deficits with America. What if they got together?**

extensive discussion, there was agreement that by leveling the playing field such trade agreements appear advantageous to America. In 2016 the combined U.S. deficit with the 20 countries with which it had a free-trade agreement was a \$3.7 billion. (These countries imported \$851.8 billion from the U.S. while the U.S. bought \$855.5 billion from them.) By comparison, countries without such agreements imported \$1.352 trillion in American goods and services while selling the U.S. \$1.737 trillion in return—a U.S. trade deficit of \$385 billion.

There was discussion about Mr. Trump's refusal to acknowledge U.S. service exports

to Canada. These offset America's deficit in imported goods and create an overall U.S. trade surplus with its neighbor. Should Cosbatdus follow Mr. Trump and ignore the value of services when calculating trade deficits? This approach was opposed by the 112 countries that have a trade deficit with the U.S. in goods alone, and for which the U.S. doesn't track sales of services like banking, travel, computer software, film and television distribution, management consulting and data processing. These countries pointed out the U.S. would eventually demand services be included in calculating total trade since dropping sales of services would increase the overall U.S. trade deficit.

Also present was the Five to One Caucus, consisting of the 65 nations that import at least five times as much from the U.S. as America buys from them. They pushed for mandatory purchase requirements that would obligate America to buy enough of a nation's leading products to narrow the U.S. trade surplus to a 2-to-1 ratio. Delegates could not agree on how to select what commodities or products America would be forced to purchase. Nor could they decide whether U.S. purchases had to be simultaneous with the member country's importation of American goods or could be done later to balance the books.

This led to a discussion of

repealing the law of comparative advantage, first articulated by Adam Smith in "The Wealth of Nations" (1776). "If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry employed in a way in which we have some advantage."

Delegates were confused about how to repeal comparative advantage, wondering whether it was a statute, law of nature or international agreement. Nor could anyone discern how to force the U.S. to build more expensive aircraft or construction equipment, create fewer good movies or pharmaceuticals, and provide less-attractive financial and insurance services.

The Cosbatdus meeting ended in disarray, its final action to reject the proposed motto of "Make America's Trading Partners Great Again." Member countries worried about trademark infringement complaints from Trump attorney Michael Cohen. They also weren't convinced President Trump is correct that the only fair trade deal is where the other guy buys more from you than you do from him.

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

**By Peter Funt**

Big Pharma has had many grand successes—from correcting erectile dysfunction to masking bald spots on the president's head. But its TV commercials are starting to make me sick. Across the dial, but especially on cable news, it's hard to avoid drug ads in which the dominant theme seems to be a risk of sudden death. Worse, if the prescription doesn't kill you, there's a chance you'll simply kill yourself.

Consider Chantix, which calls itself "the #1 prescribed Rx quit-smoking aid." Its commercials mention the usual side effects, such as weight gain. Then, while happy-go-lucky background images roll, the announcer also warns of "suicidal thoughts or actions." Talk about a dilemma: Die from smoking, or kill yourself because you finally tried to quit.

This raises many vexing questions: How serious does a

malady have to be to risk suicide while curing it? Why are so many drugs prompting this anyway? And why are the dire TV warnings always accompanied by gorgeous, happy people gardening, dancing or frolicking with cute dogs?

**It's a wonder anyone takes drugs given all those side effects.**

It was roughly 25 years ago the Food and Drug Administration opened the floodgates for "product claim" drug ads aimed at consumers. Now companies spend more than \$5 billion a year on them. The FDA's rules say the ads must include a "major statement" of the drug's risks, and "this presentation must be spoken."

That has created lucrative gigs for voice-over announcers capable of mellifluously

mentioning that, by the way, you might kill your cat or your neighbor, but don't let it distract you from this footage of Hawaiian sunsets.

In 2003 I conducted an experiment on "Candid Camera" with a fictitious pill we called "Fabloxiline." Our claim was that it strengthened fingernails, and we recruited a dozen or so college students to test the product.

Before they began treatment, our fake announcer, using his best Hawaiian-sunset voice, explained that side effects included "uncontrolled flatulence" as well as "decrease in weight or height." No one cared. Who pays attention to that sort of verbal fine print?

A few years later Kristen Wiig did a Chantix ad spoof on "Saturday Night Live" in which she was warned about a powerful, overwhelming desire to kill the person you love most." Other side effects: "jazz hands" and "Robert De Niro face."

Did I mention I've been taking a wonder drug for 10 years whose warning includes a risk of death? My doctor put me on Enbrel with a brief chat about risks, but no mention of mortality, which is why I left his office happy and confident.

Now the nightly ads are stressing me out. The FDA wants to warn patients considering new drugs, overlooking the frightening effect on millions of people already taking them.

Fact is, short-form TV ads are better suited to extolling, say, Pepsi than explaining the risks of powerful pharmaceuticals. Doctors complain they spend time fielding questions about TV warnings, and the American Medical Association has long lobbied against such ads. Perhaps the FDA should require a new warning about the side effects of too many drug commercials.

*Mr. Funt is a writer and host of "Candid Camera."*

## OPINION

## REVIEW &amp; OUTLOOK

## The Political Judges of Gerrymanders

**T**he Supreme Court on Wednesday heard its second challenge this term to partisan gerrymanders, this time in a case brought by Republicans. The GOP argument isn't any better than the Democratic case last fall from Wisconsin, and both argue strongly against judicial intervention.

In *Benisek v. Lamone*, Republicans in Maryland's 6th Congressional district contend that the Democratic legislature retaliated against them when redrawing the House map in 2011. Lawmakers lopped off 65,000 GOP voters and packed 30,000 Democrats into the 6th district, which helped Democrat John Delaney in 2012 defeat 10-term GOP Rep. Roscoe Bartlett by 21 points. The new district lines "disrupted and depressed Republican political engagement in the area, and manifestly diminished their opportunity for political success," the GOP plaintiffs allege, thus violating their First Amendment rights.

The Court has long held that drawing districts inherently implicates political questions. But in *Davis v. Bandemer* (1986), the Court opened a crevice for judges to review political gerrymanders even though a majority couldn't agree on a standard for determining how much politics is too much. None has emerged.

While the GOP plaintiffs say any map that has more than a "de minimis" effect on voter engagement and dilution is discriminatory, Justice Ruth Bader Ginsburg asked, "What falls in the de minimis category?" Neither the Constitution nor federal law offers an answer, and lawyers in the case disagree. Judges would identify partisan discrimination when they see it.

Under the plaintiffs' "de minimis" standard, even redrawn districts that make elections more competitive could be unconstitutional. As Justice Anthony Kennedy mused, natural population shifts could impel a state legislature to redraw a district in a way that dilutes a partisan majority. Would that be retaliation?

Chief Justice John Roberts wondered about independent voters, who often turn elections including in Maryland's 6th. While Mr. Delaney won by 21 points in 2012, he squeaked by with 1.5% in 2014 when GOP Gov. Larry Hogan carried

his district by 14 points. The Maryland Solicitor General noted that independents in 2012 overwhelmingly favored Democrats "because of the views of those voters and the strength of that candidate," not the district lines.

In the *Gill* case the Court heard last fall, Democrats advocated a convoluted formula called an "efficiency gap" to measure partisanship. But the efficiency gap varies from election to election as voting shifts on an individual and district level. More than half of all maps drawn in the last 45 years had an efficiency gap in one election greater than the 7% standard that Democrats proposed as a bright illegal line.

Maryland's map had an efficiency gap of 6.7% in 2012 but exceeded 12% in 2016. So Maryland's map could have been constitutional in 2012 but struck down four years later under the *Gill* standard. Establishing an arbitrary standard would invite endless parade of partisan gerrymander challenges, politicizing the judiciary.

Consider what happened when the Democratic majority on the Pennsylvania Supreme Court last month struck down the state's Congressional map as violating the state Constitution. The partisan judges redrew the map in a way that favored Democrats. Republican appeals to the U.S. Supreme Court for an injunction were denied. But why is a partisan map drawn by Democratic judges better than a partisan map drawn by GOP legislators?

Partisan gerrymanders are ugly and contribute to political polarization. But recent Republicans defeats in special elections and the increasing number of House seats projected to be competitive this fall show that political gerrymanders are best cured by—politics.

In January Democrats picked up a Wisconsin Senate seat the GOP had held for 17 years. This month Democrat Conor Lamb won Pennsylvania's 18th district, which Republican Tim Murphy had held since 2003 and Donald Trump won by nearly 20 points. The Pennsylvania map had an efficiency gap of 20% in 2016.

Both parties will have a chance to redraw districts after the 2020 election. Judges shouldn't usurp voters and legislators.

## G-Men Under Subpoena

**D**irector Christopher Wray said Tuesday that he is doubling to 54 the number of FBI agents working to respond to documents subpoenaed by House Judiciary Chairman Bob Goodlatte, and it's about time.

Mr. Goodlatte is looking into the FBI's investigation of Hillary Clinton's private server and its use of the Steele dossier to spy on former Trump campaign associate Carter Page, among other things. The FBI has been notably uncooperative, and news reports say Mr. Wray's latest cooperation came only after Attorney General Jeff Sessions told him no more slow-walking information.

What matters now is whether the FBI provides Congress the records in a timely way—and without the sneaky redactions that have been used to keep the American people in the dark. One example: the text messages between FBI paramours Peter Strzok and Lisa Page regarding Rudolph Contreras. Federal Judge Contreras presided over the case against former

National Security Adviser Michael Flynn. He and Mr. Strzok knew each other, so Mr. Strzok and Ms. Page were excited when Judge Contreras was appointed to the Foreign Intelligence Surveillance Court in 2016.

Mr. Strzok and Ms. Page went on to scheme about how they might arrange to talk with the judge without "placing him into a situation where he'd have to recuse himself." When Justice originally sent the Strzok-Page text messages to Congress, this content was blacked out. Members only learned about the Strzok-Contreras relationship when Congressional investigators went to Justice and were able to view the unredacted texts. Meantime, Judge Contreras in December had recused himself from the Flynn case.

Mr. Wray's statement pledges the FBI will be "transparent and responsive to legitimate congressional requests." If not, Mr. Goodlatte and the House leadership must be willing to use their powers of contempt and impeachment to impose consequences.

## Mr. Lighthizer's Managed Trade

**T**he Trump Administration is celebrating its revised trade agreement with South Korea, and the news is how little the deal will change. The U.S. wisely backed away from threats to blow up the pact with its sixth largest trading partner, but the price is more politically managed trade.

Donald Trump once called the 2012 bilateral pact "horrible" and threatened to withdraw if Seoul refused to renegotiate. But after the melodrama, the new pact's main revisions are a change in the terms of trade for vehicles and a quota on Korean steel exports to the U.S. Neither is likely to make much difference to the U.S. trade deficit with South Korea, which is supposedly the goal of this exercise.

The biggest changes are in vehicles trade, for good and ill. The good news is a doubling of the annual U.S. car and truck exports that are exempt from South Korean safety standards per manufacturer to 50,000 from 25,000. U.S. standards will now be enough. Ford and General Motors exported fewer than 10,000 vehicles to South Korea in 2017, according to Reuters, so the problem has been as much consumer preference as trade barriers.

The Trump Administration is also claiming victory for extending the 25% U.S. tariff on Korean truck exports for another 20 years through 2041. This is the upside down world of Trump trade logic in which punishing American consumers with higher prices is a virtue. The tariff had been scheduled to phase out by 2021. Korean companies will probably evade the tariff by building more trucks in the U.S. and exporting the parts instead.

The U.S. also won some concessions on South Korea's onerous customs clearances, which have been a protectionist tool. But trade negotiator Robert Lighthizer failed to win a new

opening for U.S. farm goods or other exporters. By focusing so much on autos and steel, Mr. Lighthizer missed an opportunity to expand trade in services, where the U.S. runs a \$12.3 billion annual surplus with South Korea.

Mr. Lighthizer is also trumpeting Seoul's acceptance of a 30% cut in its steel exports to the U.S. This is a defeat for

American steel users who are already paying higher prices despite the country-specific exemptions from Mr. Trump's world-wide 25% tariff on imported steel. Reducing supply can have the same effect as a tariff in raising domestic prices.

This is another step toward politicians managing trade flows, as if Mr. Lighthizer in his wisdom can judge the right supply for tens of thousands of buyers and sellers. This seems to be the U.S. trade rep's household remedy. The U.S. bludgeoned Mexico into accepting sugar quotas, and he's now doing the same with steel suppliers around the world.

The creation of the World Trade Organization was supposed to put an end to these so-called voluntary export restraints. But Mr. Lighthizer negotiated them with Japan in the 1980s, and he wants to try again. His problem is that global business supply chains are more complex than 30 years ago, trade is dominated by intermediate goods, and the U.S. is no longer as dominant a market for finished goods. Negotiated quotas will damage U.S. competitiveness and do little to alter the trade balance.

In that sense the Korean renegotiation is less a triumph than lost opportunity. By focusing on trade in industrial-age goods, the U.S. missed a chance to open South Korea further to the services and products of the future. But at least the Administration didn't blow up a mutually beneficial pact with an important ally, and for that we can be grateful.

### The revised Korea deal favors Detroit and steel over U.S. consumers.

## LETTERS TO THE EDITOR

### Airline Travel: Two Legs Good, Four Legs Bad

Having shared a three-seat row with a couple and their medium-size dog on a 6.5-hour cross-country flight, I cannot agree more with "The Middle Seat: On Your Next Trip, Leave the Pets at Home" (Life & Arts, March 21). The dog I shared the row with wasn't a lap dog and didn't have any visible indication that it was a service dog. The dog appeared to be sedated although it did get somewhat animated when its owners moved around the cabin and when snacks were distributed. I support the concept of working service dogs traveling with their owners anywhere they reasonably need to be. Those of us who aren't dog people are subjected to "comfort" dogs and other comfort animals on all modes of travel, in retail establishments and restaurants and other public accommodations. I pity the people with allergies who are required to suck it up. What about their comfort?

WILLIAM BAILEY  
Tacoma, Wash.

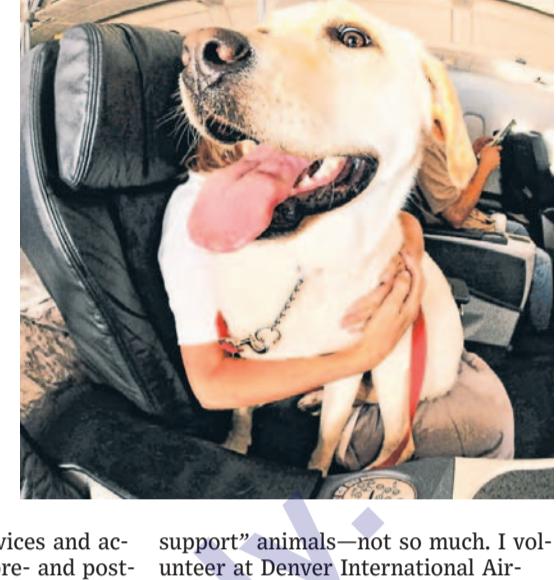
We understand that companion animals are playing an increasingly central role in the lives of their families. The ARK at JFK works together with shippers, airlines, ground handlers and pet owners to provide information, services and accommodations for pets pre- and post-travel. As an organization committed to promoting safe, humane and responsible transportation of all animals, it's our responsibility to ensure their well-being from gate to gate.

Apart from recreational travel, there are many instances where animals must take flight. Planning and a thorough understanding of the process can ameliorate many of the risks associated with animal travel. It isn't as simple as jumping on a flight with

one's pet in a carrier. In light of recent events, more must be done. All major hubs and ports of entry should be addressing the need for approved animal reception and care facilities. This will facilitate better animal care while addressing public health and security issues.

ELIZABETH A. SCHUETTE  
Managing Director, the ARK at JFK  
Jamaica, N.Y.

Our love of pets and animals is one thing, but when we decide to inflict our animals on others for purely selfish or questionable emotional dependencies we cross the line. Service animals, yes, absolutely. "Emotional



support" animals—not so much. I volunteer at Denver International Airport and am amazed at the number of dogs being dragged around like they were just another human member of the family. Pet-relief stations are available, but sometimes not easy to find. They constitute one more expensive line item airports have to design, develop, install and maintain that the entire flying public has to pay for.

MICHAEL MARSH  
Lakewood, Colo.

### Use Magnitsky Act to Fight Russian Thuggery

In "Kremlin Revenge in Guatemala" (Americas, March 26) Mary Anastasia O'Grady rightly draws attention to the determination of Vladimir Putin's cronies to hurt those who defy their corruption. The yearslong ordeal of the Bitkov family—their harassment, persecution and ultimate imprisonment in a Guatemalan jail after fleeing Russia—is astonishing because of its cruelty. However, the story also reveals a much larger truth about the global web of complicity that the Kremlin will weave to suppress the rule of law and human rights outside its own borders.

As chairman and former chairman of the U.S. Helsinki Commission, which works to advance international human rights, we are encouraged by the release of the first-ever sanctions list under the Global Magnitsky Act late last year. We ask that the administration put those responsible for the harm done to the Bitkovs on this list. These individuals should be held accountable for the flagrant torture and oppression they have inflicted

upon this family, once at the helm of a thriving paper-mill company and now unjustly sentenced to years in a Guatemalan jail.

Russia's message of intimidation to the Bitkovs is a familiar one. We've seen before what the kleptocracy will do to those who challenge its crimes. We know the stories of Mikhail Khodorkovsky and Sergei Magnitsky. In 2012, we championed the Magnitsky Act for the wrongful punishment and death of Magnitsky, who uncovered massive fraud at the hands of Russian authorities. Under the law, those who were complicit in his death would have their U.S. assets frozen and any travel to the U.S. denied. The Global Magnitsky Act, passed four years later, broadens America's response to human-rights offenders around the world.

We have refused to respond to these stories with silence, and we cannot tolerate impunity now.

SEN. ROGER WICKER (R., Miss.)  
SEN. BEN CARDIN (D., Md.)  
Washington

### Legal Case Against China's Trade Is Complex

Your editorial "Tackling China's Protectionism" (March 21) discusses several of China's "predatory" policies, and then concludes that "all of these policies violate World Trade Organization agreements." Unfortunately, that's not true as the most relevant WTO rules—written in 1994 and for China in 2001—don't prohibit the behavior being complained about. Identifying "strategic emerging industries" and giving them loans on easy terms isn't necessarily a violation of the WTO subsidies agreement. Similarly, for China to give its companies government help in making foreign acquisitions isn't itself prohibited. A requirement on foreign companies to license intellectual property in return for greater access to the Chinese market isn't an obvious violation of any WTO rule. Abusing domestic antitrust law is also not a WTO violation as the WTO contains little international antitrust law.

The WTO judicial system began issuing rulings against China in 2009, but for the counterproductive actions taken by the Obama and Trump administrations to block appointments to the WTO appellate tribunal, the WTO's judicial system could be functioning well today in making China more accountable.

You endorse the "tougher line" by the Trump administration, but in

stead of the unilateral tariffs (e.g., steel) the administration has authorized, you propose more targeted tariffs. International trade law prohibits this sort of self-help by the U.S. alone or in cooperation with its trade allies.

We should't allow the trade policies of the Trump administration to undermine the basic principle of the WTO's judicial system, which is the independent adjudication of disputes. There are many normative mechanisms inside the WTO and alongside it that can be used to put pressure on China, and these should be tested and exhausted before the blunt instrument of non-WTO-approved trade sanctions is called on.

PROF. STEVE CHARNOVITZ  
George Washington University  
Law School  
Washington

### Pepper ... And Salt

THE WALL STREET JOURNAL



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## OPINION

# Monetary Reform Would Rebalance Trade

By Sean Rushton

**C**ontrary to claims coming from some trade hawks, America's large and persistent trade deficit is not caused primarily by bad trade deals. The U.S. dollar's status as the global reserve currency is at least as responsible as any free-trade agreement or unfair practices. High demand for dollars has tilted the playing field against American exporters and workers. Those arguing against tariffs—including Republicans courting blue-collar voters in the industrial Midwest—should be leading the charge for international monetary reform.

## The dollar's status as global reserve currency is as responsible as bad agreements for the deficit.

Before World War I the international gold standard amounted to an independent, relatively stable and universally accepted global currency. That system broke down during the interwar years. Then, at the Bretton Woods conference after World War II, the victorious Allies decided that the U.S. dollar, backed by gold, would be the international reserve currency to which exchange rates would be fixed. But this "gold exchange standard" was fatally flawed: The world's need for dollar reserves soon outstripped America's gold supply.

In the 1950s and '60s, the U.S. ran big trade deficits with its Cold War allies Japan and Germany, as they rebuilt their manufacturing bases and stockpiled dollars. By the early 1970s, American policy makers were fed up. They severed the dollar's link to gold and allowed the greenback's value to float relative to other currencies, in the hope that it would depreciate and smoothly reduce the trade deficit.

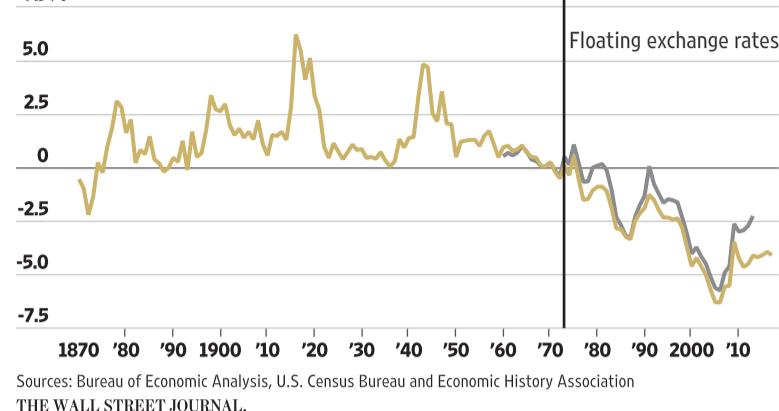
The opposite happened. No longer bound by fixed exchange rates and dollar convertibility, the U.S. government's fiscal discipline broke down. Federal debt as a percentage of gross domestic product, which had been falling since the end of World War II, soon began rising steadily. As a matter of national income accounting, Johns Hopkins economist Steve Hanke has explained, a rising fiscal deficit means a rising trade deficit. The nearby chart shows how the U.S. trade balance dropped sharply into negative territory.

In the bedlam of floating exchange rates, demand for dollars soared. Many nations abhorred having their currencies—and thus their economies—jerked up and down because of decisions made by central bankers in the U.S. and other large economies. To defend against crises, especially at times of major U.S. monetary easing or depreciation, foreign governments stockpiled dollars. In 1973 the world held \$500 billion in foreign-exchange reserves (in 2017 dollars); last year it was \$11 trillion, a 22-fold increase. About two-thirds of total reserves are now denominated in dollars. Because of high global demand,

## Whence the Deficit?

Merchandise trade balance and current account balance as a share of GDP

■ Merchandise trade balance, 1870-2017 ■ Current account balance, 1960-2013



Sources: Bureau of Economic Analysis, U.S. Census Bureau and Economic History Association

THE WALL STREET JOURNAL.

stabilize demand for dollars. A recent International Monetary Fund communiqué expressed positive sentiments on this front: "We recognize that excessive volatility or disorderly movements in exchange rates can have adverse implications for economic and financial stability. We will refrain from competitive devaluations, and will not target our exchange rates for competitive purposes."

Third and most controversial, the U.S. and other leading economies should establish a new international currency for pricing global commodities and settling trade accounts. Nations would keep their own currencies for domestic use, exchanging them for the international currency at fixed rates.

The Nobel laureate Robert Mundell suggested such an international currency, to be backed 50% by gold and 50% by the world's five leading currencies. Rep. Jack Kemp once proposed solving the "reserve currency curse" with a return to the full international gold standard. Other ideas, such as expanded use of the IMF's reserve asset, the Special Drawing Right, are also worth considering.

If the U.S. has reached the end of its rope and is unwilling to feed the world's demand for dollars through its trade deficit, then international monetary reform is the answer. It would put U.S. trade on a more level playing field, enforce fiscal discipline in Washington, and help millions of American workers.

*Mr. Rushton is director of the Project on Exchange Rates and the Dollar at the Jack Kemp Foundation.*

establishing a new international reserve currency. Here's how to do that:

First, to guide monetary policy, Federal Reserve appointees should commit to targeting the real-time prices of an index of commodities, plus foreign currencies and bonds. Such an approach would have prevented the Fed's biggest recent errors. Easy money in the 1970s and 2000s led to large increases in world dollar holdings, price bubbles and crashes.

Second, the U.S. should invite other major currencies—starting with the second-largest, the euro—to stay steady with the dollar. A dollar-euro stability pact, later including Japan and other democracies, would

Levelling the playing field will require reducing global demand for dollars, first by stabilizing the dollar and other major currencies, then by

the dollar's international position is always stronger and U.S. interest rates are lower than they would be otherwise. This, in turn, means that America's budget and trade deficits swell in tandem, while U.S. exports are costlier and imports are cheaper, regardless of trade practices.

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## WORLD NEWS

# Myanmar Grapples With Aging Leaders

The ruling party lacks new blood to inherit power and keep check on its military rivals

BY JON EMONT

Two years after taking office, the graying leadership of Myanmar's ruling party lacks a new generation to inherit power, jeopardizing the pro-democracy camp's ability to check the power of its military rivals.

Over the past two weeks, Myanmar's 71-year-old president resigned, citing a desire for rest; Aung San Suu Kyi, 72, the country's pre-eminent civilian leader, canceled a speaking engagement, citing ill health; and the Nobel Prize winner's party was forced to address swirling rumors she may soon retire.

Win Myint, a 66-year-old Suu Kyi loyalist was picked Wednesday as the new president—effectively a ceremonial role. Two-thirds of the ruling National League for Democracy's elite Central Executive Committee is over the age of 65—the male life expectancy in Myanmar—according to



REUTERS

Civilian leader Aung San Suu Kyi, right, with Win Myint, who was chosen as president on Wednesday.

party data.

Many experts say the party, which won Myanmar's first relatively free and fair elections since the military took power in 1962, risks losing its struggle with the institution if

it fails to groom a new generation of leaders. The military retains control of key government ministries and a quarter of seats in parliament.

"It is a serious problem for Myanmar, for the NLD, and for

Aung San Suu Kyi," said Aaron Connally, research fellow in the East Asia Program at the Lowy Institute, on the lack of a new crop of leadership talent. "The leadership of those around her, who refuse to tell

her hard truths, has been wanting."

The NLD came to power with the hope of reforming the economy and education system, and even amending the constitution to curb the mili-

tary's power. But critics say Ms. Suu Kyi and the party have failed to deliver on their promises, in part because of a highly centralized leadership style that places all decisions in the hands of the Nobel laureate and her confidants.

The NLD's leadership is viewed by some as a symptom of a larger issue: Party leaders are chosen based largely on their loyalty to Ms. Suu Kyi, and often stay past their prime.

On Sunday, Win Htein, 76 years old, a central executive committee member and former Suu Kyi aide, returned to Myanmar from a vacation in Australia to announce that Ms. Suu Kyi had rejected his offer of resignation.

In a recent shuffling, Zaw Myint Maung, 66, a Suu Kyi loyalist who serves as chief minister of the Mandalay region, as well as in a regional legislature, was formally made one of the national party's chief spokesmen.

"The NLD at present seem to be recycling the same top leaders," said Soe Myint Aung, founder of the Tagaung Institute of Political Studies, a policy research institute in Yangon.

## Ecuador Punishes WikiLeaks Founder for Meddling in Politics



FRANK AUGSTEIN/ASSOCIATED PRESS

BY RYAN DUBE  
AND WIKTOR SZARY

Ecuador cut Julian Assange's internet connection at its London Embassy after the WikiLeaks founder criticized Britain and its allies for expelling Russian diplomats following the poisoning of a former Russian spy.

Ecuador's Foreign Relations Ministry said Wednesday that Mr. Assange had violated a written agreement with Ecuador preventing him from meddling in the political affairs of other nations. The ministry said Mr. Assange's social-media posts risked undermining

Ecuador's relations with Britain, other nations, and the European Union.

Mr. Assange has been living in the London Embassy since 2012, when ex-President Rafael Correa granted him political asylum. Ecuador's current President Lenín Moreno has broken with Mr. Correa and looked to improve relations with several countries that Mr. Assange has criticized.

Ecuador's move comes after the U.S., Canada and over a dozen European nations expelled Russian diplomats and intelligence officers in response to the poisoning of former Russian spy Sergei Skripal

and his daughter in Salisbury, England.

U.K. Prime Minister Theresa May has said it was highly likely that Russia was behind the use of a military-grade nerve agent against the former double agent. Russia has denied involvement.

On Monday, Mr. Assange criticized on Twitter the expulsions of the Russian officials as "poor diplomacy," calling the evidence against Moscow circumstantial. He said it would help Russia "further a narrative that is under conspiratorial siege led by the U.S."

A British minister criticized

Mr. Assange for his tweets.

"It is of great regret that Julian Assange remains in the Ecuador Embassy," Alan Duncan, a foreign affairs minister, told Parliament on Tuesday. "It is of deeper regret that even last night he was tweeting against Her Majesty's government for their conduct in replying to the attack in Salisbury."

Ecuador has been looking for ways to have Mr. Assange leave the embassy. In December, Ecuador granted Mr. Assange citizenship. But the British government said that wouldn't prevent his arrest if Mr. Assange were to step outside the embassy.

A photograph of a green cactus in a brown pot, sitting on a reflective surface that shows its reflection. The background is a textured, light-colored wall.

A photograph of a man in a dark blue plaid suit, a light blue shirt, and a dark tie. He is wearing sunglasses and has his hands in his pockets. He is standing outdoors with trees and a building in the background.

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THE WALL STREET JOURNAL.

Thursday, March 29, 2018 | B1

**Tesla's Shares, Bonds Fall Further**  
 Its stock slides 7.7%, debt touches a low amid concerns about the company's value

BY SAM GOLDFARB  
AND TIM HIGGINS

Heavy selling of Tesla Inc. shares and bonds persisted Wednesday, posing a new challenge to the electric-car maker that has relied on the faith of investors to meet pressing cash needs.

The company's shares fell \$21.40, or 7.7%, to \$257.78, extending a weeklong decline that deepened Tuesday amid broad weakness among tech-

nology stocks, increased scrutiny of the company's semi-autonomous driving system, and a credit-rating downgrade from Moody's Investors Service.

Tesla's 5.3% unsecured bonds that mature in 2025, issued last August when the company's stock price was near its height, touched a low of 86 cents on the dollar—translating to a 7.8% yield—before ticking up to 88 cents, according to MarketAxess.

The concerns about Tesla's value come as investors take a harsher look at some other companies that helped drive stock indexes to records earlier this year, including tech giants Facebook Inc. and

Google parent Alphabet Inc. The situation is especially noteworthy, because Tesla's near-term financial viability depends on its access to the capital markets. The company,

**Elon Musk has defied skeptics with his ability to create enthusiasm for an electric-car brand.**

investing heavily to bring out its mass-market Model 3 sedan, burned through on average about \$1 billion in cash each quarter last year, and an-

alysts expect a similar pace this year until production kicks into a higher gear and generates new revenue.

Tesla's \$1.8 billion unsecured bond issuance last August was part of a wide-ranging search for cash that has also involved repeated equity raises and sales of convertible bonds and asset-backed securities. Unlike most corporate-bond offerings, which are marketed based on credit metrics such as free cash flow and debt-to-earnings ratios, Tesla's bonds originally met strong demand from investors in part because of the company's eye-popping stock valuation, which suggested it could always raise cash from other

sources. Tesla's latest run as a stock-market darling has only recently met turbulence. Its shares soared 46% last year, pushing its market value above that of Ford Motor Co. and General Motors Co.—profitable auto makers with more than 100 years of experience and far more sales.

Investors endorsed Chief Executive Elon Musk's vision that Tesla will be at the vanguard of a world with all-electric cars that drive themselves.

That vision, however, is

Please see TESLA page B2

◆ Heard on the Street: Tesla is running short on time.....B12

## Telecoms' Pay Gap Hides Full Picture

BY THEO FRANCIS

To many consumers, Verizon Communications Inc. and AT&T Inc. look a lot alike: two telecom giants with national footprints that sell mobile phone, internet, landline telephone and even television service. To their rank-and-file workers, however, the two firms are a world apart.

At least that is what it looks like from newly disclosed pay figures, which show Verizon paid its median employee nearly \$127,000 last year while AT&T's median worker made about \$78,000.

Does Verizon really pay rank-and-file employees about 60% more than its closest rival? The gap illustrates fundamental differences in the way the rivals operate that filter down to how workers are paid. But it also highlights some of the limitations of a new requirement from the Securities and Exchange Commission that U.S. publicly traded companies disclose what they pay their median workers.

Pay figures for Verizon, AT&T point to basic differences in how each operates.

## As Europe Prospects, Stocks Fizzle

European stocks have returned slightly more than their U.S. peers in dollar terms but have underperformed in euro terms...

Total return of equity indexes in the last 12 months



Stocks in Europe are cheaper than in the U.S., but the gap has narrowed...



\*12-month forward-looking earnings

Sources: FactSet (S&P 500, Stoxx Europe 600, p/e ratios, forecasts); Citigroup via FactSet (Economic Surprise Index)

By JON SINDREU  
AND MIKE BIRD

Europe's economic boom and its stable politics have fulfilled investors' deepest wishes over the past year. All bar one: European stocks have barely made them a single euro.

In the past 12 months, the Stoxx Europe 600 has delivered only 0.3% gains in local-currency terms, accounting for both share-price appreciation and dividends, compared with a 14% total return for the S&P 500.

That is mainly because Europe's rosier outlook has boosted the euro 14% against

the dollar during the same period, eroding the value of overseas earnings from domestically listed companies. About half the revenue of the Stoxx Europe 600 comes from abroad, FactSet data show. For the S&P 500, it is 30%.

Investors are also striking a cautious note about European stocks, unsure whether profits can continue to surprise on the upside and concerned about the potential threat of protectionism on the region's indexes, which contain many companies that export goods.

So, after a period of upward revisions, some investors and

banks are beginning to downgrade their expectations for European stocks this year.

"We came into the year quite excited about Europe. But in the past month and a half we have scaled back" exposure to European stocks, said Eric Freedman, chief investment officer at U.S. Bank Wealth Management, which manages \$151 billion.

Even measured in dollars, the Stoxx Europe 600 has returned 15% over the past year, only 1 percentage point more than the S&P 500. Yet most analysts and investors say there is a bigger risk that the U.S. expansion will

slow in the near term than that Europe's will.

Stripping out the surge that followed the victory of pro-market candidate Emmanuel Macron in France's presidential elections last year, European stocks have severely underperformed their U.S. peers in dollar terms.

Economists expect the eurozone's gross domestic product to expand 2.3% this year, compared with 2.8% growth in the U.S., according to an average of forecasts compiled by FocusEconomics.

The Citigroup Economic Please see FIZZLE page B2

First, the differences between the two companies:

AT&T is based in Texas, where salaries for similar jobs tend to be lower than they are in the Northeast, where Verizon is based.

In addition, both firms grew out of Ma Bell's breakup in 1984, but since have focused to different degrees on parts of the phone business that require different types of workers. What is now AT&T started life as Southwestern Bell and expanded in part by acquiring other landline operators. By contrast, Verizon—heir to Northeastern "Baby Bells" as Bell Atlantic—focused more on expanding wireless service, and in recent years has shed some wireline assets.

That leaves AT&T with more so-called pole climbers—the installation, repair and maintenance workers that make up much of the telecom industry—as well as more regional office staff, said Jeffrey Moore, a telecom-industry analyst and principal of Wave7 Research.

"It's much more of a physical business," Mr. Moore said. Please see PAY page B2

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## Lawsuits Over iPhones Begin to Cluster

By TRIPP MICKLE  
AND KIRSTEN GRIND

Dozens of iPhone owners are taking Apple Inc. to court over its disclosure that it slowed down old phones to preserve battery life, in what could become one of the biggest legal challenges involving the company's smartphone since its 2007 debut.

Some five dozen iPhone customers have filed at least 59 separate lawsuits since December accusing Apple of slowing their phones to spur people to buy new iPhones, according to court records. Apple said in December that its software update introduced at the start of 2017 reduced the performance of older phone models. The suits seek an unspecified financial award, attorneys' fees and free iPhone battery replacements, as well as a corrective advertising campaign.

The lawsuits also seek class-action status. Efforts to combine the cases will kick off at a March 29 legal meeting in Atlanta, setting in motion an effort to have the class certi-

fied. A lead attorney and a court location also will be chosen.

Class-action lawsuits are frequently filed against big companies, but the large number of individual suits concerning a single issue is unusual, say legal experts. It is also roughly triple the number of

suits filed in 2010 over the iPhone 4's tendency to drop calls.

Apple settled the resulting class-action lawsuit in 2012, agreeing to either pay iPhone 4 owners \$15 or give them a free case, according to Ira Rothken, an attorney who represented the plaintiffs. The to-



The complaints stem from a software update that reduced the performance of older phone models.

BLAINE MCCRISTY/THE WYOMING TRIBUNE EAGLE/ASSOCIATED PRESS

Cities and states were first to flex their muscles, forcing companies such as Uber and Airbnb Inc. to follow local rules and pay taxes. The threats now are much bigger.

The European Commission is pushing for a 3% tax on the revenue of internet giants, while pressure is increasing for "gig economy" workers to be treated as employees.

The rush by companies to pull their ads from Facebook may be merely temporary, but it shows just how far the social network has slumped in public opinion and how

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## BUSINESS NEWS

## New CEO At Equifax Aims to Build Trust

BY ANNAMARIA ANDRIOTIS

Equifax Inc. has appointed former **General Electric** Co. executive Mark Begor as chief executive, the second change to the position since the credit-reporting company disclosed a large cyberattack in September.

Mr. Begor will succeed Paulino do Rego Barros Jr. on April 16, ending the tenure of the interim chief who took over several weeks after the hack was disclosed last year. The move comes after a months-long search that began shortly after Mr. Barros took over from Richard Smith, the company's longtime chief who retired in the wake of the breach.

Mr. Begor, who will also join Equifax's board, will take control of a company that faces mounting challenges. Equifax recently revised higher the number of U.S. consumers whose information was compromised in the hack—its second such revision—bringing the total to 147.9 million. The company is under investigation by federal and state regulators, is a defendant in a number of lawsuits, and is working to regain the trust of the public and its clients, including lenders who are questioning whether to renew contracts with the firm.

On Wednesday, Equifax's shares rose 2.3%, to \$119.04.

Equifax has also come under renewed congressional scrutiny in recent weeks after the disclosure that additional consumer information beyond what was previously publicly disclosed was also compromised in the breach. Then, in March, a former technology executive of the firm was indicted on criminal insider-trading charges regarding allegations he sold company stock after learning about the breach last year before it was made public. Equifax wasn't accused of wrongdoing in the matter. The executive, Jun Ying, has pleaded not guilty to the charges.

**Mark Begor will take the helm as the company faces a series of probes.**

In his first interview as incoming chief executive, Mr. Begor, 59 years old, touted his experience turning around two embattled GE divisions as preparing him for the new role. The executive is a managing director in the industrial and business-services group at private-equity firm **Warburg Pincus** LLC. He is also a board member at **Fair Isaac** Corp., the creator of the credit scores used in most U.S. consumer lending decisions.

Before leaving in January 2016, Mr. Begor had spent about 35 years at GE, where he was chief executive of several divisions. These included GE Capital's retail-finance unit, which is now **Synchrony Financial**, the largest U.S. store credit-card issuer by outstanding balances.

At Equifax, Mr. Begor said his priorities will include regaining customers' and the public's trust and improving the company's data security. Another top goal: maintain Equifax's role in collecting consumer data, an activity that was scrutinized by lawmakers for what was perceived as the company's overreach into consumers' personal information.

Mr. Begor said he isn't a cybersecurity expert, but that many of the positions he has held have dealt with technology and cybersecurity. As a board member at Fair Isaac, he said he has been closely involved with investments the company has made in cybersecurity and information technology. He added that his history helping to expand GE Capital's credit-card division included managing data on more than 60 million accounts. "I don't have cybersecurity experience directly, but I've been around it" for more than a decade, he said.

## Shell Targets Former Top Official

Oil giant suspects that ex-executive may have taken kickbacks from Nigerian sale

BY SARAH KENT

LONDON—**Royal Dutch Shell** PLC has referred a former senior executive to Dutch legal authorities, and a person familiar with the matter said the move was based on suspicion he may have received kickbacks from the 2011 sale of the company's interest in an oil-producing area in Nigeria.

The British-Dutch oil giant said Wednesday it has filed a criminal complaint in the Netherlands against Peter Robinson, who served as the company's commercial vice president for sub-Saharan Africa from 2008 to 2011. Mr. Robinson left the company in 2014. Based on an internal Shell probe, the company said Wednesday "we suspect a crime may have been committed" during the sale of Shell's interest in the oil-producing area—or bloc—known as OML 42 in 2011.

Mr. Robinson is already facing criminal prosecution in Italy, one of several former Shell employees set to stand trial beginning in May in one of the oil industry's biggest-ever corruption cases. That case relates to a separate Nigerian oil bloc called OPL 245, which Shell and Italian rival **Eni** SpA acquired in 2011. Prosecutors in Italy allege the two companies and their executives engaged in a wide-ranging bribery scheme to secure the bloc.

Dutch authorities have said they are conducting a criminal probe into the OPL 245 bloc



The company filed a criminal complaint in the Netherlands against its former commercial vice president for sub-Saharan Africa.

transaction.

Shell and Eni have denied wrongdoing in the OPL 245 deal.

Mr. Robinson couldn't be reached for comment. Chiara Padovani, a lawyer who is representing him in the Italian case, didn't respond to several requests for comment.

Mr. Robinson held a key commercial role in Shell's sub-Saharan African operations during the negotiations for both the OML 42 and OPL 245 deals. A Shell spokesman said the company believes the two

matters are unrelated. In terms of the Italian criminal prosecution, "we continue to believe, from our review of the prosecutor of Milan's file and all of the information and facts currently available to us, there is no case to convict Shell or its former employees," the spokesman said.

Evidence turned up in the course of international authorities' investigations into the OPL 245 transaction made Shell suspicious of Mr. Robinson's other activities, according to the person familiar

with the matter. The company began an internal investigation late last year into whether Mr. Robinson may have used two Swiss bank accounts and a Seychelles-based firm to funnel kickbacks from the sale of OML 42, the person said.

Shell informed Dutch authorities of its suspicions in January. The company also informed the Securities and Exchange Commission and U.S. Department of Justice when investigations into the OPL 245 deal alerted it to the al-

leged existence of Mr. Robinson's Swiss accounts, the person said.

While its internal investigation is still proceeding, it decided to officially take the matter to Dutch authorities last week, the person added.

The Dutch Public Prosecutor said officers were aware of the facts and circumstances mentioned in Shell's complaint as part of its investigation of the company's acquisition of OPL 245.

—Eric Sylvers in Milan contributed to this article.

## TV Viewers Make 'Roseanne' Great Hit Again

BY JOE FLINT

The 1990s hit sitcom "Roseanne" was a hit once again for ABC on Tuesday night.

The season premiere of the rebooted working-class comedy, starring the original cast including Roseanne Barr and John Goodman, averaged 18.2 million viewers over two back-to-back episodes, according to data from Nielsen. It was the second most-watched entertainment program of the television season, trailing only an episode of NBC's drama "This Is Us" that aired after the network's coverage of the Super Bowl.

The episodes of "Roseanne," which started at 8 p.m., provided the biggest audience for ABC's prime-time entertainment lineup since 2006. The premiere also garnered more viewers than the original series finale in 1997,

which averaged about 16 million viewers.

The success shows that new episodes of old sitcoms can still attract substantial audiences and speak to modern issues, and is another indication that the trend of bringing back vintage shows isn't going away anytime soon.

**Comecast** Corp.'s NBC has done well this season with its reboot of the 1990s comedy "Will & Grace," and **CBS** Corp. is developing a new version of "Murphy Brown," in which Candice Bergen will reprise her role as the pioneering TV newswoman.

In the case of "Roseanne," there was particular interest in how viewers would respond to the show given that both Ms. Barr and her character, Roseanne Conner, are vocal fans of President Donald Trump. In addition, Roseanne's sister, Jackie, played by



Roseanne Barr and John Goodman revive their roles in the reboot.

Laurie Metcalf, is a Hillary Clinton fan, and one of the other characters on the new episodes is a gender-nonconforming grandchild.

While "Roseanne" never

shied away from politics or social issues during its first run two decades ago, television audiences have become much more fragmented since then, and broadcast networks are

often wary of potentially alienating viewers.

Last month, ABC shelved an episode of its comedy "Black-ish" that included a debate about athletes kneeling during the national anthem after a disagreement with the show's creative team over the show's tone.

ABC ordered nine episodes of "Roseanne." The network hasn't said if the show will get renewed. But the initial numbers are a good indicator, even if initial curiosity wears off, particularly given the sitcom's strong showing among viewers under the age of 50.

For **Walt Disney** Co.'s ABC, it is the third success of the new season. The network has the most popular new broadcast drama in "The Good Doctor," and the revival of "American Idol"—originally on Fox—has also averaged solid ratings.



CACI International's withdrawal clears the way for General Dynamics to proceed with its own deal.

## Contractor Drops CSRA Bid

BY AUSTEN HUFFORD

**CACI International** Inc. withdrew its bid for **CSRA** Inc., paving the way for a **General Dynamics** Corp. deal to continue.

Last week, General Dynamics raised its offer for CSRA after CACI submitted an unsolicited bid for the rival federal information technology provider.

CACI was trying to prevent a tie-up between General Dynamics and CSRA as companies supplying the Pentagon and other government agencies with IT and analytic services search for greater scale.

While the deal is now back

on track, General Dynamics was forced to up its offer for CSRA.

"We will continue our aggressive pursuit of strategic opportunities, judiciously and without engaging in auctions at uneconomic levels," CACI Chief Executive Kenneth Asbury said.

General Dynamics' latest bid was for \$41.25 a share in cash, valuing its target at \$6.9 billion.

CACI wasn't able to overcome the bid from the much-larger General Dynamics, which has a market capitalization of about \$65.9 billion, compared with CACI's \$3.67 billion.

Investors also expressed concerns about the debt CACI would have had to take on to finance its deal.

General Dynamics has already secured antitrust approval for its proposed deal, which would create one of the largest government IT providers, with annual sales of almost \$10 billion.

Some analysts have said that more deal making in the already consolidated sector would continue as government departments opt to award larger, enterprise-wide contracts.

CSRA shares fell 0.1% while CACI was inactive and General Dynamics shares shed 1.7%.

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integrity  
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interests

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## TECHNOLOGY

WSJ.com/Tech



The company has been pressed to explain how personal data was improperly obtained by a data analytics firm in the U.K.

# Facebook Restricts Data To Brokers Amid Uproar

**Facebook** Inc. is curbing the information that it exchanges with companies that collect and sell consumer data for advertisers, as the social-media giant tries to calm an uproar over its handling of

## Social-Media Site Helps Its Users Cover Their Tracks

**Facebook** Inc. says it will make it simpler for users to examine and change some of the data about them that the social network tracks.

The tweaks, announced Wednesday and set to roll out in the coming weeks, include a new, central hub in the Facebook app settings that contains existing tools for users to review and, if desired, delete traces of their Facebook activity such as past posts and search terms.

Some other data, such as which ads users clicked on, still won't be erasable. Facebook says any information users delete is wiped from its servers.

Facebook will also redesign its settings menu for mobile devices, now spread out across almost 20 different screens, and consolidate its privacy and security options in a single place.

The moves are part of broader changes Facebook is planning to bolster privacy, said Rob Sherman, Facebook's deputy privacy officer. They come amid intensifying scrutiny from users, regulators and lawmakers.

With data brokers in part because it is concerned about how those firms are obtaining their data and how accurate it is, one of the people said.

Axciom on its website says that it takes a "proactive approach in protecting consumer privacy," and looks for ways "to protect and assure appropriate use of information related to consumers and to promote policies within the industry that do the same."

Oracle declined to comment.

Facebook has battled criticism over its user-data practices since it said on March 16

ers over Facebook's admission on March 16 that user data was improperly obtained by **Cambridge Analytica**, a data-analytics firm that worked for the 2016 Trump campaign.

The backlash has shaken Facebook and hammered its stock, cleaving more than \$95 billion off its market value in just over a week.

"It's been a very intense week," Mr. Sherman said in an interview. "One thing that's been really clear is that we've lost people's trust and need to do a lot of work right away to work on regaining it."

The Cambridge Analytica revelation showed limits to Facebook's enforcement of rules governing outsiders' handling of user data and its ability to see how third parties may have used Facebook data.

Facebook says the firm obtained the data, involving potentially tens of millions of users, in violation of its rules from an app developer that was allowed to have the information but not to sell it. It is investigating whether Cambridge Analytica kept the data after Facebook demanded it be deleted in 2015. Cambridge Analytica has said it followed Facebook's policies.

—Deepa Seetharaman

that personal information was improperly obtained by **Cambridge Analytica**, a data-analytics firm that worked for the 2016 Trump campaign.

Chief Executive Mark Zuckerberg apologized last week for a "major breach of trust" in that episode and outlined steps the company has taken and plans to take to better protect user data.

Curbing its relationships with data brokers could affect Facebook's value proposition to advertisers, removing a layer of information that has helped some marketers target ads with greater precision. But

the impact is likely to be limited, industry executives said.

Facebook's partnership with data providers has particularly helped brands that lacked detailed customer data, such as consumer packaged-goods makers, said Lance Neuhauser, CEO of **4C Insights**, a digital-ad service provider. However, he said, advances in Facebook's own targeting capabilities have "made the need for some of this third party targeting a little less important."

Facebook and other internet companies also are under pressure from European Union authorities to make sure all of its targeting data is collected with user permission, as part of the EU's General Data Protection Regulation scheduled to take effect in May.

In a memo to advertising agencies, Carolyn Everson, Facebook's vice president of global marketing solutions, said the data-broker relationships would be phased out in six months.

While Facebook has a huge amount of data on users—sites they've liked, their interests and detailed demographic information, even their chat history—brokers such as Axciom, Oracle Data Cloud, and **Epsilon Data Management LLC** have reams of information on people's purchases, household income and other characteristics.

That information is matched to Facebook profiles, allowing brands to target ads at people who have bought certain products—and extend those campaigns to Facebook users with similar characteristics.

The extent of the possible impact on Facebook of removing third-party data isn't clear.

The company's trove of data is hugely valuable on its own. And many marketers have their own consumer data that they upload to Facebook and use in ad campaigns—a practice not affected by the new changes.

—Douglas MacMillan contributed to this article

# Uber Executive Who Worked on Driving Tech Exits

BY GREG BENSINGER

**Uber Technologies** Inc.'s head of freight trucking, Lior Ron, who helped work on autonomous-vehicle technology, is leaving the company, a prominent departure in the wake of a controversial crash involving one of its self-driving vehicles.

Mr. Ron doesn't appear to have a job lined up, according to an internal email reviewed by The Wall Street Journal.

"You have been through a lot of change, and that is not easy," the email to staff read. "I assure you that we remain bullish on Freight," wrote Eric Meyhofer, head of the Advanced Technologies Group, which oversees Freight and Uber's self-driving vehicle programs. He thanked Mr. Ron for his "contributions to our self-driving efforts and the Freight team."

Mr. Ron's departure wasn't related to last week's fatal accident involving one of Uber's self-driving sport-utility vehicles in Tempe, Ariz., said a person familiar with the matter. Though he helped with some self-driving truck development, he wasn't involved with the autonomous passenger vehicles, this person said.

In a statement, Uber said: "We remain fully invested in and excited about the future of Uber Freight. Since launching in Texas, we have introduced Freight to all states in the continental U.S. We believe it will continue to grow as we use our network and technology to transform the trucking industry."

Mr. Ron co-founded self-driving truck startup Otto,

which was acquired by Uber in 2016. He was a figure in the recent trial concerning Uber's acquisition of the Otto, which **Alphabet** Inc.'s Waymo alleged was used as a means to obtain self-driving vehicle trade secrets. Uber denied the claims and settled the case with Waymo in February in exchange for equity worth about \$245 million.

Uber's Freight division matches truck drivers looking for work with commercial shippers who have loads to haul. Uber operates as the broker, setting prices for various loads and routes and paying drivers after a load has reached its destination.

Earlier this month, Uber said its self-driving trucks were making limited runs in Arizona for the Freight division. It showed how the trucks, which have a safety driver in the front seat, worked by transferring cargo to and from traditional big-rig trucks.

Mr. Ron, who previously worked at Google and Motorola, co-founded Otto with Anthony Levandowski, who was fired by Uber last year ahead of the Waymo trial. Otto was focused on designing self-driving big-rig trucks.

During the trial, Mr. Ron testified that Otto had fielded buyout offers from **Lyft** Inc. The trial evidence showed that he and Mr. Levandowski had also pitched the idea of a self-driving truck company to **Alphabet** CEO Larry Page.



The German joint venture aims to bolster on-demand services.

# BMW, Daimler Join To Fight Silicon Valley

BY WILLIAM BOSTON

**BERLIN**—**Daimler** AG and **BMW** AG, rivals in the luxury-car business, are joining forces to bolster their on-demand transportation entries against competition from tech giants like **Uber Technologies** Inc.

The German auto makers said Wednesday they will form a joint-venture company that combines Daimler's Car2Go and BMW's DriveNow car-sharing providers, as well as ride-hailing services such as Daimler's Moovel and MyTaxi and others.

Earlier this year, Daimler and BMW separately bought out minority shareholders in their car-sharing businesses, paving the way to merge them

and fueling speculation that the combination might list on the stock exchange.

Although their latest move creates a single premium car-sharing brand, the success of the Daimler-BMW venture is far from certain. While some of the mobility services they offer are well established in Germany and in some European cities, they have little presence elsewhere.

Uber, the global ride-hailing leader, has a hefty valuation as investors speculate on the future growth of such services as more people opt to share rides and vehicles instead of owning their own cars.

—Chester Dawson in New York contributed to this article.

## BUSINESS WATCH

SOFTBANK GROUP

### Solar Project Planned With Saudi Fund

Saudi Arabia's sovereign-wealth fund and Japan's **SoftBank Group Corp.** plan to undertake the world's biggest solar-power-generation project.

The development would start this year with a \$1 billion investment from the joint Saudi-SoftBank Vision Fund, Masayoshi Son, chief executive of SoftBank, said on Tuesday. He said it is expected to grow into a \$200 billion behemoth that provides about 200 gigawatts of power by 2030, more than Saudi Arabia would need to light up the entire country by then.

"It's by far the biggest solar project ever," Mr. Son said at a

news conference in New York, after signing a nonbinding agreement with Saudi Crown Prince Mohammed bin Salman.

—Margherita Stancati and Michael Amon

BOEING

### Malware Intrusion Is Reported

**Boeing** Co. said Wednesday its cybersecurity operations center "detected a limited intrusion of malware that affected a small number of systems."

The airplane maker, in a statement posted on Twitter, said: "Remediations were applied and this is not a production or delivery issue." A representative declined to elaborate.

—Andrew Tangel

# APPLE

Continued from page B1  
global demand for smartphones stagnates and people hold on to their devices longer.

While legal experts say the plaintiffs face an uphill battle, a multiyear court fight over the phone-throttling issue could force the secretive company to disclose sensitive information about its software development process, according to analysts.

Plus, a decision against Apple could require it and other tech companies to be more transparent about how their software or hardware features affect power or performance, said Mr. Rothken, who isn't involved in this legal action.

An Apple spokeswoman declined to comment. The company has previously said it would never do anything to intentionally shorten or degrade the life of any of its devices, adding that Apple's goal is to make iPhones that last as long as possible.

## Suitable for Many

iPhone ownership has surged since Apple settled a smartphone class-action suit in 2012.

### U.S. iPhone users

80 million	78.8M
60	
40	
20	
0	
2014	15
16	17

Source: Kantar Worldpanel

THE WALL STREET JOURNAL.

## Apple CEO: Privacy Lacks Protection

**Apple** Inc. Chief Executive Tim Cook on Wednesday called for privacy regulation, saying people should have more visibility into not only what personal information they share online but also how companies mine that information to better understand consumers.

"We've never believed that these detailed profiles of people that have incredibly deep personal information that is patched together from several sources should exist," he said

The lawsuits could also prolong the negative publicity surrounding Apple's slowing of the phones. "It's the brand damage that is even more risky and expensive for Apple," said Holger Mueller, a technology analyst with Constellation Research.

Apple's predicament started after the company prompted

during a taping of an MSNBC show slated to air April 6.

Mr. Cook said he is generally averse to regulation, "however, I think we're beyond that. It's time for a set of people to think about what can be done."

Apple has sought to protect user privacy on its devices, encrypting text messages and storing sensitive information such as facial profiles on devices rather than remotely.

Its business model, which relies on sales of iPhones, iPads and other devices, stands in contrast to **Alphabet** Inc. and **Facebook** Inc., which rely on selling advertising.

—Tripp Mickle

ment and Securities and Exchange Commission over potential securities violations related to its disclosure of the software updates that slowed older iPhones. It has faced questions from consumer and watchdog groups in France, Italy and China.

by questions from users and analysts, said it introduced the software update to prevent older iPhones with aged batteries from unexpectedly shutting down. In late December, Apple apologized and said it would reduce the out-of-warranty cost of battery replacement to \$29 from \$79 for most customers.

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—Andrew Tangel

Special Advertising Section

# Empowering Tomorrow's Workplace

*Make your business future-ready with 8th Gen Intel Core vPro processors*

**I**t's easy to envision the workplace of the future. Perhaps there's a gleaming, open-plan office, where human workers and artificial intelligence join together in the spirit of collaboration. Or perhaps there's no office at all, but rather a network of remote employees clocking in from around the globe.

In either scenario, the key themes are clear. On the one hand, there's a surging demand for flexibility. According to a survey by the London Business School's Global Leadership Summit, 34 percent of business leaders predict that more than half of their workforce will be remote by 2020. And on the other hand, there's a gathering storm of data, pushing companies to the brink of their processing power as they attempt to stay ahead of the curve.

That's where 8th Gen Intel® Core™ vPro™ processors come in. The newest generation of Intel processors offers the power and versatility the evolving technology ecosystem demands, giving businesses the tools they need to work smarter, faster and more efficiently.

"Our 8th Gen line of Core vPro processors is designed to help businesses stay ahead of what's next, particularly in spaces like advanced analytics and business intelligence workloads," says Kaitlin Murphy, director of marketing for the business client platform division at Intel. "It goes back to performance, it goes back to time and money, and it

goes back to extracting those insights that let your company outperform its competition."

#### FUTURE-READY PERFORMANCE

With mobility top of mind, the 8th Gen line offers amazing processing power in a versatile package tailor-made for an always-on workforce. This year alone will see the release of more than 100 platforms running on 8th Gen Core vPro processors, with designs running the gamut from notebooks and tablets to innovative two-in-one form factors. Even with a notebook that's as thin as a magazine, end users can expect the same performance, features and capabilities they'd get from a full-fledged workstation powered by the Intel vPro platform.

"Businesses are collecting so much information they don't even know what to do with it, and the future of work is only going to have more data than today," Murphy says. "Processing power is central in determining how businesses make sense of that chaos and turn the flood of data into meaningful insights. This isn't just true for data scientists —

it runs across the line of businesses that need to make smarter decisions, do it more quickly and influence others using their data."

But for tomorrow's workforce (to say nothing of today's), power means little without mobility. It's a need reflected in the long battery life of Intel Core vPro processor-based platforms, giving workers the flexibility to do their best work anywhere and anytime. But, as Murphy explains, the technology's true power doesn't lie in its base specs alone. Rather, it's what it is able to do with them — like maintaining battery life and lightning-fast performance even with features like high-speed multitasking, which makes swapping between apps and programs a breeze.

"What good is an amazing car, for example, if you let it sit there and never use it?" Murphy says. "You want to be able to take advantage of what's inside."

#### MANAGING TOMORROW

While the workforce looks toward employers to deliver on their promise of enhanced mobility, trends favoring remote work can take a toll on IT man-

agers — who not only have to manage more devices, but also cover product health and data needs across an increasingly disparate network. According to Intel, today's workers use an average of 3.5 devices on the job, with around 80 percent of the cost of a product's ownership coming from aftermarket expenses like tech support and repairs.

But the 8th Gen line of Core vPro processors allows IT managers to actively manage devices even when an operating system is down or the device itself is powered off. By diagnosing a problem remotely, businesses could more than halve the cost of repairing a device — from \$187 down to \$60 — with Intel Active Management Technology supported by the Intel vPro platform.

"We can deliver mobility, we can deliver performance and we can deliver manageability all in a single package," Murphy says. "And by being able to collaborate with partners like CDW and give IT the tools to manage an increasingly complex network, we can help them focus on other areas that can give their company a strategic advantage."

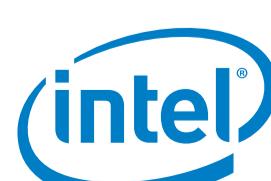
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## MANAGEMENT

# New Tools Tell Bosses How You're Feeling

Companies use artificial intelligence to get instant insights from employee surveys that once took months to process

BY IMANI MOISE

Human-resource departments are becoming a bit less human as companies turn to artificial intelligence for help with hiring and firing—and to learn how employees really feel about their bosses.

Every year at SPS Cos., most of the steel processor's 600 employees, from warehouse staffers to top executives, fill out a 30-minute confidential survey that asks, among other things, whether they feel micromanaged and whether they feel their managers support their professional growth. One question challenges survey-takers to gauge how respected and valued they feel within the organization.

This year, for the first time, the Manhattan, Kan.-based company tapped an artificial-intelligence tool called Xander to analyze responses. Xander can determine whether an employee feels optimistic, confused or angry, and provide insights to help manage teams, the tool's developers at **Ultimate Software Group Inc.** said.

From a block of text, the software analyzes answers to open-ended questions based on language and other data, assigning attitudes or opinions to employees.

One top executive at SPS learned from recent survey analysis that he needed to work on his temper. "One of my lowest-scoring items was maintaining my composure under stress," he said of the feedback from his direct reports. On the bright side, Xander reported that the manager's staff felt he was fair and honest.

Research shows that emotions are key to understanding what motivates employees. How people feel often determines if they go above and beyond in the workplace or underperform, said Jason



ees, said Garry Mathiaso, an attorney at Littler Mendelson PC who specializes in artificial intelligence and employment law. A hiring algorithm might notice a higher rate of absences for people with disabilities and recommend against employing them, for example.

The Equal Employment Opportunity Commission, the U.S. regulator that enforces laws preventing workplace discrimination, hasn't issued official rules determining how artificial intelligence can be used in human-resource decisions, but a panel convened by the agency in 2016 concluded that the technology can potentially create new barriers for opportunities.

Mr. Mathiaso said he expects official guidelines from the EEOC in the near future. Meanwhile, companies can avoid legal gray areas by keeping human review as part of any AI-enabled decision-making process and by disclosing how the AI is being used, he said.

Though confidential, the surveys aren't anonymous. Xander can take into account an employee's demographic data, previous surveys, and other background information when analyzing responses. Ultimate Software said the tool has safeguards in place to protect confidentiality. For example, a manager may need a certain number of direct reports to respond to a survey before gaining access to verbatim responses—which makes it harder to identify who said what.

The company said Xander can't always get it right—but neither do people.

It still requires humans to pick up body language cues, and "even humans only catch sarcasm half the time," said Suhail Halai, Ultimate Software's head of customer experience.

Hite, chief people strategist at HR consultancy **Daoine Centric LLC**. It can also explain why people leave.

Companies have used technology to track employee actions and help boost productivity for years, but now some are turning to software to sniff out differences between what employees say and how they feel.

At First Horizon National Corp., a regional bank based in Memphis, it once took a team of six human-resource personnel three months to pore over 3,500 surveys. Managers would take an additional five months to submit action plans based on the data.

"By the time they got started we were getting ready to do another survey," said Mario Brown, manager of leadership assessment and

development at First Horizon.

Using Xander, First Horizon could slice and dice the feedback as soon as the survey closed. One insight the company gained from the survey was that it needed to work on its training program.

Steel company SPS streamlined its health-care plan offerings after survey results showed the options confused and overwhelmed employees. HR staffers have used some of the time saved processing survey results to start new mental and physical health initiatives for employees, including a wellness blog.

More than 40% of employers worldwide have implemented artificial intelligence processes of some kind, according to a recent study.

Since most emotions are communicated nonverbally,

from Deloitte. But as AI tools infiltrate HR departments, regulators are struggling to keep up.

A number of software companies including **HireVue Inc.** and **Syndio** offer artificial-intelligence tools to help make decisions about hiring, firing and compensation. That worries employees who are wary of being psychoanalyzed by software, and some employment lawyers fret that AI programs might contain biases that could lead to workplace discrimination.

"I'm fully aware of a handful of people who didn't want to take the survey because they had a fear of being tracked," said Corey Kephart, vice president of human resources at SPS.

Since most emotions are communicated nonverbally,

programs that solely rely on text can miss the bigger picture, said Julie Albright, a digital sociologist at University of Southern California. Artificial intelligence might one day be trained to recognize

**Software can sniff out differences between what people say and what they are thinking.**

signs of depression and other emotions in facial expressions and voice tones, she said, but the technology isn't there yet.

Any algorithmic bias is likely to have an outsize impact on minorities and other protected classes of employ-

# Freewheeling Barrick Gold Founder Dies at 90 in Toronto

BY ALISTAIR MACDONALD  
AND JAMES R. HAGERTY

Peter Munk escaped Nazi-occupied Hungary to become a freewheeling international entrepreneur and founder of **Barrick Gold Corp.**

Aside from building Barrick through takeovers into the world's largest

**OBITUARY** gold miner, he helped create a maker of stylish

**PETER** stereo equipment, made

abortive efforts

to enter the auto-manufacturing business, developed hotels in the South Pacific and built a marina for giant yachts in Montenegro.

Mr. Munk died Wednesday in Toronto, Barrick said. He was 90.

He was born in Budapest on Nov. 8, 1927, into an affluent Jewish family whose fortune derived from real estate and distribution of Viennese chocolates.

In 1944, when the Nazis invaded Hungary, he escaped to Switzerland on a train that

would prove one of the last routes out of the country for Jews. His mother, who survived the Auschwitz concentration camp, wrote him after the camp was liberated and told him he shouldn't stay in Europe but go instead to North America. "Get a decent, nice job and earn a lot of money," she wrote.

Mr. Munk arrived in Canada with a single suitcase and supported himself as a student in Toronto partly by selling Christmas trees.

He earned a degree in electrical engineering at the University of Toronto and met fellow student David Gilmour. In 1958, they founded Clairtone Sound Corp., which put high-end turntables and stereo speakers into sleek, Scandinavian-style cabinets.

The company established the founders as dashing young entrepreneurs but was chronically short of cash. Seeking greater scale, they diversified into making television sets and persuaded the province of Nova Scotia to finance a new factory in the town of Stellarton.

Mr. Munk's guiding principle was that the "only thing in life that is constant is change," and that helped him adapt and

move into new businesses, Mr. Gilmour said in a 2012 interview. Grateful to have been welcomed into Canada as a young man, he also was determined to succeed in his adopted country.

Mr. Munk tried unsuccessfully to enter the automotive industry, first with a plan to assemble Japanese cars in Canada and then with an abortive effort to buy the dying maker of Studebaker cars.

He and Mr. Gilmour rebounded to create South Pacific Properties Ltd., which opened hotels in Fiji, Tahiti, Australia, New Zealand and elsewhere. After Egyptian President Anwar Sadat halted South Pacific Properties' attempt to build a resort near the pyramids outside Cairo, Mr. Munk sold the company in 1981.

In 1983, Messrs. Munk and Gilmour teamed up again, this time betting that gold prices—long in the doldrums—were ready to rebound. They formed Barrick, listed its shares on the Toronto Stock Exchange and bought a half interest in an Ontario mine. Riding a boom in the price of gold, the company quickly gobbled up mines. By 2006, Barrick owned 27 mines world-wide.

In 2011, Barrick paid \$7.65 billion for copper miner Equinox Minerals Ltd. just as copper prices started to slide. A sharp decline in gold prices hit profits, and the company was plagued by cost overruns as it tried to extract gold and silver

from beneath glacial ice at the Pascua-Lama project in the Andes on the border of Argentina and Chile. Those setbacks hammered Barrick's share price and turned some investors against Mr. Munk.

He clung to his role as chairman as the company sold assets and slimmed down. But gold prices continued to fall and in 2014 he stepped down from Barrick's board at age 86.

In mining, the fedora-wearing Mr. Munk stood out as a flamboyant and energetic entrepreneur. He skied into his 80s and had a home in the Swiss ski village of Klosters.

Mr. Munk is survived by his wife of 45 years, Melanie Bonanquet. His first marriage, to Linda Guttersen, a professor of English literature, ended in divorce. She died in 2013. He also is survived by five children and 14 grandchildren.

A bronze bust of Mr. Munk gazes imperiously on the reception hall in Barrick's Toronto headquarters. On its base are the words: "Peter Munk, founder, builder, visionary."



Peter Munk, seen here in 2014, skied into his 80s in Switzerland.

## Borrowing Benchmarks | WSJ.com/bonds

### Money Rates

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		Latest	Week ago	52-Week High	Low
Feb. Index	Chg. From (%)	Jan.'18	Feb.'17		

#### U.S. consumer price index

All items	248.991	0.45	2.2
Core	255.783	0.45	1.8

#### International rates

	Latest	Week ago	52-Week High	Low
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#### Prime rates

U.S.	4.75	4.50	4.75	4.00
Canada	3.45	3.45	3.45	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	0.50	0.50	0.50	0.25
Australia	1.50	1.50	1.50	1.50

#### Overnight repurchase

U.S.	1.78	1.48	1.83	0.76
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#### U.S. government rates

Discount	2.25	2.00	2.25	1.50
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Commercial paper (AA financial)	2.20	2.18	2.25	0.95
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March 28, 2018

## Shale Deal Could Signal Consolidation in Permian

BY CHRISTOPHER M. MATTHEWS  
AND BRADLEY OLSON

**Concho Resources** Inc. has agreed to buy **RSP Permian** Inc. in a deal that could herald the start of a consolidation push in America's most active shale-drilling region.

The companies are valuing the all-stock deal at roughly \$9.5 billion, including net debt from RSP, they said Wednesday. That would make it the largest-ever deal in the Permian Basin, the area of Texas and New Mexico where **Exxon Mobil** Corp., **Chevron** Corp. and other big companies are now ramping up production along with smaller independent shale drillers.

The deal could mean it is "game on in the Permian," investment bank **Jefferies**

Group LLC said in a note to investors, as other producers in the region could move to snatch up smaller competitors.

The acquisition of RSP will make Concho the region's biggest current active driller, the companies said.

"We're now getting more into the development phase" of the U.S. shale boom, said Tim Leach, chief executive of Concho Resources. "The efficiency that you can gain by a bigger balance sheet and a bigger program is really what's driving this transaction."

Shares of Concho fell 8.8% Wednesday following the announcement, while RSP gained 16%.

The deal is expected to close in the third quarter and still requires shareholder and regulatory approval.

**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 22, 2018. **Other prime rates** aren't directly comparable; lending practices vary widely by location. **Discount rate** is effective March 22, 2018. **DTCC GCF Repo Index** is Depository Trust & Clearing Corp.'s weighted average for overnight trades in applicable CUSIPs. Value traded is in billions of U.S. dollars. **Federal-funds rates** are Tullett Prebon rates as of 5:30 p.m. ET. **Futures on the DTCC GCF Repo Index** are traded on NYSE Liffe US.

Sources: Federal Reserve; Bureau of Labor Statistics; DTCC; SIX Financial Information; Tullett Prebon Information, Ltd.

## MARKETS DIGEST

## EQUITIES

## Dow Jones Industrial Average

**23848.42** ▼9.29, or 0.04%  
High, low, open and close for each trading day of the past three months.

Trailing P/E ratio 25.19 21.08  
P/E estimate \* 16.20 17.72  
Dividend yield 2.24 2.36  
All-time high 26616.71, 01/26/18



Bars measure the point change from session's open

Dec. Jan. Feb. Mar.

\*Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.

## S&amp;P 500 Index

**2605.00** ▼7.62, or 0.29%  
High, low, open and close for each trading day of the past three months.

Trailing P/E ratio 24.91 24.52  
P/E estimate \* 16.92 18.27  
Dividend yield 1.93 1.97  
All-time high 2872.87, 01/26/18



## Nasdaq Composite Index

**6949.23** ▼59.58, or 0.85%  
High, low, open and close for each trading day of the past three months.

Trailing P/E ratio 25.75 25.97  
P/E estimate \* 20.02 20.34  
Dividend yield 1.01 1.12  
All-time high: 7588.32, 03/12/18



## Major U.S. Stock-Market Indexes

	Latest		52-Week		YTD		3-yr. ann.
	High	Low	Close	Net chg	% chg	Chg	
<b>Dow Jones</b>							
Industrial Average	24092.47	23728.67	<b>23848.42</b>	-9.29	-0.04	15.4	-3.5 <b>10.4</b>
Transportation Avg	10290.06	10109.47	<b>10188.19</b>	6.77	<b>0.07</b>	12.3	-4.0 <b>5.4</b>
Utility Average	691.80	683.52	<b>688.63</b>	-1.10	-0.16	774.47	-647.90 <b>-1.6</b>
Total Stock Market	27280.01	26896.69	<b>27019.02</b>	-75.13	-0.28	29630.47	24125.20 <b>10.4</b>
Barron's 400	706.91	698.99	<b>701.66</b>	-1.11	-0.16	757.37	610.89 <b>12.6</b>
Nasdaq Stock Market	7036.09	6901.07	<b>6949.23</b>	-59.58	-0.85	7588.32	5805.15 <b>17.8</b>
Nasdaq 100	6559.88	6410.04	<b>6460.81</b>	-69.03	-1.06	7131.12	5353.59 <b>19.0</b>
S&P	2632.65	2593.06	<b>2605.00</b>	-7.62	-0.29	2872.87	2328.95 <b>10.3</b>
500 Index	1863.25	1844.00	<b>1853.78</b>	2.03	<b>0.11</b>	1995.23	1681.04 <b>8.4</b>
MidCap 400	934.82	925.07	<b>929.30</b>	1.44	<b>0.16</b>	979.57	815.62 <b>11.3</b>
SmallCap 600	24.94	21.71	<b>22.87</b>	0.37	<b>1.64</b>	37.32	9.14 <b>100.3</b>
Other Indexes							
Russell 2000	1521.35	1505.64	<b>1513.03</b>	-0.54	-0.04	1610.71	1345.24 <b>10.3</b>
NYSE Composite	12399.23	12271.03	<b>12308.90</b>	6.36	<b>0.05</b>	13637.02	11324.53 <b>7.1</b>
Value Line	543.69	538.73	<b>540.16</b>	-0.50	-0.09	589.69	503.24 <b>4.3</b>
NYSE Arca Biotech	4529.39	4438.03	<b>4497.57</b>	21.53	<b>0.48</b>	4939.86	3449.61 <b>25.8</b>
NYSE Arca Pharma	532.78	524.40	<b>526.94</b>	7.41	<b>1.43</b>	593.12	498.46 <b>2.8</b>
KWB Bank	106.07	103.87	<b>105.13</b>	0.07	<b>0.07</b>	116.52	88.02 <b>15.0</b>
PHLX® Gold/Silver	80.75	79.32	<b>79.64</b>	-1.60	-1.97	93.26	76.42 <b>-5.3</b>
PHLX® Oil Service	135.38	131.87	<b>132.35</b>	-2.87	-2.13	171.55	117.79 <b>-21.7</b>
PHLX® Semiconductor	1331.80	1294.31	<b>1299.82</b>	-28.12	-2.12	1445.90	960.01 <b>29.1</b>
Cboe Volatility	24.94	21.71	<b>22.87</b>	0.37	<b>1.64</b>	37.32	9.14 <b>100.3</b>

\$ Nasdaq PHLX

Sources: SIX Financial Information; WSJ Market Data Group

## Late Trading

Most-active and biggest movers among NYSE, NYSE Arca, NYSE Amer. and Nasdaq issues from 4 p.m. to 6:30 p.m. ET as reported by electronic trading services, securities dealers and regional exchanges. Minimum share price of \$2 and minimum after-hours volume of 50,000 shares.

## Most-active issues in late trading

Company	Symbol	Volume (000)	Last	Net chg	% chg	After Hours	High	Low
SPDR S&P 500	SPY	11,379.5	260.40	0.57	<b>0.22</b>	260.70	259.58	
Brookdale Senior Living	BKD	6,763.0	6.90	0.08	<b>1.13</b>	6.90	6.82	
PwrShrs QQQ Tr Series 1	QQQ	5,777.1	157.85	0.60	<b>0.38</b>	158.30	157.19	
Van Eck Vectors Gold Miner	GDX	5,525.7	21.62	-0.04	<b>-0.18</b>	21.69	21.61	
AT&T	T	4,498.1	35.59	0.0300	<b>0.08</b>	35.76	35.50	
Industrial Select Sector	XLI	3,985.3	73.22	...	unch.	73.22	73.21	
Bank of America	BAC	3,979.8	29.33	-0.06	<b>-0.20</b>	29.51	29.20	
iShares MSCI Emdg Markets	EEM	3,739.0	47.31	0.02	<b>0.04</b>	47.41	47.29	

## Percentage gainers...

Immunogen	IMGN	669.2	11.21	0.47	<b>4.38</b>	11.22	10.64	
Nutrien	NTR	76.8	47.79	1.98	<b>4.32</b>	47.79	46.00	
PVH Corp.	PVH	231.0	148.30	4.28	<b>2.97</b>	152.00	141.00	
GameStop Cl A	GME	1,039.6	14.44	0.29	<b>2.05</b>	15.60	14.11	
Tyson Foods Cl A	TSN	200.2	74.38	1.45	<b>1.99</b>	74.38	72.93	
RSP Permian	RSPP	134.2	38.92	-6.08	<b>-13.51</b>	45.33	38.92	
Vale ADR	VALE	187.5	12.07	-0.38	<b>-3.04</b>	12.52	12.07	
Church Dwight	CHD	121.7	48.16	-1.08	<b>-2.19</b>	49.58	48.16	
American Int'l Group	AIG	92.2	53.36	-1.16	<b>-2.13</b>	54.52	53.36	
Cigna	CI	156.5	164.90	-3.42	<b>-2.03</b>	168.87	164.90	

## Trading Diary

Volume, Advancers, Decliners

NYSE NYSE Amer.

Total volume\* 926,991,053 10,303,243

Adv. volume\* 463,412,684 3,102,106

Decl. volume\* 453,459,032 6,835,179

Issues traded 3,075 330

Advances 1,536 135

Declines 1,426 175

Unchanged 113 20

New highs 19 2

New lows 114 22

Closing tick 19 17

Closing Arms\* 1.08 2.31

Block trades\* 6,994 142

Nasdaq NYSE Arca

Total volume\* 2,469,465,866 369,001,464

Adv. volume\* 886,105,038 162,468,679

Decl. volume\* 1,553,404,930 204,309,572

Issues traded 3,059 1,344

Advances 1,305 633

Declines 1,615 685

Unchanged 139 26

New highs 26 2

New lows 113 29

Closing tick 74 58

Closing Arms\* 1.42 1.15

## COMMODITIES

WSJ.com/commodities

## Futures Contracts

## Metal &amp; Petroleum Futures

	Contract	Open	High	Low	Settle	Chg	Open interest
Copper-High (CMX)	-25,000 lbs.; \$ per lb	2,9980	2,9645	2,9940	0.0020	4,016	
April	2,9655	3,0100	2,9685	3,0020	0.0015	150,625	
May	2,9830	3,0100	2,9685	3,0020	0.0015	150,625	
Gold (CMX)	-100 troy oz.; \$ per troy oz.	1,9700	1,9700	1,9700	1,9700	0.0000	
April	1,9500	1,9640	1,9320	1,9240	-0.18	37,534	
June	1,9510	1,9520	1,9270	1,9300	-0.19	374,407	
Aug	1,9586	1,9580	1,9340	1,9360	-0.18	50,555	
Oct	1,9626	1,9630	1,9410	1,9420	-0.18	7,466	
Dec	1,9692	1,9700	1,9470	1,9480	-0.18	46,254	
Dec'19	1,9900	1,9900	1,9890	1,9870	-0.18	3,342	
Palladium (NYM)	-50 troy oz.; \$ per troy oz.	1,9750	1,9595	1,9620	-0.86	22,779	
June	1,9670	1,9725	1,9595	1,9620	-0.86	22,779	
Sept	1,9642	1,9650	1,9555	1,9580	-0.85	1,191	
Platinum (NYM)	-50 troy oz.; \$ per troy oz.	1,9750	1,9700	1,9700	1,9700	0.0000	
April	1,9440	1,9470	1,9330	1,9470	-12.00	5,427	
July	1,9560	1,9530	1,9380	1,9400	-0.80	159,602	
Silver (CMX)	-5,000 troy oz.; \$ per troy oz.	1,9750	1,9750	1,9750	1,9750	0.0000	
April	1,6450	1,6450	1,6195	1,6205	-0.292	362	
May	1,6515	1,6560	1,6220	1,6253	-0.288	149,212	
Crude Oil, Light Sweet (NYM)	-1,000 bbls.; \$ per bbl	1,9750	1,9750	1,9750	1,9750	0.0000	
May	1,6470	1,6513	1,6372	1,6438	-0.87	512,247	
June	1,6466	1,6508	1,6368	1,6435	-0.83	357,399	
July	1,6432	1,6476	1,6339	1,6406	-0.80	159,602	
Sept	1,6431	1,6467	1,6242	1,6307	-0.76	175,723	
Dec	1,6189	1,6223	1,6095	1,6159	-0.70	255,928	
Dec'19	1,5733	1,5768	1,5660	1,5728	-0.39	135,687	
NY Harbor ULSD (NYM)	-42,000 gal.; \$ per gal	1,9750	1,9750	1,9750	1,9750	0.0000	
April	2,0120	2,0295	1,9969	2,0148	-0.076	16,207	
May	2,0128	2,0304	1,9960	2,0139	-0.013	132,923	
Gasoline-NY RBOB (NYM)	-42,000 gal.; \$ per gal	1,9750	1,9750	1,9750	1,9750	0.0000	
April	2,0139	2,0270	1,9940	2,0116	-0.019	18,323	
May	2,0188	2,0343	2,0012	2,0192	-0.018	163,771	
Natural Gas (NYM)	-10,000 MMBtu; \$ per MMBtu	1,9750	1,9750	1,9750	1,9750	0.0000	
May	2,7200	2,7310	2,690	2,698	-0.16	400,625	
June	2,7690	2,7800	2,740	2,751	-0.15	98,340	
July	2,8250	2,8350	2,795	2,808	-0.14	156,546	
Sept	2,8260	2,836	2,800	2,809	-0.14	99,655	
Oct	2,8390	2,848	2,810	2,822	-0.14	132,106	
Jan'19	3,094	3,095	3,061	3,074	-0.11	71,657	

## Agriculture Futures

	Contract	Open	High	Low	Settle	Chg	Open interest
Corn (CBT)	-5,000 bu.; cents per bu.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	374,25	375,00	372,00	373,50	-50	646,134	
July	382,75	383,25	380,50	382,25	-25	490,016	
Oats (CBT)	-5,000 bu.; cents per bu.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	226,00	226,75	221,50	221,75	-4,25	4,534	
July	233,25	233,25	230,00	230,50	-3,00	1,171	
Soybeans (CBT)	-5,000 bu.; cents per bu.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	1019,50	1023,25	1015,00	1018,00	-1,50	348,391	
July	1030,25	1033,75	1026,00	1028,75	-1,50	249,161	
Soybean Meal (CBT)	-100 tons; \$ per ton.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	372,10	376,10	369,50	371,30	-1,10	189,325	
July	374,60	378,50	372,10	373,70	-1,40	124,981	
Soybean Oil (CBT)	-60,000 lbs.; cents per lb.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	31,58	31,89	31,40	31,62	.04	236,459	
July	31,85	32,14	31,66	31,88	.03	125,244	
Rough Rice (CBT)	-2,000 cwt.; \$ per cwt.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	1246,50	1252,00	1243,00	1244,50	...	5,750	
July	1264,00	1265,50	1263,50	1261,50	.50	1,354	
Wheat (CBT)	-5,000 bu.; cents per bu.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	593,50	594,75	586,50	589,50	-3,75	32,190	
July	601,75	603,75	594,75	598,50	-3,75	12,863	
Cattle-Feeder (CME)	-50,000 lbs.; cents per lb.	1,9750	1,9750	1,9750	1,9750	0.0000	
March	135,600	136,125	135,300	135,975	.550	3,133	
May	136,750	139,325	136,525	138,500	2,150	19,901	
Cattle-Live (CME)	-40,000 lbs.; cents per lb.	1,9750	1,9750	1,9750	1,9750	0.0000	
April	115,450	116,425	114,825	116,000	.575	43,025	
June	105,225	106,425	104,500	105,575	.325	159,907	
Hogs-Lean (CME)	-40,000 lbs.; cents per lb.	1,9750	1,9750	1,9750	1,9750	0.0000	
April	56,850	57,400	56,750	56,925	-.825	24,141	
June	72,950	76,925	72,950	76,625	2,600	100,458	
Lumber (CME)	-110,000 bd. ft. \$ per 1,000 bd. ft.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	507,00	511,90	498,60	507,10	.10	5,340	
July	492,00	499,00	489,10	496,00	1,10	869	
Milk (CME)	-200,000 lbs., cents per lb.	1,9750	1,9750	1,9750	1,9750	0.0000	
March	14,21	14,25	14,21	14,23	.01	4,240	
May	14,43	14,45	14,29	14,33	-.06	3,370	
Cocoa (ICE-US)	-10 metric tons; \$ per ton.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	2,570	2,603	2,490	2,597	43	109,767	
Coffee (ICE-US)	-37,500 lbs.; cents per lb.	1,9750	1,9750	1,9750	1,9750	0.0000	
May	119,15	119,20	117,35	117,75	-.20	140,358	
July	121,30	121,30	119,50	119,80	-.20	59,897	

Source: SIX Financial Information

## Macro &amp; Market Economics

## Watching the Gauges: U.S. Supply and Demand

Inventories, imports and demand for the week ended March 23. Current figures are in thousands of barrels or thousands of gallons per day, except natural-gas figures, which are in billions of cubic feet. Natural-gas import

Natural-gas import and demand data

## BIGGEST 1,000 STOCKS

WSJ.com/stocks

**How to Read the Stock Tables**  
The following explanations apply to NYSE, NYSE Arca, NYSE American and Nasdaq Stock Market listed securities. Prices are composite quotations that include primary market trades as well as trades reported by Nasdaq BX (formerly Boston), Chicago Stock Exchange, Cboe, NYSE National and Nasdaq ISE. The list comprises the 1,000 largest companies based on market capitalization.**Underlined quotations** are those stocks with large changes in volume compared with the issue's average trading volume.**Boldfaced quotations** highlight those issues whose price changed by 5% or more if their previous closing price was \$2 or higher.

Wall Street Journal stock tables reflect composite regular trading as of 4 p.m. and changes in the closing prices from 4 p.m. the previous day.

Wednesday, March 28, 2018

Net

Stock Sym Close Chg

A B C

ABB ABB 23.56 0.31

ADT ADT 7.60 0.04

AES AES 11.23 0.28

Aflac AFL 43.59 0.07

AGNC Inv AGNC 18.81 0.01

ANGI Homeservs ANGI 13.53 0.03

Ansys ANSS 154.87 -2.18

ASML ASML 194.53 -5.76

AT&amp;T T 35.56 0.66

AbbottLabs Abbott 59.23 -1.05

AbbVie ABV 49.27 2.26

Abiomed ABMD 289.99 -3.44

Accenture ACN 147.41 -1.45

ActivisionBlv ATVI 65.97 -0.01

AcuityBrands AVY 137.01 0.02

AdobeSystems ADBE 224.54 -1.26

AdvanceAuto AAP 115.98 0.97

AdmMicroDevices AMD 9.81 -0.19

AdvSemErgg ASX 7.30 0.01

Aegon AEG 6.76 0.11

AerCap ACP 50.17 0.21

Aetna AET 169.49 1.07

AffiliatedMtrs AMG 185.00 -0.23

AgilentTechs AEE 66.40 -0.46

AigroEagle AEM 41.42 -0.49

AirProducts APPD 158.18 -0.45

AkamaiTechs AKAM 70.05 -0.70

AlaskaAir ALK 61.57 0.08

Albermarle ALB 89.56 -3.87

Alcoa AA 44.42 -0.48

AlexiaREst ARE 123.56 2.46

AlexionPharm ALXN 110.61 2.28

Alibaba BAB 178.91 -2.91

AlignTech ALGN 244.42 -3.88

Alkermeds ALK 59.23 0.18

Allegany YH 60.46 14.15

Allegion ALLE 83.13 -0.87

Allergan AGN 165.65 5.33

AllianceData ADD 221.90 1.07

AlliancEnergy LNT 40.62 0.09

Allstate AFL 94.61 1.22

AllyFinancial ALF 26.59 0.37

AlynlabPharm ALB 129.87 -1.31

Alphabt G GOOG 105.81 -1.76

Altiba UHAL 342.79 0.51

Ameren AEE 55.94 0.06

AmericaMovil AVA 18.83 -0.26

AmeriLiners AAL 40.05 -0.05

AEP AEP 66.86 0.23

AmerExp AXP 92.21 0.79

AmericanFin AFG 112.19 1.83

AIG AIG 54.52 0.74

AmerTowerRe ITMT 140.36 -0.16

AmerWaterWks AWK 81.19 0.50

Ameriprise AMP 146.93 -0.36

AmerisourceBrgn ASX 85.11 1.10

Amtekmet AME 74.95 -0.17

Amgen AMGN 170.46 -0.69

Amphenol APH 84.85 -0.74

AnadarkoPetrol APC 58.90 -1.90

AnalogoDevices ADI 89.91 -1.14

Andeavor ANDY 09.23 -2.49

AndeavorLog ANOX 43.66 0.50

AB InBev IBDV 109.63 2.16

AnnalyCap NLY 10.31 0.01

AnterResourcs AR 19.21 -0.01

Anthem ATSN 224.18 2.04

Aon AON 139.46 0.64

Apache APA 37.35 -0.13

Apartsmtin AIV 40.58 1.03

ApolloBldgMgt APOL 29.62 -0.61

AppI Materials AMAT 54.06 -1.38

Aptiv AVP 82.82 -1.51

AristaNetworks ARTO 83.70 -0.27

Autodesk ADSK 124.55 -3.76

Autohome ATMM 38.45 -0.15

Autoliv ALV 142.12 -5.46

Avdp ADP 111.76 -0.50

AutoZone AZO 67.25 2.73

AxiataCoating AXTA 30.16 -0.46

BBT BBT 51.53 -0.05

BCE BCE 42.72 0.25

BHPBilliton BBL 43.49 -0.61

BOK Fin BOKF 98.12 0.45

BP BP 39.60 -0.37

BTF BTF 6.70 -0.24

Dimensional Fds DimensionalFds

Dimensl Fds DimensionalFds

## BANKING &amp; FINANCE

# Fed Hopeful to Keep Course

If made New York Fed boss, Williams would probably continue policies incumbent set

BY RYAN TRACY

The front-runner for president of the Federal Reserve Bank of New York has a regulatory record similar to its current leader, suggesting his appointment would bring continuity in the regulator's relationship to Wall Street.

John Williams, the Federal Reserve Bank of San Francisco president in line for a transfer to New York, and current New York Fed President William Dudley both have supported restrictions on banks imposed after the 2008 bailouts, criticized bank executives for risk-management failures, and sought to put distance between their staffs and the bankers they oversee.

They also have seen major bank misbehavior occur on their watch. Mr. Williams's role in overseeing Wells Fargo & Co. triggered criticism of his regulatory record because of the California-based bank's risk-management failures and customer abuses.

When the Fed hit Wells Fargo with an unprecedented enforcement action this year, it was both a rebuke of the firm and an acknowledgment that regulators had allowed risk-management deficiencies to fester.

As San Francisco Fed president, Mr. Williams oversees teams of bank examiners responsible for firms including Wells Fargo. In a March 2017 Wall Street Journal interview, he said the bank's phony-accounts scandal, fueled by a sales culture heavily focused on getting customers to sign up for more services, showed the bank had broad problems that many observers missed.

"Supervision is not just,



San Francisco Fed President John Williams has a regulatory record like his New York counterpart's.

again, about stress tests and capital, but it's also about the management, the governance, and culture," he said. "Clearly in the Wells Fargo case, the culture was part of the problem. What's striking, of course, is Wells Fargo is well-known to, thought to, have had a very strong culture."

**'We really need to make sure that the largest banks have... lots of liquidity.'**

The Fed's 12 regional reserve banks enforce rules for private-sector banks in their area. The New York Fed is especially powerful given New York's importance in finance.

Here are some other things Mr. Williams has said about regulatory policy.

**On postcrisis regulations:** Mr. Williams in August 2017

praised strict rules on big banks, while also saying that rules on small and medium-size banks were too strict. Mr. Dudley and other Fed officials have made similar statements.

"We really need to make sure that the largest banks have lots of capital, lots of liquidity," he said. "You don't need to have this huge burden on smaller banks."

**On bank culture:** Mr. Dudley has said Wall Street firms need to change their culture. Bankers, he has said, need to make sure their employees don't have incentives to take excessive risks.

Mr. Williams in the March 2017 interview expressed a similar view. "What we've learned over and over again is when the incentives are just so skewed, [that is going to] have a negative effect on culture and have negative consequences," he said.

**On the regulation of financial technology:** "It's not that regulators are here to call the cops on the party; we're here

to make sure no one jumps off the roof," Mr. Williams said in a 2016 speech about the benefits and pitfalls of financial innovation. "It's important that we have a level playing field, regardless of how institutions prefer to describe themselves or what kind of charter they hold."

**On the Fed's role in keeping the financial system stable:** Mr. Williams said in 2015 the Fed should use monetary policy to stabilize the financial system only as a last resort, after first trying regulatory measures.

He pointed to U.S. regulators' crackdown on leveraged loans to heavily indebted companies as an example of how regulators should address financial-stability risks.

"We should instead supplant the focus on individual institutions' financial soundness, based on traditional measures of regulatory capital, with a more systemic view of the financial system's overall health," he said.

# CME Bids to Buy U.K.'s NEX Group

BY ALEXANDER OSIPOVICH

CME Group Inc. offered to buy U.K. financial-technology company **NEX Group** PLC, a deal that would put the Chicago futures-exchange giant in a commanding position in the vast market for U.S. government debt.

NEX said in a statement on Wednesday that it had received a nonbinding takeover offer of £10 a share, the equivalent of \$14.08. That would value the London-based company at about \$5.4 billion.

NEX said discussions were at an "advanced stage." There is no certainty as to whether an offer will be made, or what terms of an offer would be, NEX said.

A NEX spokeswoman declined to comment further. A CME spokeswoman declined to comment.

The two companies confirmed earlier this month that CME had made a preliminary takeover approach to NEX. The news set off speculation that other bidders could emerge for NEX, such as **Intercontinental Exchange Inc.**, owner of the New York Stock Exchange, or **London Stock Exchange Group PLC**. It also triggered a surge in NEX's stock price, which is up 45% since reports of the talks emerged on March 15.

NEX owns the biggest electronic platform for U.S. Treasury bonds trading, called BrokerTec, while CME dominates the market for interest-rate futures linked to U.S. government bond prices. Combining the two would put CME in a powerful position, as it would control the plumbing that underpins both Treasury futures and a swath of the underlying "cash" market.

"We believe combining the underlying cash securities with the trading of the listed

futures would be a first in the exchange industry and...would set a unique precedent," Rich Repetto, an analyst at Sandler O'Neill + Partners, said in March 19 research note about the deal.

That could bring greater efficiencies to bond trading. Currently, Wall Street firms active in both cash Treasurys and interest-rate futures need to post cash to back their trades in two separate places. Bringing BrokerTec and CME's futures under the same roof could lead to one unified clearing system for both kinds of trades, freeing up cash that traders could use for other purposes.

## \$5.4B

The amount at which CME Group's offer values NEX Group.

U.S. government bonds are the world's biggest debt market, with some \$14.5 trillion in Treasury securities outstanding. About \$535 billion of Treasurys traded each day on average in the week ended March 14, according to Federal Reserve data.

According to the rules of the London Stock Exchange, CME has until April 12 to either make a firm offer or announce that it doesn't intend to bid for NEX.

If completed, such a deal would likely be the biggest acquisition for CME since 2008, when it acquired the New York Mercantile Exchange for about \$10 billion. That deal helped cement CME's status as the world's largest exchange operator.

—Daniel Kruger contributed to this article.

# Deutsche Bank CEO Reaffirms Strategy

BY JENNY STRASBURG

Deutsche Bank AG's chief executive, John Cryan, told employees Wednesday he is "absolutely committed" to serving the bank, in a memo posted to the lender's website a day after reports that its chairman has sounded out potential CEO candidates from outside the bank.

"I just wanted to reaffirm that I am absolutely committed to serving our bank and to continuing down the path on which we started some three years ago," Mr. Cryan said in the memo, presented on Deutsche Bank's website as "a message from John Cryan on the current situation."

"We all know that we have a lot of work to do: our programs are ambitious, but the financial results have so far



Supporters of CEO John Cryan say he deserves more time.

not been what all of us would want them to be," he said in the memo. He cites a "destabilizing effect" from "wide-

spread rumors" about the bank.

The memo doesn't specify the "widespread rumors." The

communication is the first public comment from Mr. Cryan after media, including The Wall Street Journal, reported Tuesday that Deutsche Bank Chairman Paul Achleitner has reached out externally to potential candidates to be the bank's next CEO.

The Journal, citing people briefed on the discussions, said the outreach has been informal and raises the possibility that Mr. Cryan could leave before his contract ends in 2020. Messrs. Cryan and Achleitner didn't respond to requests for comment, and a Deutsche Bank spokeswoman said they wouldn't comment. The bank didn't immediately respond to a request for comment Wednesday about the memo.

Mr. Cryan said in the memo that the bank needs "to focus

on executing on the strategy that was agreed and signed off by both the management and supervisory boards. There is no difference of opinion here."

The Journal reported Tuesday that members of Deutsche Bank's supervisory board aren't all in agreement on CEO succession planning, citing people familiar with board deliberations.

Deutsche Bank is coming under pressure from investors after a string of losses, and after recently missing cost-cutting targets.

Mr. Cryan has been CEO since the summer of 2015. He is credited with addressing major legal issues and bolstering the bank's relationship with regulators, and supporters say he deserves more time to follow through on strategy plans the bank has announced.

# Anbang's Wu Seeks Leniency

BY JAMES T. AREDDY

SHANGHAI—Wu Xiaohui, who built a small insurer into China's third-largest and a global deal maker, asked for leniency in court amid charges that he falsified financial reports to exaggerate business assets and mask benefits to himself.

At the conclusion of his one-day trial, Mr. Wu expressed remorse and indicated he understood the charges against him relating to his former position as chairman of **Anbang Insurance Group Co.**, according to a summary published by the Shanghai No. 1 Intermediate People's Court.

The court didn't specify whether Mr. Wu entered a plea to the charges, which included forging documents, raising over \$10 billion using fraudulent means and abusing power to appropriate company funds and hide his control of Anbang. Mr. Wu's lawyers didn't respond to requests for comment.

The charges are considered severe and follow a government takeover last month of Anbang after regulators found that unspecified illegal registration filings by the insurer could "seriously threaten the solvency of the company." In China, the government intervention was interpreted as evidence authorities consider the firm with \$300 billion in assets too big to fail, after just 14 years of operation. Prosecutors told the court the takeover kept Mr. Wu's actions from harming policyholders.

Anbang's reorganization and Mr. Wu's trial are part of a government offensive against brash private firms, some of which seemed to operate at times with official support. Tycoons have disappeared into investigations or been forced to backpedal on acquisitions.

Mr. Wu remains in custody. Guilt is virtually assured in Chinese criminal cases, though the court didn't announce a date the verdict will be handed down.

—Liyan Qi in Beijing and Chunying Zhang in Shanghai contributed to this article.

# Silver Lake Purchases Stake in Credit Karma

BY PETER RUDEGEAR

Buyout shop **Silver Lake** is purchasing a roughly \$500 million stake in **Credit Karma** Inc. in a deal that makes the company behind the popular personal-finance portal one of the most highly valued in the financial-technology sector.

Credit Karma isn't receiving any proceeds or issuing any new shares as part of the transaction, Chief Executive Kenneth Lin said in an interview. Rather, Silver Lake is amassing common shares from earlier investors and employees in a secondary sale that values the 11-year-old company at roughly \$4 billion, according to a person familiar with the matter.

Such deals are in vogue among Silicon Valley startups that want to postpone listing shares on public markets but also want to give shareholders a way to cash out. Last year, as parts of multibillion-dollar investments in ride-hailing firm **Uber Technologies** Inc. and shared-office-space company **WeWork** Cos., Japanese conglomerate **SoftBank Group Corp.** committed to buying significant stakes on the secondary market.

## STREET

Continued from page B1

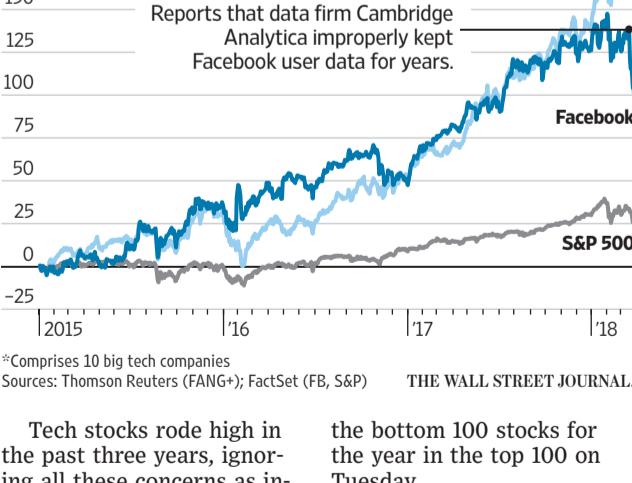
much privacy is becoming an issue for Americans.

There also is a backlash to the sheer scale of many of the big internet companies. Earnest discussion among economists about the new monopolies is unlikely to lead directly to government intervention, but a change in public perception makes antitrust action more likely.

There is a further danger from the economy. A stronger economy should mean more companies are able to demonstrate rising sales. Investors who want growth will be able to buy businesses exposed to the economic cycle, and the fast-expanding tech companies will lose some of their exclusivity in the minds of shareholders. The same point can be seen by looking at interest rates. As rates rise, profits far in the future look less attractive, which should compress the valuation of disruptors reinvesting all their earnings in the hope of future returns. If—and it is a big if—you expect the economy to improve and bond yields to rise, disruptive tech stocks should be less appealing.

## Chomp

Tech stocks have fallen hard, but remain well ahead of the market.



Tech stocks rode high in the past three years, ignoring all these concerns as investors focused on the extraordinary profits and dominant market shares many were producing.

It isn't always true that highflying stocks fall further, but it certainly was on Tuesday.

Out of the top 100 stocks in the S&P 500 for the year to Monday, 39 were in the bottom 100 on Tuesday, about double what would be expected by chance. It worked the other way, too, with just over one-third of

the bottom 100 stocks for the year in the top 100 on Tuesday.

In the short run, the drop means the overly fast upward momentum of the big tech stocks has abated, leaving them less exposed to further selling driven by technical factors, although

**Amazon.com** Inc. led more falls on Wednesday after a report that President Donald Trump wants to target the company.

In the longer run, expect lots of contrition from tech company CEOs as they try to head off political pressure on the bottom line.

## MARKETS

# U.S. Stocks Continue to Struggle

Consumer-discretionary and tech sectors are the worst performers so far this week

BY AMRITH RAMKUMAR  
AND GEORGI KANTCHEV

Shares of big technology firms came under more pressure Wednesday amid fears of increased regulatory oversight, pulling major indexes lower in another volatile session.

After powering the broader market for the past year, technology and internet stocks have fallen recently, dragging the broader market

**WEDNESDAY'S MARKETS** down with them. The S&P 500's information-technology sector has been the index's worst performer over the past week. The consumer-discretionary sector, which houses such tech-focused giants as **Amazon.com** and **Netflix**, has also been hit hard.

Backlash over how social-media firms manage user data and doubts that **Facebook** and **Alphabet**, the parent company of Google, can extend their dominance in digital advertising have hurt sentiment in recent sessions. Those challenges have cropped up at a time when the prospect of higher interest rates and trade disruptions had already made investors nervous about the tech sector, which is still up 24% over the past year.

"Those are the triggers that finally will force investors to look at the high valuations they've been paying for those stocks," said Wasif Latif, vice president of equity investments at USAA Asset Management, who prefers industrial, healthcare and consumer stocks.

"Technology has been the poster child for growth, innovation and greater earnings, but has also been the poster child for higher [valuations]," he added.

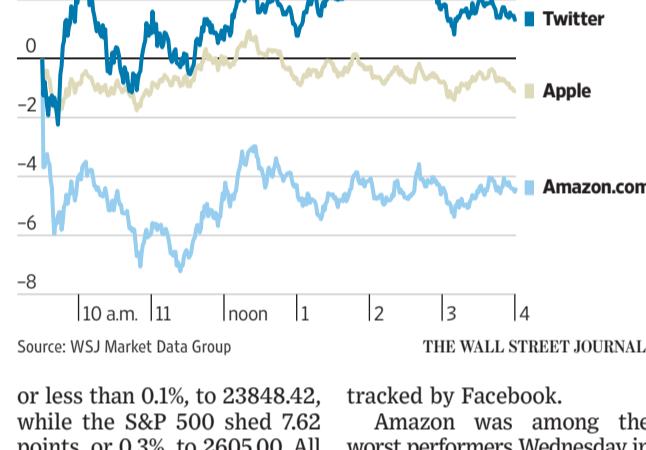
The tech-heavy Nasdaq Composite dropped 59.58 points, or 0.9%, to 6949.23, underperforming the Dow Jones Industrial Average and the S&P 500. The Dow fell 9.29 points,



Amazon was among Wednesday's biggest decliners on worries the White House wants to clamp down on it.

## Trying to Stabilize

Some technology and internet firms such as Twitter rose Wednesday, though others, including Apple and Amazon.com, extended recent declines.



Source: WSJ Market Data Group

or less than 0.1%, to 23848.42, while the S&P 500 shed 7.62 points, or 0.3%, to 2605.00. All three indexes have fallen in five of the past six sessions.

Shares of Facebook, down 14% this month, rose 81 cents, or 0.5%, to \$153.03, after the company said it would make it simpler for users to examine and change some of their data

tracked by Facebook.

Amazon was among the worst performers Wednesday in the S&P 500, losing 65.63, or 4.4%, to 1431.42, amid speculation that the White House wants to clamp down on the e-commerce giant's growing dominance.

Axios reported President Donald Trump is "obsessed with Amazon" and has dis-

cussed changing its tax treatment due to concerns about how the company is affecting mom-and-pop businesses.

Netflix, meanwhile, declined 14.92, or 5%, to 285.77, and **Apple** was down 1.86, or 1.1%, to 166.48, after Goldman Sachs analysts lowered their estimates of iPhone demand for the March and June quarters. Dozens of iPhone owners are also taking Apple to court over the company's disclosure that it slowed down old phones to preserve battery life.

**Tesla** lost 21.40, or 7.7%, to 257.78, extending Tuesday's tumble, amid an investigation into a fatal Tesla crash and following a Moody's Investors Service ratings downgrade on the electric-auto maker's debt.

Energy stocks fell alongside oil prices after data showed inventories rose in the week ended March 23. The S&P 500 energy sector shed 2%.

With some riskier investments falling, some investors put money into bonds.

The yield on the 10-year Treasury note fell to 2.777% from 2.790%, its lowest close since Feb. 6. Yields fall as

prices rise.

Stocks hit records in late January, but have since been dragged down by concerns over inflation, the prospect of tightening monetary policy by central banks and the possibility of a global trade war.

Still, many investors aren't convinced that markets have turned, citing strong economic growth around the world.

On Wednesday, fourth-quarter U.S. economic growth was revised to 2.9%, higher than the previous estimate of 2.5%. Meanwhile, a survey showed that consumer sentiment in Germany, Europe's largest economy, was set to rise in April.

"The macro fundamentals haven't dropped off the table. They're where they've been over the last several years, and that's been a good place to be," said John Velis, macro strategist at State Street Global Markets.

Mr. Velis said he expects optimism about the global economy to contribute to further market swings.

In early Asian trading Thursday, Japan's Nikkei was up 0.6%, while Hong Kong's Hang Seng was down 0.6%.

# Treasurys Climb as Investors Shun Risk

BY AKANE OTANI

U.S. government-bond prices rose again Wednesday as shaky trading in global stocks increased investors' appetite for the safety of government debt.

The yield on the 10-year Treasury note settled at 2.777%, compared with 2.790% Tuesday.

Yields, which fall as bond prices rise, have largely slid over the past week, as sharp swings in stocks

**CREDIT MARKETS** from the U.S. to Hong Kong have sent investors into the safety of assets that tend to fare well during periods of market volatility.

The yield on the 10-year note took a leg lower early Wednesday after the government said the U.S. trade deficit widened to \$75.4 billion in February, slightly more than economists had expected and up from a revised \$75.3 billion in January.

The 10-year yield then pared much of its decline for the day after the Treasury Department's auction of seven-year notes—the latest in a series of nearly \$300 billion of issuance this week—was met with tepid demand.

## 2.777%

10-year Treasury yield Tuesday, from 2.790% the day before

The government auctioned off \$29 billion of seven-year notes at a yield of 2.27%, 0.017 percentage point above where the yield traded before the auction.

And the bid-to-cover ratio, a gauge of overall demand, came in at 2.34, below the average of 2.54, according to BMO Capital Markets.

Concerns that a wave of new debt could weigh on the prices of outstanding bonds had kept many investors on edge heading into the week. Still, Treasurys managed to hold their ground, with the yield on the 10-year note notching its fourth decline in five trading sessions.

Continued swings in the stock market should keep pressure on bond yields heading into the end of the quarter, analysts say, even as many investors believe a pickup in inflation will ultimately stall the bond rally.

"While the bond market is not likely to regain its horns anytime soon, it does indicate how vulnerable the equity market is to bad news, and how quickly investors will seek the safety of U.S. Treasurys when that bad news hits the tape," said Kevin Giddis, head of fixed-income capital markets at Raymond James.

## AUCTION RESULTS

Here are the results of Wednesday'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.

### ONE-YEAR, 10-MONTH NOTES

Applications	\$44,323,487,900
Accepted bids	\$17,642,362,900
*noncompeting	\$16,121,000
Spread	0.000%
Bids at clearing yield accepted	47.55%
Cusip number	912828315

The floating-rate notes, dated April 2, 2018, mature on Jan. 31, 2020.

### SEVEN-YEAR NOTES

Applications	\$72,973,986,500
Accepted bids	\$34,108,590,900
*noncompeting	\$22,525,000
*foreign noncompetitively	\$0
Auction price (rate)	99.398415 (2.720%)
Interest rate	2.625%
Bids at clearing yield accepted	47.76%
Cusip number	912828444

The notes, dated April 2, 2018, mature on March 31, 2025.

# Dollar Advances As Growth Revised Up

BY DANIEL KRUGER

The U.S. dollar gained after a report showed the economy expanded faster than originally measured in the fourth quarter of 2017.

The WSJ Dollar Index, which measures the currency against a basket of 16 others, rose 0.7%, the biggest gain since Feb. 2, to 83.94. The

**CURRENCIES** dollar advanced 0.8% against the euro, to \$1.2310, and 1.4% versus the yen, to ¥106.85.

Gross domestic product, a broad measure of the goods and services produced across the U.S., rose at a 2.9% annual rate in the fourth quarter, adjusted for seasonality and inflation, the Commerce Department said Wednesday. That exceeded economists' expectations.

The U.S. dollar is also being supported by concerns that the synchronous global growth may be slowing, even as the U.S. continues to expand. Those worries have been fueled by concerns about the potential for rising trade tensions to slow international commerce, putting a brake on growth. European growth has shown signs of cooling, reinforcing those concerns.

Other signs of anxiety in financial markets have also boosted the dollar, analysts said. Those include gains in the U.S. government-bond market, the rising cost of dollar funding in Europe, and \$1.5 trillion in U.S. tax cuts, which are forcing the government to increase its short-term borrowing, leading to a greater scarcity for the currency.

"There are all of these things that are happening that are negative for risk sentiment," said Mark McCormick, a currency strategist at TD Securities.

# Hong Kong Firm Pops in Debut

BY JOANNE CHIU

Global stocks may be on the retreat again, but a Hong Kong satirical publisher was still able to post serious gains in its stock-trading debut.

In the latest small initial public offering to see large retail demand, **Most Kwai Chung** Ltd. opened Wednesday seven times higher than the company's 1.20 Hong Kong dollars (15 U.S. cents) IPO price. Shares rose as high as HK\$11.76 before closing at HK\$6.38, up 432% on the day.

Most Kwai Chung's publications include weekly Chinese magazine 100Most and online video platform TVMost, which pokes fun at celebrities and public figures. Its investors are typical IPO investors, analysts say. Many of them "look just for short-term gains with no plan to hold for long," said Daniel So, a strategist at China Merchants Bank International.

The offering set a record as Hong Kong's most oversubscribed IPO, with demand 6,289 times the 6.75 million shares initially offered in the public portion of the deal. The previous record was held by club operator **AUX International Holdings** Ltd., which went public in January 2014.

Just two weeks ago, bubble-tea seller **B&S International Holdings** Ltd. had 2,600 times more orders than shares available in its HK\$100 million deal. Its share price nearly



Bubble tea seller B&S International's shares also surged on the first day but have pulled back since.

quadrupled in the first day of trading, but has fallen 22% since.

Furniture retailer **Ulferts International** Ltd.'s share price tripled on its opening day to HK\$1.60 after selling HK\$112 million of stock in late January; the retail portion of that deal was more than 1,600 times oversubscribed. Its shares are back to HK\$0.69, versus an offer price of HK\$0.52.

"The eye-popping oversubscription" rates generated even bigger initial demand for the stocks given the limited supply of shares, said Steven

Leung, an executive director in Hong Kong for investment bank **UOB Kay Hian Securities** PCL. The recent rallies are "beyond their fundamentals and unsustainable," he said. "Investors are advised not to chase these stocks if they're not allotted IPO shares in the first place."

Alvin Cheung, an associate director at Prudential Brokerage, says Most Kwai Chung's IPO was priced at a modest 10 times earnings. While that will support valuation over time, he said that Wednesday's surge is destined to correct.

Mr. Cheung said it is common for once-hot IPOs to drop more than 50% from their initial peak.

The big oversubscription rates also could be inflating potential demand, Mr. Cheung said.

China Merchants' Mr. So said there are a number of threats that Most Kwai Chung faces amid a rapidly changing advertising and online-media market. The company reported a 62% rise in net profit for the year through last March, to HK\$36.3 million. But earnings in the following eight months sank 84% on weaker margins and listing expenses.

# What Fund Managers Can Learn From Vacuum Cleaners

BY MIKE CHERNEY

As investors increasingly turn to low-fee, so-called passive funds that track an index, one leader of a global fund company says actively managed funds should learn from a vacuum-cleaner maker.

Andrew Formica, co-chief executive at **Janus Henderson Group** PLC, an active manager that has about \$370 billion in assets under management,

said the level of customer service in his industry is poor—and that U.K.-based appliance manufacturer Dyson provides a blueprint for a better model.

"I don't know if you've ever had a broken Dyson," Mr. Formica told journalists on a visit to Sydney. Dyson, which manufactures appliances including vacuum cleaners and hair dryers, would send replacement parts to customers who call about repairs, Mr. Formica

said, adding that the company would call back to make sure it is working. "No questions, no quibbles. That is client experience," Mr. Formica said.

He outlined how his firm and other fund managers could apply that approach: Talk to clients more about what is going on in the markets instead of focusing solely on investment returns.

"That is our role, to go back and say: 'There is volatility.'

Don't be surprised. We anticipated it, we're positioning your portfolio, we're working through what it is, these are the changes we're making."

Last year, clients withdrew \$10 billion from the fund manager. Mr. Formica said that was within expectations given the recently completed merger between U.S.-based Janus Capital Group Inc. and U.K.-based Henderson Group PLC.

The merger highlighted the

pressures that active managers face amid the shift to passive index funds. A larger geographic footprint could help active managers attract more clients and lower costs.

Mr. Formica said he aims for Janus Henderson to post net inflows of about 1%—the current industry average—in 2019, which would mean inflows of about \$3 billion to \$5 billion. He said that would be difficult to achieve this year.

## MARKETS

# Gold Gets Bearish Signal From Stocks

Some investors worry as mining shares alter their usual pattern with the metal's price

By AMRITH RAMKUMAR

Shares of gold miners have fared worse than the precious metal itself over the past year—a development that is fueling concern about bullion's ability to keep climbing.

Gold is up 1.4% so far this year, outpacing the S&P 500, which is down 2.6%, and the NYSE Arca Gold Miners Index, which has fallen 7%. The divergence between gold and companies that mine it became particularly pronounced starting in late January, when stocks in other sectors attracted more interest from investors. Among the largest producers, **Barrick Gold** Corp. has fallen 12% year to date.

Typically, gold-mining stocks tend to be more volatile than gold itself. But that usually occurs in a different fashion: Miners tend to experience outsize losses when the gold price is falling and typically overshoot when prices rally.

The current deviation from that trend is a worrying development for investors who are bullish on gold, as it suggests metal prices might not keep rising as interest rates increase.

It also is concerning bullish investors that gold, a haven during market turbulence, is struggling despite recent stock slides on worries about trade disruptions and a decline in long-term bond yields.

While both should be positive for gold, prices fell 1.3% to \$1,324.20 a troy ounce Wednesday in a second straight session of declines. That creates uncertainty about gold's ability to sustain this year's gains.

"As soon as angst leaves the market on something like trade or geopolitical tensions, then gold begins to accommo-

date the fact that we're in a tightening cycle," said James Steel, chief precious metals analyst at HSBC.

Higher interest rates tend to buoy Treasury yields and make gold less attractive by comparison. The dollar has been rebounding, which has cooled some optimism for gold bugs,

analysts said. A stronger dollar makes commodities denominated in the currency more expensive for overseas buyers.

Gold miners have underperformed despite a strong fourth-quarter earnings season and upbeat 2018 projections. One reason is that some of the companies still aren't generat-

ing as much cash as miners of other metals such as copper, analysts said.

In 2017, gold prices had their best year since 2010, allowing many miners to repair their balance sheets. Barrick Gold, the world's largest producer, said it paid down \$1.5 billion in debt, exceeding its

target, while **Newmont Mining** Corp. reported an 8% rise in production from a year earlier.

But the companies still haven't caught up in free cash flow relative to market value, a commonly used metric for evaluating performance, according to Citigroup research.

"It takes some momentum

to get people to come back to a sector that has been beaten as badly as mining has," said Matt Badiali, research analyst at investment research firm Banyan Hill Publishing.

Mr. Badiali said he spoke at a convention in Toronto this month, pointing out that gold miners are cheap following a yearslong slump.

"This crowd was so mad," a sign that sentiment needs to improve before the sector's outlook can brighten, he said.

Sentiment for gold miners has been negative, while investors have largely remained positive on the broader stock market and been drawn to other commodities, from cobalt to oil. "Speculative money has other places to go," Mr. Badiali said.

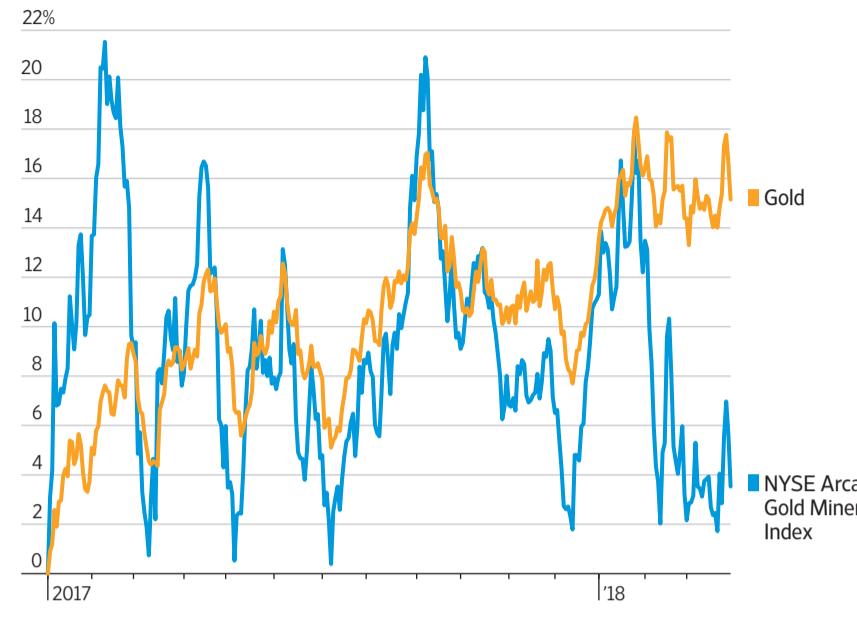
Still, some think gold's climb will continue as money managers seek hedges against inflation and market swings, eventually leading to better performance by the beaten-down miners of the yellow metal.

Gold futures are still 30% below their 2011 all-time highs even after a 14% gain last year, and the VanEck Vectors Gold Miners ETF is almost 70% below its 2011 record.

Bouts of volatility have boosted the exchange-traded fund, which recorded inflows in six straight sessions through Tuesday. And some select gold miners such as Newmont, which is up 13% since the start of last year, have attracted investor interest by demonstrating future production will be steady.

But others think the gold-mining sector will have to demonstrate more consistency to close the gap on gold.

"It's in a very tough spot," said Mark Stoeckle, CEO and senior portfolio manager of Adams Funds. "What some people are doing is assuming that because [mining stocks are] beaten up, they will come back—not necessarily."



The VanEck Vectors Gold Miners ETF had two straight months of money inflows.\*

Monthly inflows/outflows

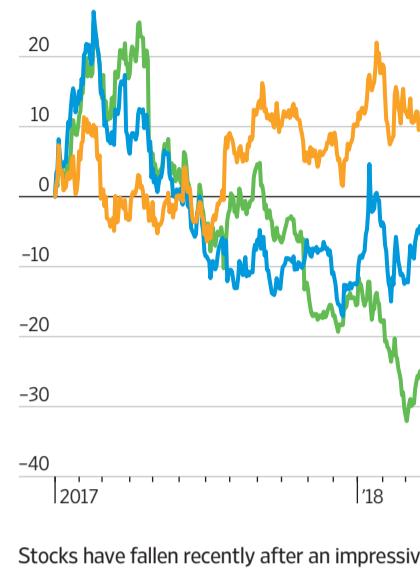


\*Data through Tuesday Note: Cobalt price is based on LME three-month ask contract.

Sources: WSJ Market Data Group (gold, copper, oil); FactSet (fund flows, stocks, indexes); Thomson Reuters (cobalt)

Some large gold miners have fared better than others.

Percentage change since 2016



Stocks have fallen recently after an impressive run, but that hasn't led to a big jump in gold.

Percentage change since 2016



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## HEARD ON THE STREET

FINANCIAL ANALYSIS & COMMENTARY

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# Tesla Is Running Short on Time

## Tailspin

Tesla share price



Production issues are only one part of the problem. The Model 3 doesn't seem to be in as high demand as Chief Executive Elon Musk once promised investors.

Analysts at Bernstein said in a research note last week that fewer than 30% of customers who have been invited to take delivery of the Model 3 have done so.

Meanwhile, the company has racked up about \$10 billion in long-term debt and has \$23 billion in total liabilities. To survive in the long term, Tesla must stop over-promising and to scale back its ambitions to goals it can achieve. Right now, though, it needs more money.

Debt isn't a practical solution given recent bondholder losses. An equity raise is still possible, but the recent sell-off across the tech sector won't help—nor will the unsettling news about the Model 3. If next week's delivery update is worse than feared, the odds of keeping the lights on through this year will get a lot longer.

—Charley Grant

## OVERHEARD

Just when you thought they were out...

A New Jersey landmark of sorts, the Satin Dolls gentleman's club in Lodi, had been threatened since 2011 with a loss of its liquor license, which would have taken some of the spark out of its live entertainment. The club, whose exterior is known to fans of the HBO series "The Sopranos" as the Bada Bing, was finally shut down.

The fictional Tony Soprano got up to no good within its confines. New Jersey state officials alleged years ago that the man who ran the actual establishment, **Anthony "Tony Lodi" Cardinale**, was a convicted racketeer and associated with the Genovese crime family so he couldn't own a liquor license. The club stayed open anyway until December 2017. According to Northjersey.com, Satin Dolls reopened two weeks ago under new management. Mr. Cardinale has no involvement whatsoever—other than collecting rent, as he still owns it.

## EV Maker BYD Has a Rough Road

China, electric vehicles and Warren Buffett have made **BYD** an investor darling for years, but it is struggling to stay in the fast lane.

Shares of the Chinese car maker plunged 11% Wednesday after it said it expects net profit to slump 75% to 92% this quarter. The dive is mostly due to Beijing's decision to cut subsidies for new energy vehicles by 30%—at least until June, when it will bring in a new, stricter regime.

Subsidies accounted for nearly one-quarter of BYD's pretax profit last year. BYD will likely have to clear out some older models at discounted prices. Beijing's new rules aim to encourage car makers to make better electric cars with longer ranges and higher energy density, meaning BYD may have to lift investments.

BYD faces another problem: Its rivals are catching up. BYD sold 15% more new energy vehicles last year than a year before, but the whole Chinese market grew by 53%. Conventional auto makers like **BAIC Motor** and **Geely** have jumped into the market. Local giant **Contemporary Amperex Technology** has overtaken **Panasonic** as the world's largest EV-battery supplier.

BYD has thrived for years as a unique electric-vehicle play in China, but it was never a pure play: 40% of profits came from handset components in 2017 and it still sells quite a lot of gasoline-powered cars. Yet it fetches 21 times forward earnings, while car makers like BAIC are trading at single-digit multiples.

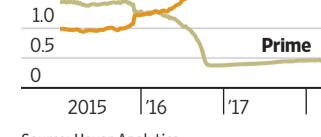
As investors now have more ways to bet on the world's largest EV market, BYD may shed its premium.

—Jacky Wong

# Don't Get Too Alarmed About This Banking Warning Sign

## Safety Switch

Total assets in money-market funds by type



short-term borrowing in commercial-paper markets, which is where people get worried because banks use these for some of their funding.

Some point to the shrinking investor base for so-called prime money-market funds, which are key buyers of commercial paper. However, outflow isn't as damaging as it seems. Prime money funds haven't made their biggest cuts in holdings of commercial paper. Instead they have pulled much more out of certificates of deposit.

In fact, the commercial-paper market hasn't shrunk much overall since the end of 2015—but crucially it has

shrunk since late January when U.S.-dollar Libor has seen its most dramatic rises. Domestic and foreign issuance of financial sector commercial paper also has shrunk in this time, indicating banks are tapping this channel for less funding.

Within this, foreign banks' U.S. arms also have cut commercial-paper issuance, which seems to rule out another theory: that the rate rise is because foreign banks are raising more funding onshore to avoid being caught by some of last year's tax law changes, designed to stop companies relocating revenues to low-tax jurisdictions.

For banks everywhere, the 2008 crisis was a brutal lesson in the dangers of short-term funding. The share of Deutsche Bank's market-based funding that has to be repaid in a year or sooner was down to 38% at the end of 2017 from 52% in 2013.

Barclays cut short-term market funding to 36% from 44% over the period. If Libor keeps rising that will prove a problem for indebted companies and households whose interest costs are linked to it. If defaults rise, that would lead to pain for lenders too. But for banks' own funding, this red light no longer signals imminent danger. —Paul J. Davies

Libor, this measure of how much banks charge to lend to each other, is the rate that shot up during the crisis when a complete failure of trust between banks froze the money markets.

Then there is the cost of

LIBOR, the rate that banks charge to borrow from each other.

LIBOR, the rate that banks charge to borrow from each other.