

# THE WALL STREET JOURNAL.

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

WEDNESDAY, OCTOBER 4, 2017 ~ VOL. CCLXX NO. 80

WSJ.com

★★★★ \$4.00

DJIA 22641.67 ▲ 84.07 0.4% NASDAQ 6531.71 ▲ 0.2% STOXX 600 390.72 ▲ 0.2% 10-YR. TREAS. ▲ 2/32, yield 2.332% OIL \$50.42 ▼ \$0.16 GOLD \$1,271.50 ▼ \$1.20 EURO \$1.1746 YEN 112.85

## What's News

### Business & Finance

**Y**ahoo's 2013 data breach was much worse than previously disclosed, affecting all 3 billion accounts, new parent Verizon said. **A1**

◆ **Berkshire agreed** to acquire a 38.6% stake in truck-stop operator Pilot Flying J, Buffett's latest bet on traditional transportation. **A1**

◆ **Some Facebook accounts** allegedly tied to Russia posted divisive messages as recently as August. **B1**

◆ **Equifax's ex-CEO** testified that executives didn't immediately realize the significance of the data breach. **B1**

◆ **Uber's board** approved steps to strengthen its governance while curtailing its former CEO's influence. **B1**

◆ **Ford plans** to shift about \$7 billion toward the development of more trucks and SUVs. **B3**

◆ **Car sales** hit their fastest pace of 2017, helped by discounts and replacements of storm-damaged vehicles. **B3**

◆ **U.S. stocks extended** gains, boosted by the car-sales data. The Dow rose 84.07 points to 22641.67. **B15**

◆ **Chernin Group** is forming a digital-media platform aimed at fantasy-sports fans and sports bettors. **B1**

◆ **Altria and BAT** are set to run court-mandated ads over misleading statements about cigarettes. **B3**

◆ **Wells Fargo's CEO** defended the bank's handling of its sales-practices scandal before a Senate panel. **B14**

◆ **Samsung is releasing** a virtual-reality headset for Microsoft's Windows platform. **B4**

### World-Wide

◆ **The Las Vegas gunman** planned his attack carefully, stocking his hotel room with high-powered rifles and cameras, authorities said, as investigators continued to search for a motive. **A1, A6**

◆ **Trump commended** rescue workers as he toured Puerto Rico, where the death toll from Hurricane Maria rose to 34. **A3**

◆ **Spain's king accused** Catalan leaders of provoking a possible constitutional crisis with a separatist vote, as thousands protested police actions. **A8**

◆ **The House passed** a Republican-backed bill to ban late abortions on a 237-189 largely party-line vote. **A4**

◆ **Key Senate Republicans** signaled support for Dreamers but want a bill tied to enforcement measures. **A4**

◆ **The Supreme Court** confronted electoral redistricting in a case involving Wisconsin's legislature. **A4**

◆ **The U.S. told** Cuba to withdraw 15 diplomats as Washington probes illnesses of Americans in Havana. **A8**

◆ **A medical report** at a trial in Malaysia detailed the death from nerve gas of Kim's half brother. **A9**

◆ **Mattis said** he supports the Iran nuclear accord, even though Trump has repeatedly denounced the deal. **A18**

◆ **Hamas refused** to disarm, hampering talks with the Palestinian Authority. **A18**

◆ **Three U.S. scientists** won the Nobel Prize for their work in detecting gravitational waves. **A3**

**CONTENTS** Opinion A15-17  
Business News B3-5 Property Report B6-8  
Crossword A14 Sports A14  
Head on Street B16 Technology B4  
Life & Arts A11-13 U.S. News A2-6  
Management B9 Weather A14  
Markets B15-16 World News A8-9,18

4 0 3 3 6 >  
0 78908 63141 1

Copyright 2017 Dow Jones & Company. All Rights Reserved



Makeshift memorials were created on the Las Vegas Strip Tuesday, after a gunman killed 58 people and injured more than 500 others.

## Gunman's Motive Sought

Authorities report multiple rifles and cameras in Paddock's Las Vegas hotel room

LAS VEGAS—The gunman behind Sunday night's massacre on the Las Vegas Strip planned his rampage carefully,

By Jon Kamp,  
Dan Frosch  
and Zusha Elinson

stocking his 32nd-floor hotel suite with an arsenal of pricey, high-powered rifles and multiple cameras, authorities said Tuesday.

Stephen Paddock set up three cameras both inside and

outside his hotel room, including one located on a service cart and another lodged inside the peephole of his hotel door so he could see into the hallway, police said Tuesday.

What the cameras might have recorded remains unclear, but Joseph Lombardo, the Las Vegas Metropolitan Police Department sheriff, said the gunman may have been using them to watch for police descending on his room. The attack "was pre-planned extensively," Mr. Lombardo said.

Investigators still don't know why Paddock, 64 years old, smashed two windows in his suite at the Mandalay Bay Resort and Casino and fired intermittently—for between

### In Wake of Attack

- ◆ Many still in hospitals, some paralyzed..... A6
- ◆ Shooting brought chaos, confusion..... A6
- ◆ Gun modification fueled carnage..... A6

nine and 11 minutes, according to police—onto a crowded country-music festival below.

The gunman's girlfriend, Marilou Danley, is currently in the Philippines and considered a person of interest, Mr. Lombardo said, adding that authorities expected to speak with her shortly.

Paddock wired tens of thousands of dollars to the Philippines in recent weeks, a

federal law-enforcement official said.

Ms. Danley worked from 2010 to 2013 as a casino hostess catering to higher-spending players at the Atlantis Casino Resort Spa in Reno, Nev., according to her LinkedIn page. Monarch Casino & Resort Inc., which owns Atlantis, said she left the company several years ago. The company said it is cooperating with law enforcement.

The shooting was the nation's deadliest in at least half a century. The attack and the chaos that followed left 58 victims dead, according to the Clark County coroner, and more than 500 wounded. Paddock also killed himself, before

Please see ATTACK page A6

## Yahoo Hack Swells to 3 Billion Accounts

BY ROBERT McMILLAN  
AND RYAN KNUTSON

A massive data breach at Yahoo in 2013 was far more extensive than previously disclosed, affecting all of its 3 billion user accounts, new parent company Verizon Communications Inc. said on Tuesday.

The figure, which Verizon said was based on new information, is three times the 1 billion accounts Yahoo said were affected when it first disclosed the breach in December 2016. The new disclosure, four months after Verizon completed its acquisition of Yahoo, shows that executives are still coming to grips with the extent of the security problem in what was already the largest hacking incident in history by number of user accounts.

A spokesman for Oath, the Verizon unit that now includes Yahoo, said the company determined within the past week that the break-in was much worse than thought, after it received new information from outside the company. He declined to elaborate on that information. Compromised customer information included usernames, passwords, and in some cases telephone numbers and dates of birth, the spokesman said.

Ms. Danley worked from 2010 to 2013 as a casino hostess catering to higher-spending players at the Atlantis Casino Resort Spa in Reno, Nev., according to her LinkedIn page. Monarch Casino & Resort Inc., which owns Atlantis, said she left the company several years ago. The company said it is cooperating with law enforcement.

The shooting was the nation's deadliest in at least half a century. The attack and the chaos that followed left 58 victims dead, according to the Clark County coroner, and more than 500 wounded. Paddock also killed himself, before

Please see YAHOO page A4

◆ Lawmakers slam ex-CEO of Equifax..... B1

## Trump Tours Battered Puerto Rico



REACHING OUT: President Donald Trump, at a briefing at Muñiz Air National Guard Base, shook hands with San Juan Mayor Carmen Yulin Cruz, whom he had criticized on Twitter. **A3**

In Texas,  
The Corsage  
Wears You

\* \* \*  
Elaborate 'mums'  
for homecoming  
exceed 20 pounds

By ERIN AILWORTH

When senior Brittany Eicker showed up for her homecoming pep rally last month at Alvarado High School outside of Fort Worth, jaws dropped.

Hanging from her neck was an elaborate decorative bricolage shaped like the state of Texas that overflowed with artificial chrysanthemums, braided ribbons, ornaments, glittery letters, a purple boa and a snow-white teddy bear. It was so big that only her face and feet were visible.

"The mum is ginormous!" says Brittany, 17, an accomplished 6-foot-tall discuss thrower and shot putter. "It's

Please see MUMS page A10

## BASEBALL LEARNS DATA'S DOWNSIDE

Analytics leads to longer games with less action

By BRIAN COSTA  
AND JARED DIAMOND

The owners of America's baseball teams, gathered at a Houston hotel last year, were discussing once again how their games had become so plodding. This time, however, the explanation was different.

Two Major League Baseball officials and a statistician told the group that the sport was being brought to a standstill by the very phenomenon that has revolutionized it in recent years—the embrace of data analytics to drive strategy.

Baseball has never been

more beset by inaction.

Games this season saw an average gap of 3 minutes, 48

seconds between balls in

play, an all-time high. There

were more pitcher substitu-

By NICOLE FRIEDMAN

Warren Buffett's Berkshire Hathaway Inc. made a bet on American truckers with a deal on Tuesday to acquire nearly 40% of the operator of Pilot and Flying J travel centers.

The investment in Pilot Travel Centers LLC, better known as Pilot Flying J, is Berkshire's latest wager on traditional forms of transportation and U.S. economic growth.

The Omaha, Neb., conglomerate already owns BNSF Railway, auto-dealership group Berkshire Hathaway Automotive, car insurer Geico and private-jet company NetJets.

"There will be more goods moving to more people as the years go by in the United

States—that I would bet a lot of money on," Mr. Buffett, Berkshire's chairman and chief executive, said in an interview.

Pilot Flying J is one of the largest private companies in the U.S. The Knoxville, Tenn.-based family-owned company has 750 locations in the U.S. and Canada, offering truckers a place to refuel, eat and shop.

The company said it generates more than \$20 billion in annual revenue and employs 27,000 people.

Pilot has a dominant position in a market with few players, similar to some of Berkshire's other large operating businesses. Regulations and local politics can make it difficult to build new truck stops, even amid high demand,

Please see DEAL page A2

## NHL IS LIVE.

SAP HANA® helps the NHL® bolster fan engagement by delivering 100 years of in-depth stats in a live user experience. So fans feel closer to the ice than ever before.

sap.com/NHLlive



## U.S. NEWS

# Trial Puts New Focus on Payday Lending

BY REBECCA DAVIS O'BRIEN

A federal racketeering trial under way in New York is shedding light on the controversial business of payday lending, a multibillion-dollar industry that some describe as predatory and others defend as a vital service.

Prosecutors allege that Scott Tucker, a Kansas City businessman and race car driver, ran a \$2 billion payday-lending enterprise that illegally charged as much as 700% interest on short-term loans to more than 4.5 million people. Government lawyers say Mr. Tucker's company hid the terms of the loans in deceptive paperwork and used partnerships with Native American tribes to evade state laws.

Lawyers for Mr. Tucker have argued at trial that he formed legal business partnerships with tribes, relying on lawyers to help him navigate an unevenly regulated and unfairly maligned indus-

try. They say the terms of the loans were spelled out in documents and emails to customers. Mr. Tucker's co-defendant, Timothy Muir, is a lawyer who worked for Mr. Tucker's company.

The case could go to the jury by the end of this week, according to a spokesman for the Manhattan U.S. attorney's office. The defense is presenting its case this week.

Much of the evidence presented at trial by the government focused on the particularities of Mr. Tucker's business practice. But hanging above the trial looms a larger question about the value of payday lending—whether it largely offers critical financial help to the uncreditworthy, or preys on those who can least afford its lofty fees.

Payday loans, which carry annual interest rates often approaching 400%, have effectively been made illegal in many states.

In the coming weeks, the



BRENDAN McDERMID/REUTERS

Prosecutors say Scott Tucker's company, AMG Services, illegally charged as much as 700% interest on short-term loans.

Consumer Financial Protection Bureau is set to roll out the federal government's first effort to regulate payday lending.

Lenders have pushed back against the proposed federal regulations, saying that an estimated 10 million to 12 million Americans who take out payday loans every year could

lose access to credit.

This argument has been echoed in Mr. Tucker's trial.

"Payday lending is a lifeline for some people who don't have access to other ordinary lines of credit," for "millions of people who survive on paycheck to paycheck," said James M. Roth, a

lawyer for Mr. Tucker.

Prosecutors from the Manhattan U.S. Attorney's Office have painted Mr. Tucker as a symbol of the industry's worst excesses.

"It's a case about how together both these men built an illegal payday lending empire that took billions of dollars from millions of people who were struggling to get by and how they hid that crime from the law for over a decade," Assistant U.S. Attorney Hagan Scotten said in opening remarks on Sept. 12.

Mr. Tucker then used the proceeds to support an extravagant lifestyle, including a successful side career in racing, prosecutors have argued.

Mr. Tucker and Mr. Muir have each pleaded not guilty to 14 criminal counts, including violations of racketeering and lending laws.

Prosecutors allege that Mr. Tucker's company, AMG Services Inc., and its affiliates tried to skirt state caps on in-

terest rates by using business arrangements with Native American tribes, whose sovereign status means they aren't subject to the same state laws.

Customers ended up on the hook for huge interest payments in part because the loans automatically renewed unless the customer opted out, prosecutors allege.

The government says those terms were deliberately hidden in confusing language on loan documents.

The defense pointed to the language as proof that customers were, in fact, informed of the loans' terms.

"You'll see that the customer was told, 'This loan is going to be renewed,' and if you didn't want to renew the loan, you merely just sent an email," Timothy Muir's lawyer, Thomas J. Bath, said in opening arguments. "Many people didn't do that, but it's not like they didn't have a choice."

—Yuka Hayashi contributed to this article.

## U.S. WATCH

### ENVIRONMENT

#### Planned Mining Ban In West Is Blocked

The Interior Department removed a planned mining ban on 10 million acres in the West that the previous administration had instituted to protect the greater sage grouse, in another major reversal of former President Barack Obama's environmental policies.

The move reopens the potential for mining in Idaho, Montana, Nevada, Oregon, Utah and Wyoming.

The Obama administration had ordered those lands off limits to mining with potential other restrictions to protect the habitat of the sage grouse, a flightless Western bird whose numbers have declined precipitously in recent years.

Many ranchers, miners and other Westerners who make their living off the region's vast federal lands complained the Obama plan was overly rigorous. Environmental groups and their supporters have vowed to fight any weakening of sage grouse protections.

—Jim Carlton

the legislation a day after Facebook turned 3,000 ads over to three congressional committees looking into Russian influence in the presidential election.

Facebook says it is already working to provide users with more information about political ads on its site. "We are open to reviewing any reasonable proposals," a company spokesman said when asked about the bill.

—Associated Press

### WASHINGTON

#### White House Explores Alternatives to SSN

The Trump administration is exploring ways to replace the Social Security number with a safer system based on modern technology in the wake of the Equifax Inc. hack, the White House cybersecurity czar said Tuesday.

Rob Joyce, the White House's cybersecurity coordinator, said one possibility is using cryptographic keys, or a combination of long random numbers, to unlock personal data.

The merit of such numbers is that they could be revoked once they are found to be compromised, he said.

"I feel very strongly that the Social Security number has outlived its usefulness," Mr. Joyce said at a cybersecurity conference hosted by the Washington Post. "It's a flawed system. If you think about it, every time we use the Social Security number, we put it at risk."

Mr. Joyce said he has asked various departments and federal agencies to submit ideas. He didn't provide a schedule for further policy steps.

—Yuka Hayashi

## Chugging Along in Chattanooga



WALK THE LINE: Brown Elementary students crossed East Fifth Street as they walked to school in Chattanooga, Tenn., on Tuesday. Ten area schools have organized events this week in recognition of International Walk to School Day.

## DEAL

Continued from Page One  
has a market capitalization of about \$178 million. TravelCenters shares rose 8.4% to \$4.50 Tuesday.

The deal runs counter to the long-term growth in electric vehicles and self-driving cars and trucks expected by some analysts. Belief in those businesses has helped Elon Musk's Tesla Inc. post a more than 60% stock-price jump in the past year.

At the same time, the trucking industry is working to become more fuel-efficient, which could reduce demand for diesel and other fuels. Revenue at Pilot has dropped from about \$30 billion in 2012 to \$20 billion today, as lower crude-oil prices have led to lower prices for diesel and other fuels that it sells, according to the company.

Even so, Pilot's profit has grown in recent years, according to credit analysts.

Federal limits on the time drivers can operate behind the wheel and a new requirement to electronically log hours could help the business by prompting drivers to stop more frequently, increasing the need for parking spots, food and other amenities.

"They make their money on nonfuel stuff" like food and truck servicing, said Bryan Maher, analyst at FBR Capital Markets & Co. "One could see why Warren Buffett might be attracted to this business, especially if you had an optimistic view of the economy."

Jimmy Haslam, Pilot's chief executive, said in an interview that some of the larger trends around electric vehicles and automation still have a long way to go before becoming mainstream and disrupting the truck business.

"We personally believe—

and we spend a lot of time talking to both truck and car manufacturers—that it will be a long time before there's not a person in the truck," Mr. Haslam said. "I think diesel fuel will power trucks for a long time to come, and there will be a person in that truck for a long time to come."

The acquisition fits into Berkshire's strategy of buying family-owned businesses and leaving the management teams and headquarters in place.

Mr. Buffett has done multi-step acquisitions like this before, including with Marmon Holdings Inc., a Chicago-based industrial company owned by the Pritzker family, in 2007. In that deal, the final acquisition price was based on Marmon's performance. Mr. Buffett declined to detail the terms of the Pilot deal but said it was a "reasonable assumption" that it would be structured similarly.

Mr. Buffett was introduced to Mr. Haslam in May by Byron Trott, whom the billionaire investor has praised in the past. Mr. Trott's firm, BDT Capital Partners LLC, owned a small stake in Pilot. Berkshire is an investor in BDT, which exited the Pilot stake as part

### Hardly Pumped

After reaching a high in 2007, weaker shipping demand along with more efficient technology and driving methods have lowered trucking's fuel consumption.

40 billion gallons



Sources: Bureau of Transportation Statistics (2007-'14); Federal Highway Administration (2015)

THE WALL STREET JOURNAL.

work at the company, Mr. Haslam said.

Mr. Haslam's brother, Bill, is governor of Tennessee. Jimmy Haslam and his wife own the Cleveland Browns football team.

Pilot was shaken by a scandal beginning in 2013 when Pilot staff members were accused of defrauding trucking-company customers that bought diesel at its truck stops by skimming rebate money Pilot owed them. Pilot later accepted responsibility and settled with the federal government for \$92 million.

Mr. Haslam said the company has resolved the issue.

Berkshire held nearly \$100 billion in cash as of June 30, a new high, and Mr. Buffett has been looking for ways to spend it.

Two recent deal efforts fell through. Kraft Heinz earlier this year dropped a \$143 billion offer, which would have been partly backed by Berkshire, for Unilever PLC. And Berkshire's utility arm struck a deal in July to buy Texas power-transmission company Oncor, but the deal was terminated in favor of a higher offer from Sempra Energy.

—Cara Lombardo contributed to this article.

## CORRECTIONS & AMPLIFICATIONS

Phillip Rucks, owner of Phillip Rucks Citrus Nursery, says he sprays trees with the antibiotics streptomycin and oxytetracycline. A Sept. 27 Page One article about Florida's orange-juice industry incorrectly said he used tanks for irrigating trees with the antibiotics.

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

### THE WALL STREET JOURNAL

(USPS 664-880) (Eastern Edition ISSN 0099-9660)

(Central Edition ISSN 1092-0935) (Western Edition ISSN 0193-2241)

Editorial and publication headquarters: 1211 Avenue of the Americas, New York, N.Y. 10036

Published daily except Sundays and general legal holidays.

Periodicals postage paid at New York, N.Y., and other mailing offices.

Postmaster: Send address changes to The Wall Street Journal, 200 Burnett Rd., Chicopee, MA 01020.

All advertising published in The Wall Street Journal is subject to the applicable rate card, copies of which are available from the Advertising Services Department, Dow Jones & Co. Inc., 1211 Avenue of the Americas, New York, N.Y. 10036. The Journal reserves the right not to accept an advertiser's order.

Only publication of an advertisement shall constitute final acceptance of the advertiser's order.

Letters to the Editor: Fax: 212-416-2891; email: [wsjtrs@wsj.com](mailto:wsjtrs@wsj.com)

NEED ASSISTANCE WITH YOUR SUBSCRIPTION?

By web: [customercenter.wsj.com](http://customercenter.wsj.com); By email: [wsjsupport@wsj.com](mailto:wsjsupport@wsj.com)

By phone: 1-800-JOURNAL (1-800-568-7625); Or by live chat at [wsj.com/livechat](http://wsj.com/livechat)

### REPRINTS & LICENSING

By email: [customreprints@dowjones.com](mailto:customreprints@dowjones.com); By phone: 1-800-843-0008

GOT A TIP FOR US? SUBMIT IT AT [WSJ.COM/TIPS](http://WSJ.COM/TIPS)

# THE RESORT AT PELICAN HILL®

## Summer's best

Oceanfront Luxury from \$495  
One Hour from LA in Newport Beach, CA

PELICANHILL.COM  
888.802.1777

## U.S. NEWS

# Trump Cites Maria's Impact on Budget

Touring Puerto Rico, president says costs high but lives saved; Democrats fault him

SAN JUAN, Puerto Rico—President Donald Trump commended rescue workers and passed out supplies to storm victims as he toured Puerto Rico on Tuesday, while also saying that the costs tied to

By Peter Nicholas  
Arian Campo-Flores  
and Natalie Andrews

Hurricane Maria have “thrown our budget a little out of whack,” drawing rebukes from Democrats who called the remarks callous.

During a visit to the island on Tuesday, Mr. Trump suggested that the death toll might have been much higher if not for exemplary rescue and recovery efforts. Officials told Mr. Trump in a briefing that 16 people had died in the storm. After he left, Puerto Rico’s governor announced that the tally had more than doubled, rising to 34, and would likely increase.

Mr. Trump drew a contrast with another deadly hurricane,

Katrina, which devastated New Orleans in 2005 and killed more than 1,800 people. He said that while “every death is a horror...you can be very proud of all your people—all of our people working together.”

The president’s visit came as the administration is expected to request more hurricane relief funding from Congress this week, according to Republican congressional aides, to replenish disaster-relief funds as the nation recovers from being hit by three hurricanes in two months.

In their tour, the president and his wife, Melania, met with Puerto Rican officials before getting a firsthand look at the storm damage. While introducing his budget director, Mick Mulvaney, the president noted that the hurricane has strained the government’s coffers.

“I hate to tell you, Puerto Rico, but you’ve thrown our budget a little out of whack,” the president said. “Because we’ve spent a lot of money on Puerto Rico, and that’s fine. We’ve saved a lot of lives.”

Mr. Trump’s remarks about the recovery costs angered Senate Democratic leader Chuck Schumer of New York.

“Mr. President, enough. Stop blaming Puerto Rico for



President Donald Trump arrives in San Juan, Puerto Rico, to survey damage from Hurricane Maria.

the storm that devastated their shores, and roll up your sleeves and get the recovery on track,” Mr. Schumer said. “I don’t remember the president telling Texas that they threw our budget out of whack after Harvey. Or Florida after Irma.”

Mr. Trump spent part of the day greeting residents and lis-

tening to accounts of the recovery effort. His first meeting brought him face-to-face with the San Juan mayor, Carmen Yulin Cruz, whom he criticized on Twitter after she had said the federal government’s response was jeopardizing lives.

When the president and Ms. Cruz met Tuesday, they ex-

changed pleasantries, with Mr. Trump asking, “How are you?” and then thanking the mayor.

Later, asked by CNN about Mr. Trump’s comments on the budget impact, Ms. Cruz said it “doesn’t make you feel good” and showed his “lack of sensibility.” At the same time, she said she had productive

conversations with Office of Management and Budget staff and the head of the Small Business Administration, Linda McMahon, who accompanied Mr. Trump on the trip.

After his motorcade stopped at Calvary Church in Guaynabo, on the island’s northern coast, Mr. Trump passed out packages of rice and then pantomimed shooting baskets as he tossed paper-towel rolls into the crowd.

Zoribel López, a 37-year-old customer service representative in San Juan, questioned how heartfelt Mr. Trump’s commitment was to Puerto Rico and whether he regarded the U.S. territory on par with the states.

“I think he truly believes we’re immigrants and we don’t deserve the same federal aid,” she said.

But Wilfredo García González, a 30-year-old computer-engineering student from the hard-hit town of Toa Baja, said he thought Mr. Trump had responded effectively to the storm. He stood outside the San Juan convention center wearing a “Make America Great Again” hat and carrying a sign that read in part: “make Puerto Rico great again!”

## Three Win Physics Prize for Gravity Work

By ROBERT LEE HOTZ  
AND DAVID GAUTHIER-VILLARS

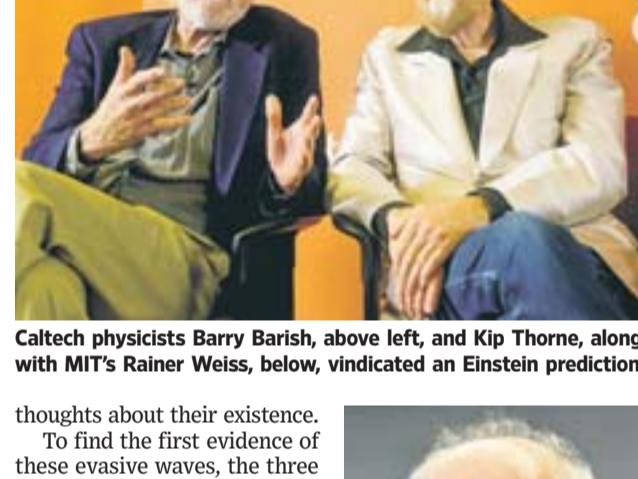
Three U.S. scientists won the Nobel Prize for physics for their instrumental role in detecting gravitational waves, an effort that blossomed from a student’s question into one of the most elaborate experiments in the history of science.

Rainer Weiss, a physicist at the Massachusetts Institute of Technology, shared the award with physicists Kip Thorne and Barry Barish at the California Institute of Technology.

Through their work, the trio vindicated a century-old prediction by Albert Einstein and established a new way to probe the hidden recesses of space, time and the universe. Göran K. Hansson, secretary-general of the Royal Swedish Academy of Sciences that awards the Nobel Prizes, called it “a discovery that shook the world.”

“That’s really wonderful,” said Dr. Weiss, a native of Germany who is now a U.S. citizen, after learning of the award at home on Tuesday. “The thing that is recognized is the work of about a thousand people.”

By Einstein’s reasoning in 1916, any accelerating mass ought to stir the exotic soup of space and time, generating ripples that radiate at the speed of light. No one, though, could detect these gravitational waves and even Einstein had second



Caltech physicists Barry Barish, above left, and Kip Thorne, along with MIT’s Rainer Weiss, below, vindicated an Einstein prediction.

thoughts about their existence.

To find the first evidence of these evasive waves, the three physicists organized and managed a project that took 40 years of sustained federal funding by the U.S. National Science Foundation, the work of researchers in 15 countries, and the construction of two identical detectors 1,800 miles apart, called the Laser Interferometer Gravitational-wave Observatory. The installations—one in Hanford, Wash., and the other in Livingston, La.—operate in tandem.

In 2015, the \$1.1 billion observatory picked up a fleeting cosmic distortion caused by gravitational waves from the clash of two black holes on the far side of the universe.

In an instant, the colliding black holes released many times more energy than all the stars in the universe put together, but by the time the wrinkle in the fabric of spacetime reached Earth a billion light years away, it was much

tinier than an atomic nucleus, the Nobel Prize committee said. Even so, the detectors caught the feeble quiver.

“It is equivalent to seeing light for the first time,” said physicist Robbert Dijkgraaf, director of the Institute for Advanced Study in Princeton, N.J., where Einstein once worked.

Dr. Weiss pioneered the design of the detector, inspired by a student’s question during an introductory physics class he taught at MIT. Dr. Thorne developed and refined many of the physics concepts. Dr. Barish managed the large team of scientists and engineers required to build the devices and analyze the data they collected. Scottish physicist Ronald Drever, who was a co-founder of the project, died in March.

Traveling at the speed of light, the gravitational waves they detected took 1.3 billion years to reach Earth, but already they are revolutionizing astrophysics, said Catherine O’Riordan, chief executive of the American Institute of Physics in College Park, Md.

The award, announced by the Nobel Committee in Stockholm, comes with a check for 9 million Swedish krona (\$1.1 million). Dr. Weiss, an emeritus professor at MIT, will receive half of the prize money; Dr. Barish and Dr. Thorne, both emeritus professors at Caltech, will share the other half.

Our quest for perfection.  
PanoMaticLunar



[www.glashuette-original.com](http://www.glashuette-original.com)

German Watchmaking Art since 1845.

**WEMPE**  
EXQUISITE TIMEPIECES & JEWELRY  
ESTABLISHED 1878

700 FIFTH AVENUE & 55TH STREET • NEW YORK • 212.397.9000

Hamburg Berlin Munich Düsseldorf Frankfurt London Madrid Paris Vienna Beijing

OPEN SUNDAYS 12 TO 5

SAKS FIFTH AVENUE  
CELEBRATES  
**ITALIAN  
STYLE**  
WITH ATTICO

*Saks  
Fifth  
Avenue*

THE EXTRAORDINARY  
ITALIAN STYLE



## U.S. NEWS

# Justices Confront Legislative Maps

By JESS BRAVIN  
AND BRENT KENDALL

WASHINGTON—The Supreme Court confronted the hard-edged politics of electoral redistricting, with justices divided Tuesday over whether judicial intervention to stop extreme gerrymanders posed a greater threat to democracy than allowing legislative majorities to manipulate precinct maps to their advantage.

"If you can stack a legislature in this way, what incentive is there for a voter to exercise his vote?" said Justice Ruth Bader Ginsburg, a liberal who has long viewed partisan gerrymanders as a blot on the Constitution.

The map at issue, drawn by Wisconsin Republicans after the 2010 census, eliminates competitive districts and "pre-ordains" results in most of the state, she said.

But Chief Justice John Roberts said a loss for Wisconsin would prompt a torrent of gerrymandering claims nationally, infecting the judiciary with a political taint.

"We will have to decide in every case whether the Democrats win or the Republicans win," the chief justice said, reflecting conservative justices' longstanding reluctance to tinker with legislative mapmaking. "That is going to cause



The Wisconsin State Capitol in Madison, where Republicans kept their majority after 2012 races.

would pass the test.

Wisconsin Solicitor General Misha Tseytlin said Mr. Smith's test "would merely shift districting from elected public officials to federal courts, who would decide the fate of maps based upon battles of experts." Chief Justice Roberts was more dismissive, calling the Smith approach "sociological gobbledegook."

But Justice Elena Kagan observed that legislators themselves use similar measurements to draw maps exploiting partisan advantage, and she said courts could do the same.

The court has never found a partisan gerrymander unconstitutional, but it has struck down electoral districts because they are unequal in population or discriminate against minorities. Conservatives suggested Wisconsin Democrats were seeking to stretch claims beyond previous precedents.

But as in 2004, Justice Kennedy said he was interested in exploring a different approach—one that viewed gerrymanders as an infringement of First Amendment rights to speech and association.

Justice Kennedy asked no questions of Mr. Smith, but twice during Wisconsin's argument he returned to the First Amendment approach.

A decision is expected by June.

# House Backs Ban On Late Abortions

By MICHELLE HACKMAN

WASHINGTON—The House passed a bill to criminalize abortions performed after 20 weeks of pregnancy, advancing a core plank of the Republican antiabortion push, which has President Donald Trump's support but might founder in the Senate.

Republicans advanced the bill on a 237-189 largely party-line vote Tuesday, the third time that similar legislation has passed the House since 2013.

Republican leaders acknowledge the bill isn't likely to become law soon, given the difficulty of mustering the necessary 60 votes in the Senate. Republicans hold a 52-48 majority in that chamber and would face a challenge in attracting Democratic votes. If the bill passed, it would also face a constitutional challenge under the Supreme Court's Roe v. Wade ruling that legalized abortion.

The bill's proponents hope that in holding the vote, they can raise the issue's profile and put lawmakers on the record before the 2018 midterm elections.

"If this bill is signed into law, we know that unborn babies in this country will survive," said Carol Tobias, president of the National Right to Life Committee, an antiabortion group. "But it's also an educational tool."

Mr. Trump secured the support of many social conservatives when he promised in the 2016 campaign to adopt the antiabortion movement's top priorities, including the ban on abortions after 20 weeks.

On Monday evening, his administration endorsed the legislation, saying, "The bill, if enacted into law, would help to facilitate the culture of life to which our nation aspires."

Democrats said that women aren't terminating their pregnancies lightly. "There is no call for mass abortions," said Rep. Sheila Jackson Lee (D., Texas). "The women who are undergoing these procedures are women who have prayed" and consulted with their faith leaders and family, she said.

Democrats also complained about the vote's timing, given the Sunday night shooting in Las Vegas and post-hurricane recovery efforts under way in Puerto Rico. "This is a time for Congress to be focused on solutions, working together and doing everything we can to help those who are suffering rebuild and recover," said Sen. Patty Murray (D., Wash.).

Republicans say that a 20-week ban would help avoid abortions that are performed when a fetus can experience pain and may be viable. The bill would exempt those undertaken when the life of the mother is at risk or in cases of rape and incest.

Abortion-rights backers say research shows that sensory structures aren't developed enough in fetuses at 20 weeks to feel pain, and that fetuses aren't viable at 20 weeks.

Kristina Peterson contributed to this article.

# 'Dreamers' Gain GOP Support—with Caveats

By LAURA MECKLER

WASHINGTON—Key Senate Republicans signaled support for legislation allowing so-called Dreamers to stay in the U.S., but said they want it paired with immigration enforcement inside the U.S., as well as border security.

Those conditions would make finding agreement difficult. Democrats say they want Congress to legalize young undocumented immigrants brought to the U.S. as children but they oppose tying the program to enforcement measures beyond border security.

Debating the issue at a hearing of the Senate Judiciary Committee on Tuesday, Republicans offered lists of enforcement measures that they suggested might be included in a package with the Dreamer program. Sen. John Cornyn (R., Texas) said young people "should not be penalized for being brought here illegally through no fault of their own." But he added what he called a "big caveat."

"Before we provide legal status to these young people, we must reassure and actually regain the public confidence that we're serious when it comes to enforcing the law and securing our borders," he said.

The committee's chairman, Sen. Charles Grassley (R., Iowa), suggested provisions such as requiring all employers to use the e-Verify system to check whether potential employees have authorization to work, making it easier to deport criminals and speeding up deportation for asylum seekers who can't prove their claims. "I'm confident that if everybody is reasonable, we



Sen. John Cornyn (R., Texas), left, with Sen. Lindsey Graham (R., S.C.) during a Senate Judiciary Committee hearing on Tuesday.

can reach a solution," he said.

At the same time, Trump administration officials sided with Democrats on another issue, saying it was a bad idea to give people legal status without the ability to become citizens, contradicting Republicans who are advocating that approach as a middle ground.

"Creating second-class citizens or people who never are able to naturalize is not a good model," said Michael Dougherty, assistant secretary for border immigration and trade policy at the Department

of Homeland Security.

The issue of these young immigrants took on urgency last month when Mr. Trump ended the Obama-era program called Deferred Action for Childhood Arrivals, or DACA. Under a six-month phaseout, some 690,000 young people in the program will begin losing their protection from deportation and work permits starting in March. Those whose two-year permits expire before March 5 are allowed to renew one more time, with a deadline to submit applications set for Thursday.

Democrats said they would negotiate but that Republicans shouldn't try to include every enforcement idea on their list.

"Please do not put the burden on the Dreamers to accept every aspect of comprehensive immigration reform (in order) to have a chance to become citizens of the United States. That's too much to ask," said Sen. Dick Durbin (D., Ill.), an original sponsor of the Dream Act that inspired the Dreamer moniker.

As Thursday's deadline to sign up for renewals ap-

proached, immigrant advocates were helping people fill out paperwork, and pro-immigration lobby groups were highlighting the issue. The group Fwd.us, for example, flew in about 115 young Dreamers from 25 states to lobby members of Congress.

"How would you feel if you were one of those Dream Act kids knowing the only thing between you and certainty is Congress?" Sen. Lindsey Graham (R., S.C.) asked administration officials at the Senate hearing Tuesday.

ing business.

In addition, Yahoo's former Chief Executive, Marissa Mayer, gave up her 2016 cash bonus following the incident and the company's top lawyer, Ronald Bell, resigned after a board review found problems with the company's handling of this and the other breaches.

Ms. Mayer couldn't immediately be reached. In a statement at the time, she said she learned that a "large" amount of user data was stolen in September 2016. Mr. Bell didn't immediately respond to a request for comment.

About 43 consumer class-action lawsuits have been filed against the company relating to these security incidents, Yahoo said in a May SEC filing. The SEC itself has opened an investigation into whether Yahoo should have reported the two incidents sooner to investors.

The Oath spokesman said the new disclosure won't affect the terms of Verizon's acquisition, in which it agreed to evenly split with Altaba costs and liabilities related to any lawsuits from consumers or partners about the breaches.

Altaba retains liability for the SEC investigation and any shareholder lawsuits.

The status of the SEC investigation is unclear. The SEC issued guidance in 2011 that required companies to disclose material information about cybersecurity issues, and legal experts have said the agency has been looking for a case to clarify what type of conduct would warrant an enforcement action. The SEC on Tuesday declined to comment.

In the May SEC filing, Yahoo also said it is "cooperating with federal, state, and foreign governmental officials and agencies seeking information and/or documents" about the incident, including the Federal Trade Commission, the SEC, the U.S. Attorney's Office for the Southern District of New York, and two State Attorneys General.

Bob Lord, who oversaw cybersecurity at Yahoo, left the company last month. He didn't immediately respond to a request for comment. Chris Nims, who previously worked at AOL, now oversees cybersecurity for all of Oath, and works closely with Verizon's Ms. McMahon.

# YAHOO

Continued from Page One  
personal information about their customers.

On Tuesday, lawmakers slammed former Equifax Inc. Chief Executive Richard Smith for his company's handling of a data breach that affected more than 140 million consumers. The Securities and Exchange Commission and the accounting firm Deloitte also disclosed major hacks in recent weeks.

The number of individuals affected by the 2013 attack is smaller than 3 billion, because some people have multiple accounts across Yahoo's sites, including email, fantasy sports, Tumblr and Flickr, the spokesman said. He said Oath will immediately begin notifying by email users who own the additional roughly 2 billion accounts. That is expected to take several days, he said.

Victims won't need to take additional action, however, because Yahoo already forced all account holders to reset their passwords after the December 2016 disclosure.

Verizon's chief information security officer, Chandra McMahon, said in a statement the company is "committed to the highest standards of accountability and transparency" and that Yahoo's cybersecurity team was benefiting from Verizon's "experience and resources."

The disclosure is the latest chapter in a long-running saga that tattered the reputation of a former Silicon Valley icon and continues to spawn problems for its new owner. It began in September 2016, two months after Verizon agreed to acquire the fallen internet pioneer, with Yahoo first disclosing a separate attack that took place in 2014 and affected 500 million accounts. Yahoo later revealed the larger 2013 incident.

The breaches already have been costly for Yahoo, and lawsuits and a regulatory investigation could add to that. Verizon agreed to buy it in mid-2016 for \$4.83 billion, but the deal was delayed after Yahoo's disclosure of the two large hacks, plus a third incident in which hackers forged digital files, called cookies, that could have been used to access 32

## Breaking In

New information about the 2013 Yahoo hack triples the number of accounts affected in the largest data breach in history.

Selected data breaches by number of consumers/user accounts

COMPANY	SIZE OF BREACH	YEAR DISCLOSED
Yahoo*	2 billion newly disclosed	2016-17
Yahoo*	3 billion	2016-17
Yahoo*	500 million	2016
Equifax	143	2017
Heartland Payment Sys.	130	2009
LinkedIn	117	2016
Sony	100	2011
TJX	90	2007
Anthem	80	2015
J.P. Morgan	76*	2014
Target	70*	2013

\*Believed to be separate incidents †Millions of households ‡Initial disclosure

Source: the companies

THE WALL STREET JOURNAL

million user accounts.

Verizon knocked \$350 million off the deal price as a result of those breaches, ultimately paying \$4.48 billion. When renegotiating the price, executives at Verizon built into their assumptions that Yahoo's entire user base had been breached, but didn't find the evidence until now, a person fa-

miliar with the matter said.

The deal closed in June 2017, and Verizon gave up its right to sue the entity that sold Yahoo, now called Altaba Inc., over any allegations that it had covered up the hacks. Yahoo now operates alongside AOL in Verizon's Oath subsidiary, which is seeking to build a digital media and advertis-

# TRADE WITH A CLEAR ADVANTAGE.

	FIDELITY	TD AMERITRADE	SCHWAB	E*TRADE
<b>Online U.S. equity* and option trades</b>	<b>\$4.95</b>	\$6.95	\$4.95	\$6.95
<b>Online options (per contract rate)</b>	<b>\$0.65</b>	\$0.75	\$0.65	\$0.75
<b>Lowest margin rates<sup>†</sup></b>	<b>4.25%</b>	6.50%	6.00%	5.75%
<b>Leader in displaying price improvement on trades</b>	<b>Yes</b>	No	No	No
<b>Barron's Best Online Broker in 2016 &amp; 2017<sup>‡</sup></b>	<b>Yes</b>	No	No	No

Table compares pricing for retail investors.

Trade  
for just **\$4.95**

**OPEN AN ACCOUNT GET 500 FREE TRADES<sup>‡</sup>**  
Visit [Fidelity.com/AlwaysBe](http://Fidelity.com/AlwaysBe) or call 800.Fidelity



\*\$4.95 commission applies to online U.S. equity trades in a Fidelity retail account only for Fidelity Brokerage Services LLC retail clients. Certain accounts may require a minimum opening balance of \$2,500. Sell orders are subject to an activity assessment fee (from \$0.01 to \$0.03 per \$1,000 of principal). Other conditions may apply. Employee equity compensation transactions and accounts managed by advisors or intermediaries through Fidelity Clearing & Custody Solutions® are subject to separate commission schedules. See [Fidelity.com/commissions](http://Fidelity.com/commissions) for details.

<sup>†</sup>4.25% rate available for debit balances over \$1,000,000. Fidelity's current Base Margin Rate, effective since 6/16/2017, is 7.325%.

<sup>‡</sup>Sell orders are subject to an activity assessment fee (from \$0.01 to \$0.03 per \$1,000 of principal). Trades are limited to online domestic equities and options and must be used within two years. Options trades are limited to 20 contracts per trade. Offer valid for new and existing Fidelity customers opening or adding net new assets to an eligible Fidelity IRA or brokerage account. Accounts receiving \$100,000 or more will receive 500 free trades. Account balance of \$100,000 must be maintained for at least nine months; otherwise, normal commission schedule rates may be retroactively applied to any free trade executions. See [Fidelity.com/ATP500free](http://Fidelity.com/ATP500free) for further details. Fidelity reserves the right to modify these terms and conditions or terminate this offer at any time. Other terms and conditions, or eligibility criteria may apply.

Options trading entails significant risk and is not appropriate for all investors. Certain complex options strategies carry additional risk. Before trading options, please read *Characteristics and Risks of Standardized Options*, and call 800-544-5115 to be approved for options trading. Supporting documentation for any claims, if applicable, will be furnished upon request.

There is an Options Regulatory Fee from \$0.04 to \$0.06 per contract, which applies to both option buy and sell transactions. The fee is subject to change.

Among listed competitors, Fidelity is the only broker to display price improvement. Price improvement details provided for certain domestic stock and single-leg option orders entered during market hours after the primary opening, provided there is a National Best Bid and Offer (NBBO) at the time the order is placed. Price improvement details are provided for informational purposes only and are not used for regulatory reporting purposes. See [Fidelity.com](http://Fidelity.com) for more details.

Commission comparison is based on published website commission schedules for retail accounts, as of 3/13/2017, for E\*Trade, Schwab, and TD Ameritrade for online U.S. equity trades. For E\*Trade: \$6.95 per trade for 0 to 29 trades per quarter and \$4.95 per trade for 30 or more trades per quarter. For TD Ameritrade: \$6.95 per market or limit order trade for an unlimited amount of shares. For Schwab: \$4.95 for up to 999,999 shares per trade, though orders of 10,000 or more shares or greater than \$500,000 may be eligible for special pricing. Employee equity compensation transactions and accounts managed by advisors or intermediaries through Fidelity Clearing & Custody Solutions® are subject to different commission schedules. Commissions are subject to change without notice. See each provider's website for any additional information and restrictions.

<sup>‡</sup>Barron's, March 20, 2017 and March 19, 2016 Online Broker Surveys. 2017: Fidelity was evaluated against 15 others and earned the top overall score of 35.6 out of a possible 40. The firm was also named best online broker for Long-Term Investing (shared with 2 others), Best for Novices (shared with 1 other), and Best for Investor Education (shared with 2 others). Fidelity was also ranked 1st in the following categories: Trading Experience & Technology (shared with 2 others), Mobile (shared with 1 other), Research Amenities, and Portfolio Analysis and Reports (shared with 2 others). 2016: Fidelity was evaluated against 15 others and earned the top overall score of 34.9 out of a possible 40.0. Fidelity was also named Best Online Broker for Long-Term Investing (shared with one other), Best for Novices (shared with one other), and Best for In-Person Service (shared with four others), and was ranked first in the following categories: trading technology; range of offerings (tied with one other firm); and customer service, education, and security. Overall ranking for both years based on unweighted ratings in the following categories: trading experience & technology; usability; mobile; range of offerings; research amenities; portfolio analysis and reports; customer service, education, and security; and costs.

Fidelity Brokerage Services LLC, Member NYSE, SIPC. © 2017 FMR LLC. All rights reserved. 791958.70

## MASSACRE IN LAS VEGAS

# Many Still in Hospitals, Some Paralyzed

LAS VEGAS—Nearly 48 hours after the deadly shooting rampage in Las Vegas, scores of victims remained in hospitals on Tuesday, with dozens in critical condition, including at least two paralyzed patients, according to hospital officials.

Sunrise Hospital & Medical Center said it carried out 10 surgeries on patients with head injuries, some of whom were in grave condition. "We won't know for a few days, what level or how far along they are," Dave MacIntyre, Sunrise Hospital's medical director, said in an interview.

"They are the most serious."

Dr. MacIntyre said two of his patients have been paralyzed with gunshot wounds to the back, and some patients are now requiring a second round of surgery, particularly those with complicated abdominal wounds.

Of the 214 patients Sunrise received, 67 remain in the hospital, with 33 in critical condition, officials said. Another 15 patients died, they said.

Stephanie Davidson, an anesthesiologist, said she was so rushed dealing with the initial flood of patients that she didn't realize they were coming from the Route 91 Harvest music festival until she noticed the patients' cowboy boots.

"I had a moment when I re-

alized I had five or six friends that go to that every year and I had this fear that I was going to see one of their faces," she said.

Kevin Menes, an emergency-room physician, recalled seeing patients arrive in pickup trucks, taxis and Uber cars, in addition to ambulances. At the height of the trauma, patients were brought to him and he worked on them in a circle, with him in the center.

Authorities have said Sunday night's mass shooting outside the Mandalay Bay Resort and Casino killed at least 58 victims and wounded more than 527. The gunman also killed himself.

At least three hospitals fielded casualties in the hours after the attack.

At the University Medical

Center of Southern Nevada, trauma surgeon Syed Saquib said a relative calm had returned to the hospital after a frantic rush of more than 100 patients in the immediate after-

**Patients arrived in pickups, taxis and Uber cars, in addition to ambulances.**

math of the massacre.

"The vast majority of our injuries were blunt penetration injuries from gunshots," Dr. Saquib said.

The hospital said a dozen of

its patients from the shooting remained in critical condition Tuesday. Those patients generally suffered major bleeding, intestinal injuries or brain injuries from gunshot wounds, said Deborah Kuhls, a surgeon and director of the hospital's trauma intensive-care unit.

"I would say all those people are doing better today," Dr. Kuhls said.

About 50 victims of the shooting remain at University Medical Center, including two pediatric patients aged 16 and 17, who aren't in critical condition, officials said. About 40 people have been discharged since Monday.

Irene Guerrero, from Rialto, Calif., visited her best friend at the hospital Tuesday. She said

she and Jennifer Campas went to the concert together, a rare just-the-girls outing for the life-long friends.

Ms. Guerrero, who struggled to hold back tears as she described their escape, said her friend was shot in the face but is expected to survive. She said after Ms. Campas was shot, the pair struggled to keep running. A stranger in the crowd offered Ms. Campas a wheelchair, she said, and a man helped them into a vehicle and drove them to a safe spot where Ms. Campas could be treated by paramedics and rushed to the hospital.

Their rescue driver visited Ms. Campas on Monday, Ms. Guerrero said, and continued to check on the pair Tuesday.

## ATTACK

*Continued from Page One*  
a SWAT team breached his suite, police said.

Also on Tuesday, authorities said they had recovered 47 firearms linked to Paddock, including 24 they say he brought to his hotel room and others found in his Nevada homes. They said the retiree and avid gambler also had in one of his Nevada homes large stockpiles of ammunition and an explosive that detonates when shot by bullets. Ammonium nitrate, a fertilizer that can be used to make explosives, was found in his car.

A law-enforcement official said Paddock had top-of-the-line weapons in his hotel room, which the official estimated were worth at least \$20,000 in total.

Federal Bureau of Investigation agents and other authorities spent the past two days retracing Paddock's movements to discern his motives and preparations. They obtained security video showing him hauling luggage into the Mandalay Bay hotel and to his room on more than a half-dozen occasions, a law-enforcement official said. Investigators said they believe the bags contained firearms.

They also said he visited several casinos in Las Vegas during the past few weeks. He placed bets that total in the tens of thousands of dollars, the official said. The precise amount isn't yet known. But officials surmise it was more than \$150,000 based on the number of currency transaction reports they have obtained detailing transactions that surpassed \$10,000, which is legally required.

Paddock was a consistent gambler but he wasn't in debt and his account was up-to-date at Mandalay Bay before Sunday night's shooting, according to a person familiar with the investigation.

He had frequented Mandalay Bay over the past year, coming at least every other month to play video poker primarily, the person said. He was likely among the top 10% of gamblers at that casino during the past year, in terms of the amount wagered, the person said.

"He gambled, he was consistent, he paid his bills consist-



FBI officials on Tuesday started their second day investigating the scene in Las Vegas. The shooting on Sunday night was the deadliest in the U.S. in at least 50 years.

### Gun Modification Fueled the Carnage

Gun enthusiasts, apparently including the Las Vegas shooting suspect, have found a cheap way to mimic scarce and costly automatic weapons—"bump stocks," which modify semiautomatic rifles.

The devices, legal in Nevada and costing a couple hundred dollars, had attracted little attention until the massacre at a music festival Sunday. Law-enforcement officials told The Wall Street Journal and other outlets that suspect Stephen Paddock appears to have used

at least one rifle outfitted with a bump stock, allowing him to fire hundreds of rounds a minute from the windows of his hotel room on the 32nd floor of the Mandalay Bay Resort & Casino.

Semiautomatic firearms shoot one bullet for each trigger pull, while automatic weapons fire bullets continuously with one pull.

Federal law bars civilians from owning an automatic weapon made after 1986. The few available for purchase can cost \$10,000 or more, gun experts said. They must be registered with the federal government, and owners have to submit photos and fingerprints

to the Bureau of Alcohol, Tobacco, Firearms and Explosives.

A bump stock replaces the ordinary stock of a semiautomatic rifle, the end of the gun that is held against the shoulder. The device allows the firearm to slide back and forth rapidly, as the shooter leans into it, harnessing the energy in the recoil. The trigger "bumps" into the finger, faster than it can be pulled.

The ATF has categorized bump stocks as a firearm part and not subject to the same regulations as fully automatic weapons. An ATF spokeswoman declined to comment.

—Joe Palazzolo and Zusha Elinson

tently, and returned," the person said.

Paddock was also a Seven Stars rewards member in Caesars Entertainment Corp.'s rewards program, which is the highest tier based on the amount and frequency of play, according to another person

familiar with the investigation. The person wasn't familiar with any outstanding debt issues at Caesars properties.

Eric Paddock, the suspect's brother, said "he gambled for 20-plus years successfully. It's like a job for him. He did it mathematically, he did it be-

cause it was a way to have a fun life and he didn't go poor doing it."

He said Tuesday the family is still stunned and struggling to make sense of Paddock's actions.

"Believe me, I sympathize with everybody on grasping"

to understand Paddock's motive, he said. "Who on this planet do you think is grasping for this understanding more than me?"

On Tuesday, President Donald Trump, before heading to hurricane-battered Puerto Rico, said that the response by police as the carnage unfolded Sunday "was really very much of a miracle." The GOP president, who plans to visit Las Vegas on Wednesday, also said, "we'll be talking about gun laws as time goes by."

Jill Snyder, special agent in charge for the San Francisco division for Bureau of Alcohol, Tobacco, Firearms and Explosives, which is working the case, said a dozen of the rifles found in Paddock's hotel room were outfitted with a "bump stock," a device that allows the weapon to fire at a rapid rate.

Ms. Snyder said the weapons were bought in Nevada, California, Texas and Utah.

A law-enforcement official said there wasn't any initial indication that Paddock had purchased any of the guns ille-

gally, though investigators were working to determine whether illegal modifications had been made to the weapons.

The massacre unfolded on a Sunday night, just after 10 p.m. local time, while country-music singer Jason Aldean was wrapping up his show below the Mandalay Bay. Body camera footage released by police late Tuesday showed officers pinned down by gunfire and trying to locate where the shooting was coming from.

The shooting shut down the Las Vegas Strip for hours, transforming an area near the city's main drag, typically jammed with tourists, into a gruesome mass-casualty scene. Local hospitals struggled to care for hundreds of badly wounded patients who flooded emergency rooms.

Hospitals were inundated with hundreds of those injured either from gunshot wounds or from the rush to try to escape.

—Chris Kirkham, Cameron McWhirter, Del Quentin Wilber and Kate King contributed to this article.

# Shooting Brought Chaos, Confusion

BY ZUSHA ELINSON

LAS VEGAS—A minute after the first reports of shots fired at the country-music festival here Sunday night, a police officer called out the precise location of the gunfire over the radio: "I see the shots coming from Mandalay Bay. Halfway up."

But almost at the same time, another officer called in: "We have an active shooter inside the Fairgrounds," referring to the area where 22,000 fans gathered for the concert.

What followed was chaos, with police officers scrambling in several directions amid reports of multiple shooters at many locations. Shots fired inside the New York, New York hotel and casino. A possible explosive in a car at the Luxor valet. An active shooter reported at the Tropicana. Those reports turned out to be false.

In the confusion, Stephen



An injured person being tended to after a mass shooting in Las Vegas late Sunday. Many victims remained in the hospital Tuesday.

close to the shooter. "We're taking gunfire....So we're pinned down here with a bunch of civilians," an officer said.

Other officers dealt with thousands of panicked concertgoers while encountering the wounded. "I also have another female. She's been shot, looks like in the mouth," an officer says.

Reports from guests inside the Mandalay and patrol offi-

"We can't worry about victims," came the response. "We need to stop the shooter before we have more victims."

Some panicked victims tried to take police cars to escape or remove the rifles from police vehicles. "All units, make sure your vehicles are locked," an officer says.

Reports from guests inside the Mandalay and patrol offi-

cers outside helped point them toward the shooter, officials said. A team of six officers along with security guards searched the 29th and the 32nd floor until they found the room, Mr. Lombardo said. "Officers on their own, without direction of a supervisor, knew what they had to do," he said.

A security guard came to

the door of Paddock's suite and was met with gunfire, said Mr. Lombardo. The guard was hit in the leg and then everyone retreated.

A SWAT team came and breached the room with an explosive. They found Paddock dead on the floor with a self-inflicted gunshot wound to the head, law-enforcement officials said.



# Protecting Our Community from Election Interference

We take the trust of the Facebook community seriously. We will fight any attempt to interfere with elections or civic engagement on Facebook.

## Immediate actions we're taking:

### 1. Making advertising more transparent

We are building new tools that will allow you to see the ads a Facebook Page is running, including ads that aren't targeted to you directly.

### 2. Strengthening our ad policies and enforcement

We are adding more than 1,000 people to our global ad review teams, requiring more thorough documentation from advertisers who want to run US federal election-related ads, and expanding our policies around violence in ads.

### 3. Investing in security

We will more than double the team working to prevent election interference on Facebook and develop new technologies dedicated to security and safety.

### 4. Sharing the ads we've found with Congress

We shared more than 3,000 ads that appear to have come from a Russian entity known as the Internet Research Agency.

### 5. Continuing our internal investigation

We are working to further our understanding of how foreign groups may have misused Facebook in order to prevent further abuse.

### 6. Fighting threats across the internet

We recognize this is a global, industry-wide problem so we are sharing threat information with other companies. Any actor trying to misuse Facebook is likely trying to abuse other internet platforms and we need to work together.

### 7. Expanding our partnerships with election commissions

We are working with election commissions around the world to proactively communicate online risks we've identified.

### 8. Supporting elections globally

We have been actively working to help protect the integrity of elections on Facebook around the world.

### 9. Building civic engagement tools

We will build even more tools to empower our community to engage in political discourse, and to protect them when they do.

# WORLD NEWS

## Spain's King Admonishes Catalan Leaders

Felipe VI says regional politicians' secession push breached 'rule of law' as protests swell

BY JEANNETTE NEUMANN  
AND MARINA FORCE

BARCELONA—The king of Spain accused leaders in the region of Catalonia of pushing the country toward a constitutional crisis on a day when hundreds of thousands of Catalans mobilized to protest the actions of Spanish police.

"They breached the democratic principles of the rule of law and they have undermined the harmony and coexistence in Catalan society and, unfortunately, divided it," King Felipe VI said in a televised statement to Spaniards on Tuesday evening. "They have attempted to break the unity of Spain and national sovereignty."

The king, Spain's head of state, threw his support behind Prime Minister Mariano Rajoy for working to uphold the rule of law after Catalonia on Sunday held a referendum on independence that Madrid deemed illegal and sought to block.

Catalonia's leaders have since been preparing to announce a potential split with Spain, triggering one of the country's greatest political crises in decades.

In the latest escalation of an increasingly tense conflict, police unions said an estimated 500 Spanish officers had been forced out of hotels in several Catalan towns since Monday after protesters gathered near



Firefighters protesting Tuesday in Barcelona as Catalonia held a general strike to protest Spain's bid to block Sunday's secession vote.

ALEJANDRO GARCIA/EFE/ZUMA PRESS

their lodgings, jeering and demanding that they leave the region. The protesters' appeal was echoed by Catalan President Carles Puigdemont, leader of the separatist push.

"Let's hope for sanity," said Alfonso Merino, spokesman for a police union in Catalonia. The officers retreated to nearby hotels and police barracks.

The tensions rose after Spain's central government ordered the officers to extend their stay in Catalonia through at least Oct. 11 as Mr. Rajoy weighs how to respond to a potential declaration of independence from the restive and wealthy region. The central government sent thousands of additional police officers to

Catalonia last week to fulfill court orders to seal polling stations and seize voting material such as ballot boxes during Sunday's outlawed referendum on a split with Spain.

Even before the referendum, many Catalans felt uneasy about the heightened presence of police, many of them billeted in two ferries in

Barcelona's port and a third in the city of Tarragona.

That unease exploded into anger after police clashed with voters during Sunday's vote. Nearly 900 people were injured in clashes, according to regional authorities.

An estimated 300,000 protesters gathered in Barcelona midmorning. Other towns in Catalonia saw protests

by tens of thousands supporters of independence. Hundreds of thousands more gathered again Tuesday evening.

"The Catalan people are united in protesting peacefully against the repression seen during the vote," said Laura de la Torre, a 22-year-old student demonstrating in Vilassar de Mar, a town of 21,000 inhabitants outside Barcelona.

While criticizing their leaders, King Felipe called on Catalan citizens to embrace a joint effort to improve Spanish democracy, rather than rejecting it and trying to break away. "On this path for a better Spain that we all seek, Catalonia will also be there," he said.

Mr. Rajoy's government says the police dispatched to the restive region are necessary to uphold the rule of law. Madrid says the referendum breached the constitution, and courts have ruled that no region can hold a unilateral vote on a split with Spain.

The reception the police received in Catalonia is at odds with the support some of them received as they left their homes in the rest of Spain to the cheers of neighbors waving red and yellow Spanish flags in the days leading up to the Oct. 1 vote.

While many Spaniards say they are troubled by the clashes between police and voters in Catalonia, most say no region should be able to break away from Spain.

Separatist groups and some unions also led a general strike in Catalonia. Traffic was snarled on nearly 50 roads blocked in Barcelona.

## U.S. Orders Cuba to Withdraw Diplomats

BY FELICIA SCHWARTZ  
AND JOSÉ DE CÓRDOBA

WASHINGTON—The State Department told Cuba to withdraw more than half of its diplomats from Washington, another sign of deteriorating ties as the Trump administration investigates what happened to more than 20 U.S. diplomats and family members who suffered dizziness, hearing loss and other symptoms while serving in Havana.

The State Department provided Cuba's ambassador to Washington with a list of 15 officials the U.S. wants to leave the U.S. and gave those officials seven days to depart, a department official said on Tuesday.

The order came after the U.S. last week began withdrawing about half of its contingent in Havana, leaving only emergency personnel. The State Department official said the expulsion of Cuban officials was meant to ensure the Cuban Embassy in Washington is similarly affected.

"This move does not signal a change of policy or a determination of responsibility for the attacks on U.S. government personnel," a State Department official said. "The decision on expulsions was taken due to Cuba's inability to protect our diplomats in Havana as well as to ensure equity on the impact on our respective operations."

Cuban Foreign Minister Bruno Rodriguez blasted the decision at a news conference in Havana, saying it wasn't based on evidence, was political and would have a negative impact on bilateral relations, which have already taken a turn for the worse since Donald Trump became president.

While Washington hasn't blamed Cuba for what it calls "attacks" that sickened the Americans in Havana, officials said the Cuban government failed to protect the U.S. contingent and that the administration wants assurances that the attacks have been stopped.

The State Department said at least 22 Americans, including officials and family members, have been affected, suffering symptoms that also have included sleeplessness and cognitive problems. The number and description of those affected have fluctuated.

## Separatist Ambitions Are Not New to Europe

BY VALENTINA POP

BRUSSELS—Catalonia's bid to secede from Spain is the most dramatic example in years of the tensions between regions and national governments that have long plagued the continent—and that the European Union has sought to address.

EU leaders this week came down firmly on the side of Spain's national government, while also decrying the violence of police efforts to suppress a Catalan independence referendum Sunday. Madrid calls the vote illegal, and the EU endorses that stance.

For many years, however, EU policies—and the very existence of the EU—gave regional governments a greater voice and sense of identity. The EU has promoted cross-national projects, funded preservation of waning local languages and dialects, and provides a forum for local leaders through a



the Scottish first minister and said the nation "won the right to be heard in Brussels."

But backlash from Spain and other countries wary of their own secessionist movements prompted Mr. Juncker, the EU's top executive, to fall back in line and say Scotland couldn't hope for any special membership deals.

In parts of Eastern Europe that joined the EU after shedding communism, Brussels, where most EU institutions are based, supported regions with ethnic minorities that faced potential persecution. Under pressure from the EU, Romania—home to 1.2 million Hungarians—and Slovakia, where nearly 10% of the population speaks Hungarian, reached agreements to protect their Hungarian populations.

In the Balkans, the EU coaxed former foes Serbia and Kosovo to talk to each other if they wanted to eventually join the bloc one day. The EU main-

tains that it doesn't accept any new members before they solve their regional or ethnic conflicts.

Catalonia's separatists are staunchly pro-EU, and its leaders have appealed for the EU to mediate between them and the central government in Madrid. But EU officials, who take orders from national leaders, have rejected any move that might be seen as endorsing Catalonia's separatism.

While the European Commission, the EU's executive arm, supported Madrid against Catalonia, in other, less-powerful EU institutions there remained more sympathy for the region. On Wednesday, the European Parliament will debate the events in Catalonia.

Several EU lawmakers have written to the commission saying Brussels should threaten Spain with a procedure that could result in sanctions, including suspending its right to vote.

## U.K.'s Rosy Outlook on Brexit Contrasts With EU Concerns

British government ministers presented an upbeat picture of the U.K.'s prospects outside the European Union, as European lawmakers said too little headway had been made in Brexit talks to allow discussions to begin on a future trade deal with the U.K.

By Jason Douglas in Manchester, England, and Laurence Norman in Brussels

The contrast reflects the continuing divisions between London and Brussels over the terms of Britain's divorce from the bloc ahead of a critical juncture this month, when European leaders are due to decide whether negotiators can move to discussions over trade and other relations between the EU and U.K. post-Brexit.

Addressing party members and activists at the ruling Conservative Party's annual conference in Manchester, England, U.K. International Trade Secretary Liam Fox offered an optimistic vision of a post-Brexit Britain forging new trading partnerships.

Mr. Fox said discussions on trade with the U.S., Australia and New Zealand have begun, and delighted the party rank-and-file by saying "naysayers"

who said last year's Brexit vote would be followed by economic turmoil "got it wrong."

Boris Johnson, foreign secretary and a favorite among party members, in the closing speech of the day, described Brexit as "a democratic revolution" that will usher in "a cultural and technological and commercial renaissance" in Britain.

David Davis, Brexit secretary, pledged to fight demands for money from Brussels to settle unpaid commitments to the bloc "line by line," though he acknowledged that Brexit talks are complex and that "one error could cost the taxpayer billions of pounds."

He, too, played up the U.K.'s post-Brexit prospects, saying he is optimistic about reaching

a deal with the EU, but reiterated the government's position that Britain is willing to walk away from talks without agreement if one can't be reached.

The remarks came hours after lawmakers at the European Parliament in Strasbourg voted overwhelmingly for a resolution saying too little progress had been made in Brexit talks to allow discussions to begin on a future trade deal with the U.K., highlighting frustration within the EU at the pace of negotiations.

The vote isn't binding on the EU's negotiating team, which will take its cue on advancing talks from EU leaders. Leaders are due to meet to decide on this issue Oct. 20 and 21.



30 DAY Risk Free Trial | FREE Shipping | \$100 off

Free footrest with code: FreeFootrest

BuyXchair.com | 844-4-XCHAIR | Corporate Discounts Available



Boris Johnson calls Brexit 'a democratic revolution' for the U.K.

JOEL GOODMAN/LONDON NEWS PICTURES/ZUMA PRESS

## WORLD NEWS

# Trial Details Death of Kim's Half Brother

BY BEN OTTO  
AND YANTOULTRA NGUI

KUALA LUMPUR—A medical report and testimony delivered at trial in Malaysia revealed new details about the brutal death of the half brother of North Korea's leader, after he was assaulted with the lethal VX nerve agent that quickly took effect and killed him.

The 11-page postmortem report, prepared by a government pathologist two days af-

ter the assault, was submitted as evidence on Tuesday in the trial of two women accused of murdering Kim Jong Nam. The report concluded the victim died due to VX poisoning "following the acute onset of exposure," citing lab reports that showed traces of the man-made substance and its precursor on his skin, eyes and clothing.

Mr. Kim, the self-exiled older brother of North Korean dictator Kim Jong Un, died on Feb. 13 shortly after Siti Ai-

syah of Indonesia and Doan Thi Huong of Vietnam assaulted him at Kuala Lumpur International Airport.

Malaysian officials have said that the women were acting under the direction of North Koreans and exposed Kim Jong Nam to VX, which is classified by the United Nations as a weapon of mass destruction. North Korea has denied involvement in the killing.

The women pleaded not guilty in the first day of pro-

ceedings on Monday. Their lawyers have said the women believed they were taking part in a prank for a television show.

They would face execution if convicted of murder, which carries a mandatory death penalty in Malaysia.

The postmortem report, parts of which were seen by The Wall Street Journal, concluded the victim died due to VX poisoning.

The report showed laboratory tests detected VX nerve

agent and its degradation product on mucous samples taken from Mr. Kim's eyes and face, as well as VX degradation product in his blood and urine.

The precursor of VX was also detected on Mr. Kim's short-sleeve shirt, the report said, and all three chemicals were found on his blazer.

The precursor is a less-toxic chemical substance that when mixed with another substance forms lethal VX, which can be delivered as such a binary

weapon to enable safer handling.

The report said Mr. Kim had "no significant marks of trauma" on his body apart from marks of medical intervention. It referred to Mr. Kim by the name on his passport, Kim Chol.

VX is the most potent of nerve agents, according to the Centers for Disease Control and Prevention, and even a tiny amount absorbed into the skin or eyes or inhaled can be lethal.

## Beijing Gets a Makeover to Usher In a New Emperor



**CHINA'S WORLD**  
By Andrew Browne

BEIJING—One question above all dominates the outlook for China as Xi Jinping prepares to crown his ascendancy at a Communist Party congress this month: What will he do with his new power?

Some argue that Mr. Xi will emerge in his second term as an economic reformist, finally delivering the pro-market overhauls he promised at the outset of his administration five years ago. A few even imagine a more benign political environment after a relentless crackdown on human-rights lawyers, the media and civil-society groups.

None of this is likely. The clues to China's economic and political direction are to be found in a radical makeover now under way in urban

Beijing. Not since Mao has a Chinese leader's personality so completely dominated the life of his nation. Today, Beijing is being transformed in his image—a new capital for the new emperor whose reign seems destined to extend long beyond 2023, when informal succession rules dictate he should step down as head of state.

The work began with the roar of jackhammers some months ago as demolition crews ripped apart illegal structures in downtown alleyways erected by an army of migrants. Authorities call it "beautification." In reality, it is population control on an almost unimaginable scale: An over-crowded city is being thinned out and reimaged as the cultural hub of a megalopolis, a series of cities linked by rail, subway and highways that will eventually embrace 130 million people.

In the face of bulldozers, tens of thousands of migrants—second-class citizens in the capital, many of them denied access to schools and medical services—are fleeing outward. Central Beijing will be for the elites, with gleaming convenience stores where migrants had peddled



Premier Li Keqiang, left, and President Xi Jinping celebrate on the eve of the Oct. 1 National Day holiday.

MARK SCHIEFELBEIN/ASSOCIATED PRESS

steamed dumplings and bicycle-repair services.

This is Mr. Xi's signature domestic project. It is an exercise in gigantism that requires centralized, top-down control.

The crown experiment of this state planner's dream will be a new supercity—the Xiongan New District—personally decreed by Mr. Xi on Beijing's southern outskirts. Xiongan will be the coordinating hub for the develop-

ment of the wider megalopolis, which will double as the economic engine for north China as well as a portal for Mr. Xi's even more gargantuan "One Belt, One Road" project to revive ancient trade routes to Europe.

Where do markets fit in here? Mr. Xi hasn't altogether neglected them. For example, he has taken steps to liberalize interest rates and attempted to free energy prices.

But like Mao, he clings to

the dogma that the party's role is to guide economic forces, direct every aspect of political life and mold human behavior. The vanguard of his economic policies are state-owned enterprises, entrusted with almost limitless state wealth and endlessly obedient.

In case private-sector billionaires—tech entrepreneurs, insurance tycoons and real-estate moguls—have yet to get that message, Mr. Xi's ap-

paratchiks are now dismantling the empires of several of the most powerful ones. Wang Jianlin, one of China's richest men, has been a prominent target. Others have come to heel.

Many argue that the plan to unclutter Beijing was sorely needed. The city's boulevards, wide enough for a tank parade, are choked with traffic. A traffic jam from the city once extended 60 miles, with reports of truck drivers stranded for as many as 10 days. Wells are running dry. The smog kills.

Others, however, lament an emerging dystopia. In an essay that went viral on the internet titled "Beijing Has 20 Million People Pretending to Live Here," the blogger Zhang Guochen wrote: "For Beijing's new immigrants, the city is a distant place where they can't stay; for Beijing's old residents, the city is an old home they can't return to."

An inevitable apology followed; the renovation blitz under way around Mr. Xi's new capital leaves little space for public consultation, criticism—or regret. "This is an article with many problems," Mr. Zhang told the Economic Observer. "In fact, I didn't intend to express anything."

## Investigators Blast Response To 2014 Malaysia Air Crash

BY ANDY PASZTOR  
AND ROB TAYLOR

International air-safety authorities and the aviation industry haven't done enough to prevent another disappearance like that of Malaysia Airlines Flight 370, Australian crash investigators said.

In their final report on the March 2014 tragedy—which killed all 239 people on board and after a fruitless yearslong search stands as one of aviation's greatest mysteries—investigators Tuesday pointed to missed opportunities to better track jetliners over oceans or remote regions of the globe.

The report, by the Australian Transport Safety Bureau, highlights failures to install advanced systems to warn when aircraft are in distress, or mandate more-durable locator devices to aid searches if planes go down. Australia assumed primary responsibility to oversee the search, which took place off its west coast.

Segments of the industry have objected to such changes, particularly those requiring continuous streaming of flight data and retrofits of equipment on older planes, largely for cost reasons. The aviation arm of the United Nations has

### Fate of Flight 370 Remains a Mystery

Malaysia Airlines Flight 370 was about 40 minutes into a flight to Beijing from Kuala Lumpur when it stopped transmitting its position to air-traffic controllers without any distress call from the cockpit. The jet flew for more than six hours beyond the last time its location was established by ground-based

surveillance, eventually running out of fuel in a remote corner of the Indian Ocean, according to investigators.

An expensive, frustrating and ultimately unsuccessful underwater hunt for the remains followed, the search area shifting as fresh clues emerged. Neither the main wreckage of the Boeing Co. 777 nor its flight-data recorder was found, and the search was halted in January in a joint decision by Australia, Malaysia and China.

—Rob Taylor

established new tracking standards, but they won't take effect until 2018, and the most rigorous requirements apply only to future aircraft models.

Malaysia Airlines said it hadn't been informed of the report's release, so it couldn't comment on its conclusions.

Without the wreckage, the report said, the cause of the loss of Flight 370 can't be established with certainty. A team of investigators failed to determine what led the jet to veer off course, with possibilities including system failures and intentional acts by someone at the controls.

"It is almost inconceivable

and certainly societally unacceptable in the modern aviation era, with 10 million passengers boarding commercial aircraft every day," for such a plane to go missing without definitive answers, the 440-page report said.

Much of the report dwells on details of the 1,046-day search, which covered 48,000 square miles and used cutting-edge underwater mapping techniques to scour depths of up to 3.7 miles—half again as deep as the wreckage of the Titanic. It cost \$155 million, the report said, 58% paid by Malaysia, 10% by China and the rest by Australia.

## Canberra to Boost Naval Defenses

BY ROB TAYLOR

CANBERRA, Australia—Australia will equip a new fleet of naval warships with advanced air-defense technology, allowing them to work more closely with U.S. and Japanese counterparts to offset threats in the Asia-Pacific region, such as missiles fired by North Korea.

Nine antisubmarine frigates are set to be fitted with combat systems to aid their integration into a possible future missile shield, Prime Minister Malcolm Turnbull said Tuesday.

The technology will enable these ships "to engage threat missiles at long range, which



Australian Defense Force/REUTERS

Adelaide-class frigates of the Australian navy sail near Darwin.

is vital given rogue states are developing missiles with advanced range and speed," Mr. Turnbull told a naval conference in Sydney. "We must have the capability to meet and defeat them," he said.

A 35 billion Australian dol-

lar (US\$27 billion) fleet of frigates to be selected next year from three contenders will be equipped with Lockheed Martin Corp.'s Aegis combat system, already used by U.S. and Japanese naval vessels, Mr. Turnbull said.



Set it free at Drexel University. Our unique academic design and cooperative education program turn students into professionals with real experience at the world's leading corporate, research and cultural institutions. Ordinary students take tests. At Drexel, you will test the world.

[drexel.edu/AmbitionCantWait](http://drexel.edu/AmbitionCantWait)

## IN DEPTH

# DATA

*Continued from Page One*  
begins, there is little economic incentive for owners to change. MLB remains buoyed by a combination of lucrative, long-term television-rights agreements and taxpayer-funded stadiums. League revenues exceeded \$10 billion in 2016, a record. Attendance remains strong, with regular-season games drawing around 30,000 fans on average.

### Aging audience

The issue is where MLB is headed. Baseball's television audience, the oldest among major North American professional sports, had a median age of 57 in 2016, according to a study of Nielsen data by the ad-buying agency Magna Global. That age, which has remained about the same in 2017, is up from a median of 52 in 2006.

Only 7% of baseball viewers were between the ages of 2 and 17, according to the study, which puts MLB closer to horse racing (5%) than to professional basketball (11%).

MLB spokesman Pat Courtney says television audience isn't the sole measure of the league's future health, since such audiences tend to skew older. He points to a recent uptick in youth baseball participation, after a long-running decline, and the popularity of MLB's mobile app, which is opened more than eight million times a day.

Even optimists in the industry agree that youth interest and pace of play are related to one another and central to MLB's future. The long-term concern is that baseball teams, which rely on ticket revenue for a larger portion of overall income than other pro team sports, could eventually have difficulty filling the seats in their stadiums.

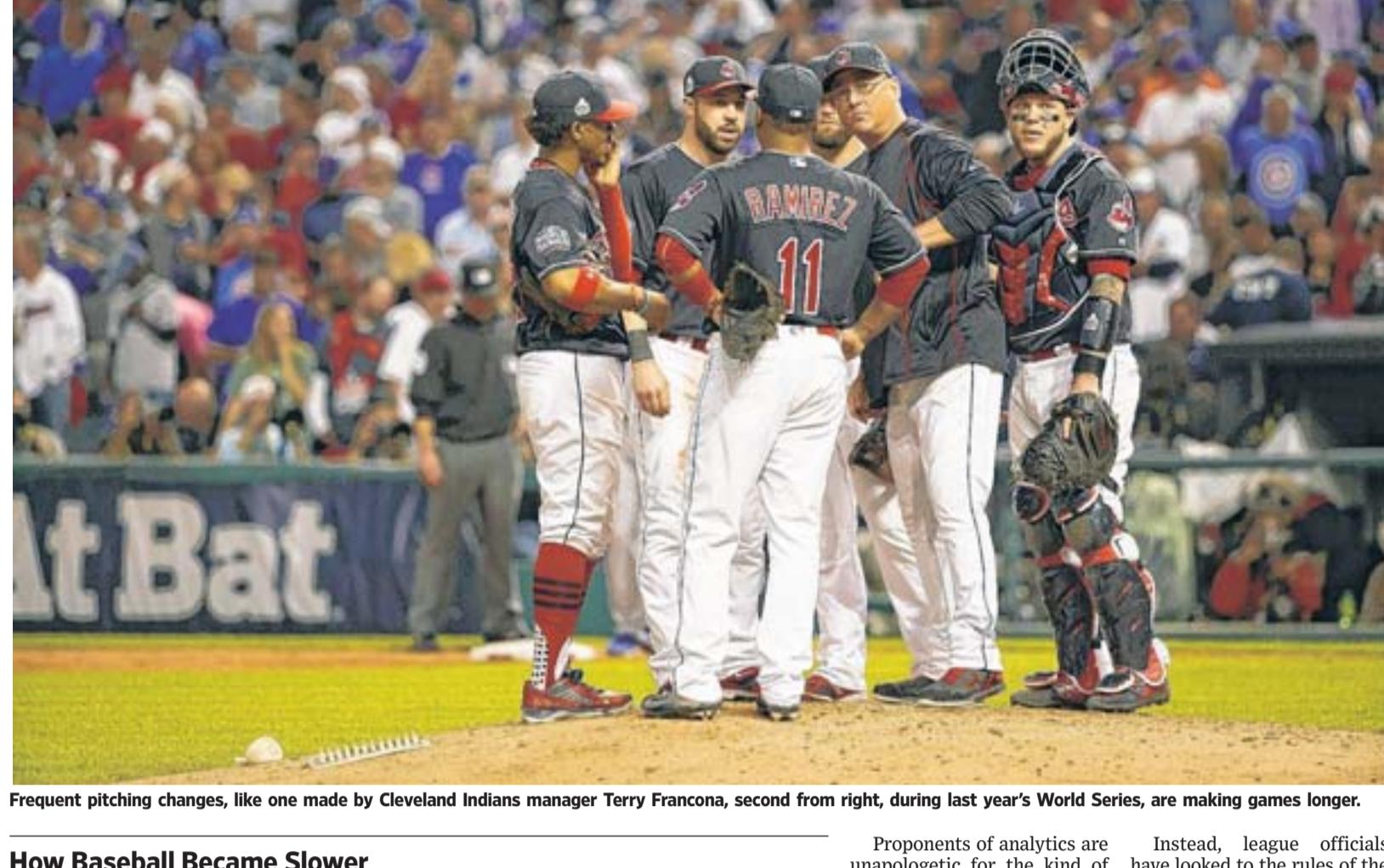
The league is considering installing a pitch clock in 2018 to penalize pitchers who take too long to throw the ball, among other measures.

"We all want to shorten the game and make it more appealing," says Houston Astros general manager Jeff Luhnow. "We want baseball to be popular with generations to come. We absolutely care."

The use of analytics, which has increased dramatically since the early 2000s, is one of baseball's most acclaimed developments. Team front offices, once the domain of ex-players, are more commonly staffed with Ivy League graduates. Data science has become an integral part of many teams' decision-making. Top executives have landed seats on corporate boards and given paid speeches to business groups.

The search for competitive edges in a growing trove of information has also resulted in the kind of game MLB didn't intend to create.

On July 30, the Tampa Bay



Frequent pitching changes, like one made by Cleveland Indians manager Terry Francona, second from right, during last year's World Series, are making games longer.

### How Baseball Became Slower

Over the past 30 years, a confluence of changes to the way baseball is played has resulted in longer games and a slower pace of play.



Note: All data from 2017 regular season, through Oct. 2. Length of game based on nine-inning games only. Figures on time between balls in play include between-innings breaks. Home runs not counted as balls in play.

Sources: Stats LLC; Fangraphs.com

Rays took 3 hours, 51 minutes to defeat the New York Yankees, 5-3, in nine innings. Six times, the game was halted in the middle of an inning for a pitching change. There were more strikeouts and walks than balls in play, which came about once every 5 minutes, 47 seconds.

Statistics showing precisely when starting pitchers become less effective have prompted teams to remove them from games earlier than before. That has increased one of the biggest drags on pace of play: pitching changes. Regular-season games this year saw an average of 8.4 pitchers used between both teams, an all-time high. That's up from 5.8 pitchers a game 30 years ago.

Moreover, the pitchers being added are the slowest: The average reliever takes 1.5 seconds longer between each pitch than the average starter. Though most measures of pace of play have been kept for decades, pitch-tracking cameras have enabled more detailed analysis for about the past 10 years.

Analytics, in promoting strikeouts as an optimal out-

come, have extended the battle between pitcher and hitter. Teams increasingly value pitchers who can generate swings and misses, because other kinds of outs require varying degrees of good defense and good fortune. Strikeout levels have reached record highs for 10 years in a row.

Pitchers "are not allowing you to put the ball in play as much as they used to," says Yankees third baseman Chase Headley. "That's a huge change."

### Defensive shifts

Hitters aren't as interested in routine ground-ball hits, either, a trend driven in part by two analytic insights. The first was more data on hitters' tendencies, which prompted teams to position their fielders in extreme ways. That so-called defensive shifting has made a ground ball less promising as a means of reaching base.

The second was a revelation born of a statistic that only recently came into existence—the launch angle. Radar and camera measurements of the

angle at which balls leave the bat have shown that the optimal swing angle looks more like an uppercut than many hitters preferred. Hitters, in turn, have started swinging for the fences in droves. Home runs this season reached a record level.

That all-or-nothing approach means that between each home run there is a lot of standing around and waiting. Some classic displays of athleticism—a daring attempt by a runner to advance more than one base on a teammate's hit, for instance—have become rarer.

"I get excited for those plays, but they are getting lost," says former major-league pitcher and current TBS broadcast analyst Ron Darling. "There's a real collective, conservative style of play that doesn't lend well to the aesthetics of the game."

More than one-third of all plate appearances this season ended in either a home run, a strikeout or a walk, the most ever. There were around 3.9 pitches thrown per batter, also the highest on record.

Proponents of analytics are unapologetic for the kind of baseball they have helped create. "I wouldn't call that bad. I would call that progress," says Billy Beane, the longtime Oakland Athletics executive featured in the 2003 book "Moneyball" and portrayed by Brad Pitt in the 2011 film adaptation. "I just think the game is as good as it's ever been."

There are anecdotal signs that even older, avid fans are growing impatient. Shannon Prior, 48 years old, of Morrisstown, N.J., has written a blog about his favorite team, the New York Mets, since 2008. This year, in addition to watching fewer games, he made a rule. At 10 p.m., typically just short of three hours after the first pitch is thrown, he would stop watching, regardless of the score, which caused him to miss the end of all but a handful of games. He cited the abundance of pitching changes.

According to one member, the committee has explored a range of possibilities that could diminish some of the impact analytics have had on pace of play. Among the options discussed were a ban on defensive shifts, restrictions on pitching changes and shrinking the strike zone, this person says.

The changes Mr. Manfred is pushing for are less dramatic. In addition to the pitch clock, he said at a recent news conference, MLB is discussing with the players' union a limit on visits to the pitcher's mound and shortening breaks between innings. He declined to comment further.

Those tweaks would represent a more conservative approach than some other professional sports leagues have taken. When the National Basketball Association wanted to improve its style of play, it changed its defensive rules.

When the National Football League wanted to create more of a highflying spectacle, it added an array of new restrictions on defense.

Even baseball, bound by traditions as it is, lowered the pitcher's mound in 1969 to boost scoring.

"Other sports are always tinkering with the game to make it more entertaining," says Mets general manager Sandy Alderson. "We don't do any of that."

Instead, league officials have looked to the rules of the game for remedies. Earlier this year, MLB commissioner Rob Manfred appointed a 16-member committee comprising owners, team presidents, general managers and field managers to suggest potential changes.

According to one member, the committee has explored a range of possibilities that could diminish some of the impact analytics have had on pace of play. Among the options discussed were a ban on defensive shifts, restrictions on pitching changes and shrinking the strike zone, this person says.

The changes Mr. Manfred is pushing for are less dramatic. In addition to the pitch clock, he said at a recent news conference, MLB is discussing with the players' union a limit on visits to the pitcher's mound and shortening breaks between innings. He declined to comment further.

Those tweaks would represent a more conservative approach than some other professional sports leagues have taken. When the National Basketball Association wanted to improve its style of play, it changed its defensive rules.

When the National Football League wanted to create more of a highflying spectacle, it added an array of new restrictions on defense.

Even baseball, bound by traditions as it is, lowered the pitcher's mound in 1969 to boost scoring.

"Other sports are always tinkering with the game to make it more entertaining," says Mets general manager Sandy Alderson. "We don't do any of that."

# MUMS

*Continued from Page One*  
not as heavy as it looks, but when I saw it, I was like, 'my back is going to hurt for a week.'

Wearing mums, a homecoming decoration that started as a simple chrysanthemum, is a Texas tradition. But like many things in the Lone Star State, it is exhibiting a tendency to grow larger.

Modern mums have not only exploded in size, they usually contain no real flowers. The biggest ones resemble samurai armor more than corsages. Lisa Campbell, the designer who assembled Brittany's mum, says that after consulting Brittany and her mother, it took about 14 hours to make. Final cost: \$650.

People used to make their own mums, or buy them off the shelf at Kroger, and many still do. But as the arms race has escalated, a new class of mum manufacturing experts has been working around the clock during homecoming season to craft massive, personalized versions that can cost several hundred dollars.

"A homecoming mum to some of these girls is like their wedding dress," says Elizabeth Cleaver, who has been making mums for high schoolers in the Houston region for nearly 30 years.

Ms. Cleaver, known to clients as "The Mum Queen," says she starts prepping for homecoming orders in January. Last

homecoming season she made some 420 mums. "I have smaller mums; nobody buys them," she says, admitting a preference for the look of a single-flower mum even as she showed off her more complex creations.

The custom remains biggest in Texas, but as Texans have moved around it has spread to other states, including Alabama, Louisiana, Colorado and Virginia, mum makers say. One recently shipped mum supplies to a family in Korea.

Replicas made of silk have largely replaced the real blooms. Teddy bears have become a mainstay of the centerpiece, often dressed to represent a particular hobby (Brittany's was posed in a shot putter's stance). Trinkets, such as a megaphone, a football or a camera, are added to showcase other interests.

The creations can be heavy—sometimes as much as 20 or 30 pounds—so girls often wear them with a sturdy lanyard around their necks. Boys, who commonly get mums designed to match their dates' mums, have it a little easier: their mums are smaller and worn via a garter around the upper arm.

Some students, often with family help, order their own mums, while others exchange mums with their dates. Because they're so big, modern mums usually aren't worn to the dance. Students typically wear them to school the Friday before the dance, and to the football game.

Ryan Porter, 18, a senior at



High-school senior Brittany Eicker with her Texas-shaped mum.

Prosper High School, north of Dallas, says the mum spectacle is an integral part of homecoming.

"I love to hear the cowbells in the hallway," he says of the popular mum accessory. "It's honestly so loud, you have no idea." His mum, which will be

edging toward outrageousness.

"It has kind of gotten, I think, a little too much—but that's just me," says Gayle Currie, who, along with her husband, runs ACI Distributing & Manufacturing, which provides specialty designers and big craft chains like Michaels Cos. and Hobby Lobby Stores Inc. with mum-making components. She grew up wearing mums made with real flowers, which is why she prefers simpler ones.

Amy Fogarty, co-owner of The Mum Shop in Plano, Texas, recalls a supersize mum she designed for a student last year. "It took up her entire body," says Ms. Fogarty, whose business provides mums for nearly 40 area high schools.

Still, some rules of etiquette do apply. Freshmen mums are typically only allowed to include one fake bloom. Sophomores are allowed two and juniors three. Seniors can go as big as they like.

At Franklin High School in El Paso, homecoming is still a couple weeks away, but seniors Lauren Gasca and Destiny Strayhorn have been dreaming up their mums for months. Their mums will be made by family friends.

"It's senior year, we've got to go all out," says Destiny, 17, who started shopping for mum supplies this past summer. The base of the mum will be Texas-shaped, she says, and have lights and a huge cowbell.

"I love big mums because they stand out and I like to stand out," adds Lauren, 17. She says her white and silver-ac-

cented mum, which she expects to cover her body, will contain the school logo, a cougar head paired with a purple F, and a bunch of megaphones because she is a cheerleader.

Freshman Mia Pepe has a lot on her mind as homecoming approaches, including finding the right dress for the dance and practicing cheerleading routines before the big football game. She is also focused on whether she'll wear a mum. "That's what everybody looks forward to at homecoming," says Mia, 14, who attends Carroll Senior High School in Southlake, Texas, near Dallas. "They're really supposed to be something small, but they end up being huge."

Her mother, Kristina, who is originally from the Northeast, laughs now about how she once swore she'd never be a mum mom. Then her oldest daughter got asked to homecoming.

"You kind of get sucked in," she says.

These days, she sees the tradition as "good ridiculous." If Mia gets asked to homecoming, she says she will take her to C&C's Floral Events, Homecoming Mums and Supplies, which made mums for Mia's two older siblings when they were in high school.

Cecilia Valudos, who owns C&C's, says she and her business partner have embraced the outsize mum style, paraphrasing a line familiar to jewelers. "Our motto is that your mum can never be too big, just like a diamond," she says.

# GREATER NEW YORK

## Drug Dealers in Crosshairs

Amid opioid epidemic, New Jersey uses old law to go after sellers in fatal-overdose cases

BY KATE KING

Less than four months after New Jersey resident MaryAnn McKinnon died of an overdose, police arrested the man accused of selling the opioids that killed her.

Cleveland Spencer, 26, of Paterson, N.J., was charged in late September with four drug offenses, the most serious of which was a felony alleging he sold the drugs that resulted in Ms. McKinnon's death. He has pleaded not guilty and his attorney declined to comment.

As the state searches for new ways to contain its worsening opioid epidemic, prosecutors are increasingly turning to an old law that seeks to hold drug dealers accountable for fatal overdoses.

"I think anybody who understands the nature and scope of this epidemic is led to the same conclusion," said New Jersey Attorney General Christopher Porrino. "Which is, you're better off spending your time prosecuting the dealers than you are prosecuting a small-time user."

State records show that annual arrests under the state's Strict Liability for Drug-Induced Deaths statute, which typically numbered in the single digits, rose to 13 in 2014 and to 15 in 2016. Annual convictions have numbered up to three a year since 2010, but a spokesman for the attorney general's office said the cases can take years to resolve.

The Strict Liability law has been on the books in New Jersey since 1987. The state attorney general's office issued a directive in 2014 urging law enforcement and county prosecutors to investigate and charge drug dealers in fatal overdose cases whenever possible.

Mr. Porrino said the law acts as a deterrent that can help reduce the distribution of dangerous drugs. The charge carries potential sentences of 10 to 20 years, and those convicted must serve 85% of their prison term before becoming eligible for parole.

Mr. Spencer, who was charged under the Strict Liability law, faces up to life in prison because of prior convictions.

Mr. Porrino said that in addition to "street-corner drug dealers," the state is actively pursuing charges against doctors who overprescribe painkillers. In March, the attorney general's office charged a doctor with prescribing oxycodone to a 26-year-old man who later died of an overdose.

"We call drug dealers in white coats worse than regular drug dealers, because doctors are licensed," Mr. Porrino said.

Twenty states, including New Jersey, have laws providing

extra penalties—ranging from two years in prison to death—in drug-induced fatalities, according to the Drug Policy Alliance, which plans to release a report on these laws in late October. Thirteen states have introduced legislation this year to either enact such laws or increase penalties.

Addiction and drug-policy experts, however, say there is no evidence that prosecuting dealers in connection with fatal overdoses helps reduce drug use.

Rosanne Scotti, New Jersey director for the Drug Policy Alliance, a nonprofit advocacy group, said government resources would be better spent on expanding access to treatment, the opioid-antidote naloxone and on other public health interventions.

"The people who are supplying drugs are meeting a demand that people have," she said. "You really want to have a demand-side solution."

## Yankees Advance With 8-4 Victory



BRONX WIN: The Yankees celebrate after Didi Gregorius's (No. 18) three-run homer in the first inning of the AL Wild Card game.

ANTHONY SOUTIET/TISZUMA PRESS

## Orchestra Hall's Revamp Stumbles

BY CHARLES PASSY

An ambitious \$500 million plan to renovate David Geffen Hall, the Lincoln Center home of the New York Philharmonic, has been shelved.

The orchestra and the center, which had been working on the plan for years, said in a statement Tuesday that they have decided to "re-envision the strategy" and proceed with a new master plan.

The two organizations added that the complex nature of the project prompted them to perform additional due diligence, resulting in the decision to try a new approach.

The organizations didn't specify how much a new plan would cost, but said it would involve "phased renovations," as opposed to the comprehensive one-time overhaul originally envisioned.

The organizations didn't indicate how much of the \$500 million for the project had been raised to date. A \$100 million gift from David Geffen was announced two years ago, and the hall was named after him.

In a separate statement, Lincoln Center said donors have been very supportive of the decision to rethink the plan.

One of the main issues with

David Geffen Hall, formerly known as Avery Fisher Hall, has been its acoustics, which many symphonic fans have considered not worthy of a first-class orchestra. But at least one arts-industry insider wondered if a renovation done in phases could solve the problem.

"I think the amount of improvements they can make will be limited," said Drew McManus, an orchestra consultant based in Chicago.

Arts-industry insiders said the original plan likely failed to come together for a number of reasons. Among them could be the turnover at the two organizations, which have both gotten new chief executives in the past year—Debra Spar at the center and Deborah Borda at the orchestra.

Another factor could be that high-profile arts institutions are increasingly seen as elitist and out of touch with the city as a whole, with some donors opting to put their money in more community-based organizations.

"There are nonprofits that people perceive to have more worthy needs," said Elizabeth Zeigler, president and chief executive officer of Graham-Pelton Consulting, a firm based in the New York area that advises nonprofits.

WHEN IT'S TIME TO SELL  
**confidence**  
IS  
**precious**



Selling your jewelry or precious stones can feel like stepping into a world of the unknown.

At Windsor Jewelers, you can count on our 30+ years of integrity, personalized service, expert gemologists, and consistently higher prices – offered on the spot.

**W**  
WINDSOR JEWELERS  
INC

551 FIFTH AVENUE, 32ND FLOOR, NEW YORK  
212-262-0500 WINDSORJEWELERS.COM

**Graffiti artist James Top showed tourists a mural on 106th Street and Park Avenue in Manhattan as part of a city walking tour.**

**METRO MONEY** | By Anne Kadet

## Guides Take Visitors Off Beaten Path

**Sarah Lohman's passion—the American immigrant experience seen through the lens of culinary history—is a narrow topic for sure. How do you monetize that?**

For the Lower East Side gastronome it means publishing a book, working museum gigs and maintaining a blog. But her fourth sideline sounds the most amusing: She takes tourists on eating expeditions around the city.

"I find it a very easy way to make money in a very fun way," Ms. Lohman says.

New York City welcomed a record 60 million visitors last year. No surprise, then, that a growing number of residents are earning extra cash as tour guides. Since 2012, the number of city-issued guide licenses grew 31%, to 3,329. And these new guides aren't bothering with the obvious sites.

Often overeducated and a little nuts about their pet passions, they offer tourists a chance to meet a "real New Yorker" and see the city from a unique perspective.

**Molly Webb, program manager for Context Travel, says revenue is up 70% year-over-year. The customers typically are intellectually curious, she says. "They've already seen the main sites, and they want to go deeper."**

Rancho Mirage, Calif., consultant Royleen White says her New York City trips always include a Context tour. Her most recent adventure: an architecture walk with a Columbia University professor that included lesser-known sites such as Tudor City. "The quality of the guide is way better. It's more a conversation than a canned speech," she says.

And the options for quirky, exclusive tours are growing. Last week, Airbnb expanded its New York City "Experiences" platform to include more than 150 options such as a tour of Brooklyn in a motorcycle side car.

Vayable, another platform offering private tours and experiences, says 25% of its business comes from locals looking to explore their own backyard. It offers more than 200 options including a \$400 daylong jaunt for up to four

people with an investment banker "to fulfill your curiosity about how I-bankers live outside the office."

I was delighted to find that one of the cheapest experiences on Vayable coincided with a pet interest. Jake Strauss offers "Meditation at the Top of Manhattan," a \$20, two-hour walk across the George Washington Bridge for a meditation in New Jersey's Fort Lee Historic Park.

We met last week on the Manhattan side of the bridge. Mr. Strauss turned out to be a 23-year-old recent New York University grad. The Brooklyn musician supports himself by cat sitting, working as an usher and sound man, and playing bass and keyboard in eight bands.

Mr. Strauss admitted he doesn't know much about meditation. And we had to double back when the route he chose was blocked. I didn't mind. He was funny and good company.

We finally made it to the park. "In old days, there used to be, like, a fort here," he said. "They remodeled it."

Our detours didn't leave

*anne.kadet@wsj.com*

## Landlord Gets Year in Jail for Fraud

BY THOMAS MACMILLAN

A New York City landlord was sentenced Tuesday to a year in Rikers Island for tax and loan fraud, a rare jail term in such cases, according to the attorney general.

Steven Croman, 51 years old, who owns more than 140 apartment buildings in Manhattan, was arrested in May 2016 and accused of fraudulently obtaining loans and committing tax fraud.

He pleaded guilty in June to grand larceny, falsifying business records, and criminal tax fraud.

In addition to receiving a jail sentence Tuesday in Manhattan Supreme Court, Mr. Croman was ordered to pay \$5 million in fines.

"The measures Mr. Croman took to boost his own bottom line, while blatantly disregarding the well-being of his tenants, are shocking," Attorney General Eric Schneiderman said in a written statement.

Mr. Croman admitted to submitting bogus documents to secure mortgages and refinancing for his properties. He received more than \$45 million in fraudulent loans between 2012 and 2014, prosecutors said.

Mr. Croman declined to address the court. "Let's be clear: Rikers Island ain't the Ritz," Justice Jill Konviser said.

"I wish it were more," tenant Cynthia Chaffee, 65, said of the sentence. "I think the public needs to be protected from the likes of Croman forever."

A spokeswoman for Mr. Croman's firm said, "These isolated claims from a few vocal tenants are either completely inaccurate or have been long resolved."

His attorney, Benjamin Braffman, said Mr. Croman likely would be released from jail in eight months if he behaves.

## CORRECTIONS & AMPLIFICATIONS

**Svetlana Travis Zakharova**, who was accused of extorting former New York Gov. Eliot Spitzer, pleaded guilty to attempted petit larceny in a case involving another man. An article Tuesday about the plea deal, which also resolved the Spitzer case, incorrectly said she pleaded guilty to petit larceny against the other man.

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



# We do more organ transplants than any other hospital in the nation.

*And it's not nearly enough.*

**Today, October 4th, is Organ Donor Enrollment Day.**

And we can't urge you enough to sign up as an organ donor. For every transplant we do, there are so many more we can't do, simply because there aren't enough hearts, kidneys, livers, and other organs available.

Enrolling to be an organ donor is easy. Just go to [nyp.org/transplant](http://nyp.org/transplant) and sign up. The more people who sign up, the more lives get saved – at NewYork-Presbyterian and transplant hospitals everywhere.

**REGISTER TO BE AN ORGAN DONOR AT [NYP.ORG/TRANSPLANT](http://NYP.ORG/TRANSPLANT)**

AMAZING  
THINGS  
ARE  
HAPPENING  
HERE



Weill Cornell  
Medicine

NewYork-  
Presbyterian



ColumbiaDoctors

# LIFE & ARTS

## SCHOOLS

# See if Your Child Is Listening in Class

ClassDojo and other technology offer parents real-time reports; As more schools send updates, some wonder how helpful is constant grading?

BY ANNE MARIE CHAKER

**ON A RECENT** schoolday, Lisa Smith's iPhone notified her that her fourth-grader Aidyn listened in math class that day, showed teamwork and stayed on task in the classroom.

That's thanks to an app called ClassDojo, which elementary and middle-school teachers are using to provide real-time reports to parents throughout the day. As of September, 101,000 schools, kindergarten through eighth grade, are using the app, up 17% from a year ago. As it spreads, it is raising questions about how useful it is for teachers to grade children every day and for parents to monitor them like a stock that rises and falls.

In a smartphone version of a star chart, teachers set up their own points system by coming up with categories of behaviors. Parents get daily notifications, and a circular graphic turns green (good) or red (bad). The free app also allows teachers to send group messages (Reminder! Class field trip tomorrow) and share photos.

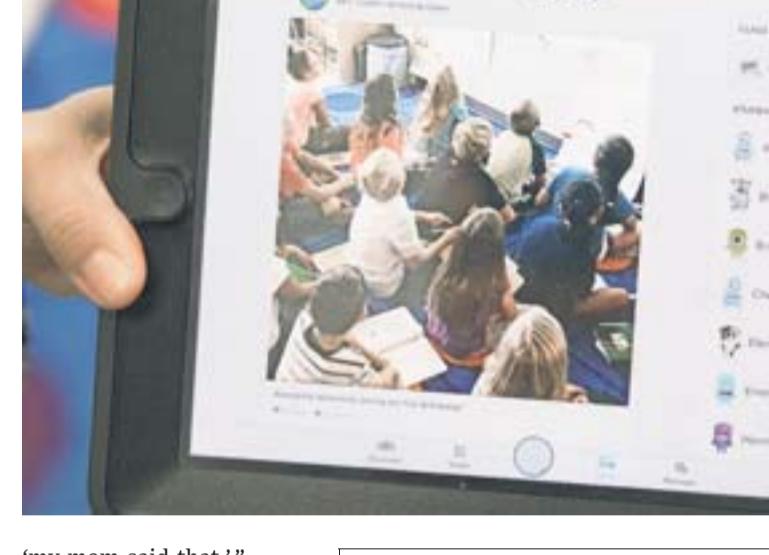
Ms. Smith, a 44-year-old lawyer in Altamonte Springs, Fla., likes that it keeps her tuned into the class and sparks conversations at home. When it showed that Aidyn was docked a point for talking to a neighbor in class, "if I hadn't seen that, I wouldn't have known it happened," she says.

ClassDojo is one example of a wave of technology. PowerSchool, for instance, a web-based program and app, allows parents to check on their children's school progress, including grades, behavior, and even how far along they are on an assignment. The innovations go beyond posting photos of smiling children or weekly emailed class newsletters.

To some parents, notifications throughout the day are intrusive. Beyond that, some educators question how helpful it is to grade any particular action, either positive or negative.

"We have data analytics on everything our children do," says Kathy Hirsh-Pasek, a child psychology professor at Temple University in Philadelphia. "Kids learn a lot by getting a skinned knee, having to deal with a fight on a playground and taking a risk, like talking to that girl, without people necessarily knowing."

A big goal of ClassDojo, say teachers who use the app, is to keep parents better connected to what's going on in class. "The kids quickly learn that parents look at it," says Beverly Ladd, who teaches a combined second and third-grade class at Blair Elementary in Wilmington, N.C. "There's no 'but Ms. Ladd said this' and



"my mom said that."

Ms. Ladd has 13 categories that children can earn points for. They include helping others, participating, teamwork and working hard. Her students lose points for talking out of turn or not following directions. Ms. Ladd projects a screen onto a wall that shows each student's points as well as a class total. After 25 points, a student can bring in a stuffed animal. A student with 125 points gets to eat lunch with Ms. Ladd.

Ms. Ladd, who uses her iPad or iPhone to log in feedback while leading a discussion or meandering from desk to desk, says the system quickly reinforces good behaviors and keeps the negative ones at bay. Recently, one student was dawdling on a writing assignment. She used the app to dock him a point for being off task and send an image of the mostly blank page to his mother. "Problem solved," says Ms. Ladd. "The parent wrote back later saying 'we discussed it. Let me know if it continues.'

Elizabeth Pepper, whose son Houston is in Ms. Ladd's class, says she doesn't mind students knowing each other's point tallies. "I think it's a good motivator," she says.

Principal of Blair Elementary Rebecca Opgard says the transparency helps build excitement in the class. "It's 'oh he got a point and I could have done the same thing,'" she says.

ClassDojo was started in 2011 by friends Sam Chaudhary, formerly an analyst at McKinsey & Co., and Liam Don, a gaming developer, both now 31 years old. The partners, neither of whom has children, formed a company, Class

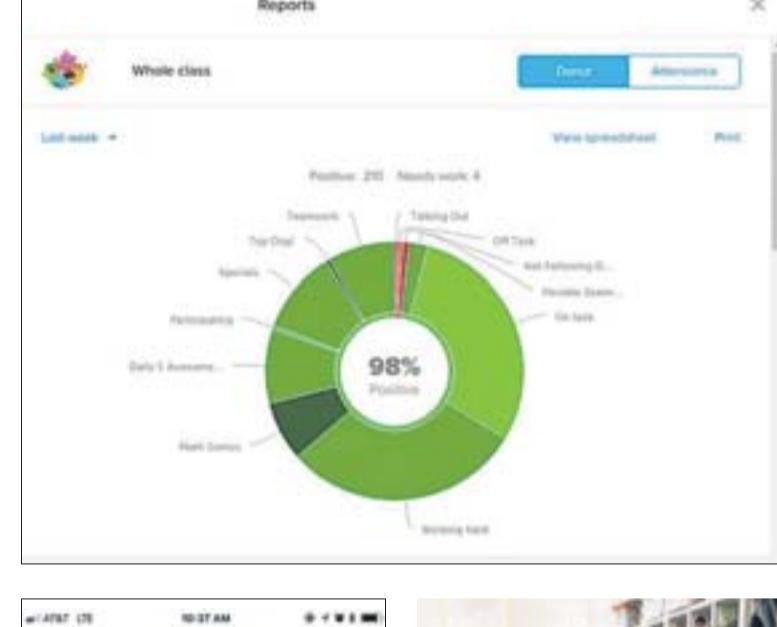


Twist Inc., to launch the app, incorporating a Japanese term that refers to a place of belonging, with \$1.6 million in venture capital funding. They have raised an additional \$29 million since then. The app is free; the company has yet to make a profit on it. Mr. Chaudhary says he is exploring a business model that would give parents the option to pay for yet-to-be-determined extras.

The partners felt there was a way to use technology to bring together parents, teachers and students. Before launching, Mr. Chaudhary says he interviewed hundreds of teachers who told him they wanted to feel like they had a team behind them that included parents. "If we could help them work together to create an incredible classroom experience, that could change education from the



At Blair Elementary School in Wilmington, N.C., Beverly Ladd photographs her students, above, to post in the ClassDojo app for parents to see, left. ClassDojo generates a weekly report on the class, below.



Ms. Ladd lets children enter in results in ClassDojo on her iPad, above, and posts for their parents, left.

through high schools in large part for its translation feature. "Parent involvement is a huge barrier for us," says Kyle Crater, assistant principal at Amanda E. Stout Elementary School in Reading, where 27% of students are identified as English-language learners.

Elizabeth Webster, a Washington D.C.-area stay-at-home mother to Liam, 8, says she has received as many as eight notifications a day about her son. "I don't need that much data about my child," she says. "Every child has his ups and downs. That is normal. Does a parent need a daily play-by-play of them?"

Mr. Chaudhary says that parents who feel it's too much can adjust their settings to limit notifications. "Most parents are connected to literally everything else they care about in life," he says. "Kids are out of the house for eight hours a day. A lot of parents want to be connected."

## FILMS

# WHEN FILMMAKERS TURN THE LENS ON FAMILY



Joan Didion, at home in Los Angeles in 1968 with her husband John Gregory Dunne and their daughter Quintana Roo.

BY CARYN JAMES

**IN AN ARRESTING SCENE** from the new documentary "Joan Didion: The Center Will Not Hold," the writer discusses her grown daughter, Quintana, who suffered a brain injury when she fell at the Los Angeles airport, and died nearly two years later. "I hate to say, I encouraged her to go to Los Angeles because I thought it would be good for her," Ms. Didion says, then pauses and stares into space with an anguished expression.

"This is where being a family member and a filmmaker is incredibly confusing," says the documentary's director, Griffin Dunne, Ms. Didion's nephew. "She knew what she was signing on for, and I think she would have lost respect for me if I didn't go into all the painful stuff."

The New York Film Festival next week will feature Mr. Dunne's documentary as well as "Arthur Miller: Writer" by the playwright's daughter Rebecca Miller. They are

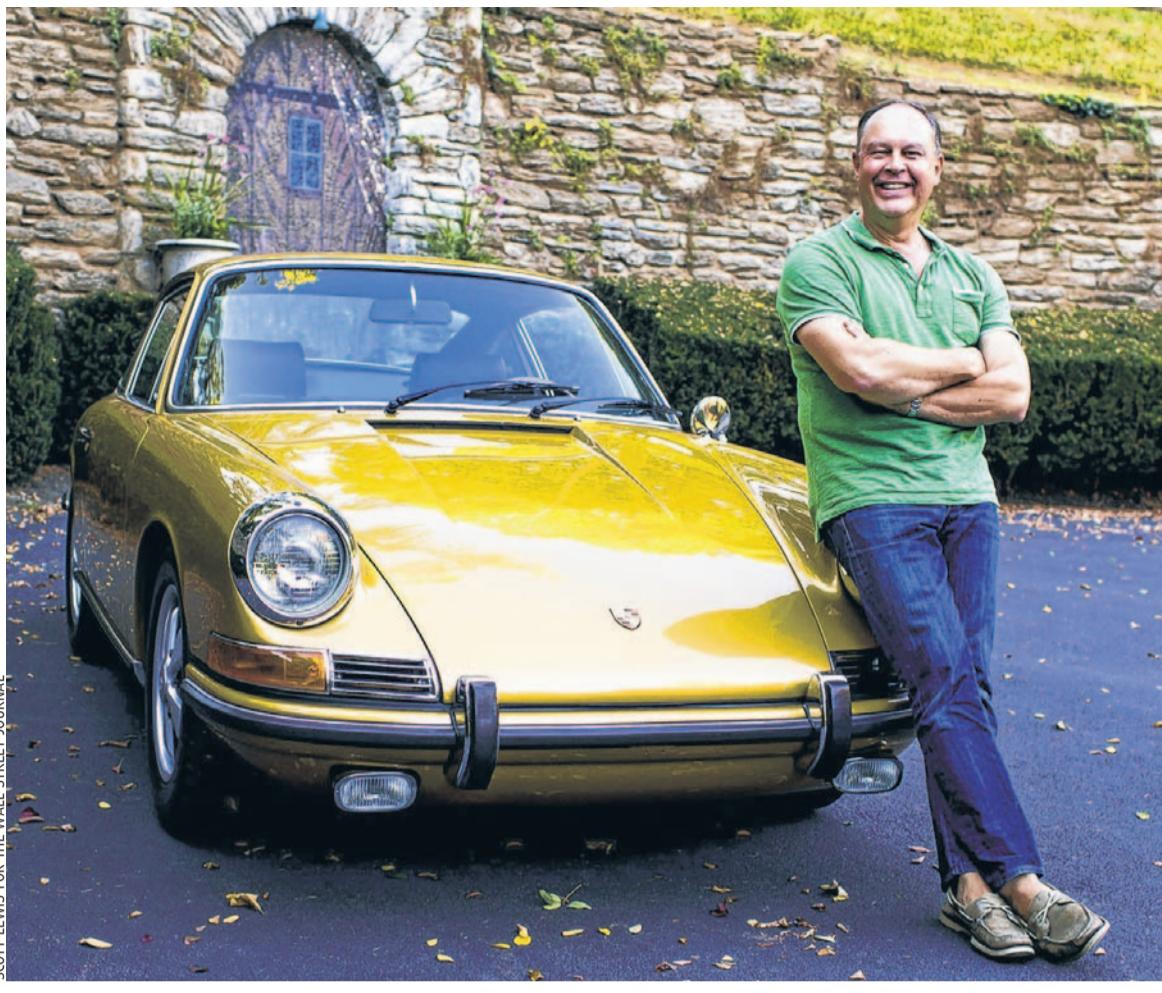
the latest in a spate of films about famous people made by close relatives. Jacob Bernstein chronicled the life and work of his mother, Nora Ephron, in "Everything is Copy" (2015). Nathaniel Kahn's "My Architect," released in 2003, pieced together the truth about his father, Louis Kahn, who simultaneously had families with three women.

Documentaries by family members come with the built-in advantages of access and longstanding trust. But for experienced filmmakers, they raise creative questions: How to balance personal knowledge with a more objective narrative? How to approach delicate personal issues and cross lines that relatives usually don't?

Mr. Dunne says of his aunt, who is now 82 years old: "When I was growing up, I was aware that she was a serious writer, chronicling the darkest aspects of society, but to me she laughed all the time." Talking to her nephew on screen, she often beams with affection, a qual-

Please see FAMILY page A13

## LIFE &amp; ARTS



SCOTT LEWIS FOR THE WALL STREET JOURNAL

MY RIDE | By A.J. Baime

## A Gold Porsche With A Platinum Pedigree

Pascal Maeter, 55, a retired investment banker from Philadelphia, on his 1968 Porsche 911L, as told to A.J. Baime.

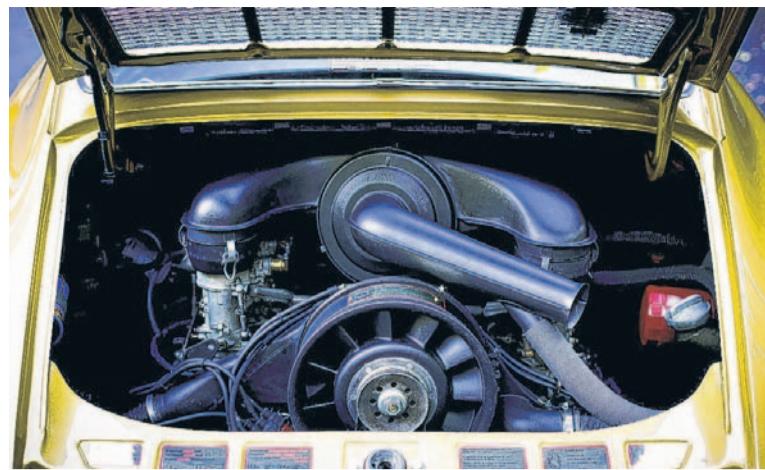
Porsche first unveiled the 911 model at the 1963 Frankfurt auto show. (It was called 901, originally.) This past May, the German company rolled out its one millionth. My father drove 911s. I have

driven them since the 1990s. You could argue that the 911 is the most iconic sports car of all time. The one you see pictured here has a unique story.

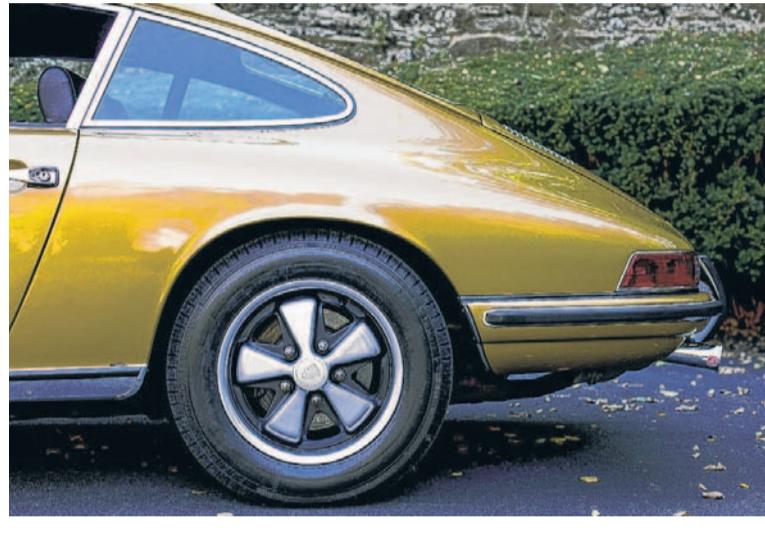
The car was originally sold in New Jersey to a man named Paul Rothchild, who paid \$7,222. (I have the invoice, dated Aug. 8, 1968.) The car was metallic dark green at

the time. Rothchild was a record producer for a new Los Angeles-based band called the Doors. Rothchild worked with the band for years, and has often been called the fifth Door.

Around 1970, Rothchild gave this car to another L.A. music impresario named David Anderle, known for working with the Beach



Pascal Maeter stands with his 1968 Porsche 911L in his Philadelphia driveway. Its original 2.0-liter, six-cylinder motor, above.



Boys and Frank Zappa. From there, it went to Jeff Suhy, yet another L.A. music executive, known for his work with Soundgarden and Sheryl Crow. For years, Mr. Suhy says, he kept a photograph on his desk of Jim Morrison with this Porsche.

I found the car listed for sale on the website Petrolicious. As you can see, it's painted gold now. I was so fascinated that I called Mr. Suhy and bought the car over the phone this past February for a bit under the asking price of \$110,000. I also like the fact that this is the original 911, as it was first designed. Along with the car came a file of documentation, from de-

cades-old restaurant valet stubs to the original 1968 window sticker.

Two weeks ago, I drove the car to Vermont and back. The car is about to turn 50, and it has its original 2.0-liter, six-cylinder engine. You have to be focused in a car like this, and that's exactly how I like it.

When I think of all the musicians who spent time with this car, it amazes me. At some point, somebody put a sport exhaust system on, so this 911 makes quite a song all on its own.

Contact A.J. Baime at [Facebook.com/ajbaime](http://Facebook.com/ajbaime).

## ADVERTISEMENT

## Showroom

To advertise: 800-366-3975 or [WSJ.com/classifieds](http://WSJ.com/classifieds)

PORSCHE

Proudly Celebrating  
35 Years of Excellence

**ISRINGHAUSEN**



2014 911 Turbo Coupe PDK

GT Silver/Black/8K mi CPO

\$125,900



2017 Panamera Turbo

Black/Agate Grey/4K mi

\$161,900 – Save \$25K off MSRP



2017 M6 Coupe Competition Pkg.

White/Silverstone/11K mi CPO

\$104,900

877-362-9770 | Springfield, IL  
[sales@isringhausen.com](mailto:sales@isringhausen.com) | [isringhausen.com](http://isringhausen.com)

- Specializing in Rare, Hard to Find Vehicles.
- Nationwide, Worry-Free Shipping

©2017 Porsche Cars North America, Inc. Porsche recommends seat belt usage and observance of traffic laws at all times.



Comfort, luxury, technology, or performance?

Yes.

The Cayenne Platinum Edition.

**ISRINGHAUSEN**  
877-362-9770 | Springfield, IL  
[sales@isringhausen.com](mailto:sales@isringhausen.com)

Premier  
Porsche Dealer

**PORSCHE**

Featured Porsche Inventory:  
911 GTS Cabriolet PDK Agate Grey/Black \$152,230 Panamera Turbo Black/Black & Red \$178,180  
911 Carrera S Cpe Endurance Racing Edt. PDK Black/Black \$152,365 Panamera Turbo White/Black \$167,710  
911 Carrera S Coupe Manual Mexico Blue/Black \$128,710 Panamera 4 Carmine Red/Black \$108,590  
911 Carrera 4 GTS Coupe PDK Black/Black \$146,955 Panamera 4 Agate Grey/Black \$100,250  
911 Carrera 4S Cab. PDK Agate Grey/Black & Red \$146,955 718 Boxster S PDK Black/Black & Red \$88,620  
911 Carrera 4S Cab. PDK Agate Grey/Black \$146,955 718 Boxster S PDK Agate Grey/Black \$86,435  
911 Carrera Cabriolet PDK Agate Grey/Black \$118,940 718 Boxster S PDK Guard Red/Luxor \$81,645  
911 Carrera Coupe PDK GT Silver/Black \$109,210 718 Boxster S Manual Agate Grey/Black \$89,030  
Cayenne GTS Moonlight Blue/Black & Cream \$110,960 718 Cayman S PDK GT Silver/Black \$70,330  
Cayenne Platinum Edition White/Agate Grey \$73,220 718 Cayman Manual Black/Black \$64,765  
Cayenne S Meteor Grey/Black \$92,080 Cayman PDK

All prices exclude Tax; Title; Registration and Licensing; Delivery and Handling Fees; Dealer Charges. Dealer is not responsible for pricing errors.

AVIATION

## FLY WITH UNITY JETS AND SAVE UP TO 30% VERSUS WHEELS UP™ & NETJETS®/MARQUIS JET CARD®

UNITY JETS PROVIDES A TRIP-BY-TRIP SOLUTION WITH NO MEMBERSHIP FEES, NO INITIAL CAPITAL AND NO PEAK DAY RESTRICTIONS



"THE #1 JET CARD AND FRACTIONAL OWNERSHIP ALTERNATIVE."

**UNITY JETS®**

888.758.5387

[UNITYJETS.COM](http://UNITYJETS.COM)

## LEASE



**877-989-1500**

• Nationwide Delivery

• We now lease in NY

• Buy or Sell

• Trades Accepted

39 mos., 10k miles/yr, 0 Down, GAP included + TTL. Closed end lease.

All New Makes & Models • 0 Down • Call 7 Days

[www.LEASEFAX.com](http://www.LEASEFAX.com)

2018 Audi Q7	699mo	Jeep Gr Cherokee Ltd	459mo	2018 Mercedes GLE43 C4	899mo
Cadillac Escalade	799mo	Jeep Unlimited	339mo	2018 Mercedes GLS	859mo
Chevy Corvette	699mo	Land Rover Disco Sport	499mo	2018 Mercedes GLS63\$10K off MSRP	
Chevy Suburban	519mo	Lexus GX460	509mo	Mercedes G63	\$10K off MSRP
2018 Chevy Traverse	359mo	Lexus LX570	1029mo	2018 Mercedes S560	1299mo
Corvette Z06	\$10K off MSRP	Lexus ES350	379mo	2018 Porsche Macan	699mo
Chevy Tahoe	499mo	Lincoln Continental	499mo	2018 Porsche Cayenne	769mo
GMC Denali	729mo	Lincoln Navigator	699mo	Range Rover	1059mo
GMC Yukon SLE	499mo	2018 Mercedes GLC	499mo	Range Rover Sport	799mo

## LUXURY

## Buy or Lease for Less

Nationwide delivery.

We offer all current makes & models - for less. Call 7 days. Trades accepted.

**877.989.1500**

[www.LEASEFAX.com](http://www.LEASEFAX.com)

THE WALL STREET JOURNAL.

**THE MART**

ADVERTISE TODAY

(800) 366-3975

[sales.mart@wsj.com](mailto:sales.mart@wsj.com)

© 2017 Dow Jones & Company, Inc.  
All Rights Reserved.

THE WALL STREET JOURNAL.

## SHOWROOM

ADVERTISE TODAY

**(800) 366-3975**

[sales.showroom@wsj.com](mailto:sales.showroom@wsj.com)

For more information visit: [wsj.com/classifieds](http://wsj.com/classifieds)

© 2017 Dow Jones & Company, Inc. All Rights Reserved.

DOW JONES

## LIFE & ARTS

### EXHIBITION REVIEW

# New York as It Could Have Been



CLOCKWISE FROM LEFT: QUEENS MUSEUM (2); MTA BRIDGES AND TUNNELS SPECIAL ARCHIVE

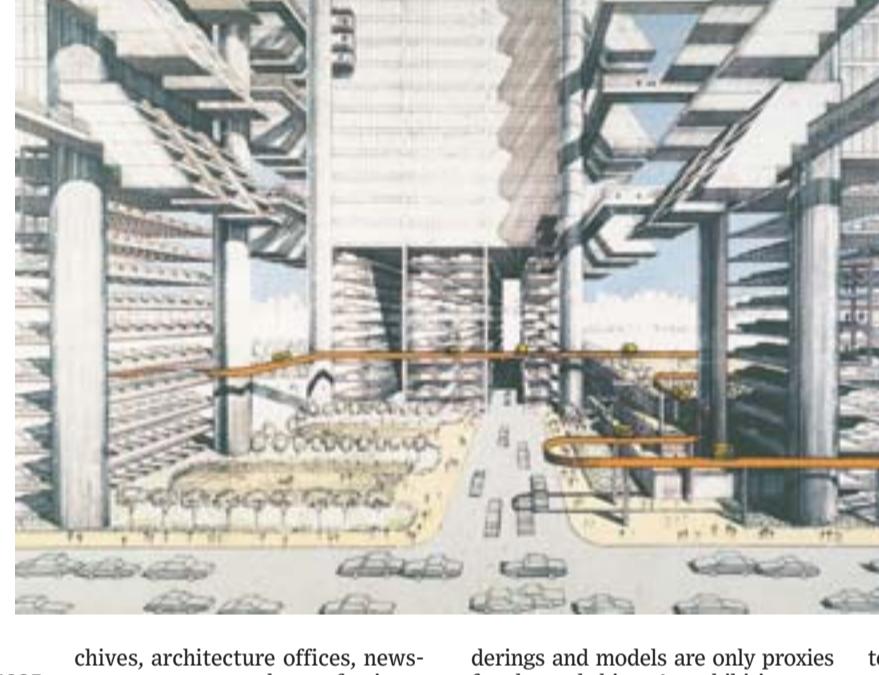
BY JULIE V. IOVINE

*Flushing Meadows-Corona Park, N.Y.*

**IMAGINE THE MUSEUM** of Modern Art as a tower made of nine marble and white-brick shoeboxes, stacked and glowing. What if Central Park, instead of a romantic landscape of rolling lawns, woods and rambles, were as formal as Versailles? This is the New York that could have been as seen in "Never Built New York," now at the Queens Museum.

An eye-widening exhibition of an alt-New York, the show presents over 125 projects that failed to launch. Many are out there, from Alfred Ely Beach's pneumatic-tube subway system (a small portion of which was actually constructed in 1870, with an entrance in the basement of 265 Broadway) to Raymond Hood's 1925 Skyscraper Bridge, loaded with apartment buildings à la Ponte Vecchio, and Wallace K. Harrison's 1955 Opera House in the shape of a colossal foot.

Curators Sam Lubell and Greg Goldin, who put together a similar show about Los Angeles in 2013, chose projects envisioned between 1860 and now from a much larger pool of all the cooked-up, unrealized schemes they found hidden away in museum and library ar-



chives, architecture offices, newspaper morgues and out-of-print design magazine files. They eschewed modest proposals in favor of those that would have had a major impact on the cityscape. Whether visitors will view the bulk of these as unexploded bombs or sparkly gems of an Emerald City that should have been will depend on their appetite for community-obliterating infrastructure and buildings of mind-boggling scale.

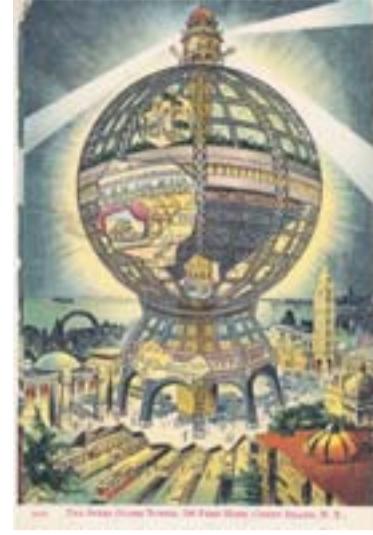
Architecture exhibitions always face the insoluble problem that ren-

derings and models are only proxies for the real thing. An exhibition on designs that never got past incubation is therefore at a distinct advantage. Even the smallest items have outsized suggestive powers, such as a vintage postcard of the 1906 Coney Island Globe, a 700-foot snowball-shaped fun palace with dance hall, roller rink and palm court (whose foundations were poured before it fizzled due to embezzled funds). Eliot Noyes's bulbous-domed Westinghouse Pavilion for the 1964 World's Fair is installed here at the

museum (which sits on land that was part of the actual fairgrounds) as a silver bouncy castle into which kids can fling themselves when tired of reading captions.

The main exhibition gallery is organized to show projects—mostly renderings stacked salon-style, but also models and news clippings—starting at the Battery and moving up to Harlem with the other boroughs tucked in along the way. There are plenty of surprises even for avid students of the city's history. Many know all about the urban-fabric-ripping expressways devised by Robert Moses. Less familiar is William Zeckendorf's 1945 Rooftop Airport, a \$3 billion, 144-square-block platform airfield (with ocean-liner docks beneath) running from 24th Street to 71st Street. A sumptuous watercolor-and-ink blue-sky rendering of McKim Mead & White's Brooklyn Museum reveals a colossus four times larger than the one built. Also here is I.M. Pei's 1954 concept for expanding Grand Central—a tower shaped like a Chinese finger puzzle that would have been 200 feet taller than the Empire State Building. It so scared New Yorkers that it helped give birth to the preservation movement.

Many projects were derailed due to the Depression of the 1930s or the Great Recession of 2008. Moses



Illuminated structures that were proposed but never came to fruition, left; 1906 Coney Island Globe, above; Paul Rudolph's idea for the Lower Manhattan Expressway (1941-65), below.

quelled a few, and a few of his maniacal projects were felled by public protest, including a four-lane highway through Washington Square Park. A Brasilia-scaled United Nations dreamed up for Queens never got very far as member nations flatly refused to consider working outside Manhattan permanently. Quite a few projects collapsed due to their own over-reaching ambition, although the failed projects from more recent years—Santiago Calatrava's stacked cube apartments; Daniel Libeskind's cutaway greenhouse tower—don't seem to dare with the full-bore wackiness of earlier unbuilt.

Crystalline scale models of about 50 projects—meticulously made by architecture graduate students at Columbia University—have been inserted into the museum's stupendous panorama of New York City. At a glance you can see how the neighborhood is crushed beneath the nuclear-reactor silhouettes of the Harlem Skyrise Project, from 1960, of R. Buckminster Fuller and Shoji Sadao with June Jordan. Compared with Zeckendorf's Rooftop Airport blotting out the West Side, Moses's expressways look almost diminutive.

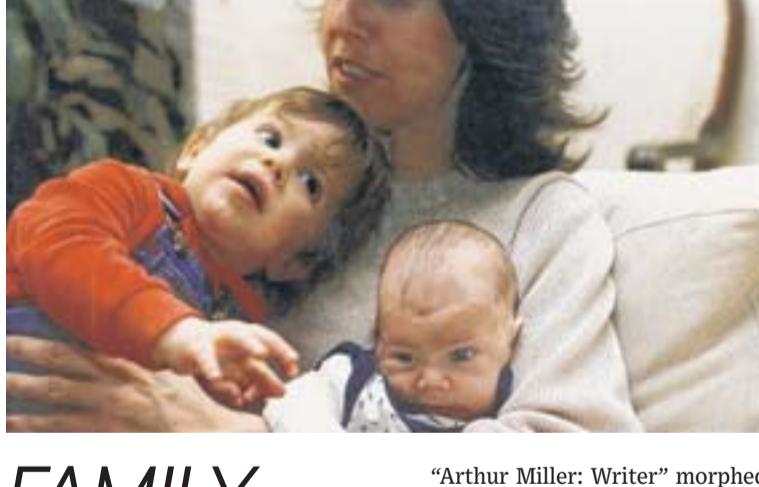
Visitors will each have their own favorites to regret. For this writer, it is Paul Rudolph's Galaxion Pavilion for the 1964 World's Fair. Raised aloft on a sturdy column containing stairs, a 340-foot tilted dish is open to the sky and etched with paths and benches for star-gazing. The Unisphere took its place instead and still stands right outside the museum.

In a chockablock catalog containing lively essays and even more no-go projects, the curators of "Never Built New York" conclude that in the creative capital of New York "the best, the grandest, the most outlandish, the truly radical" usually don't get built. But I think that while "Never Built New York" makes for a marvelous romp, most visitors wouldn't want to live there.

**Never Built New York**

Queens Museum, through Feb. 18, 2018

*Ms. Iovine reviews architecture for the Journal.*

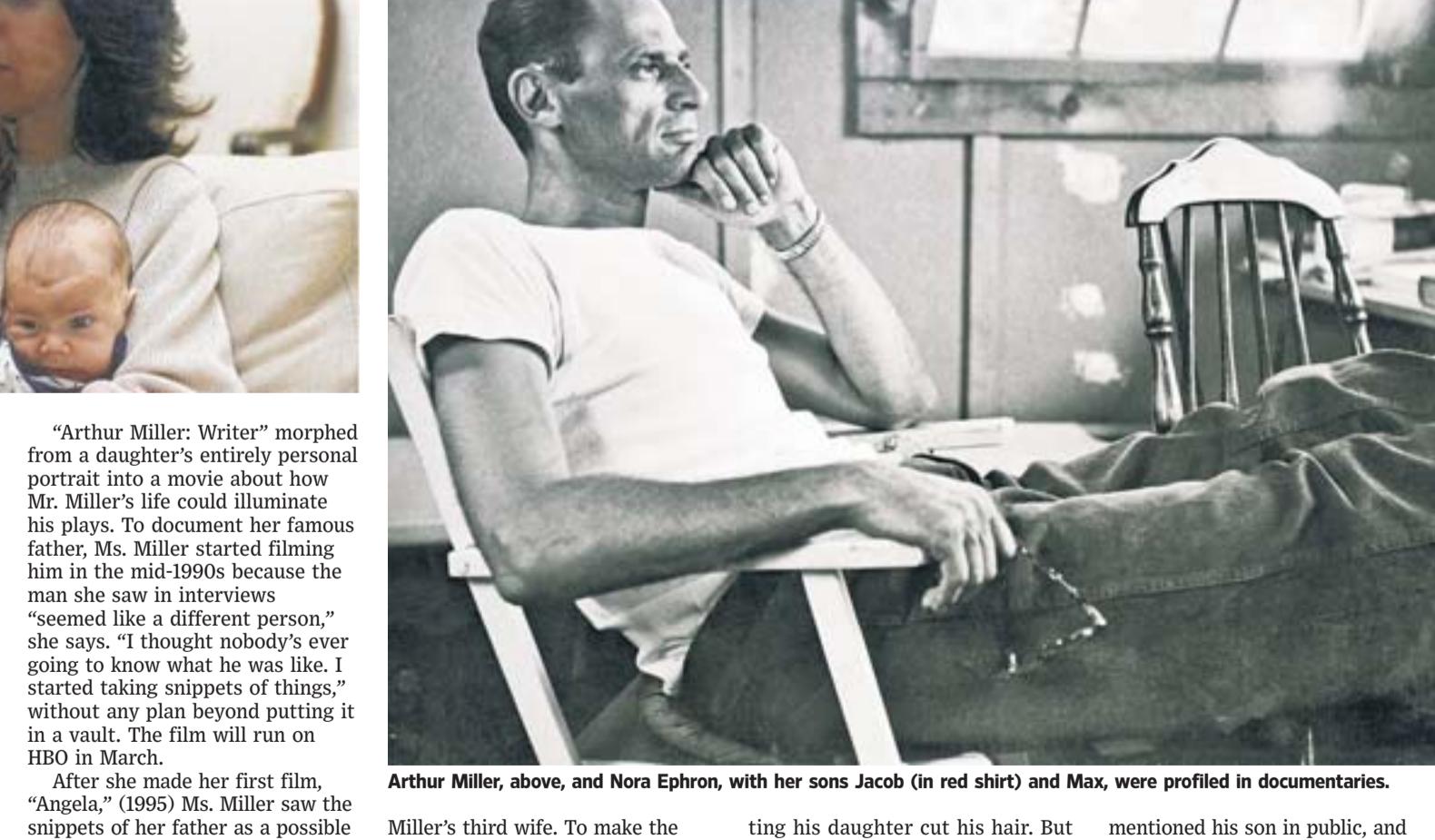


## FAMILY

*Continued from page A11*  
ity at odds with her cerebral public image. Mr. Dunne knew he was in a unique position to capture her warmth, "which was what I most wanted to convey," he says. The film premieres on Netflix on Oct. 27.

Ms. Didion mined her life for her essays and novels, opening the door for Mr. Dunne to ask thorny questions. "What was going on in your marriage?" he asks, referring to an essay in which she wrote that she and her husband, the writer John Gregory Dunne, went on vacation in Hawaii "in lieu of filing for divorce." When her nephew asks what her husband thought of that line, Ms. Didion says, "He edited that." The couple agreed, she said, that "You wrote what you had."

John Gregory Dunne died in 2003 and their daughter in 2005, losses that Ms. Didion addressed in her books "The Year of Magical Thinking" and "Blue Nights."



Arthur Miller, above, and Nora Ephron, with her sons Jacob (in red shirt) and Max, were profiled in documentaries.

Miller's third wife. To make the film, Ms. Miller had to examine intimate details of his earlier years. "That's what the weirdest part of it was," she says. "I'd think: It's unseemly for me to be in certain places," such as looking back at her father's meeting in a hotel room with Marilyn Monroe, who became his second wife.

She says in the film that her father was "funny, cuddly, jokey," seen sitting in a kitchen chair, let-

ting his daughter cut his hair. But she is aware of his flaws. In an interview with her half brother, Bob, she asks: "Do you think Dad had a weak spot for being adored?" He replies, "Yes."

One reason for the film's two-decade delay is that Ms. Miller didn't know how to handle the subject of her brother, Daniel, who was born in 1966 with Down syndrome and sent to an institution. In a voice-over, she says her father never

mentioned his son in public, and that she doesn't include her brother in the movie to protect his privacy.

She also needed distance to see Arthur Miller as a character on screen. "Ultimately I had to wait until he was dead to make the film," she says. "There was an element of duty to it, which luckily I lost somewhere along the way. I began to smell blood the way a filmmaker has to in order to make a decent piece of work."

# SPORTS



Houston Astros pitcher Dallas Keuchel celebrates with fans after the team clinched the AL West title. Below, Sports Illustrated's June 2014 cover.

MLB

## Astros Are Set for Lift Off

A wild Sports Illustrated prediction about Houston's rebuilding plan appears on schedule

BY JARED DIAMOND

**ON THE MORNING** of June 25, 2014, the Houston Astros organization woke up with a giant countdown clock ticking above its head. The latest issue of Sports Illustrated, a publication famous for its deeply reported features, gorgeous photography and comically poor prognostication skills, had just hit newsstands with a whopper of a prediction.

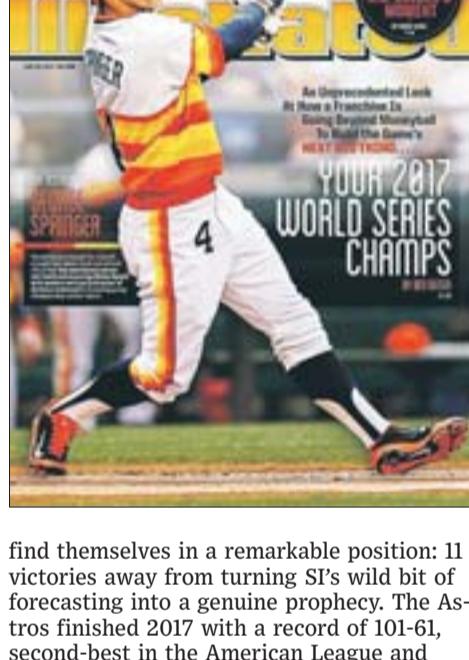
The cover highlighted outfielder George Springer, then a 24-year-old rookie, mid-swing, adorned in the Astros' delightfully retro red, yellow and orange striped throwback uniform. The headline, displayed in all capital letters just right of center, read:

YOUR 2017 WORLD SERIES CHAMPS.

At the time, the Astros had averaged 108 losses over the previous three seasons, a nearly unprecedented stretch of futility brought about by a rebuild of epic proportions. About three months later, they would finish 2014 with a ledger of 70-92, the franchise's sixth consecutive campaign under .500. That left the Astros all of three years to climb from the bleakest corner of baseball's basement to the absolute top of the major-league mountain.

"It seemed a little far-fetched at the time," said Dallas Keuchel, Houston's ace pitcher. "It was like, 'What the heck is going on?'"

But now, right on schedule, the Astros



T-B: ERIC CHRISTIAN SMITH/ASSOCIATED PRESS; SPORTS ILLUSTRATED

find themselves in a remarkable position: 11 victories away from turning SI's wild bit of forecasting into a genuine prophecy. The Astros finished 2017 with a record of 101-61, second-best in the American League and good enough for their first division crown since 2001. They enter the division series

against the Boston Red Sox on Thursday as a premier candidate to go home with rings.

About 3 1/2 years ago, Sports Illustrated touted the Astros' master plan as "BASEBALL'S GREAT EXPERIMENT." No matter what happens next, it worked.

"If we win it," Springer said in a recent interview, "then whoever wrote that story needs to go buy a lotto ticket."

Outside Houston, the reactions to the pick ranged from raised eyebrows to outright mockery, giving talk radio hosts and television screamers a new source of derision. Among Astros die-hards, though, the cover caused quite a stir, lighting up message boards and social media. Fans started bringing the magazine to Minute Maid Park for Springer to autograph, hoping it would one day ascend to a collector's item.

"It's still floating around," Springer said. "I see it a lot."

To the Astros, the Sports Illustrated cover was a perfect opportunity to showcase their unorthodox—and controversial—approach to a national audience. Under Jeff Luhnow, the ultra-analytically minded general manager who took over before the 2012 season, the Astros embarked on a full-blown teardown of the likes of which had never before been seen.

They parted with virtually all of their tradable assets, trying to bolster an uninspiring farm system. They abstained from adding

veteran free agents that might help them lose respectably, choosing to focus on young talent and load up on coveted high draft picks.

The Astros intentionally bottomed out—a strategy known today as "tanking."

Though relatively common in 2017—the Theo Epstein-led Chicago Cubs won the World Series last season after employing a version of this strategy—the idea of tanking violated baseball's conservative sensibilities. The Astros faced plenty of criticism within the industry.

So when the Astros granted journalist Ben Reiter access to their draft room in 2014, they did so in part because they "wanted recognition for the organization," Luhnow said. Suffice it to say, they received it, validating their effort. The Astros stopped doing big interviews on their plan after the piece ran, letting it act as the final word on the subject. At that point, Luhnow said, "people understood it. It was time to start generating some results."

Yet the article set a deadline the Astros didn't necessarily anticipate. Suddenly, fans expected the turnaround to end in 2017 and would judge the rebuild on the outcome of that season.

"Anytime you put out a prognostication like that, even tongue in cheek, people are going to look at it as some sort of barometer," Luhnow said.

The leaders at Sports Illustrated didn't initially conceive of Reiter's piece as a cover story. But Chris Stone, SI's managing editor, changed his mind after he read it, especially with a slow news week looming following the NBA and Stanley Cup Finals.

Stone, however, saw a potential problem: how to justify putting such a lousy team on the cover. So he asked Reiter a question: How long did he think it would take for the Astros to compete? From that conversation, Stone and his staff settled on the bold cover line. Stone said he "knew it might be a horrible prediction."

But at least in this case, nobody would invoke the infamous SI cover jinx.

"Put a team as low as a team can possibly be, there's only one way it can go," Reiter said. "Maybe that's the secret: Put really struggling subjects on the cover and we can call it the SI cover blessing."

Within SI, the cover sparked some debate, primarily from Alan Shipnuck, the magazine's golf writer. The Sunday before the issue closed, Michelle Wie won the U.S. Open. Shipnuck presumed that achievement would land his story about Wie on the cover. He presumed incorrectly.

When he found out, Shipnuck took to Twitter and "expressed bitter disappointment that the dopey Astros are on the cover and not Michelle Wie," he said. He meant it (mostly) as a joke, and the topic remains a (mostly) good-natured point of contention between Reiter and Shipnuck to this day.

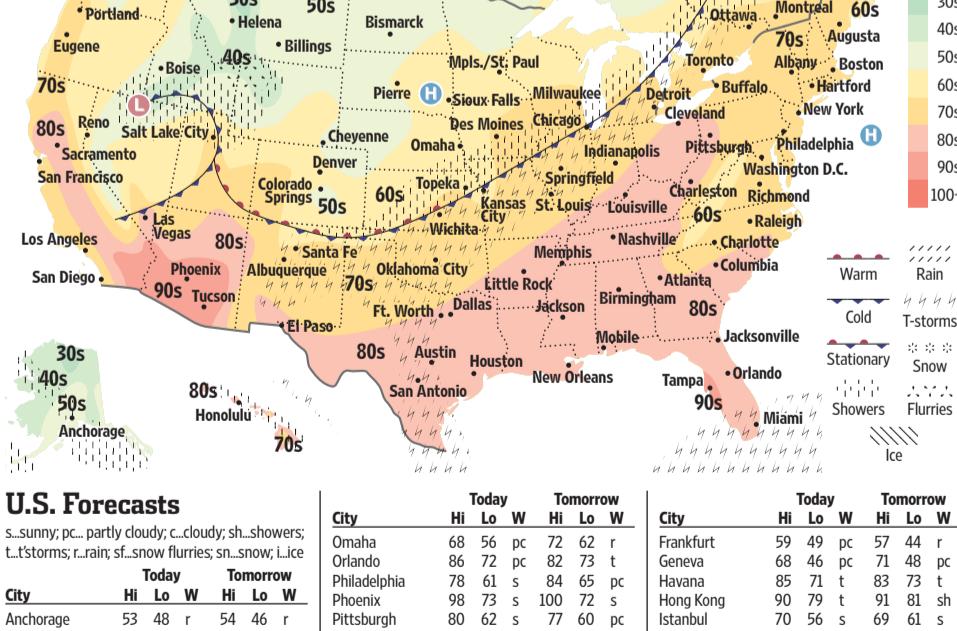
"It was a great story, a terrific story—and shouldn't have been on the cover," Shipnuck said. "But it sets us up to look like absolute geniuses right now. So I guess I apologize, begrudgingly."

It didn't take long for the Astros to start making Sports Illustrated look good. They won 86 games in 2015 and qualified for the playoffs ahead of schedule. That prompted SI to formally predict the Astros to win it all last year, but Houston went just 84-78 and missed the postseason.

Then 2017 arrived, the year of SI's fateful prediction. The magazine hasn't accurately picked the World Series winner since 1999. And when the preview issue came out this spring, the baseball staff chose...the Los Angeles Dodgers—despite Stone's objections.

"You have this plausible prediction we made three years ago," he said. "Why abandon it now?"

### 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 Today Hi Lo W

City Anchorage 53 48 r 54 46 r

Atlanta 80 59 s 83 63 s

Austin 86 69 pc 87 64 s

Baltimore 77 57 s 84 59 s

Boise 58 42 pc 65 41 pc

Boston 76 62 pc 76 57 pc

Burlington 77 56 s 72 50 pc

Charlotte 79 53 s 85 58 s

Chicago 73 55 r 71 59 r

Cleveland 84 60 t 77 59 c

Dallas 87 69 pc 88 68 pc

Denver 68 47 pc 71 48 c

Detroit 76 51 t 75 54 pc

Honolulu 87 78 pc 89 76 pc

Houston 89 70 pc 88 67 s

Indianapolis 78 63 c 79 64 c

Kansas City 68 63 t 74 63 r

Kansas City 83 59 s 86 63 s

Little Rock 83 63 pc 85 62 pc

Los Angeles 78 60 pc 84 60 s

Miami 84 77 t 84 78 t

Milwaukee 73 50 sh 69 55 c

Minneapolis 62 46 s 63 50 c

Nashville 84 57 s 84 59 s

New Orleans 85 72 pc 86 71 s

New York City 77 62 s 80 64 pc

Oklahoma City 76 65 t 79 64 pc

### International

Today Hi Lo W Today Hi Lo W

City Amsterdam 59 53 c 59 50 r

Athènes 77 61 s 78 63 s

Baghdad 96 63 s 90 63 s

Bangkok 83 75 t 86 76 t

Beijing 72 46 pc 70 52 s

Berlin 56 48 c 54 46 r

Buenos Aires 79 61 pc 72 48 pc

Dubai 101 83 s 101 83 s

Dublin 56 47 r 57 41 pc

Edinburgh 55 43 r 56 40 sh

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



### MULTIDIMENSIONAL | By Alex Eaton-Salners

Across	26 Source of a draft	50 "Looks tasty!"
1 Cell material	29 Activity at a country western bar	51 China setting
6 Crests	54 Midas motivation	52 Some shut-eye
11 Itty-bitty	32 "Find Your Grail" musical	55 Like "Utopia" or "Gulliver's Travels"
14 American Eagle's lingerie chain	34 Father and brother of Billy Ripken	61 "Selma" director DuVernay
15 "And there you have it!"	35 Casino moneymaker	62 Seattle sight
16 Scholarship, for example	36 "That's what ___ said!"	64 Key, for example
17 One in charge	38 "Young Frankenstein" role	65 Primal feelings
19 Barrister's deg.	41 Shot in the arm, e.g.	66 Unpleasant to the nose
20 Like some January balls	44 Squandered	67 Golf's "Big Easy"
21 One in a class by himself	47 Fly paper?	68 Standard & ___
23 Aloe vera yield		500
24 He lost twice to Riddick		69 Battery parts

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



## OPINION

# What if Paddock Were al Qaeda?



BUSINESS WORLD  
By Holman W. Jenkins, Jr.

Those who say gun control is the answer to massacres like Sunday's in Las Vegas are really saying they are willing to live with such outrages.

Gun-control proposals always float up in the aftermath of mass shootings, singularly detached from any plan that could be carried out, much less command majority support from the U.S. electorate. A law banning gun sales is not in the cards. A law seriously curtailing private gun ownership, as exists in the U.K., is not in the cards. If it were, enforcing it would be a whole other nightmare.

Non-meaningful gun regulations, in fact, were the specialty of a Democratic senator who long represented Nevada, scene of Sunday's killings. Harry Reid had a lifetime "B" rating from the National Rifle Association. A New York Times columnist on Monday, under the web headline "Preventing Mass Shootings Like the Vegas Strip Attack," proposed eight steps that, whatever their slight utility in lowering the rate of other kinds of gun crimes and suicides, even the writer admitted would have no "overwhelming effect" on gun deaths, let alone mass shootings.

Mass shootings of the modern ilk are a lot more like terrorist attacks than they are

like routine gun crimes, in which guns are used to settle an argument, facilitate a robbery or eliminate a rival. Mass shootings typically involve a substantial measure of planning and preparation. Stephen Paddock walked into a luxury hotel—correction, he walked into a *hotel-casino*, where it's part of the business model to know and watch customers carefully—with 23 weapons, ammo and related equipment. Here's a question: Do you think Paddock, if he had also spent 30 minutes on an al Qaeda or ISIS website, would have been allowed to get this far?

America's surveillance state—yes, we have one—finds what it's programmed to look for.

The actor John Leguizamo is currently seen on New York TV in a public-service ad singing the praise of license-plate readers that have replaced tollbooths and will snap your picture and send you a bill in the mail. Google and other ad servers know—God, do they know—if you happen to be interested in motorcycles. Facebook, until it discovered media blowback, allowed its algorithms to service anyone seeking to market his wares to self-identified "Jew haters."

Microsoft showed that search-engine queries can predict with a degree of accuracy who will be subsequently diagnosed with pancreatic cancer. Has anybody tried to reconstruct the electronic history of recent mass shooters

to see if their actions might also have been predictable?

Mark Barton, a day trader, killed nine people at two Atlanta trading firms in 1999 after losing a bunch of money on internet stocks. He vowed revenge on those who "greedily sought my destruction." Paddock is said to have been worth \$2 million thanks to real-estate investments, and to have spent his last years living the life of a "professional casino gambler."

**He likely would have been stopped, because surveillance finds only what it's looking for.**

These two claims would seem a tad incompatible. Casino odds are designed to favor the house (otherwise there wouldn't be a casino business). Anybody who plays for an extended period can expect to empty his bank account and fill the casino's. "Professional casino gambler" is a polite term for somebody psychologically addicted to losing money.

What's more, casinos keep tabs on how much their best customers are spending and losing. They are obliged by law to report to the federal government cash transactions of more than \$10,000, which Paddock was in the habit of making. If they haven't already, casinos surely will be deploying face recognition as

part of their careful monitoring of their premises.

Like Mark Barton, it wouldn't be surprising to learn that Paddock decided to go on a killing spree after gambling away his fortune. It wouldn't be surprising to learn he wasn't a normal, balanced person who just "snapped"—Mark Barton was shown in the aftermath to have been a demonstrable psychopath whom the law never quite managed to catch up with.

This column has always been partial to Dean Martin's theory of gun control. The singer was arrested with an illegal weapon in his car. When asked by a reporter if everybody should carry a gun, he joked, "No, just me."

Unfortunately, this is not a realistic basis for legislating for 330 million people. Let's stop covering our eyes with respect to the potential of big data. As a top U.S. intelligence official pointed out after 9/11, nearly every transaction and communication nowadays leaves an electronic trail—if we could only make use of it.

The information exists. It would be a job for algorithms, not human snoops, to rake through the unimaginable piles of data for the telltale patterns. Protection of privacy could be programmed into such a system, with rules specifying how such information can be surfaced for human consideration. So let's at least be willing to find out what the potential is.

**BOOKSHELF** | By Laura Vanderkam

## Your Spouse Is Not a Jerk

### The All-or-Nothing Marriage

By Eli J. Finkel  
(Dutton, 331 pages, \$28)

Once, marriage was about basics: safety, property, procreation. Roughly 200 years ago, people decided that love should be part of the mix. In the middle of the 20th century, the ideal marriage began ascending to the top of psychologist Abraham Maslow's famous hierarchy of needs, and it has stayed there, as an ideal, ever since. "In contrast to our predecessors, who looked to their marriage to help them survive," Eli J. Finkel writes in "The All-or-Nothing Marriage," "we look to our marriage to meet our needs for passion and intimacy and to facilitate our voyages of self-discovery and personal growth."

That's a lot to ask of a marriage between flawed human beings, and high divorce rates have become the norm. But that doesn't mean that the institution of marriage is doomed. "The average marriage has been getting worse over time," concedes Mr. Finkel, a Northwestern University professor of psychology and management, but "the best marriages today are better than the best marriages of earlier eras; indeed, they are the best marriages that the world has ever known."

Men and women today, he notes, can choose each other as adults who know themselves, support each other as equals and help each other develop into the best people they can be. Whatever the average state of marriage, the good news is that, unlike the fate of competitors in a winner-take-all financial transaction, one person's spectacular marriage doesn't doom anyone else's to failure.

Mr. Finkel's book shares research on what happens in the best marriages, with the aim to help everyone else likewise score an "all" rather than a "nothing" partnership.

Among the empirically evaluated strategies—he calls them "lovehacks"—that can improve marital quality: Train yourself to view a spouse's seemingly thoughtless actions as the temporary result of external causes rather than as character traits. (For example: "My spouse was late because he got stuck in traffic," as opposed to "My spouse was late because he is a thoughtless jerk.") Try to view any conflict from a neutral third party's point of view. And try to develop a "growth" mind-set, believing that a marriage can become better if you work to make it better rather than believing that if you had married the right person all would be effortless.

Elizabeth Gilbert, the twice-divorced author of "Eat, Pray, Love," comes in for criticism on this front for a passage in her book claiming that a couple's sexual experience is governed by natural laws—by a "mysterious magnet" that is either there or not—and that "these laws cannot be budged any more than gravity can be negotiated with." Mr. Finkel characterizes this outlook as a "destiny belief," the idea that partners are, or are not, "meant to be." He adds: "The science is clear that holding strong destiny beliefs is perilous, and I wouldn't be surprised if Gilbert's extreme adherence to such beliefs played a role in her divorces."

**Intimacy, passion, self-discovery, personal growth—we ask a lot of marriage these days. Much can be learned from marriages that go well.**

Of course, developing a growth mind-set is not easy, and anyone reading "The All-or-Nothing Marriage" hoping for a quick path to bliss in the midst of whiny children and burdensome mortgages is going to be disappointed. Gaining insight "typically requires significant investment of time and energy in the relationship," notes Mr. Finkel. This is why many marriages remain mired in mediocrity. People run out of steam, and while in the past a couple might have accepted this lackluster state as the human condition, modern types are surrounded by messages saying that, if spouses don't like the same TV shows or the same artisanal cheese, they're doomed. The disappointment can be tough to take.

Mr. Finkel offers some tough-love advice on this dilemma, though he takes a long time to get to it. He meanders through the history of marriage by retelling the history of humanity. Some sentences—e.g., "From 1929 to 1932, industrial production declined by 46 percent, foreign trade by 70 percent"—feel like something from a textbook. Because the research on marriage is less robust than one might imagine, he puts all sorts of findings into the narrative. The research about "extradyadic sex"—sex with somebody other than one's primary partner—reveals that "adding additional people to the relationship can vastly increase the complexity." Who would have thought?

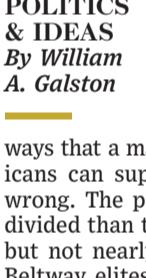
Mr. Finkel describes his one-time rookie mistake of believing that his wife agreed with him that Valentine's Day was a fake and overly commercialized holiday. Yet the presumably richer story of his wife's difficult pregnancies and his own difficult adjustment to parenthood is only partially discussed. He mentions that his marriage survived a bout of postpartum depression, adding in parentheses that it was his own; but we don't hear more about this until quite late in the book, when he skims over the saga of his depression in a few paragraphs. A longer and earlier discussion of his own vulnerabilities, and his own journey to building a stronger marriage, might have humanized the book a bit more.

He does, though, offer a useful vignette from his own life when arguing that couples should make time for their marriages "even if doing so requires that we transfer to a less stressful job or live in a home with dust bunnies or enroll our kids in fewer activities." The Finkels have a beautiful (if envy-inducing) solution: "Since they were babies, both of my children have had a sleepover at their grandparents' house on one weekend night each week, gone from perhaps 4 p.m. one day until 9 a.m. the next," Mr. Finkel writes. It's hard to envision a marriage that wouldn't be improved by a weekly leisurely dinner, intimacy without the possibility of a child banging on the door and the ability to sleep past 6 a.m.

Absent that, there's this: "Many of us—perhaps most—would benefit from considering ways that we might ask less of our marriage." Friends can be confidants. Fellow hobbyists can reduce the pressure on a spouse to pretend to enjoy a partner's leisure pursuits. Therapists can deal with the self-development stuff. "Such recalibration won't make our marriage flourish at the summit," Mr. Finkel writes, "but it can buy some time and goodwill to get us through fallow periods"—that is, through the mundane days of much of life.

*Ms. Vanderkam is the author of "I Know How She Does It: How Successful Women Make the Most of Their Time."*

## The Immigration Reform Americans Want



POLITICS & IDEAS  
By William A. Galston

After years of polarization and gridlock, many analysts have concluded that our most important political problems can't be solved—at least, not in ways that a majority of Americans can support. They are wrong. The people are more divided than they used to be, but not nearly as divided as Beltway elites. In fact, partisan competition is thwarting the will of the majority.

Take immigration, the issue most responsible for Donald Trump's victory. A Washington Post/ABC News poll released last week asked: "Do you support or oppose a program that allows undocumented immigrants to stay in the United States if they arrived here as a child, completed high school or military service, and have not been convicted of a serious crime?" Support for this program among registered voters was 86%, including not only 97% of Democrats and 86% of independents but 75% of Republicans. The breakdown by ideology was much the same, with 96% of liberals, 87% of moderates and 77% of conservatives registering approval.

Perhaps most significantly, 77% of white evangelical Protestants voiced support for a

policy resembling the Deferred Action for Childhood Arrivals program. White evangelicals, the GOP base, gave Mr. Trump more than 80% of their vote last November. And according to a CNN survey released last week, DACA is also acceptable to 76% of whites without a college education. That's Mr. Trump's own base.

If the U.S. Congress listened to the American people, it could pass a bill tomorrow giving DACA the force of law.

Many Republican leaders believe that no such legislation can pass unless it also increases funding for border security. The Washington Post/ABC survey found that linking DACA to border security reduces support among Democrats and independents without increasing it among Republicans. Still, a combination border security/DACA package receives the approval of 65% of registered voters, including 59% of Democrats and even 55% of liberal Democrats. On the other hand, a recent Quinnipiac survey found voters rejecting a link between DACA and border-wall funding by a margin of 57% to 37%.

Some conservatives oppose DACA in any form and want to prevent it from coming to a vote. Likewise, some progressives are trying to force Democratic leaders to reject a border-security-linked DACA bill. This is a test for both Paul Ryan and Nancy Pelosi.

Survey research also indicates broad public agreement on the basics—and Congress should listen.

Survey research also indicates broad public agreement on the basics of immigration reform.

According to a CNN survey released last week, 56% of Americans believe the priority should be changing immigration laws to better reflect the country's needs. Only 39% support reducing the overall number of legal immigrants. On the other hand, only 37% favor continuing the law's current focus on family reunification, compared with 51% who think that prospective immigrants' job skills and education are more important.

The Washington Post/ABC poll finds overwhelming support—82%—for requiring employers to verify that new

President Trump has made it clear that DACA legislation need not include wall funding—a deal-breaker for Democrats. So Mr. Ryan should be able to craft a reasonable border-security program as part of a DACA bill, and Mrs. Pelosi should be able to support it. If the two political parties cannot reach agreement even on measures their constituents strongly support, it is time to disband them and start over.

There is even broad agreement on the best approach to the vexing problem of the 11 million immigrants living illegally in the U.S. The Quinnipiac survey found that 19% of Americans favor deporting them; 9% think they should be allowed to stay but not to become citizens; and 68% believe they should not only stay but eventually be able to apply for citizenship. The super-majority for the third, most generous option includes 65% of whites without college degrees, who are wrongly stereotyped as fervent proponents of harshly restrictive immigration measures.

In sum, there is solid majority support for current levels of immigration; for a shift away from family reunification and toward economic contribution; for employer verification and enhanced border security but not a wall; for generous treatment for the Dreamers and a path to citizenship for immigrants who came to America illegally or overstayed their visas but have contributed to the country ever since (and who are prepared to learn English and wait their turn).

Will our political leaders muster the courage to do what the public wants?

## More Isn't Better for Twitter

By Gregg Opelka

It isn't every day that a chief executive officer lets us watch his publicly traded company self-immolate, but Twitter's Jack Dorsey is doing just that.

Twitter recently revealed that in limited markets it's allowing a "small group" of users to compose tweets of 280 characters, twice as much leash as the rest of us get. The company first announced it was considering the expanded format two years ago, although it's only implementing the idea now.

I argued back then in this very paper that "brevity is the soul of Twitter" and that raising the tweet ceiling was a bad idea. Two years later, I realize I was wrong. It's not a bad idea—it's suicidal. Oddly, Mr. Dorsey seems to be the only monthly active Twitter user who doesn't understand this.

Twitter's success depends on the growth of these frequent tweeters to attract advertising

dollars. The problem is, Twitter's monthly active users have plateaued at around 328 million (Facebook boasts 2 billion).

In its July 26 quarterly report, Twitter disclosed a surprising decline in monthly active users in the U.S. Its share price dropped more than 13% the next day.

**A lesson in how to destroy a brand, 280 characters at a time.**

This latest Twitter gambit to make the brand less niche and more popular, however, reeks of desperation. Not only is it unlikely to solve the problem; the company is on the verge of making a colossal, Twitter-ending blunder. Longer tweets are not better tweets. Do we need a twice-as-tweet Donald Trump?

Companies get into trouble when they forget what they do best. It's one thing to tinker

around the edges, another to destroy your core product. Take Chipotle. The burrito chain recently launched its queso cheese dip to predominantly scathing social media reviews. At best the caseous goo got damned with such faint praise as it's "perfectly fine queso" from GQ's Drew Magary. At least Chipotle wasn't foolish enough to tamper with its signature burrito bowl.

Or consider Netflix. Although it transformed itself from a company that rented DVDs by mail into an online streaming juggernaut, its core product—video delivery—never really changed. Even so, the road was hardly smooth. In late 2011, the movie distributor briefly split into two companies, Netflix for streaming videos, Qwikster for DVDs sent by mail. Users of both services had to maintain two separate accounts and pay two separate bills. Their noisy complaints gave CEO Reed Hastings two separate migraines and he wisely—and quickly—pulled the plug on Qwikster.

Twitter is routinely criticized for its anonymous, venom-spewing "trolls." Perhaps Mr. Dorsey should bone up on the original troll who famously remarked, "Know thyself." Socrates didn't need 280 characters to convey this ancient, sage advice.

*Mr. Opelka is a musical theater composer-lyricist.*

## OPINION

### REVIEW & OUTLOOK

#### Trump and the Fed

**D**onald Trump has thrown more than one curve ball since becoming President, but his looming choice to run the Federal Reserve Board could be his biggest bender to date. He may choose a Fed Chairman who represents the monetary policies that have favored the affluent and done little or nothing for the real economy.

Mr. Trump is considering a mix of insider and outsider candidates. The insiders include current Chair Janet Yellen, whose term expires early next year, and five-year Fed board veteran Jerome "Jay" Powell. The outsiders include Kevin Warsh, a Fed Governor during the financial crisis, and John Taylor, the distinguished Stanford monetary economist. Mr. Trump should know what these choices mean for monetary policy, which as George W. Bush learned can destroy an economic legacy.

\* \* \*

Ms. Yellen and Mr. Powell represent the monetary policies that have prevailed since the 2008 financial panic—and whose consequences Mr. Trump campaigned against. These include bond-buying to drive investors into riskier assets like stocks and junk bonds. This was helpful in the gale of the 2008-2009 panic but has been counterproductive as time has gone on.

The affluent who hold financial assets have done very well as stock prices have climbed. But this financial engineering hasn't helped the overall economy, which has stumbled along at 2% growth. This has exacerbated income inequality, and slow wage gains are one reason so many working-class voters turned to Mr. Trump in 2016. Why would the President want to embrace that policy now?

Mr. Trump may like that the Yellen-Powell Fed has kept interest rates low, but he shouldn't think that will continue. The Fed staff and current board majority believe the economy is already near full employment and can't grow much faster without triggering inflation. They believe the economy suffers from "secular stagnation" that limits growth.

But Mr. Trump is counting on tax reform and deregulation to boost growth to 3% a year from 2%. If that growth happens, the Yellen-Powell Fed may believe it has to raise rates rapidly, endangering faster growth. Guess whose policies will be blamed? Not the Fed's.

This is why the old "hawk vs. dove" monetary debate isn't all that relevant at the current moment. Outsiders like Messrs. Warsh and Taylor, or Columbia's Glenn Hubbard, believe that tax reform and deregulation can increase the economy's capacity to grow above 3%. They therefore might raise interest rates more slowly than the Yellen-Powell faction would.

The outsiders think the Fed's main recent mistake has been taking so long to unwind its

\$4.5 trillion balance-sheet holdings. These Fed purchases are a political overhang in the economy that misdirects capital to big companies and government. The great unwinding has now begun but no one knows what economic impact it will have. This is one reason to be cautious about raising rates if inflation remains low.

Mr. Trump might also notice that the same people who hate his tax reform also oppose the outsider Fed candidates. The economic left has been staging its own panic since word broke last week that the President had interviewed Mr. Warsh. Progressives aren't worried Mr. Warsh would raise rates; they're worried he'd support the Trump tax and deregulation agenda.

Another issue is the need for a Fed Chair who can maneuver in a financial crisis. Whatever his talents as a salesman, Treasury Secretary Steven Mnuchin has no experience with turbulent financial markets. Mr. Powell arrived at the Fed after the crisis and hasn't been an intellectual leader on the board. His main market experience is with the Carlyle Group, the private-equity outfit. Ms. Yellen was president of the San Francisco Fed during the panic but wasn't one of the Fed's leaders at the time.

By contrast, Mr. Warsh was part of former Fed Chairman Ben Bernanke's inner circle during the worst of the panic. Having worked at Morgan Stanley, he provided crucial insight into the real condition of Wall Street, and well before the panic he told his Fed colleagues that the financial system was vastly undercapitalized.

"I think, most fundamentally, that the business model of investment banks has been threatened, and I suspect the existing business model will not endure through this period," Mr. Warsh told a Fed meeting on March 18, 2008, according to the official transcript. At the same meeting, then Fed Vice Chairman Tim Geithner disagreed: "It is very hard to make the judgment now that the financial system as a whole or the banking system as a whole is undercapitalized." Mr. Warsh was right.

At the Bush Treasury in 2001-02, Mr. Taylor helped to prevent a currency crisis in Latin America after Argentina defaulted on its debt. Both Messrs. Warsh and Taylor also have contacts around the world and know the importance of global exchange rates to financial stability.

All of this would make it a stunner if Mr. Trump bet on the Yellen-Powell Fed for the next four years. It would be comparable to promising as a presidential candidate to nominate someone like Antonin Scalia to the Supreme Court and then nominating a younger version of Ruth Bader Ginsburg. Mr. Trump needs a Fed Chairman who won't be a hostage to the Fed staff or at odds with the President's growth agenda. He needs an outsider who is a reformer.

#### Evening the Cuban Score

**A**fter more than 10 months Cuba still hasn't explained how 22 American diplomats in Havana suddenly came down with brain trauma, permanent hearing loss, dizziness, nausea and cognitive disruption. Experts believe the injuries are a result of mysterious "sonic" attacks, but the police state claims to be clueless.

On Tuesday the State Department responded by giving Havana a list of 15 Cuban diplomats (spies) at the Cuban Embassy in Washington who have seven days to leave the U.S. The decision follows a Friday announcement that State is recalling all nonemergency personnel and their families from the U.S. Embassy in Havana. State also warned Americans against traveling to Cuba since some of the attacks have occurred at hotels.

Havana has to protect U.S. diplomats if it wants good relations.

That means bringing Havana-based staff home, especially since the latest attack occurred as recently as August. State says the expulsion of Cuban personnel from Washington this week is an effort to ensure there "would be an equitable impact in our two embassies' ability to operate."

The ruling Castro regime wants to be a respected member of the civilized world, but it first has to be civilized.

come out one case after another as these cases are brought in every state.

And that is going to cause very serious harm to the status and integrity of the decisions of this Court in the eyes of the country."

Mr. Smith: "Your Honor—"

Chief Justice: "It is just not, it seems, a palatable answer to say the ruling was based on the fact that EG was greater than 7%. That doesn't sound like language in the Constitution." . . .

Mr. Smith: "If you let this go, if you say this is—we're not going to have a judicial remedy for this problem, in 2020, you're going to have a festival of copycat gerrymandering the likes of which this country has never seen."

And it may be that you can protect the Court from seeming political, but the country is going to lose faith in democracy big time because voters are going to be like—everywhere are going to be like the voters in Wisconsin and, no, it really doesn't matter whether I vote."

Chief Justice: "No, but you're going to take this—the whole point is you're taking these issues away from democracy and you're throwing them into the courts pursuant to, and it may be simply my educational background, but I can only describe as sociological gobbleygook."

Gerrymanders are unsightly, but worse would be the sight of federal judges becoming political arbiters of every electoral map based on evidence that voters are likely to conclude is itself partisan.

Chief Justice Roberts lays out the peril for judges on gerrymanders.

**T**he Supreme Court debated the legality of partisan gerrymanders on Tuesday, with swing Justice Anthony Kennedy giving few clues about his vote in *Gill v. Whitford*. But for our money, the key exchange came in Chief Justice John Roberts' questioning of Paul Smith, the lawyer for plaintiffs who say Wisconsin's gerrymander is so partisan that it violates the Constitution.

The Chief zeroed in on risks for the credibility of the judiciary if the Supreme Court invalidates a state electoral map on purely political grounds for the first time. His reference to EG is to a political science standard offered by the plaintiffs as a test of when an electoral map is too partisan.

Chief Justice Roberts: "We will have to decide in every case whether the Democrats win or the Republicans win. So it's going to be a problem here across the board."

And if you're the intelligent man on the street and the Court issues a decision, and let's say the Democrats win, and that person will say: Well, why did the Democrats win? And the answer is going to be because EG [the efficiency gap] was greater than 7%, where EG is the sigma of party X wasted votes minus the sigma of party Y wasted votes over the sigma of party X votes plus party Y votes.

And the intelligent man on the street is going to say that's a bunch of baloney. It must be because the Supreme Court preferred the Democrats over the Republicans. And that's going to

come out one case after another as these cases are brought in every state.

And that is going to cause very serious harm to the status and integrity of the decisions of this Court in the eyes of the country."

Mr. Smith: "Your Honor—"

Chief Justice: "It is just not, it seems, a palatable answer to say the ruling was based on the fact that EG was greater than 7%. That doesn't sound like language in the Constitution." . . .

Mr. Smith: "If you let this go, if you say this is—we're not going to have a judicial remedy for this problem, in 2020, you're going to have a festival of copycat gerrymandering the likes of which this country has never seen."

And it may be that you can protect the Court from seeming political, but the country is going to lose faith in democracy big time because voters are going to be like—everywhere are going to be like the voters in Wisconsin and, no, it really doesn't matter whether I vote."

Chief Justice: "No, but you're going to take this—the whole point is you're taking these issues away from democracy and you're throwing them into the courts pursuant to, and it may be simply my educational background, but I can only describe as sociological gobbleygook."

Gerrymanders are unsightly, but worse would be the sight of federal judges becoming political arbiters of every electoral map based on evidence that voters are likely to conclude is itself partisan.

#### LETTERS TO THE EDITOR

#### There's Little Remedy in Remedial Education

I am dismayed to read "Colleges Rethink Remedial Education" (U.S. News, Sept. 28). I am a beneficiary of remedial college classes that took a lazy, unprepared 18-year-old kid and taught him how to be an active and analytical thinker. In my case, these courses were transformative. I ultimately earned a Ph.D. in economics from one Ivy League school, was a faculty member at another Ivy League school, and today I am an economist at one of the world's leading policy institutions. The simple reality is that many teens simply aren't mature enough or don't have enough of a support structure to make the right choices early in their lives.

Many of these kids are bright and gifted people who can make a difference in the world if they are provided with a second chance. Among the things that make our country great are that one's life path isn't determined by birthright and that people have multiple opportunities to make the right choices. An overly rigid and hierarchical educational system that identifies winners and losers at the age of 18 moves us far too close to a world in which one's fate is all but determined before a person has the intellectual and emotional capacity to make an informed choice. I wince at the notion that the number of second chances available to young people is getting smaller and not larger. Ultimately, we all pay the price of misallocated human capital.

SEAN CAMPBELL  
Clifton, Va.

The world's most expensive high-school education is the one you get from your college. Students who fail basic readiness tests should be sent back to a high school—not necessarily the one from which they got their diplomas—for remedial education. It's dishonorable for colleges to admit

these students just to fill seats and fill coffers. Send them back to high school, and let them enter college only when prepared.

JORDAN ROSENBERG  
San Francisco

Reteaching basic skills isn't analogous to an inoculation. It isn't a one-time shot but must be seen as a resetting of lifelong habits, which takes real commitment. Without a solid reading habit, college is impossible. It takes years of reading to become competent. Math skills are essential for every STEM subject. Science and math are a continuum. I have vivid memories of trying to teach college chemistry to a class that was essentially anumeric—numbers were unknown territory to them. I was instantly transported into a fourth-grade teaching mode. These students hadn't incorporated the concept of fractions and couldn't see that 1/4 of something is a smaller amount than 1/2. It isn't necessary to be a math whiz to learn science, but no one can balance a chemical equation without a basic understanding of how much stuff in a reaction are we talking about.

Remediation at the college level is doomed to fail for most students because the work habits essential to sustained learning are all too often absent. People who can accept the idea that endless practice for sports excellence is necessary for proficiency should be able to realize that the same dedication of time and effort is necessary for noncontact pursuits. If people do want to change their lives, there should be a place for them; college isn't that place. This is like learning a new language as an adult, which takes both time and dedication. It cannot fit in the same time slot with a full-time college program or a full-time job.

BARBARA CHARTON  
Brooklyn Heights, N.Y.

#### It Is Like 'Jaws' but ObamaCare Is the Shark

Alan Blinder sounds the alarm that "The Graham-Cassidy Show Is Like 'Jaws'—and You're the Swimmer" (op-ed, Sept. 22), lending credence to your same-day editorial that "The Panic Over Graham-Cassidy" is an indicator of the left's belated horror that the bill might be passed. Mr. Blinder's "Jaws" metaphor is interesting, given that the bipartisan consensus appears to be that we all now are standing on a sinking ObamaCare ship. As your editorial notes, Democrats already are salivating over a single-payer, Medicare-for-all rescue at sea; a last-minute GOP course change away from ObamaCare wreckage would be devastating to that goal.

Mr. Blinder says that "you" will be sadly mistaken if you thought it was safe to go in the health-care waters and a resurrected Graham-Cassidy suddenly passes. Mr. Blinder's "you" obviously means the readers of the Journal. The majority of readers, however, are likely to be taxpayers, and the majority of taxpayers are likely to have private health insurance. Private insurance premiums are rising already, as the insurance industry tries to make up for low profit margins or losses on ObamaCare policies. At the same time, health-care costs are rising as health-service providers try to make up for price squeezing by Medicaid and Medicare. When health-care providers and insurers are squeezed, taxpayers even

#### Opioid Addicts Need Care, And Medicaid Provides It

Regarding Alyssia Finley's "Does Medicaid Spur Opioid Abuse?" (op-ed, Sept. 25): The opioid epidemic continues to plague our nation because we have not yet adopted the comprehensive approach necessary to address this problem. At the National Center on Addiction and Substance Abuse, we understand that an essential component is ensuring people who are already addicted have access to treatment; an individual with Medicaid is two to three times more likely to receive opioid addiction treatment than one with private insurance. Ms. Finley's suggestion that rolling back Medicaid as a solution is deadly.

If there is any lesson to be learned from our country's previous failed attempts to address addiction, it is that solutions based on emotion, anecdote, intuition or political expediency don't work. Let's stop making the same mistakes and embrace Medicaid as an integral part of the public health approach necessary to address our nation's addiction crisis.

LINDSEY VUOLO, J.D., M.P.H.  
The National Center on Addiction and Substance Abuse  
New York

Letters intended for publication should be addressed to: The Editor, 1211 Avenue of the Americas, New York, NY 10036, or emailed to [wsj.ltrs@wsj.com](mailto:wsj.ltrs@wsj.com). Please include your city and state. All letters are subject to editing, and unpublished letters can be neither acknowledged nor returned.

#### Pepper ... And Salt

THE WALL STREET JOURNAL



## OPINION

# The Health Reform That Hasn't Been Tried

By Scott Atlas

**R**epublicans have now failed twice to repeal and replace ObamaCare. But their whole focus has been wrong. The debate centered, like ObamaCare, on the number of people with health insurance. A more direct path to broadening access would be to reduce the cost of care. This means creating market conditions long proven to bring down prices while improving quality—empowering consumers to seek value, increasing the supply of care, and stimulating competition.

*First, equip consumers to consider prices.* Critics always claim this is unrealistic: Are you supposed to shop around from the back of the ambulance? But emergency care represents only 6% of health expenditures. For privately insured adults under 65, almost 60% of spending is on elective

**ObamaCare subsidizes bloated insurance policies. Republicans should try a whole new approach.**

outpatient care. Likewise, nearly 60% of Medicaid money goes to outpatient care. For the top 1% of spenders—a group responsible for more than a quarter of all health expenditures—a full 45% is outpatient. Giving consumers an incentive to consider price when seeking such care would make a huge difference.

ObamaCare moved in the opposite direction, shielding consumers from having to care about prices. Its broad coverage requirements and misguided subsidies encouraged bloated insurance policies, furthering the misguided idea that the purpose of coverage is to minimize out-of-pocket costs. When the insurer picks up nearly the entire tab, patients

have little reason to consider costs, and doctors don't need to compete on price.

Effective reform would put patients in charge of their own spending, while giving them a way to gain from paying less. The first step is to broaden the availability of high-deductible insurance plans with fewer mandated coverage requirements. ObamaCare went in the wrong direction. Its regulations—including required “essential benefits”—raised prices on these plans and limited their availability.

My analysis of data from the Employer Health Benefits Annual Survey shows that premiums on high-deductible policies rose between two and five times as fast as other types of coverage. It would also help to repeal ObamaCare's 3-to-1 age rating, the rule that insurers can charge the oldest customers only three times what they charge the youngest ones. This alone raised premiums for young people by 19% to 35% in 2014, according to an estimate for America's Health Insurance Plans.

A second tool for motivating patients to consider price is large, liberalized health savings accounts. These tax-sheltered accounts are generally used to pay for the noncatastrophic expenses that form the bulk of medical care. Better than tax deductions, HSAs introduce something unique—an incentive to save.

When people have savings to protect in HSAs, the cost of care drops without harmful effects on health. A study two years ago that analyzed data from 2003-07 showed that the spending of patients with HSAs and high-deductible plans decreased by 15% a year. If even half of Americans with employer-sponsored insurance enrolled in this kind of coverage, U.S. health expenditures would fall by an estimated \$57 billion a year, according to a 2012 study in *Health Affairs*.

HSAs should be available to all Americans, including seniors on Medicare. Given that seniors use the



GETTY IMAGES

most health care, motivating them to seek value is crucial to driving prices lower. Life expectancy from age 65 has increased by 25% since 1972, meaning Americans need to save for decades of future health care. Raising maximum HSA contributions, now \$3,400 a year for an individual, to at least match the limit on individual retirement accounts of \$5,500 a year, is one important step. When a person with an HSA dies, the funds should be allowed to roll over tax-free to surviving family members. HSA payments should also be permitted for the expenses of the account holder's elderly parents.

The information that patients require to assess value must be made radically more visible. A 2014 study on magnetic resonance imaging showed that price-transparency programs reduced costs by 18.7%. The most compelling motivation for doctors and hospitals to post rates would be knowing that they are competing for price-conscious patients empowered with control of their own money.

*Second, work strategically to increase the supply of medical services to stimulate competition.* In large part, this means deregulation.

Lawmakers should remove outmoded scope-of-practice limits on qualified nurse practitioners and physician assistants. That would enable them to staff private clinics that would provide cheaper primary care, including vaccinations, blood-pressure checks, and common prescriptions. In a 2011 review, 88% of visits to retail clinics involved simple care, which was provided 30% to 40% cheaper than at a physician's office, while keeping patients highly satisfied.

Medical credentialing should be simplified, and the licensing boards should institute reciprocal (national) licensing for doctors to help telemedicine proliferate across state lines. Medical school graduation numbers have stagnated for almost 40 years. Some projections suggest a shortage of 124,000 doctors by 2025, with almost two-thirds being specialists. Yet medical societies artificially restrict competition by imposing protectionist residency limits that raise prices and harm consumers.

Archaic barriers to medical technology also impede competition and raise prices. Although originally intended to restrain “health care facility

costs,” certificate-of-need requirements, which require health-care providers to get permission from the state to add medical technology like MRI scanners, are an example of bureaucratic overregulation. Despite unintended consequences, they are still in place in 34 states, Puerto Rico and the District of Columbia.

*Third, introduce the right incentives into the tax code.* Today employees aren't taxed on the value of their health benefits—and there is no limit to that exclusion. This creates harmful, counterproductive incentives. It encourages higher demand for care and minimizes concerns about cost.

Similarly, ObamaCare's premium subsidies and the tax credits proposed by Republicans artificially prop up high insurance premiums for bloated coverage that minimizes out-of-pocket payments. This prevents patients from caring about the bill, which reduces the incentives for doctors and hospitals to compete on price. If health-care deductions are maintained, the tax code should cap them and limit eligibility to HSA contributions and catastrophic premiums.

In other countries, governments hold down costs mainly by limiting access to care, drugs and technology. The results are long waits and worse medical outcomes, particularly for the poor and middle class, who are unable to circumvent those single-payer systems. If Republicans want to avoid going down that road, they need to educate the public on the benefits of a different approach: leveraging incentives and deregulation to reduce prices so that quality health care is affordable for all Americans.

*Mr. Atlas is a senior fellow at Stanford's Hoover Institution and author of “Restoring Quality Health Care: A Six Point Plan for Comprehensive Reform at Lower Cost” (Hoover Press, 2016).*

## ‘Price Gouging’ After a Disaster Is Good for the Public

By Donald J. Boudreaux

**A**s Hurricane Maria barreled toward Puerto Rico, Sen. Bill Nelson worried that ticket prices for flights out of San Juan and other Caribbean cities would surge. The higher costs would prevent some people from fleeing the storm, the Florida Democrat figured. Using his influence as head of the Senate committee that oversees airlines, he urged major U.S. airlines to cap fares for flights leaving cities in Maria's path.

Airlines quickly complied. Mr. Nelson's office declared victory. Economists wept.

That's because high prices are an essential way to ensure that resources get where they are desperately needed. Imposing artificially low prices creates shortages of vital supplies and makes it harder for people to recover from disasters.

Consider gasoline. In Orlando, Fla., a gallon of regular was selling for as much as \$5.99 in the days before Hurricane Irma made landfall, and a 24-pack of bottled water was spotted selling for \$99.99 from a third-party vendor on Amazon.

The impulse to denounce the greed reflected in such prices is human. But price hikes are a response to scarcity, and signals that reveal the true severity of scarcity are critical during storms and other crises. Price hikes let consumers know that fuel is scarcer than it was. Price hikes prompt consumers to use fuel more judiciously, buying less gasoline than they would at a lower price. They take fewer unnecessary trips, diminishing pressure on supplies. Price hikes also create a financial incentive for suppliers from outside the area to move their product into high-demand zones. As supplies return to normal, so do prices.

Unfortunately, some politicians can't restrain themselves from intervening to stop prices from rising.

Florida merchants are fined \$1,000 for price-gouging during emergencies. Multiple violations in a single day can draw fines as high as \$25,000. Members of the House Judiciary Committee recently asked the Federal Trade Commission to investigate “disaster profiteers” who exploited hurricane victims with price gouging.

**If government prohibits suppliers from charging more, consumers hoard, exacerbating shortages.**

Yet politicians who suppress prices make it more difficult for storm victims to get much-needed supplies. Artificially low gasoline prices ensure that limited supplies are depleted too quickly, as consumers hoard cheap fuel while they can get it. When price controls on

gasoline kicked in with the 1973 OPEC oil embargo, consumers increased the average “reserve” level in their gas tanks. Six years later they began hoarding again when price controls came back after Iran's 1979 revolution.

The behavior was rational, but only because U.S. policy makers created panic and artificial shortages. During both crises, global oil supply hardly decreased. But Americans wasted hours in long lines and filled their tanks with gas they didn't necessarily need.

Wasted time has real costs. In 1980 a regulatory quirk forced a handful of California Chevron stations to sell gasoline at below-market prices. Long lines formed, consumers purchased more gas than they otherwise would have, and stations had to ration supplies.

Most of the consumers taking advantage of artificially low prices would have been better off just about anything else. In a 1985 study, economists Robert Deacon

and Ron Sonstelie concluded that those who waited in line for 15 minutes saved only about \$2—less than the average nonsupervisory employee would have earned in a quarter-hour at the time.

History proves that artificially low prices reduce supply, too. As New Year's revelers in New York City welcomed 2015, Uber's surge-pricing algorithm stopped working for nearly 30 minutes. Without the guarantee of extra pay, drivers had little incentive to brave New Year's traffic. Requests spiked 300%, wait times doubled, and the rate of completed trips fell 80%. People who really needed Ubers—and would have been willing to pay surge pricing—couldn't get a ride.

A similar situation unfolded in Florida last month when JetBlue, Delta and American voluntarily restrained ticket prices on flights out of Florida before the hurricane.

By dropping prices during the evacuation, the airlines ensured that flights filled up more

quickly, making it harder for many to escape. Some evacuees no doubt booked multiple low-cost flights after prices dropped as a hedge against cancellation. Paying a premium for airline tickets is unpleasant, but letting seats go to waste during an evacuation is tragic.

Price increases are an important means of encouraging as many people as possible to cope as well and as creatively as possible with natural disasters. True, the rising price of goods like gasoline can create problems for consumers, particularly the poor. But these drawbacks are negligible compared to the life-threatening shortages that can result when ill-informed public outrage keeps prices artificially low.

Even a poor person is better off being able to buy a bottle of water for \$10 when the alternative is to have \$10 and go thirsty.

*Mr. Boudreaux is a professor of economics at George Mason University.*

## Bangladesh and the Rohingya Refugees

By Sadanand Dhume

**F**ew people would have predicted a year ago that the face of compassion in an Asian refugee crisis would be not Aung San Suu Kyi, the soft-spoken Nobel laureate from Burma, but her little-known neighbor, Prime Minister Sheikh Hasina of Bangladesh.

Since the end of August, some 500,000 Rohingya Muslims fleeing persecution in Burma's Rakhine state have flooded makeshift refugee camps in Bangladesh. Many have shared blood-curdling tales of violence by Burma's military—at times aided by local vigilante groups—that followed an Aug. 25 attack by Rohingya militants on border posts.

The United Nations human-rights chief calls the actions of Burma, also known as Myanmar, a “textbook example of ethnic cleansing.” But so far only Bangladesh, one of Asia's most densely populated countries, has opened its borders to the displaced.

In an interview last month in New York to address the U.N. General Assembly, Ms. Hasina explained why the Rohingya crisis has struck a chord with her and many of her compatriots. The prime minister finds parallels with her own nation's blood-drenched birth in 1971, when what was then East Pakistan seceded to form Bangladesh.

“What the Pakistani military did with us, with our people, was the same thing,” Ms. Hasina says. In her telling, this traumatic history—official Bangladeshi accounts say the Pakistani army and its allies killed three million people in their bid to prevent independence—places a responsibility on Bangladesh to help the persecuted. “We know what suffering means,” she says.

Though the Rohingya are Muslims, and Bangladesh is a Muslim-majority country, Ms. Hasina's hospitality doesn't come naturally. Her country holds about half as many people (163 million) as the U.S., in a flood-prone area roughly the size of Iowa. Though it has pulled itself out of extreme poverty—no longer the “basket case” Henry Kissinger dubbed it at birth—with a per capita income of \$1,360, it's not exactly wealthy either.

Moreover, although the Burmese government labels the Rohingya as “Bengalis,” refusing to acknowledge them as one of the nation's ethnic groups, the average Bangladeshi doesn't speak the same language or

feel any particular kinship toward the refugees. In the past, Bangladesh has resisted accepting waves of fleeing Rohingya, working with Burma to repatriate them.

Even now, speedy repatriation, rather than stepped-up aid, is Ms. Hasina's main demand from the rest of the world. “So many countries are coming up with relief materials and are supporting them. What we want from them [the international community] is that they should pressure the Myanmar government. They should take them back.”

**Faced with an influx of refugees from Burma, Prime Minister Sheikh Hasina shows compassion.**

An editorial in this newspaper spoke of “the collapse of the Aung San Suu Kyi myth.” A petition on Change.org to rescind Ms. Suu Kyi's Nobel Peace Prize, awarded in 1991 for her campaign for democracy in Burma, has attracted more than 425,000 signatures.

Despite all this, or perhaps because of it, Ms. Hasina refuses to criticize Ms. Suu Kyi. “Why do you blame only her?” she asks. “Why not the military rulers or the government?” Ms. Hasina says Burma's democracy is “very nascent” and Ms. Suu Kyi is “not the head of the government.”

Having experienced military dictatorship herself, the Bangladeshi leader empathizes with her neighbor's tenuous grip on power. “Yes, she may have shown more sympathy to these people. She should be sympathetic,” she says softly. “But she couldn't do that. Why, I don't know.”

Over the years, Ms. Hasina hasn't endeared herself to the West. This is due in part to her not belonging to her country's Anglophone elite. (She signed a copy of her father's unfinished memoir for this columnist in Bengali.) She's also displayed an authoritarian streak, clamping down on free speech and railroading political rivals.

But on the Rohingya issue Ms. Hasina has stood up to be counted while leaders feted in the West—including Narendra Modi in India—have looked the other way. “Bangladesh is not a rich country, but we have a big heart,” says Ms. Hasina. Hundreds of thousands of weary refugees would agree.

*Mr. Dhume is a resident fellow at the American Enterprise Institute, and a columnist for WSJ.com.*

## THE WALL STREET JOURNAL.

PUBLISHED SINCE 1889 BY DOW JONES & COMPANY

Rupert Murdoch  
Executive Chairman, News Corp  
Gerard Baker  
Editor in Chief

Matthew J. Murray  
Deputy Editor in Chief

DEPUTY MANAGING EDITORS:

Michael W. Miller, Senior Deputy;

Thorold Barker, Europe; Paul Beckett,

Washington; Andrew Dowell, Asia;

Christine Glancey, Operations;

Jennifer J. Hicks, Digital;

Neal Lipschutz, Standards; Alex Martin, News;

Shazna Nessa, Visuals; Ann Podd, Initiatives;

Matthew Rose, Enterprise;

Stephen Wisniewski, Professional News

Paul A. Gigot, Editor of the Editorial Page;

Daniel Henninger, Deputy Editor, Editorial Page

WALL STREET JOURNAL MANAGEMENT:

Suzi Watford, Marketing and Circulation;

Joseph B. Vincent, Operations;

Larry L. Hoffman, Production

**DOW JONES**  
News Corp

EDITORIAL AND CORPORATE HEADQUARTERS:

1211 Avenue of the Americas, New York, N.Y., 10036

Telephone 1-800-DOWJONES

## WORLD NEWS

# Palestinian Talks Hit an Impasse

Hamas's refusal to disarm in the Gaza Strip puts it at odds with governing body

BY RORY JONES

GAZA CITY—The Palestinian Authority convened its first cabinet meeting in the Gaza Strip in three years, but talks between the internationally recognized Palestinian governing body and Hamas hit a stumbling block over the latter's refusal to disarm.

Landmark talks to end a decadelong rift between the two Palestinian factions and return control of the Hamas-ruled enclave to the authority hinge partly on the political and militant group agreeing to completely disarm. The authority's president, Mahmoud Abbas, has warned he won't allow Hamas to maintain its armed wing as part of a unity government.

"For sure, Hamas will never accept this...dismantling al-Qassam," said Hazem Qassem, spokesman for Hamas, referencing the armed wing known as the Izz al-Din al-Qassam brigades.

Tuesday's cabinet meeting was convened by the authority's prime minister, Rami Hamdallah, before authority



Palestinians rallied in Gaza City on Tuesday with posters of Prime Minister Rami Hamdallah and President Mahmoud Abbas.

ministers then visited the Gaza outposts of their respective departments. The cabinet last convened in Gaza in 2014, during reconciliation talks between Hamas and the authority.

The question of al-Qassam's fate overshadowed the two-day visit to Gaza, which began on Monday, by a delegation of

high-ranking authority officials, including Mr. Hamdallah. Negotiations over the issue are likely to continue next week in Cairo. Egyptian intelligence officials also helped broker the talks in Gaza.

Mr. Abbas said late Monday that he wouldn't allow a situation in the Palestinian territo-

ries such as that in Lebanon, where the militant and political group Hezbollah maintains a de facto army alongside Lebanese national forces.

"I will not accept or copy or reproduce the Hezbollah example in Lebanon," he said, according to comments carried by official Palestinian Author-

ties media. "Everything must be in the hands of the Palestinian Authority."

Hamas and the authority, which is dominated by Mr. Abbas's Fatah party, are working to dispel years of mutual distrust and create a united national movement that can negotiate peace with Israel.

## Defense Chief Says Iran Nuclear Deal Is in U.S. Interest



BY NANCY A. YOUSSEF

WASHINGTON—Secretary of Defense Jim Mattis told lawmakers he supports the 2015 international nuclear deal with Iran, even though President Donald Trump has called it "one of the worst and most one-sided" agreements ever made by the U.S.

At a hearing, Maine Sen. Angus King asked Mr. Mattis whether he thought the deal was in "our national security interest at the present time." After a pause, Mr. Mattis re-

plied: "Yes, senator, I do."

He went on to say he supports a "rigorous" administration review to determine whether Iran is living by the agreement and whether it is in the U.S. interest. "I believe, at this point in time, absent indications to the contrary, it is something the president should consider staying with," he said.

Mr. Trump must certify to Congress whether Iran remains in compliance with the deal by an Oct. 15 deadline. He repeatedly has criticized the deal for overlooking Iran's missile devel-

opment and regional military involvements, including its support for Syrian President Bashar al-Assad. Secretary of State Rex Tillerson also has said Iran has remained in technical compliance with the terms of the deal.

One Trump administration official said Tuesday that Mr. Mattis was "put on the spot" at the hearing and isn't at odds with the president.

Mr. Mattis made his comments before the Senate Armed Services Committee at a hearing held to discuss U.S. strategy in Afghanistan.

—Isabel Coles  
and Ali A. Nabhan

FRANCE

### Lower House Clears An Antiterror Bill

The National Assembly passed contentious antiterror legislation Tuesday that seeks to enshrine extraordinary powers the government adopted years ago when it declared a state of emergency in the wake of the Nov. 13, 2015, attacks.

The bill, first proposed in July and approved in a different form by the senate, would fix in common criminal law some of the emergency measures that France has deployed for the longest period in its history, since the November 2015 series of terrorists attacks that killed 130 people in the French capital.

Senators and lawmakers are expected to agree on a single text by the middle of this month.

Lawmakers in the lower house voted 415-127 to approve the bill, with 19 abstentions.

Interior minister Gérard Collomb said the legislation aimed to balance concerns over the limits of law enforcement with objections from rights organizations that new legislation would curtail freedoms.

—William Horobin



Satisfaction

Aspirations

WHAT DO PEOPLE *really* INVEST IN?

You might say "equities" or "fixed income." But what people really put their money into is what they hope to get out of life. And helping people get there requires an absolute refusal to settle for average. Because we approach investing with a tireless desire to beat the status quo, our clients might just get what they want out of life. Or even more. [invesco.com/MoreOutOfLife](http://invesco.com/MoreOutOfLife)

NOT FDIC INSURED | MAY LOSE VALUE | NO BANK GUARANTEE

Invesco Distributors, Inc.

# BUSINESS & FINANCE

© 2017 Dow Jones & Company. All Rights Reserved.

\* \* \* \* \*

THE WALL STREET JOURNAL.

Wednesday, October 4, 2017 | B1

S&P 2534.58 ▲ 0.22% S&P FIN ▲ 0.30% S&PIT ▲ 0.22% DJ TRANS ▲ 0.67% WSJ \$IDX ▼ 0.004% LIBOR 3M 1.343 NIKKEI (Midday) 20659.12 ▲ 0.22% See more at [WSJMarkets.com](http://WSJMarkets.com)

## Extreme Facebook Ads Persisted

Russia-tied accounts active during election made divisive posts as recently as August

BY GEORGIA WELLS

Some accounts that Facebook Inc. has said appear to be tied to Russian entities and bought ads around the U.S. election continued to post divisive messages as recently as this past August, according to saved versions of the now-deleted pages.

"Secured Borders," a Facebook page that the social-media giant told congressional investigators bought ads during the

presidential campaign last year, posted messages after the election that called for killing Muslims and that labeled illegal immigrants as "rapists, murderers, child molesters," according to cached versions of the page. A person with knowledge of the Facebook page confirmed its authenticity as well as that of three others.

The pages expressed extreme views on both sides of the U.S. political and social spectrum, espousing radical ideas that demonized opposing viewpoints. "Blackivist," another Facebook page that bought ads during the campaign, posted videos that allegedly showed police violence toward blacks. "We could see that police are totally out of

its mind and its actions are no longer correlate with common sense [sic]," said one post from August.

That same month, during the white-supremacist rally in Charlottesville, Va., Secured Borders posted an article from a separate site called the Blacksphere titled "Democrats ARE White Nationalists in Charlottesville." The article from Blacksphere, a site by conservative black commentator Kevin Jackson, included a photo showing civil-rights leader John Lewis, a representative from Georgia, in a defiant stance. Secured Borders added its own comment: "Charlottesville is a real mess. We're on the brink of another civil war."

Four of the accounts that remained active at least until late August—Secured Borders, Blackivist, Heart of Texas and Being Patriotic—collectively had nearly a million followers before Facebook removed the accounts for violating its policies by misrepresenting their identities.

The four accounts are a sliver of the 470 accounts Facebook said last month appear to have ties to Russia and spent \$100,000 to run divisive ads on its platform over a two-year period, from June 2015 to May 2017. The disclosure catapulted Facebook into the spotlight of lawmakers and the public for the role it potentially played in the election. On Monday, after

presenting congressional investigators with the data from 3,000 ads, Facebook said it estimated 10 million users had seen the ads.

Account holders typically build up their followings by paying for ads. Facebook said in a news release Monday that the ads likely served in part to recruit followers to the pages, since many appeared to encourage people to follow their pages or like their photos.

Rep. Adam Schiff of California, the top Democrat on the House Intelligence Committee, one of two congressional committees probing Russian interference on Facebook and Twitter Inc., said Monday that ads

Please see RUSSIA page B5

## Lawmakers Slam the Ex-CEO Of Equifax

Former Equifax Inc. chief Richard Smith repeatedly told legislators Tuesday that he and other executives weren't aware

By AnnaMaria Andriots,  
Michael Rapoport  
and Christina Rexrode

of the significance of the company's data breach until weeks after it was detected in late July.

Those assertions failed to mollify members of Congress, who slammed Mr. Smith and Equifax for allowing the hack to happen, failing to immediately realize its significance and the handling of the problem after disclosing it publicly.

Lawmakers also raised questions about the current structure of credit-reporting companies, whether they need more regulation and the amount of consumer information that they gather.

Mr. Smith, testifying before a subcommittee of the House Committee on Energy and Commerce, said the company initially knew there was an incident involving "suspicious activity" but not that millions of Americans' personal information had been compromised.

"It is unconscionable that Equifax failed so spectacularly to protect people's most sensitive personal data," said Rep. Ben Ray Luján (D., N.M.), who questioned what the company was doing to prevent another attack and how it would compensate affected consumers.

The grilling of Mr. Smith, who stepped aside last week as the company's chairman and chief executive officer, kicked off a series of congressional hearings this week set to examine the company's hack.

Mr. Smith provided more details about how the stage was set for the breach, which has affected potentially 145.5 million Americans. After the company received a public notice of a security vulnerability, an employee failed to notify other staff to patch the software issue, Mr. Smith said. He didn't name the employee.

Mr. Smith told legislators the error was compounded by a scanning system that failed to pick up the vulnerability. Subsequent investigations found this vulnerability allowed hackers to enter Equifax's systems.

"It's like the guards at Fort Knox forgot to lock the doors and failed to notice the thieves were emptying the vaults," said Rep. Greg Walden, (R., Ore.), chairman of the full Energy and Commerce Committee. He

Please see HACK page B2

◆ Wells Fargo chief comes under fire at hearing..... B14

## Uber Board Approves Governance Overhaul

BY GREG BENINGER

Uber Technologies Inc.'s board unanimously approved a series of corporate changes along with a multibillion-dollar investment from SoftBank Group Inc. that are designed to strengthen the ride-hailing company's governance while at the same time curtail former Chief Executive Travis Kalanick's influence.

Among the approved proposals Tuesday, Uber's 11-person board agreed to revoke certain investors of their supervoting rights, which granted them multiple votes per share, a person familiar with the matter said. The provision effectively limits Mr. Kalanick's power by creating equal voting power among shareholders.

The board also agreed to spread the power on the board by adding as many as six new seats—three independent, one new chairman and two possibly designated for SoftBank, this person said. Uber's board cleared the Japanese company to invest \$1 billion to \$1.25 billion in Uber at last year's valuation of \$68 billion and purchase shares at a discount from investors and employees that could total about an additional \$9 billion, this person said.

The SoftBank board seats, which would give Uber a massive board of 17 directors, are contingent on the Japanese company and a consortium of investors amassing a stake of between 14% to 17% of shares primarily through the purchase of shares from other stockholders at a discount to Uber's earlier \$68 billion valuation. The Wall Street Journal earlier reported that secondary deal would value Uber at around \$50 billion, though the price could change based on how many shares investors indicate they are willing to sell, these people said.

In a statement, Uber said its board voted unanimously on the SoftBank investment and governance changes, which "would strengthen its independence and ensure equality among all shareholders."

As part of the measures, Uber's board set a deadline to hold an initial public offering sometime in 2019, giving the company and its new chief executive, Dara Khosrowshahi, at least 15 months to repair a damaged reputation among customers, drivers and regulators, fix a culture beset by sexual-harassment allegations, fill a number of top-executive roles, resolve a series of prominent lawsuits and improve financial losses that totaled over \$3 billion last year.

But first some board members felt they needed to loosen the grip of Mr. Kalanick, who, since resigning as CEO in June, has remained a divisive force at the company he co-founded in 2009 and built into a ride-hailing powerhouse with oper-

Please see UBER page B2



ROSS D. FRANKLIN/ASSOCIATED PRESS

## Chernin Wagers on Sports Betting

BY CHRIS KIRKHAM

Betting on sports isn't legal in most of the U.S., but that isn't stopping entrepreneurs from building a new digital media platform that will be dedicated to the practice.

Media and technology firm Chernin Group, led by media mogul and investor Peter Chernin, said it acquired three sports-betting- and fantasy-sports-data sites that will combine to form a new venture called Action Network.

The new platform will be a subscription service that gives sports bettors access to data and analytical tools along with articles, podcasts and videos that analyze sports from the perspective of a fan who has money on the line.

The company didn't dis-

close terms of the deal.

"The sports marketplace in general is in a time of enormous transition," said Mr. Chernin, chairman and chief executive of Chernin Group. "We're living in a world where people are getting scores almost immediately, getting highlights almost immediately."

He said by focusing on fantasy-sports aficionados and those who wager on games, the new platform will reach those who "by definition are among the most passionate sports fans, and that felt like a potentially very lucrative niche for us."

The move comes amid momentum toward a wider legalization of sports betting in the U.S. A federal law from 1992 bans sports betting except in

Nevada and three other states, but the U.S. Supreme Court in coming months will hear a challenge to that law brought by the state of New Jersey.

Depending on how the court rules, individual states could have more latitude to decide whether to allow regulated sports betting.

The ruling also could put pressure on Congress to revisit its stance on sports wagering.

U.S. professional sports commissioners, including the National Basketball Association's Adam Silver, Major League Baseball's Rob Manfred and the PGA Tour's Jay Monahan, have increasingly warmed to the idea of legal, regulated sports betting.

Mike Kerns, Chernin

Please see BET page B2

### Odds of Success

Sports betting would see a large increase in revenue if it were more widely legalized, according to a gambling research firm.

#### Estimated U.S. annual sports betting revenue

2017 legal betting

\$270 million

2017 illegal betting

2.5-3 billion

If 50 states legalized at casinos and racetracks

7.1 billion

If 50 states legalized at land-based casinos and online

15.8 billion

Source: Eilers & Krejcik Gaming

THE WALL STREET JOURNAL.

### INSIDE

**FORD SHIFTS \$7 BILLION TO TRUCKS**

AUTOS, B3

**EMERGING MARKETS LURE \$1 TRILLION**

INVESTING, B14

### HEARD ON THE STREET | By Dan Gallagher

## Microsoft Has a Mixed Message on VR

**Plugging In**  
Microsoft has jumped into virtual reality and hasn't been particularly quiet about it.

Don't feel bad if you failed to notice. Starting with a consumer electronics trade show in Berlin last month and continuing through an event in San Francisco on Tuesday, Microsoft has touted new Windows-compatible VR headsets from its PC-making partners including Samsung Electronics, Dell, Lenovo

Group and HP. The company also has formed a partnership with Steam, the most dominant platform in PC-based gaming that already sells hundreds of VR games and related content.

But Microsoft studiously avoids the term virtual reality. The company's preferred

designation—"mixed reality"—is intended to convey its belief that the respective formats of VR and its close cousin known as augmented reality will one day blend together. This isn't possible with current technology, as creating a virtual world requires the user's vision to be completely occluded by a headset, whereas augmented reality imposes virtual im-

ages on real-life backgrounds.

Augmented reality already has enjoyed some commercial success thanks to the blockbuster "Pokémon Go" mobile game. Virtual reality, by contrast, hasn't quite lived up to the hype. Expensive equipment and a lack of compelling games have limited the appeal of high-end gaming headsets from HTC, Sony and Oculus. Facebook, which spent a surprising \$2 billion to buy Oculus three years ago, appeared to pivot earlier this year to focus more on augmented reality. Microsoft's HoloLens headset launched last year also uses augmented reality.

Microsoft's intransigence on the mixed-reality name may prove smart in the long term. But it risks confusion in the market now, as the company prepares to sup-

port its hardware partners going into the important holiday season. That support will be needed. The Windows-based headsets announced so far range in price from \$399 to \$499. Those will compete head-on with recently reduced prices from Oculus and HTC.

But Microsoft also enjoys some natural advantages in VR. It already boasts a strong gaming business that generates more than \$9 billion a year in revenue. And it owns the operating system on which most of the world's PCs still run, which could prove an important foothold in expanding VR and AR to other markets. While virtual reality remains a tough sell, Microsoft's odd approach ultimately could prove to be the right mix.

◆ Microsoft gets a lift in virtual reality..... B4

## INDEX TO BUSINESSES

These indexes cite notable references to most parent companies and businesspeople in today's edition. Articles on regional page inserts aren't cited in these indexes.

A	DLF ..... B6	
Acer	..... B4	
Alibaba Group Holding	..... B16	
Alphabet	..... B2, B4, B5	
Altria Group	..... B3	
Amazon.com	..... B4	
American Airlines Group	..... B15, B16	
AMG Services	..... A2	
AOL	..... A4	
Apple	..... B4	
B	Beijing Capital Grand	..... B8
Benchmark Capital	..... B2	
Berkshire Hathaway	..... A1	
Blackstone Group	..... B6	
Bridge Development Partners	..... B6	
British American Tobacco	..... B3	
Broadcom	..... B5	
Brocade Communication Systems	..... B5	
Brookfield Property Partners	..... B6	
C	CACI International	..... B9
Chubb	..... B16	
Citigroup	..... B9	
Class Twist	..... A11	
Coca-Cola	..... B9	
Colgate-Palmolive	..... B9	
Ctrip.com International	..... B16	
D	Dell Technologies	..... B1, B4
Delta Air Lines	..... B1, B5	
Dentsply Sirona	..... B5	
E	Equifax	..... A4, B1
Eris Property Group	..... B8	
Estapar	..... B6	
Estacionamentos	..... B6	
Expedia	..... B16	
F - G	Facebook	..... B1, B4
Fiat Chrysler Automobiles	..... B3, B5	
Ford Motor	..... B3, B15	
Geely Automobile Holdings	..... B15	
General Motors	..... B15	
GIC Pte.	..... B6	
Google	..... B5	
H - J	Hiranandani Group	..... B6
HP	..... B4	
HTC	..... B1	
J.C. Penney	..... B6	
K - L	KLCC Property Holdings	..... B6
Lenovo Group	..... B1, B4	
Lloyd's of London	..... B16	
Lockheed Martin	..... A9	
M	Meituan Dianping	..... B16
Microsoft	..... B1, B4	
Momentum Global Investment Management	..... B1	
N - P	Navigant	..... B2
Pilot Travel Centers	..... A1	
R	Prestage Farms	..... B15
Priceline Group	..... B16	
PricewaterhouseCoopers	..... B5	
S	RealPage	..... B6
Reis	..... B6	
Renovate America	..... B2	
T	Samsung Electronics	..... B1, B4
Sears Holdings	..... B1	
Sino-Ocean Group Holding	..... B8	
Skadden, Arps, Slate, Meagher & Flom	..... B2	
SoftBank Group	..... B1	
Sony	..... B1, B5	
U	Tencent Holdings	..... B16
Terrafina	..... B6	
Tesla	..... B16	
The Chernin Group	..... B1	
Twitter	..... B1	
V	Uber Technologies	..... B1, B2
United Continental Holdings	..... B15	
W	Verizon Communications	..... B1
Y	Wells Fargo	..... B14
Whirlpool	..... B9	
Yahoo	..... A1	

## INDEX TO PEOPLE

B	Baer, Larry	..... A1
Boiler, John	..... B3	
Brown, Sherrod	..... B14	
Buffett, Warren	..... A1	
C	Cotton, Alanna	..... B4
Cuban, Mark	..... B2	
D	Delwiche, Willie	..... B15
Denham, Barbara	..... B6	
F	Ferguson, Ritson	..... B6
G	Garnick, Murray	..... B3
Gill, Frank	..... B14	
Grove, Chris	..... B2	
Guthrie, Roy	..... B2	

H	Hackett, Jim	..... B3
Haslam, Jimmy	..... A2	
House, Andrew	..... B5	
J	Jeter, Derek	..... B9
K	Kalanick, Travis	..... B1
Kelley, John J.	..... B2	
Kipman, Alex	..... B4	
Kodera, Tsuyoshi "John"	..... B5	
M	Maher, Bryan	..... A2
Manfred, Rob	..... A10, B1	
Mattis, Jim	..... A18, B5	
Mayer, Marissa	..... A4	
McMahon, Chandra	..... A4	
McNeill, JP	..... B2	
Millman, Chad	..... B2	
P	Ming, Yip Kah	..... B6
Monahan, Jay	..... B1	
Moore, Patrick	..... B2	
Munk, Alfonso	..... B8	
R	Parker, Doug	..... B16
Poulos, Steve	..... B6	
S	Russell, Steve	..... B2
T	Schultze, Warren	..... B8
Sen, Amrita	..... B15	
Sherman, Bruce	..... B9	
Sloan, Timothy	..... B14	
Smith, Richard	..... A4, B1	
U	Trott, Byron	..... A2
Thierer, Mark	..... B5	
Tucker, Scott	..... A2	

## Key Filing Made in Fight Between Alphabet, Uber

By JACK NICAS

Google parent **Alphabet** Inc. has produced a long-anticipated document in the high-stakes legal battle with **Uber Technologies** Inc. that showed the ride-hailing company knew a former Google engineer had confidential Google files before buying his self-driving-car startup.

The report stopped short of establishing that Uber possessed or used those files to jump-start its own driverless-car program—the allegation at the center of Alphabet's lawsuit.

The revelations came from a due-diligence report about Anthony Levandowski and other former Google engineers that Uber commissioned in March 2016 before buying their startup, Ottomotto LLC months

later. Alphabet's self-driving-car unit, Waymo, attached the report to a filing late Monday, having successfully forced Uber to hand over a copy after months of fighting to access it.

Waymo sued Uber in February for allegedly stealing its trade secrets. Waymo said the report shows Mr. Levandowski stole Google files, accessed them after leaving the company and tried to destroy the evidence.

Uber said it commissioned the report to prevent Google intellectual property from coming to Uber, and it "helps explain why—even after 60 hours of inspection of our facilities, source code, documents and computers—no Google material has been found at Uber."

Attorneys for Mr. Levandowski didn't respond to a request for comment.

familiar with the matter. Benchmark will drop the suit, which is in an arbitration process, if the SoftBank deal goes through, though there is no contractual obligation to do so, a person familiar with the matter said.

The Benchmark lawsuit divided directors, some of whom were aghast that a private spat had spilled over into the public and threatened to embroil the company in months or years of distracting litigation, according to people familiar with the matter.

In a statement, Mr. Kalanick said the board "came together collaboratively and took a major step forward in Uber's journey to becoming a world class public company." He said he expects "great things ahead for Uber."

At least two investors criticized the changes, saying they and other early shareholders were stripped of their voting rights, and are vowing a fight.

"The board's action today was unfair and illegal and we will be relentless in rectifying this wrong," said investors Shervin Pishevar and Steve Russell in a statement.

On Monday they sent a letter to Mr. Kalanick and two other board members urging them not to pass the measures and threatening litigation.

On the same day as the pivotal board meeting, Mr. Khosrowshahi was in London dealing with another feud, pleading Uber's case before city regulators to reverse a decision to revoke the company's license to operate in one of its biggest markets. In a statement, Mr. Khosrowshahi and the Transport of London both called the meeting "constructive," without revealing details.

Benchmark, which owns about 13% of Uber, also indicated it would drop a lawsuit it commenced in August against Mr. Kalanick seeking the return to board control of the three director seats it oversees, according to people

Continued from page B1

ations in over 70 countries and revenue totaling \$6.5 billion last year. Some board members and investors privately fretted he has been working to return to the company as chief and said he sabotaged a process to identify a chief operating officer earlier in the year by rejecting candidates.

Mr. Kalanick, who was pressured to resign by a group of investors including **Benchmark Capital**, which holds a board seat, reassured himself on Friday by appointing two new directors to seats he had controlled since last summer. The move, which surprised Uber's board including Mr. Khosrowshahi, gave seats to Xerox Corp. ex-CEO Ursula Burns and ex-CIT Group Inc. CEO John Thain, who joined the voting Tuesday after being officially welcomed by directors Monday.

Mr. Kalanick, 41 years old, earned a couple of victories on Tuesday. A prior proposal demanded that any previous officer seeking the CEO job would require a two-thirds vote by both the board and outstanding shareholders, according to a person familiar with the matter. On Tuesday, Uber's board agreed to new language requiring a less-onerous two-thirds vote by only the board, this person said.

Benchmark, which owns about 13% of Uber, also indicated it would drop a lawsuit it commenced in August against Mr. Kalanick seeking the return to board control of the three director seats it oversees, according to people

Continued from the prior page

called Equifax's response to consumers "ham-handed."

Mr. Smith said the reason the scanning system failed to pick up on the vulnerability is still under investigation.

Equifax said its security team noticed suspicious activity on July 29.

Mr. Smith said he was informed two days later, on July 31, by his then-chief information officer.

Mr. Smith said a "suspicious movement of data" had occurred in a dispute portal,

which is where consumers go to contest information on their credit reports.

Lawmakers pressed Mr.

Smith on what the company's chief legal officer, John J. Kelley, knew regarding the incident at the end of July.

Mr. Smith said Mr. Kelley was also informed July 31 of suspicious activity.

Lawmakers also asked about three senior executives who sold shares on Aug. 1 and 2.

Mr. Smith confirmed that Mr. Kelley would have been required to sign off on such sales.

Earlier this week, The Wall Street Journal reported that Equifax's board is reviewing Mr. Kelley's actions in regard to the share sales.

Rep. Tony Cárdenas (D., Calif.) said he would like to request a hearing with Mr. Kelley.

The company has said those three executives who sold shares weren't aware of a breach at the time. All three are still at Equifax.

At least two investors criticized the changes, saying they and other early shareholders were stripped of their voting rights, and are vowing a fight.

"The board's action today was unfair and illegal and we will be relentless in rectifying this wrong," said investors Shervin Pishevar and Steve Russell in a statement.

On Monday they sent a letter to Mr. Kalanick and two other board members urging them not to pass the measures and threatening litigation.

On the same day as the pivotal board meeting, Mr. Khosrowshahi was in London dealing with another feud, pleading Uber's case before city regulators to reverse a decision to revoke the company's license to operate in one of its biggest markets. In a statement, Mr. Khosrowshahi and the Transport of London both called the meeting "constructive," without revealing details.

Continued from the prior page

called Equifax's response to consumers "ham-handed."

Mr. Smith said the reason the scanning system failed to pick up on the vulnerability is still under investigation.

Equifax said its security team noticed suspicious activity on July 29.

Mr. Smith said he was informed two days later, on July 31, by his then-chief information officer.

Mr. Smith said a "suspicious movement of data" had occurred in a dispute portal,

which is where consumers go to contest information on their credit reports.

Lawmakers pressed Mr.

Smith on what the company's chief legal officer, John J. Kelley, knew regarding the incident at the end of July.

Mr. Smith said Mr. Kelley was also informed July 31 of suspicious activity.

Lawmakers also asked about three senior executives who sold shares on Aug. 1 and 2.

Mr. Smith confirmed that Mr. Kelley would have been required to sign off on such sales.

Earlier this week, The Wall Street Journal reported that Equifax's board is reviewing Mr. Kelley's actions in regard to the share sales.

Rep. Tony Cárdenas (D., Calif.) said he would like to request a hearing with Mr. Kelley.

The company has said those three executives who sold shares weren't aware of a breach at the time. All three are still at Equifax.

At least two investors criticized the changes, saying they and other early shareholders were stripped of their voting rights, and are vowing a fight.

"The board's action today was unfair and illegal and we will be relentless in rectifying this wrong," said investors Shervin Pishevar and Steve Russell in a statement.

On Monday they sent a letter to Mr. Kalanick and two other board members urging them not to pass the measures and threatening litigation.

On the same day as the pivotal board meeting, Mr. Khosrowshahi was in London dealing with another feud, pleading Uber's case before city regulators to reverse a decision to revoke the company's license to operate in one of its biggest markets. In a statement, Mr. Khosrowshahi and the Transport of London both called the meeting "constructive," without revealing details.

Continued from the prior page

called Equifax's response to consumers "ham-handed."

Mr. Smith said the reason the scanning system failed to pick up on the vulnerability is still under investigation.

Equifax said its security team noticed suspicious activity on July 29.

## BUSINESS NEWS

# Ford Set to Shift \$7 Billion Toward Trucks and SUVs

By MIKE COLIAS

**Ford Motor** Co. will shift about \$7 billion toward the development of more trucks and sport-utility vehicles while “attacking” costs, part of new Chief Executive Jim Hackett’s strategic plan for the No. 2 U.S. auto maker.

Mr. Hackett, the former office-furniture executive appointed in May, outlined his strategy to investors and analysts in New York late Tuesday. He emphasized faster action to deploy capital in regions and product lines with solid growth potential while positioning the auto maker for a future of electric vehicles and

*Moving investment to trucks and SUVs is a response to shifting consumer tastes.*

connected and driverless cars.

Moving capital investment to higher-margin trucks and SUVs is a response to rapidly shifting consumer tastes in the U.S. market and abroad, as buyers abandon sedans for vehicles with greater utility and space. Part of the \$7 billion capital reallocation includes reintroducing the Ranger pickup truck and Bronco SUV in North America and moving production of its next-generation Focus small car to China, plans that were previously disclosed.

Ford also said it would shift about one-third of its scheduled investment in gas and diesel engines over the next five years—about \$500 million a year—into cars that run fully or partly on battery power. That will come on top of \$4.5

billion the company is spending over five years to expand its electric-vehicle lineup.

The Dearborn, Mich., auto maker appointed Mr. Hackett to succeed Mark Fields, who was ousted in the spring amid a downturned share price and belief inside and outside the company that the auto maker lacked a clear vision. Mr. Hackett spent four months studying aspects of Ford’s business to devise the plan.

The 62-year-old is out to prove to Wall Street that Ford has a plan to take on Tesla Inc. in electric cars and deep-pocketed tech giants like Google’s Waymo unit in driverless technology while also fending off hard-charging traditional rivals like General Motors Co., which many analysts believe has a lead in advanced technology. Ford is investing \$1 billion in startup Argo AI to develop autonomous-driving technology, which executives said is on track for commercial deployment by 2021.

Mr. Hackett, who emphasized smart design during his long tenure running Michigan-based Steelcase Inc., wants to slash costs by modernizing and simplifying Ford’s vehicle lineup, factories and product-development process. The company aims to cut material costs by \$10 billion and engineering costs by an additional \$4 billion over five years.

“Ford will prepare for disruption by becoming fit” in operations and capital allocation, Mr. Hackett told investors. That should give Ford “the time, resources and flexibility to evolve,” he said.

Executives said they would move quickly to shore up low-margin or unprofitable parts of the business, as GM has done in recent years by exiting Europe, India and other money-losing markets.



Replacement of storm-damaged vehicles is expected to help the car industry wind up a year of cooling sales on a high note.

## Auto Makers Break Skid

Discounting, demand following hurricane in Texas drive strong monthly performance

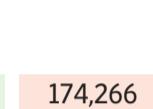
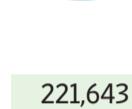
By MIKE COLIAS AND ADRIENNE ROBERTS

Auto sales hit their briskest monthly pace for the year, as Labor Day discounts, higher fleet sales and hurricane-related replacements restored momentum heading into the final months of the 2017.

Car companies have weathered a string of monthly declines this year, a sign demand is plateauing following seven years of increases. Sales of trucks and sport utilities remain strong amid low gasoline prices, but a weaker market for family sedans and compact cars has prompted slowdowns at certain factories.

Buyers flocked to showrooms in September, however, with vehicle sales rising 6.1% compared with the same period a year earlier, according to Autodata Corp. The tally, which benefited from one more selling day than in September

### A Strong September



Vehicle sales

279,397	226,632	221,643	174,266	142,722	139,932
---------	---------	---------	---------	---------	---------

Change from a year earlier

12%

15%

8.9%

10%

6.8%

9.5%

Sources: the companies

2016, represented one of the strongest September sales performances on record.

**Fiat Chrysler Automobiles** NV sales dropped 10%, hurt by a planned reduction in sales to rental-car companies. But other major auto makers posted considerable gains, sending the closely watched seasonally adjusted annual sales rate to 18.6 million, Autodata said, zipping past analysts’ 17.5 million estimate.

Although industry sales are all but certain to fall short of last year’s record 17.55 million, auto makers hope a strong fourth quarter will signal the

market is stabilizing at a healthy rate.

While auto makers cited replacement demand for the hundreds of thousands of vehicles lost to flooding in metro Houston, heftier discounts also lifted September results. Incentives averaged \$4,048 per vehicle last month, a record for any month, according to research firm J.D. Power.

Thomas King, an analyst at J.D. Power, said dealers have higher inventory levels than usual, and are carrying a much higher mix of 2017 model-year vehicles than is typical for September.

Higher discount spending is at least partially offset by the push to sell more pickups and SUVs, which carry better profit margins than passenger cars. Light trucks, including crossover wagons and vans, accounted for 65% of overall sales in September, up from 61% a year earlier, J.D. Power says.

Buyers looking to replace storm-totaled vehicles should continue to boost sales, analysts predicted. An estimated 600,000 vehicles will need to be replaced in Texas and Florida, said Jonathan Smoke, an economist at the research firm Cox Automotive.

## Big Tobacco’s New U.S. Ads Will Be Critical of Smoking

By JENNIFER MALONEY

Broadcast television networks and metro newspapers are about to get a boost from an unexpected but familiar source: Big Tobacco.

It is an old media buy to resolve an old fight. Starting as soon as next month, **Altria Group** Inc. and **British American Tobacco** PLC will begin running court-mandated ads to put to rest a lawsuit brought nearly two decades ago by the U.S. Justice Department over misleading statements the industry had made about cigarettes and their health effects.

The television spots, between 30 and 45 seconds long, will run in prime time five days a week for 52 weeks, and will appear mostly on ABC, CBS or NBC, Altria said. They won’t have the graphic images of a typical antismoking public-service announcement. Instead, these ads will be reminiscent of the disclosure statement at the end of a pharmaceutical ad, displaying court-mandated text in black on a white screen with a voice narration.

“Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA intentionally designed cigarettes to make them more addictive,” one ad will say. Another reads: “More people die every year from smoking than from murder, AIDS, suicide, drugs, car crashes, and alcohol, combined.”

Although the starkness of the black-and-white text ads could be persuasive because they are so out of the ordinary, ad executives said, it is unclear how effective they will be in an age when fewer young people are watching broadcast TV or reading newspapers.

“The good news for the tobacco companies is they’ll avoid a lot of their younger audience” who would be more likely to see a video ad on Facebook than a prime-time TV ad, said John Boiler, co-founder of 72andSunny, an agency that does work for the



Big Tobacco will spend millions of dollars on the ad campaign.

antitobacco nonprofit Truth Campaign. “I think they’re getting off kind of lightly.”

Marlboro maker Altria, which owns Philip Morris USA, estimates that it will spend \$31 million to broadcast and publish the statements on TV, in newspapers, on company-owned websites and in pamphlets tucked inside the cellophane wrappers on cigarette packs. A spokesman for BAT’s U.S. subsidiary Reynolds American, which makes Camels and acquired Newport Lorillard in 2015, declined to say how much the company expects to spend.

All of the defendants named in the Justice Department’s 1999 lawsuit are now owned by either Altria or BAT.

Full-page print ads will appear in at least 45 newspapers, including The Wall Street Journal, starting as soon as Nov. 26, according to a document filed in U.S. District Court for the District of Columbia on Monday evening by attorneys for Altria, BAT and the Justice Department, outlining their agreement. The print ads will run on five weekends spread over about four months, according to the filing. Ads will also appear on the newspapers’ websites.

Tobacco companies used to be a staple of Madison Avenue ad agencies with figures like the Marlboro Man and Joe Camel, but they have sharply curbed their advertising

spending in the U.S. They are no longer allowed to advertise their products on television or billboards, and their legal settlements have funded more than \$1 billion in antismoking campaigns.

“This industry has changed dramatically over the last 20 years,” Altria’s General Counsel Murray Garnick said in a statement, noting that the company supported the 2009 law that gave the Food and Drug Administration authority to regulate tobacco. “We’re focused on the future and... working to develop less risky tobacco products.”

The Journal. Anytime, Anywhere.

Access all the need-to-know news on the go with **WSJ Apps**.



THE WALL STREET JOURNAL  
Read ambitiously

© 2017 Dow Jones & Co. Inc. All rights reserved. 1D5352

HONG KONG FINTECH WEEK

23 – 27 October 2017

Hong Kong Convention and Exhibition Centre

Star Speakers Include:

Diamond Sponsor: Dianrong

Platinum Plus Sponsor: PwC

Platinum Sponsor: Standard Chartered

Gold Sponsor: Citi

Silver Sponsors: Davis Polk, EY, Aviva

Regulators: HONG KONG MONETARY AUTHORITY, SFC 保險業監管局

Programme Partners: Finovasia, NEXCHANGE

Media Partners: THE WALL STREET JOURNAL, 球財經

Download on the App Store

GET IT ON Google Play

Register Now at [fintechweek.hk](http://fintechweek.hk)

#HKFinTechWeek

## TECHNOLOGY

WSJ.com/Tech

# Microsoft Gets a Lift in Virtual Reality

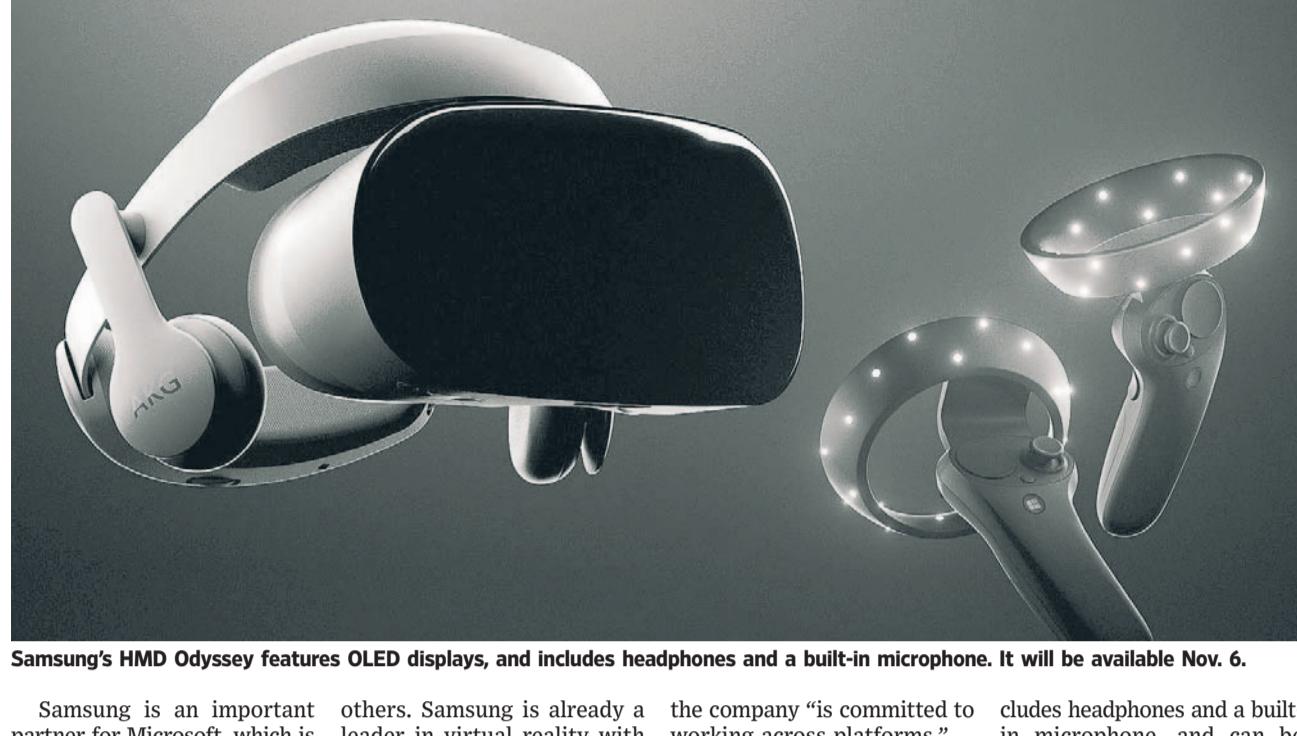
New Odyssey headset from Samsung uses Windows 10 to enable immersive computing

BY JAY GREENE

SAN FRANCISCO—Microsoft Corp. enlisted one of the world's largest consumer-electronics makers, Samsung Electronics Co., as it works to crack the emerging virtual-reality market.

At an event here Tuesday hosted by Microsoft, Samsung introduced HMD Odyssey, a virtual-reality headset that uses Microsoft's Windows Mixed Reality, a piece of Windows 10 that enables immersive computing through headsets and other devices.

Samsung joins Acer Inc., Dell Inc., HP Inc. and Lenovo Group Ltd. in building headsets on top of the Windows platform. The devices all use virtual-reality technology, which occludes users' view of the real world and immerses them in digitally generated sights and sounds.



**Samsung's HMD Odyssey features OLED displays, and includes headphones and a built-in microphone. It will be available Nov. 6.**

would start at \$399, can also be preordered, and will be available Oct. 17.

Microsoft is trying to build an ecosystem for virtual and augmented reality. It was among the first to jump into the business, introducing its HoloLens augmented-reality headset nearly three years ago, though the device isn't commercially available yet.

Windows Mixed Reality aims to serve as the technical underpinnings for both VR devices and augmented-reality devices such as the HoloLens, which overlays digital elements onto a person's view of the real world.

Alex Kipman, a leader on Microsoft's HoloLens team, touted the company's bid to operate in both markets. "We are the only company to embrace the entire continuum of mixed reality," he said.

Market-research firm International Data Corp. forecasts sales of 13.7 million virtual-and-augmented-reality headsets this year, and expects that to jump to 81.2 million units by 2021, a compounded annual growth rate of 56%.

Samsung is an important partner for Microsoft, which is ramping up in the virtual- and augmented-reality markets where it will compete against Apple Inc., Alphabet Inc.'s Google, Facebook Inc. and

others. Samsung is already a leader in virtual reality with its Gear VR device that runs Facebook's Oculus technology.

Samsung Electronics America Vice President and General Manager Alanna Cotton said

the company "is committed to working across platforms."

The Odyssey, which comes with two controllers, features sharp OLED displays, rather than the LCD displays used on lower-priced headsets. It in-

cludes headphones and a built-in microphone, and can be preordered for \$499. It will be available Nov. 6.

Headsets from Microsoft's four other partners, which the company had previously said

## Europe's Top Court to Review Privacy

BY SAM SCHECHNER

Europe's top court will decide whether to ban a widespread legal tool that companies employ when they store data about Europeans on U.S. soil—the latest legal skirmish over what firms can do with the trove of information they are collecting on users.

Two years ago, the European Union's Court of Justice struck down a popular data-transfer mechanism that allowed information on individuals to be shifted relatively easily between the U.S. and Europe. That decision

prompted companies to rush to rewrite legal contracts that would keep them in compliance with the ruling, without jeopardizing revenue that relied on that data flow.

Now, the same court will hear whether the standardized language in those contracts goes far enough to protect Europeans' privacy. An Irish court on Tuesday asked the high court to make the call. The referral sets up the broadest challenge yet to the practice—common especially among sizable U.S. companies such as Facebook Inc., Alphabet Inc. and Apple Inc.—of

storing data collected on Europeans back in the U.S. Such data includes things such as web-browsing habits and geo-location records.

Privacy activists argue the U.S. government's ability to obtain legal access to personal information held by some companies in the U.S. amounts to mass surveillance that is prohibited under EU treaties. The U.S. argues its laws are proportionate and targeted.

The high court might not hear the case for over a year.

Businesses and corporate lawyers argue that invalidating the standardized contractual

clauses would create huge costs for companies. BSA, a Washington, D.C.-based trade group representing the software industry, says that this type of contractual language provides legal backing "for millions of daily data transfers" out of Europe.

Facebook, whose use of the standard clauses was the basis of the case referred to the Court of Justice on Tuesday, said the clauses "are essential to companies of all sizes, and upholding them is critical to ensuring the economy can continue to grow without disruption."

## EU Is Set to Order Payment Of Back Taxes by Amazon

BY NATALIA DROZDIAK AND SAM SCHECHNER

sibility they constitute illegal state aid.

Last year, the European Commission ordered Apple Inc. to repay Ireland €13 billion (\$15 billion) in what it said was uncollected taxes, a ruling Apple and Ireland are contesting.

The commission opened its formal probe into Amazon's tax arrangements with Luxembourg in 2014, arguing a 2003 deal between the two effectively caps the U.S. company's tax payments in the Grand Duchy. Amazon and Luxembourg say the company received no special treatment.

## ADVERTISEMENT

## Career Opportunities

To advertise: 800-366-3975 or WSJ.com/classifieds

CAREERS	CAREERS	CAREERS	CAREERS	CAREERS
<p><b>PRESIDENT</b> AUSTIN, TEXAS</p> <p>Established in January 2017 through a generous \$100M funding gift, the Holdsworth Center supports the critical work of strengthening the leadership and leadership pipeline of the Texas Public School System. In its inaugural President, the Center seeks a passionate, tested, and strategic leader who will work tirelessly to cement the preeminence of the Holdsworth programs, and partner with trustees and staff to develop excellent and innovative programs that prove effective in filling the school leadership pipeline for years to come.</p> <p>Charles Butt, Chairman and CEO of H-E-B and a longtime advocate for public education, founded the Center and named it for his mother, Mary Elizabeth Holdsworth, an educator, philanthropist, and lifelong leader for social justice. Building on her impressive legacy, the Center aspires to create systemic and sustainable improvement across Texas' 1,200+ public school districts by supporting and developing its superintendents, principals, and other campus leaders, who, in turn, will significantly and positively impact student achievement.</p> <p>The Center's district partnerships will span five years and will include immersive experiences for leaders and their teams combined with embedded, in-district support to ensure the learning continues and multiplies between sessions and across the state. The inaugural cohort was launched in June and includes school districts in seven cities across Texas. Plans are underway to build an academic training and retreat center in Austin, which will enhance the immersive learning experience for all cohort participants.</p> <p>The President will report to a distinguished 17-member board of trustees, and will work closely with the Center's 25 outstanding staff to ensure the Holdsworth experience is a transformative one. The President should be a strategic and creative leader, able both to imagine and design the best Center of its type but also to deliver on that design by converting the Center's aspirations into reality. She or he will inherit a strong leadership team, and will be expected to recruit, retain, and develop expert faculty and staff across all levels who will share the President's commitment to excellence and the Center's passion for improving public education in Texas. The President will serve as the chief spokesperson and ambassador for the Center, building key relationships with K-12 leaders and other public education allies across the state. Moreover, as the voice of this new and exciting organization dedicated to improving public education in our country, the President must be a thought leader for issues related to leadership development and teacher quality, and should have the personal gravitas and professional standing to lead national conversations about these critical issues.</p> <p>The Holdsworth Center has retained Isaacson, Miller, a national executive search firm, to assist in the recruitment of its next President. Please direct all applications, nominations, and inquiries to them at <a href="http://www.isaacson.com/6361">www.isaacson.com/6361</a>.</p> <p><i>The Holdsworth Center does not discriminate on the basis of race, color, national and ethnic origin in the administration of its educational policies, admission policies, scholarships and other school administered programs.</i></p> <p><b>M ISAACSON, MILLER</b></p>	<p><b>Associate, Java/Scala Dvlpr</b> Morgan Stanley Services Group Inc. seeks Associate, Java/Scala Developer in NY, NY to serve as member of Institutional Corporate Technology (ICT) group of Tech division, group is responsible for developing enterprise apps for diverse set of bus. incl Fixed Income, Equities, Commodities, Investment Banking, Research, &amp; Global Capital Mkts. In addition, ICT provides tech solutions for client-aligned groups &amp; wide divisions, such as Finc &amp; Ops, post-trade functions w/ Institutional Securities Group (ISG) &amp; standardized data &amp; enterprise-wide svcs to provide leverage to Firm's bus. Req's Master's in Fin'l Engg, CS, Comp Engg, or closely rel field of study &amp; 2 yrs exp in position offered or 2 yrs exp as Quantitative Analyst, Bus. Analyst, or rel occupation. Req's 2 yrs exp w/ following skills: working in large fin'l institution; working w/ complex, large scale sys's; using SDLC in large org.; liaising w/ bus. users, Ops &amp; QA teams; Linux/Unix environ; Unix tools incl grep, awk, &amp; sed; &amp; Perl &amp; Shell scripting. Will accept any amount of exp w/ following skills: fixed income products incl vanilla bond, inflation bond, MBS, &amp; CMO; bond analytics; calculating PnL &amp; risk measures of products incl duration, YTM, &amp; yield beta; simulation model pricing of fixed income products incl pricing of MBS &amp; CMO; modeling processes; interest rate models; web prog'g in Java, JSP, EJB, &amp; spring; &amp; SQL prog'g &amp; DB program mgmt sys's incl DB2 &amp; SQL server. To apply, visit us at <a href="http://www.morganstanley.com/about/careers/careersearch.html">http://www.morganstanley.com/about/careers/careersearch.html</a> Scroll down &amp; enter 3098304 as "Job Number" &amp; click "Search jobs." No calls please. EOE</p> <p><b>Associate, Corporate Finance</b> Deutsche Bank Securities Inc. seeks an Associate, Corporate &amp; Investment Banking in New York, NY to conduct quantitative and qualitative analyses of information affecting investment programs of private equity firms and their investment portfolio companies across Consumer, Healthcare, Industrials and Technology, Media and Telecommunications industries. Requires a Bachelor's degree in Finance, Mathematics, Economics, or related field or equivalent and two (2) years of experience utilizing leveraged buyout models to analyze buyouts, capital structure alternatives, and initial public offerings for private equity clients and their portfolio companies. Must have at least two (2) years of experience building detailed financial models including operating models, leveraged buyout models, sponsor M&amp;A models, IPO models, and restructuring models; performing financial valuation and analysis including IRR return analysis, sensitivity/what if analysis, effective tax analysis and depreciation waterfall analysis to explore feasibility of potential transactions; employing comparable company, precedent transaction, and discounted cash flow analyses in advising on potential investment opportunities and the execution of transactions; advising buyers in the Asia Pacific region on U.S. cross-border M&amp;A outbound execution and client coverage initiatives, including originating and sourcing investment ideas based on growth criteria and customizing financing solutions based on investment preference by country/fund. Apply to <a href="http://www.db.com/careers">www.db.com/careers</a> and search by professionals, keyword SR1721.</p> <p><b>Associate, Strategic Programs Group</b> NY, NY. Strategic Programs Group w/ Global Wealth Mgmt is responsible for developing strategy, solutions, &amp; change initiatives impacting Global Wealth Mgmt (GWM) bus. or J.P. Morgan firm-wide. Dvlp &amp; Implement key tactical &amp; strategic initiatives for Global Wealth Mgmt bus. w/in focus on new mkt expansion &amp; bus. dvlpmt. Master's or equiv in Bus. Admin. or rel field + 4 yrs relevant exp OR Bachelor's or equiv in Bus. Admin. or rel field + 7 yrs relevant exp. Exp in strategy &amp; project mgmt functions w/ global fin'l svcs institution. Exp in global Wealth Mgmt or Priv Banking industry. Demonstrated knowl of global &amp; regional Banking &amp; Fin'l regulations (e.g., SEC, FINRA). Demonstrated knowl of Wealth Mgmt product offerings incl Investments, Credit &amp; Banking. Exp w/strategic analysis. Demonstrated knowl of MS Office incl PP, Excel, Word &amp; Visio. Exp w/coord'g cross-functional teams. Exec presentation exp. Exp in process flow analysis &amp; mapping. Exp in client/account level data analysis &amp; fin'l modeling. Any amount of exp wired/skills is acceptable. To apply, visit <a href="http://careers.jpmorganchase.com">http://careers.jpmorganchase.com</a> &amp; apply to job # 170097654. EOE, AAE, M/F/D/V. J.P. Morgan Chase is a marketing name of J.P. Morgan Chase &amp; Co. The Chase Manhattan Bank is a subsidiary of J.P. Morgan Chase &amp; Co. © 2003 J.P. Morgan Chase &amp; Co. All rights reserved. <a href="http://www.jpmorganchase.com">www.jpmorganchase.com</a></p> <p><b>Associate, Softw Eng'g</b> Brooklyn, NY. Dvlp &amp; integrate PCM-CSR (Problem Credit Mgmt - Credit Surveillance Review), app w/CRD (Integrated Credit Risk Desktop), &amp; maintain XPE (Cross Product Exposures) app. Apply knowl of Credit Risk/Problem Credit mgmt concepts. Bachelor's or equiv in CS, or rel field of study &amp; 5 yrs relevant exp. Exp in extJS. Exp in Java. Exp in J2EE. Exp in SQL. Exp in Credit Risk Mgmt concepts. Exp in Java. Full Dvlpmt Cycle Exp. Rich UI Web Dvlpmt Exp. Employer will accept any amount of prof' exp w/req'd skills. To apply, visit <a href="http://careers.jpmorganchase.com">http://careers.jpmorganchase.com</a> &amp; apply to job # 17009351 "EOE, AAE, M/F/D/V. J.P. Morgan Chase is a marketing name of J.P. Morgan Chase &amp; Co. The Chase Manhattan Bank is a subsidiary of J.P. Morgan Chase &amp; Co. © 2003 J.P. Morgan Chase &amp; Co. All rights reserved. <a href="http://www.jpmorganchase.com">www.jpmorganchase.com</a></p> <p><b>Associate</b> Morgan Stanley &amp; Co. LLC seeks an Associate, Leveraged Finance in NY, NY to perform preliminary analysis of leveraged loan &amp; high yield bond opp'tys incl review of public info &amp; analysis of existing credit doc's. Req's Bachelor's in Government, Political Science, Finc, Bus. Admin. or rel field of study &amp; 4 yrs exp in position offered or 4 yrs exp as Analyst, Assoc., or rel occupation. Will accept any amount of exp w/ following skills: fin'l modeling; leveraged loan &amp; high yield mkt's; credit doc review &amp; negotiation; transaction execution &amp; syndications; coord'g deal closings &amp; funds flows; structuring transactions; utilizing tec &amp; tools incl Bloomberg, MS Office incl Word, Excel, &amp; PP; &amp; Mrkt Data Apps. To apply, visit <a href="http://www.morganstanley.com/about/careers/careersearch.html">http://www.morganstanley.com/about/careers/careersearch.html</a> Scroll down &amp; enter 3098177 as "Job Number" &amp; click "Search jobs." No calls pls. EOE</p> <p><b>Associate</b> Morgan Stanley &amp; Co. LLC seeks an Associate, Leverage Finance in NY, NY to perform preliminary analysis of leveraged loan &amp; high yield bond opp'tys incl review of public info &amp; analysis of existing credit doc's. Req's Bachelor's in Government, Political Science, Finc, Bus. Admin. or rel field of study &amp; 4 yrs exp in position offered or 4 yrs exp as Analyst, Assoc., or rel occupation. Will accept any amount of exp w/ following skills: fin'l modeling; leveraged loan &amp; high yield mkt's; credit doc review &amp; negotiation; transaction execution &amp; syndications; coord'g deal closings &amp; funds flows; structuring transactions; utilizing tec &amp; tools incl Bloomberg, MS Office incl Word, Excel, &amp; PP; &amp; Mrkt Data Apps. To apply, visit <a href="http://www.morganstanley.com/about/careers/careersearch.html">http://www.morganstanley.com/about/careers/careersearch.html</a> Scroll down &amp; enter 3098177 as "Job Number" &amp; click "Search jobs." No calls pls. EOE</p> <p><b>Associate</b> Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: A. Johnson. Please reference job # below: Network Engineer (New York, NY) Design, develop, &amp; engineer Google's networking features, equipment, &amp; systems. #1615.7364 Exp: Incl: network tec &amp; network dsgn: Cisco/Juniper network; Unix sys admin &amp; dev: Go on Python; BGP, OSPF, IS-IS or MPLS; Netw dsgn, implem &amp; integr in sensitive prod enviro; &amp; TCP/IP based prot. Technical Account Specialist (New York, NY) Provide technical support for Google's strategic partners to ensure the development &amp; launch of new company products. #1615.20797 Exp: Incl: C++, Java, JavaScript, PHP, Python, HTML, TCP &amp; IP protocol; &amp; HTTP; distrib sys &amp; machine learning; &amp; XML, JSON, SQL, Unix, CSS, SEO, &amp; AJAX.</p>	<p><b>IT-Vice President</b> (New York, NY): Perform functional &amp; technical analysis for U.S. Intermediate Holding Company (IHC) &amp; Comprehensive Capital Analysis &amp; Review (CCAR) regulatory reporting streams. Collaborate with global IT stakeholders. Finance Change &amp; Regulatory Reporting teams to interpret instructions from the Federal Reserve &amp; analyze business &amp; functional requirements to produce technical specifications. Review designs &amp; perform data analysis by utilizing database queries &amp; Axiom portfolio, including mapping business functions to the data &amp; data model, reconciling data &amp; analyzing data gaps. Build Axiom Controller View reporting capabilities &amp; provide technical solutions to business users. Perform front-to-back analysis to define &amp; propose system processes to automate regulatory reports. Design scalable reporting solutions for the development of regulatory reports for the primary dealer, broker dealer, NY branch, IHC &amp; CCAR. Participate in all phases of the project lifecycle including functional specification creation, fit-gap analysis, detailed programming &amp; development, user acceptance testing &amp; system deployment. Utilize business intelligence tools (OBIEE &amp; Business Objects) &amp; Oracle. Req's Master's deg plus 4 yrs exp or Bachelor's deg plus 6 yrs exp. Please forward your resume to Credit Suisse, P.O. Box Y351CSNY, 220 W. 42nd St., 12th Fl., New York, NY 10036. No phone calls.</p> <p><b>Quantitative Software Engineer</b> (NY, NY): Formulates &amp; applies mathematical modeling &amp; other optimizing methods to support fixed income trading efforts. Develop order management systems, market data feeds, financial asset valuation models &amp; risk measures to facilitate trading &amp; risk management. Design &amp; implement high-performance computing software solutions for simulation &amp; back-testing. Create structured finance models &amp; optimize algorithms. Apply concepts from calculus &amp; probability in devising algorithms &amp; software solutions. Implement &amp; develop new features in server side C# distributed infrastructure utilizing LINQ, WCF libraries, object-oriented programming, multi-threading, performing parallel algorithms, &amp; data structures. Develop &amp; implement test code in C++ using Standard Template Library (STL) in Windows environment to interface &amp; improve quantitative models. Req's Bachelor's deg plus 4 yrs exp or Bachelor's deg plus 6 yrs exp. Please forward your resume to DW Partners, LP, HR, 590 Madison Ave., NY, NY 10022. Ref#: MT-DWIM-5. No phone calls.</p> <p><b>Corporate Communications Specialist</b> (New York, NY): Provide internal communications support for the U.S. region business divisions of Investment Banking &amp; Capital Markets, Global Markets &amp; Intermediate Holding Company Support Functions by scripting &amp; editing all regional employee communications using Inmail. Coordinate internal communications activities with key business partners in the U.S., including HR, IT, Risk, Finance, Legal &amp; Compliance, Operations, Corporate Real Estate &amp; other support functions to develop &amp; execute internal communications initiatives. Develop &amp; execute employee engagement initiatives to improve employee morale in the region. Assist the media relations team with other activities &amp; special projects (philanthropy, corporate citizenship &amp; diversity). Work with Corporate Communications teams in London, Zurich &amp; Asia to ensure continuity of programs &amp; messages. Req's Bachelor's deg plus 3 yrs exp or, in the alternative, 5 yrs exp. Please forward your resume to Credit Suisse, P.O. Box MT-262, 220 W. 42nd St., 12th Fl., New York, NY 10036. No phone calls.</p> <p><b>Associate Engineer</b> New York, NY. Design, engr., &amp; build data platform solutions using Big Data Techs., &amp; deploy Big Data Analytics Apps. to the Cloud. Req's Bachelor's in Electronic Engg., Engg., CS, IT, or rel. field + 5 yrs. exp. in job offered or as SW Engr./Dev., Prog. Analyst, Int'l. rel. occ. Req. 5 yrs. exp. &amp; dist. sys. architecture; prog. languages that supp. component &amp; dist. sys. architecture incl. Java, J2ee, Scala, R, Python, HTML, &amp; XML; big Data components, vendors, &amp; tech. incl. Hadoop, Greenplum, Tableau, &amp; low latency solutions (networking &amp; disk); Hortonworks or Cloudera; sys. prog.; computing infrastructure (servers, network, &amp; OS) for large-scale data processing (BigData &amp; Massive Parallel Processing(MPP)); SAS-VIYA Machine learning tool; Splunk log analysis; SAS 9.4; &amp; SAS EM. To apply, visit <a href="http://careers.jpmorganchase.com">http://careers.jpmorganchase.com</a> &amp; apply to job # 170096007. EOE, AAE, M/F/D/V. J.P. Morgan Chase &amp; Co. All rights reserved. www.jpmorganchase.com</p> <p><b>Computer</b> Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: A. Johnson. Please reference job # below: Network Engineer (New York, NY) Design, develop, &amp; engineer Google's networking features, equipment, &amp; systems. #1615.7364 Exp: Incl: network tec &amp; network dsgn: Cisco/Juniper network; Unix sys admin &amp; dev: Go on Python; BGP, OSPF, IS-IS or MPLS; Netw dsgn, implem &amp; integr in sensitive prod enviro; &amp; TCP/IP based prot. Technical Account Specialist (New York, NY) Provide technical support for Google's strategic partners to ensure the development &amp; launch of new company products. #1615.20797 Exp: Incl: C++, Java, JavaScript, PHP, Python, HTML, TCP &amp; IP protocol; &amp; HTTP; distrib sys &amp; machine learning; &amp; XML, JSON, SQL, Unix, CSS, SEO, &amp; AJAX.</p>		

## BUSINESS WATCH

FIAT CHRYSLER

### Auto Maker Recalls SUVs for Brake Issue

**Fiat Chrysler Automobiles**  
NV said Tuesday it is recalling 709,837 sport-utility vehicles sold in North America with a potential braking defect stemming from a recall three years ago.

The company said the recalled 2011-2014 model year Dodge Durango and Jeep Grand Cherokee SUVs may have improperly installed brake-booster shields used to prevent corrosion that could degrade braking.

Fiat Chrysler said it was aware of one accident that may be linked to the defective brake parts, but no injuries have been reported. The problem stems from a 2014 recall in which the shields were placed in vehicles to protect brake joints from water corrosion.

—Chester Dawson

SONY

### Videogame Head To Exit at Year-End

**Sony Corp.** said the head of its videogame unit, who steered PlayStation 4 sales to the top spot globally, will leave the Japanese conglomerate by year-end.

Andrew House, global chief executive officer of Sony Interactive Entertainment since 2011, has passed the baton to Tsuyoshi "John" Koderia, deputy president of the unit, Sony said. Mr. House will remain as chairman of the unit until year-end.

A Sony spokeswoman said Mr. House plans to spend more time with his family before embarking on a new career in the entertainment industry.

—Takashi Mochizuki

DENTSPY SIRONA

### Board Forces Out Top Executives

Directors of **Dentsply Sirona Inc.** forced out its top three executives after a \$14.5 billion merger completed last year ran into trouble, according to a person familiar with the matter.

The dental-equipment giant disclosed Monday that its chief executive, executive chairman and president all resigned last week. Dentsply Sirona directors termi-

nated them without cause, a subsequent regulatory filing stated.

The company said the departures of CEO Jeffrey Slovin, Executive Chairman Bret Wise and President Christopher Clark, who also was chief operating officer, were "intended to better position the company to achieve its potential" but declined to comment further. Board members decided to replace them because the combined company's results "are behind where they are supposed to be," the person said.

Messrs. Slovin and Wise led the marriage of Sirona Dental Systems and Dentsply International. Mr. Slovin had run Sirona. Mr. Wise headed Dentsply, where Mr. Clark was president and finance chief. They didn't respond to requests for comment on Tuesday.

Dentsply Sirona hired Mark Thierer as interim CEO, with a six-month pay package worth \$6.5 million, the filing said. Dentsply Sirona also elected board member Eric Brandt as chairman and Bob Size as interim president and operating chief. Mr. Size recently retired as a Dentsply Sirona executive.

—Joann S. Lublin

BROADCOM

### Brocade Deadline For Deal Delayed

**Broadcom Ltd.** and **Brocade Communications Systems Inc.**, technology companies that have tried to complete a \$5.5 billion tie-up since last year, have agreed to push back the deal-closing deadline.

Under the original agreement, the companies could walk away from the deal on Nov. 1 if it hadn't closed. But the transaction has been delayed due to a review by the Committee on Foreign Investment in the U.S., or CFIUS, a government agency that screens foreign investments for national-security concerns.

The companies said Tuesday documents have been resubmitted to CFIUS to review the deal, adding that the transaction could close by Nov. 30 with committee approval.

Broadcom, which is based in Singapore, operated as Avago Technologies Ltd. until February 2016, when it completed a \$37 billion purchase of Broadcom.

—Ezequiel Minaya

## BUSINESS NEWS

### Hollywood Studios Cry Foul in China



An MPAA-backed audit cited significant underreporting of ticket sales. A promotion for the movie 'Kong: Skull Island' in China in March.

Hollywood is being short-changed millions of dollars at China's box office according to an audit for the Motion Picture Association of America, people familiar with the matter say.

Auditors at **PricewaterhouseCoopers LLP** working on

behalf of the MPAA concluded that ticket sales in China for the six Hollywood studios that make up the association were underreported by about 9% last year, one of the people said. That translates into at least \$40 million in lost revenue for the studios, according

to a Wall Street Journal analysis.

Data as publicly disclosed show their films grossed at least \$1.87 billion in 2016 in China. Under an arrangement, the studios' share was 25%—or about \$470 million, the analysis shows.

The results were presented last

month to state-backed distributor China Film Group, the people said. China Film was receptive but said only that a higher authority could enforce stricter controls, the people said. China Film couldn't be reached for comment.

—Wayne Ma

## RUSSIA

Continued from page B1  
from Facebook and Twitter are likely "the smallest concentric circle of Russian activity and there could very well be a lot more." Twitter didn't immediately respond to a request for comment.

**Alphabet Inc.'s Google**, which is conducting an internal investigation into Russian activity on its site and is talking with congressional investigators, as of Tuesday hadn't said if it has found any suspicious activity.

Facebook on Monday warned that it may not have uncovered all malicious activity that attempted to interfere in the American political process.

Most of the ads focused on social issues such as gay rights, immigration, race and gun rights, rather than speaking directly about any of the presidential candidates, Facebook said, making them particularly hard to root out.

Russia has denied interfering in the election.

None of the four pages that were active through August included obvious wording or labels indicating that the content was of Russian origin.

Instead, the pages tried to pass for local content. Heart of Texas expressed support for a proposed state law allowing individuals to carry handguns without a permit. "Despite the harsh rhetoric from the liberals' side, the constitutional carry is a guarantee of peace and stability in Texas," read

the post, which garnered more than 2,000 likes. "So passing this would definitely be a victory for all law abiding Texans."

Secured Borders, which weighed in on a range of issues from immigration to applauding the nomination of Jim Mattis as secretary of defense, accumulated more than 133,000 followers by encouraging Facebook users to click on photos it posted. A post on Aug. 7, for example, called for the U.S. to secure the border to keep out illegal immigrants, with photographs of rallies.

"Like if you agree," said the post.

The Secured Borders post about Charlottesville carries particular significance because tech companies including Facebook moved swiftly to cut off some sites and accounts that appeared to sympathize with or endorse the rally. That prompted some critics to wonder if free speech was being sacrificed.

Facebook said Monday that the company has debated whether to allow content that appears to sow division in countries at a time of unrest. Currently Facebook does allow such content if posted "authentically."

Facebook cautioned that it is possible that bad actors are still lurking on its social network. "We understand more about how our service was abused and we will continue to investigate to learn all we can," Facebook said in a statement on Monday.

—Natalie Andrews contributed to this article.

EXCLUSIVE INVITATION FOR WSJ READERS

## THE LUXURY TECHNOLOGY SHOW 2017

OCT. 4TH • 4PM TO 9PM • METROPOLITAN WEST • 639 WEST 46TH ST.

Preview & acquire the latest electronics for home & business!  
Witness the unveiling of the Lexus LS 500 and product debuts  
from home theater, wearable tech & more.

Guests Use Promo Code: WS2017 for 50% Off Admission

Admission Price: \$95 per Guest. Approved Press & Industry Execs receive complimentary admission.

Guests RSVP to [TheLTS.com/VIP](http://TheLTS.com/VIP)

Press & Media RSVP to [PR@noydc.com](mailto:PR@noydc.com)

A silent auction shall benefit the Red Cross for ongoing hurricane relief efforts.

SIGNATURE COCKTAILS, EXQUISITE CUISINE AND DESSERTS PROVIDED BY:

CUSCO

GODIVA

LOVE

scarpitta

Boss Tacos

TRUE

OFFICIAL MEDIA SPONSORS:

THE WALL STREET JOURNAL

AVENUE

THE REAL DEAL

TWICE

PARTIAL LIST OF BRANDS SHOWCASING & SPONSORING:

DASSAULT SYSTEMES

ShadeCraft

MOEN

Echobox

LEXUS

Norton

DOMIGO

Electra Megastore

MARKAUDIO SOTA

TOTO

CH Mirror

mobilize

Hisense

RESERVOIR

KANO

Vi

SOUNDFLOAT

THIEL

TheLTS.com

Produced by RAND Luxury

# INTERNATIONAL PROPERTY REPORT

Emerging Markets

## REIT Sector Struggles to Gain Traction

Foreign investors stay away over concerns about regulation and corporate governance

By SHEFALI ANAND

New listings for real-estate investment trusts in Malaysia have all but stopped over the past two years, and profits have fallen or been flat. The reversal illustrates how REITs aren't turning out to be a silver bullet for emerging markets trying to route capital into real estate.

In recent years, Malaysia seemed to be on track toward building a successful market for REITs. The sector increased to a capitalization of about \$10 billion and included Kuala Lumpur's Petronas Towers, the world's tallest twin structures, and the first Islamic REIT.

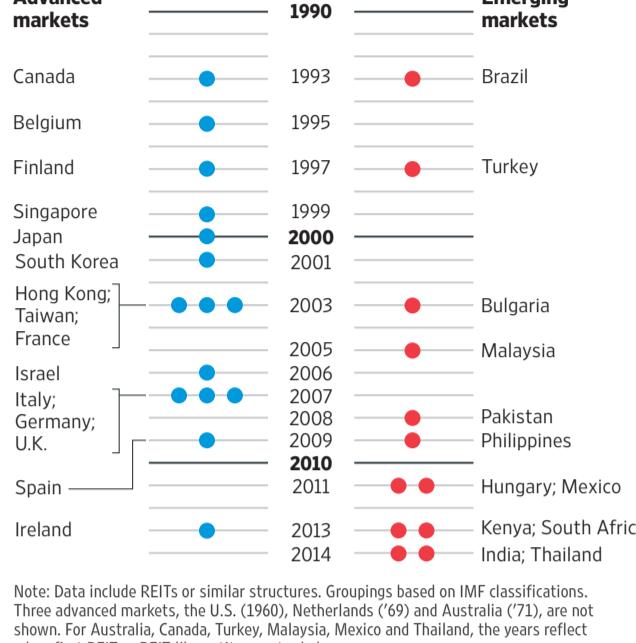
But the market hasn't attracted the hoped-for interest from international investors partly because the Malaysian REITs are much smaller, less liquid and more uncertain than REITs in developed neighbors like Singapore and Hong Kong.

"They haven't benefited from the wave of international capital, which has been driving Hong Kong and Singapore REIT markets," said Corrine Ng, portfolio manager of an Asian REIT fund at Australia's APN Property Group Ltd., which manages \$2 billion. Ms. Ng's fund has less than 2% of its portfolio in REITs issued by developing countries.

More than a dozen governments in emerging markets, including Mexico, Malaysia and Kenya, have approved regulations permitting REIT structures in the past two decades. But with a few exceptions, most of these markets

### Listing Race

When rules were enacted permitting real-estate investment trusts, or REITs



Note: Data include REITs or similar structures. Groupings based on IMF classifications. Three advanced markets, the U.S. (1960), Netherlands ('69) and Australia ('71), are not shown. For Australia, Canada, Turkey, Malaysia, Mexico and Thailand, the years reflect when first REIT or REIT-like entity was traded.

Sources: PricewaterhouseCoopers; KPMG; JLL

THE WALL STREET JOURNAL.

remain small and mostly domestically owned.

About two-thirds of the world's \$1.7 trillion REIT market capitalization is in the U.S., followed by other developed countries including Australia and Japan, which joined the bandwagon early on. Less than 5% of market cap is by REITs listed in emerging markets, according to Ernst & Young.

There is a range of reasons why REITs have had a hard time gaining traction in emerging markets.

In many of these markets, rules require the use of external managers. "This prevailing model does represent a hurdle for many international investors, due to a conflict of interest," said Frankie Lee, executive director at Goldman Sachs

Asset Management, which oversees \$1.2 trillion.

In many emerging-market REITs "the balance of power is in favor of the founding family, and not in the favor of shareholders," said Tom Walker, co-head of global real-estate securities at Schroders PLC, an investment manager with \$540 billion in assets. "What you find in emerging markets is that a lot of the good, valuable real estate is owned by family and conglomerates who aren't willing to give up control."

Global investors remain hopeful that with time, REITs in developing countries will evolve to be more stable and shareholder-friendly, giving them a chance to participate in the growth of the underlying markets.



The Petronas Towers in Kuala Lumpur, Malaysia. Efforts to expand the REIT market are sputtering.

"There are many investors like us who are desperate to invest in these cities," Mr. Walker said.

The concept of REITs was introduced in the U.S. in 1960, but it wasn't until the 1990s that the market really took off. REITs are entities that own income-producing real-estate assets, like offices and malls, and are typically required to distribute annually at least 90% of their taxable income to shareholders as dividends.

In the U.S., REITs aren't largely subject to corporate tax so they can pay a high percentage of their profits as dividends.

REITs in some emerging markets have become sizable. Mexico now has 13 REITs with a total market capitalization of \$15 billion. But by and large,

such countries have struggled to develop their REIT markets. The Philippines in 2009 created a REIT law, which included several tax requirements that deterred developers, such as high taxes for transferring property to a REIT. No REIT has been listed there yet. The government is now trying to ease its tax requirements.

India created REIT rules in 2014, but has since been going back and forth with developers and other interested parties to fine-tune the rules so that they are favorable to both developers and potential investors. Multiple regulators have had to issue follow-up rules, such as the insurance regulator allowing insurers to invest in REITs.

Malaysia's first REIT

was listed in 2005, followed by more than a dozen in the ensuing decade. Today, Malaysia boasts 18 REITs, four of which have a market cap of more than \$1 billion.

The largest, **KLCC Property Holdings** Bhd., comprises a mix of office and other real estate, including office space in the Petronas Towers. KLCC's market capitalization is roughly \$3.3 billion, but its share price has slipped this year to about the price at which the REIT was listed in 2013. The REIT had a dividend yield of around 4.5% recently, versus a 4% yield for the 10-year Malaysian government bond. "That is relatively unattractive," said Yip Kah Ming, an analyst at Malaysian broker Hong Leong Investment Bank Bhd.

## PLOTS & PLOYS

DUKE REALTY

### REIT Purchases Logistics Properties

A developer of logistics centers that lease space to online retailers has cut a deal to sell almost \$700 million of properties to **Duke Realty Corp.**

Indianapolis-based Duke, a real-estate investment trust that has been shifting its focus to logistics from suburban office and medical office buildings, is buying the properties from Chicago-based **Bridge Development Partners** LLC in two stages. The first includes a 10-building portfolio with 3.4 million square feet in Southern California, northern New Jersey and south Florida.

Duke also has agreed to buy two other properties totaling 853,000 square feet that haven't been built yet. Construction is expected to begin this year.

The existing 10-building portfolio is about half-occupied because the buildings are new and there hasn't been time to lease them, said Steve Poulos, chief executive of Bridge. The space should fill easily because demand is strong in those markets, largely from online retailers who want to be close to population centers so they can deliver goods quickly, he said.

"Any real-estate investor is probably looking to some extent at levels of economic growth as a proxy for what cash flow growth could potentially be," said Ritson Ferguson, chief executive of CBRE Global Investors, which has made investments in high-growth economies of Eastern Europe and Asia.

Investors also have been reassured by political and economic overhauls that are being put in place in countries like India and Brazil, and the transformation of real-estate markets to take on Western qualities. For example, more office buildings and malls in some countries have one owner, rather than being carved up among numerous investors and occupiers.

When deals succeed, investors are well compensated for the risks they take. Returns can exceed 20%.

—Carolyn Cui  
and Shefali Anand  
contributed to this article.

malls and retail centers stayed flat at 10% in the third quarter from the second quarter, with asking rents rising 0.4% to \$20.74 a square foot from the previous quarter and up 1.8% year over year.

"The retail statistics continued to defy the otherwise negative reports of store closures," said Barbara Denham, an economist at Reis, which collected data from 77 metro areas in the U.S., apart from Washington, D.C., and New York City.

In regional malls, which are typically enclosed shopping centers, vacancy rates rose to 8.3% in the third quarter from the 8.1% increase recorded in the previous quarter due to store closures from **J.C. Penney** Co. and **Sears Holdings** Corp. That was still lower than the record 9.4% vacancy rate recorded in the third quarter of 2011.

Growth in asking rents was 0.2% in the third quarter, compared with 0.4% in the second quarter. Most mall owners kept rents flat, Ms. Denham said.

—Esther Fung

APARTMENTS

### Rent Slowdown Expands in U.S.

A chill that started in the New York and San Francisco rental-apartment markets last year is spreading to less-expensive cities.

Several metropolitan areas that enjoyed strong rent growth last year dropped off sharply in the third quarter of 2017.

Dallas posted annual rent growth of 2.8% in the third quarter, down from 5% in the same quarter a year earlier, according to data expected to be released Wednesday by **RealPage** Inc. In the urban core, where Dallas and other major metropolitan areas are seeing the most supply increases, rent growth was essentially flat.

Likewise, rents in Charlotte, N.C., rose just 2.5% year over year in the third quarter, down from 4.2% in the same quarter a year earlier.

Overall, apartment rents increased 2.6% annually in the third quarter, roughly in line with historical norms. But tougher times could be in the offing as a surge of fresh supply is expected later this year and early next year.

—Laura Kusisto



An office building in Rio de Janeiro. Emerging markets are attractive because growth rates are expected to outpace developed nations.

## Commercial Arena Is Perking Up

By PETER GRANT

Investors are showing more interest in commercial real estate in Asia, South America and other emerging markets, where growth trends and the lure of outsize returns overshadow the additional political and financial risks these regions can pose.

From 2012 to 2016, investors mostly fled markets like Brazil, Russia and India as those countries were hit by political turmoil, weak growth and shaky values. But in the past 18 months, some of the biggest names in real-estate investing have become more bullish on emerging markets as growth has picked up and some governments implement overhauls.

In India alone, private-equity firms are expected to acquire a record \$4.2 billion in real-estate assets this year, according to Knight Frank Research. Recent big deals include Singapore's sovereign wealth fund, **GIC Pte. Ltd.**, which agreed in August to buy a \$1.4 billion stake in one of India's biggest real-estate developers, **DLF Ltd.**

Investors looking for deals in India also include **Blackstone Group LP**, **KKR & Co.** and **Brookfield Property Partners LP**, according to people familiar with the matter.

Brookfield is about to close its \$1 billion purchase of the office and retail space in a sprawling master-planned community in the Powai suburb of Mumbai from its developer, **Hiranandani Group**.

Meanwhile, in Mexico, PGM Real Estate has built **Terrafina SA** into the country's largest owner of logistics properties, with a market capitalization of \$2 billion, up from \$900 million in 2013.

Farther south, Sam Zell's Equity International last year purchased a stake in Brazilian parking lot operator **Estapar Estacionamentos SA** for \$154 million, the firm's first investment in that country since 2012.

"Our appetite has increased and our enthusiasm has increased," Mr. Zell said.

No one is comparing today with the golden decade of emerging-market investments that ended after the global financial crisis. During that period, investors were on a buying spree as the BRIC economies—named after Brazil, Russia, India and China—posted stronger growth than most of the rest of the world.

Warning flags continue to wave over some countries following the sell-off. Most big investors from the U.S. and Western Europe continue to have little interest in Russia

because of concern about the legal system there. Many countries remain too volatile or small to attract global investors.

The Brazilian economy is big enough, but has numerous weak spots. For example, vacancy in the São Paulo region remains stubbornly high at 27% at the end of the second quarter, according to Cushman

2009. To real-estate investors, this means increases in hotel room stays, shopping center traffic and demand for office space from expanding companies.

Emerging markets are particularly compelling because growth rates there are expected to outpace those of developed markets.

"Any real-estate investor is probably looking to some extent at levels of economic growth as a proxy for what cash flow growth could potentially be," said Ritson Ferguson, chief executive of CBRE Global Investors, which has made investments in high-growth economies of Eastern Europe and Asia.

Investors also have been reassured by political and economic overhauls that are being put in place in countries like India and Brazil, and the transformation of real-estate markets to take on Western qualities. For example, more office buildings and malls in some countries have one owner, rather than being carved up among numerous investors and occupiers.

When deals succeed, investors are well compensated for the risks they take. Returns can exceed 20%.

—Carolyn Cui  
and Shefali Anand  
contributed to this article.

### Vacancies, Rents Are Holding Steady

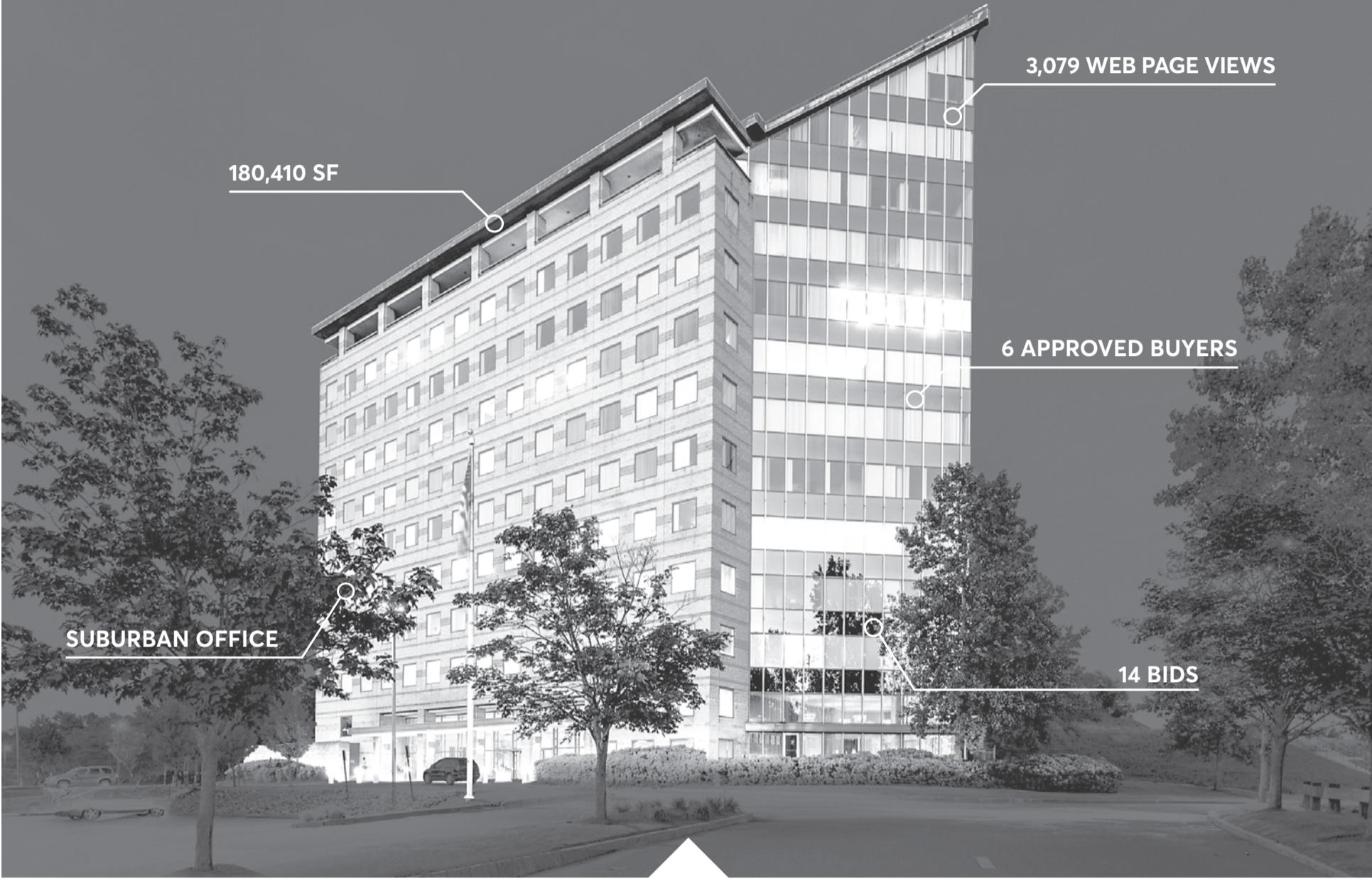
The increase in store closures across the U.S. this year has had only a moderate impact on national retail vacancy rates and rents, a new report shows.

Vacancy rates in shopping centers rose in 34 of 77 U.S. metro areas in the third quarter from the same period a year earlier, according to data from real-estate researcher **Reis Inc.** That was an improvement from the second quarter, when 39 metro areas recorded year-over-year increases.

Overall, the retail vacancy rate across different types of

# STAND OUT TO THE UNKNOWN BUYER.

× MAKE YOUR MARKET



ACCEPTING OFFERS

**OLVERA PLAZA**  
Chula Vista, CA

42,290 SF	Office
--------------	--------

View Details:  
[10x.com/olvera-wj](http://10x.com/olvera-wj)



ACCEPTING OFFERS

**MARINE EMPORIUM LANDING**  
Oxnard, CA

30,028 SF	Retail
--------------	--------

View Details:  
[10x.com/emporium-wj](http://10x.com/emporium-wj)



ACCEPTING OFFERS

**WESTLAKE VILLAGE PORTFOLIO**  
Sacramento, CA

31,980 SF	Retail/Land
--------------	-------------

View Details:  
[10x.com/westlake-wj](http://10x.com/westlake-wj)



ACCEPTING OFFERS

**COMMERCIAL CONDO UNITS**  
Coral Gables, FL

11 UNITS	Retail/Office
-------------	---------------

View Details:  
[10x.com/coralgables-wj](http://10x.com/coralgables-wj)



ACCEPTING OFFERS

**QUEENS/NYC WAREHOUSE**  
Ridgewood, NY

57,000 SF	Industrial
--------------	------------

View Details:  
[10x.com/ridgewood-wj](http://10x.com/ridgewood-wj)



BID ONLINE: OCT 24-26

**OLIVE TREE HOTEL & BANQUETS**  
Jackson, MS

194 ROOMS	Hotel
--------------	-------

View Details:  
[10x.com/olivetree-wj](http://10x.com/olivetree-wj)

Ten-X Commercial is the CRE marketplace that goes beyond the usual suspects. It connects you with unknown buyers across the globe and offers a greater certainty to close. Sixty percent of our buyers come from out of state.

[10x.com/wj](http://10x.com/wj) | 888-770-7332

**TEN-X**  
COMMERCIAL

## MANAGEMENT

# Hiring Bias Unchanged Over Time, Study Says

By JOHN SIMONS

Despite widespread corporate-diversity efforts, black job candidates have made little headway battling discrimination over the last quarter-century, according to a new analysis.

A study of résumé responses and hiring behavior finds that white applicants were roughly a third more likely to receive invitations for first-round interviews than African-Americans in 2015, a figure that hasn't changed in 25 years. Experts say this points to deep-rooted bias in the U.S. labor market.

Researchers from Northwestern University, Harvard University and two European research institutes analyzed data from some 30 separate studies of hiring outcomes conducted between 1989 and 2015.

Some of the studies involved responses to matched résumés of fictionalized candidates of different races and ethnicities sent by mail or submitted online. The résumés conveyed equivalent education and work experience, and differed only in that some contained ethnically identifiable names or other clues that signaled the applicant's race.

Other studies tracked how frequently companies followed up with people who posed as equally qualified candidates of different races and ethnicities and applied for jobs in person. In total, the data represent 55,842 applications for 26,326 positions.

At a time when large firms have publicly identified diversity as a priority, and numerous surveys show whites support equal treatment for minorities, the results are surprising, says lead researcher Lincoln Quillian.

Mr. Quillian, a faculty fellow at Northwestern University's Institute for Policy Research, thinks hiring managers may be making snap judgments about candidates based on their personal prejudices. "Even for well-intentioned employers who think about treating all applicants the same, bias is entering into their decisions," he says.

# Boards Wake Up to Company Culture

Whirlpool, Citigroup and CACI International boost oversight of their business environments

By JOANN S. LUBLIN

Corporate culture counts. But bad culture can damage a company's reputation, results and recruitment.

That's why boards are starting to scrutinize the cultures of companies they serve. Directors at Whirlpool Corp., for example, make sure its workers feel comfortable divulging bad news by tracking internal surveys. Companies such as Citigroup Inc. and CACI International Inc. have formed board culture committees.

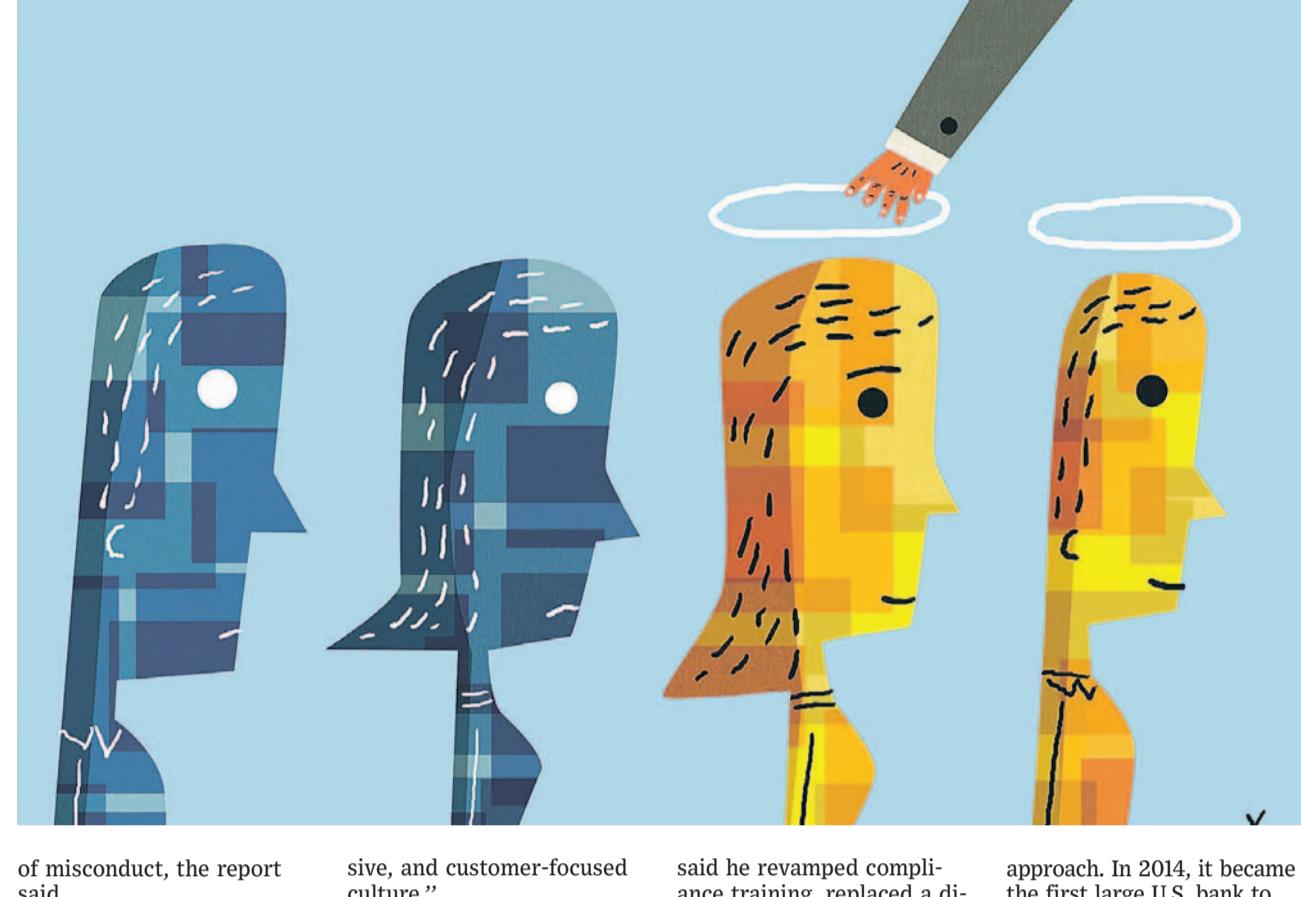
Culture describes the way values and actions create a unique business environment. One recent study found that a positive corporate culture improves company profits.

Yet "few boards currently have an explicit focus or formalized approach to cultural oversight," said Helene Gayle, a director of Coca-Cola Co. and Colgate-Palmolive Co.

A blue-ribbon panel co-led by Ms. Gayle wants boards to monitor corporate culture as vigilantly as they do risks. The 34-member commission, organized by the National Association of Corporate Directors, intends to release an extensive report on Wednesday that suggests how boards could bolster their oversight of company culture.

The panel's 10 recommended steps include regular measurements of corporate culture, using a combination of factors such as chief executives' performance reviews and the scope of power held by risk-management officers. The panel also suggests crackdowns on incentive-pay plans that might weaken culture.

"Oversight of corporate culture should be among the top governance imperatives for every board," the panel of independent directors, recruiters and consultants concluded. A strong culture offers "a powerful source of competitive advantage," while companies with weak cultures see far higher levels



of misconduct, the report said.

Recent crises at Uber Technologies Inc. and Wells Fargo & Co. were partly blamed on culture flaws.

Uber is grappling with scandals, government probes and shareholder litigation. CEO Travis Kalanick quit under investor pressure in June. The ride-hailing company declined to comment on a shareholder suit filed in late September that called its corporate culture "a toxic hotbed," threatening its business.

Wells Fargo admitted culture problems following a sales-practices scandal that erupted a year ago. The bank said employees opened customer accounts using fictitious or unauthorized information to meet lofty sales goals. The revelation led then-CEO John Stumpf to retire abruptly.

His successor, Timothy Sloan, this spring said the bank would conduct a companywide survey so leaders can "foster an ethical, inclu-

sive, and customer-focused culture."

Whirlpool directors make sure management at the appliance giant maintains a strong culture through annual employee polls, executive performance evaluations, analysis of whistleblower-hotline calls and risk assessments of pay practices, according to Mike White, the board audit committee's chairman.

Board members intensified their cultural oversight after Whirlpool became a target of a U.S. government antitrust investigation into the global compressor industry. As a result of the probe, the company's compressor business based in Brazil agreed in 2010 to plead guilty to price fixing of refrigerant compressors and pay a \$91.8 million fine.

"A couple of individuals made bad decisions," said Jeff Fettig, Whirlpool's long-time CEO who stepped down on Sunday. He remains chairman.

In response, Mr. Fettig

said he revamped compliance training, replaced a division head and renewed Whirlpool's commitment to encouraging employees to speak up about misdeeds.

The board also gave Mr. Fettig tougher marching orders, with a 2010 performance goal to "make sure it



**Revelations of aggressive sales practices at Wells Fargo led then-CEO John Stumpf to retire.**

doesn't happen again," Mr. White said. The board would later trim Mr. Fettig's 2011 bonus.

Mr. Fettig said in hindsight, the episode was "very positive for our culture." For instance, he said, worker survey scores about their willingness to speak up rose 10 percentage points between 2010 and 2015.

Citigroup takes a different

approach. In 2014, it became the first large U.S. bank to create a board ethics and culture committee, recalled panel chairman Franz Humer.

A management "culture audit" commissioned by the committee uncovered varying views about valued behaviors, including how Citigroup defines performance, Mr. Humer said.

Panel members encouraged senior executives to create a common approach from the top, he added.

Among other things, Mr. Humer said, these directors reviewed CEO Michael Corbat's culture presentation before his next gathering of the bank's top 250 executives.

And during a strategy session this summer, the full board agreed that management should sharpen Citigroup's cultural focus by supporting tougher performance evaluations, Mr. Humer said.

Directors want bosses to judge their subordinates on "how we achieve results, not just the results achieved."

# Meet the Real Money Man Behind Jeter's Marlins Deal

By SARAH KROUSE

When Derek Jeter emerged this summer as the front-runner to take over the Miami Marlins, a who's who of South Florida billionaires came up in the chatter about his possible backers.

One name that didn't get mentioned much was the guy who finally made the deal: retired money manager Bruce Sherman.

Considered one of the star stock pickers of his generation, Mr. Sherman has been off the radar for almost a decade after a series of bad bets on newspaper companies and fallen Wall Street giant Bear Stearns.

He has occupied his time in part by running a family office while also alleging in a lawsuit that Bear lied ahead of its 2008 collapse to keep investors from selling. That effort ended with a whimper, when Mr. Sherman settled in July for less than \$5 million, according to people familiar with the matter.

So it was a surprise to many when Mr. Sherman was announced as Mr. Jeter's backer.

A coalition led by Mr. Sherman closed Monday on its purchase of the ailing franchise, valued at \$1.2 billion.

Mr. Sherman provided about \$300 million, and he is prepared to contribute an added \$100 million if needed, people familiar with the matter said.

His group, which includes former Chicago Bulls star Michael Jordan, Michael Dell's family office and some hedge-fund and private-equity managers, inherits a team that has been losing money while drawing lagging attendance. As recently as a few weeks ago, the Jeter-Sherman group was still seeking investors to



Derek Jeter joined with a retired money manager to buy the team.

help meet Major League Baseball's requirements to limit debt, according to people involved with the sales process.

Mr. Sherman, a former accountant from Queens, N.Y., will act as chairman. He will seek to upgrade the team's financial health with Mr. Jeter, who will run day-to-day operations as chief executive. The new owners also plan to hire a chief operating officer, people familiar with the matter said.

The move fits with Mr. Sherman's career-long fascination with both baseball and turnaround stories. The Marlins lose at least \$30 million each year and collect more from the MLB's revenue-sharing system than any other team. Mr. Sherman has told colleagues that he long wanted to own a baseball team after growing up as a fan of Yankees star Mickey Mantle.

Mr. Sherman got his start in the investment world when a recruiter convinced him to give up his job as an accountant, move to Naples, Fla., and oversee the wealth of a family that controlled large tracts of land in southwest Florida. He started Private Capital Man-

agement in 1986 to manage that money.

He became part of a generation of investors focused heavily on companies' financials and accounting. In the 1990s and 2000s he was one of the top U.S. value investors because of successful bets on companies such as Apple, Qualcomm and International Game Technology.

Value investors typically purchase stocks or companies they believe are cheap, anticipating long-term appreciation. He sold PCM to Baltimore fund giant Legg Mason in 2001 for \$1.26 billion and continued to run it. At times he showed a willingness to take a hands-on approach at the companies in which he invested, writing letters to chief executives or boards of directors to press for changes.

After making bets on newspaper stocks like Knight Ridder and New York Times Co., he clashed with the heads of those companies as he sought changes. Those investments declined in the late 2000s as businesses suffered.

Matthew Futterman and Jared Diamond contributed to this article.

## ADVERTISEMENT

## Business Real Estate &amp; Auctions

To advertise: 800-366-3975 or WSJ.com/classifieds

## AUCTIONS

**Real Estate Foreclosure Auction 17-234  
30-Unit Residential Development  
k/a "Horton Meadows" - 54.85+- Acres - Pond  
464 Buxton Rd. & Hamilton Lane**

**Saco, Maine**

Tuesday, November 7, 2017 at 11AM

(Auction will be held at 464 Buxton Rd.)

Preview: Tuesday, October 24, 2017

from 10AM-12PM

Terms: A \$25,000 deposit to bid in certified U.S. funds payable to Keenan Auction Co., Inc., to be increased to 10% of the bid price within five (5) calendar days of the public sale. **30 day closing**. For information and additional terms of sale contact KeenanAuction.com or call (207) 885-5100 and reference auction #17-234. Richard J. Keenan #236. Our 45<sup>th</sup> Year and 7,699<sup>th</sup> Auction.

## FLORIDA

**EARN 10% HIGH YIELD**

INCOME FUND VI ACT NOW

1031 Exchange Eligible

Self Directed IRA

www.fordinvestmentproperties.com

Call Today:

772-781-2526

## Building For Sale

Busy restaurant. Site is an ideal redevelopment site with 24 acres in central Bradenton on major street close to downtown. 14,237 sf custom building. Wide variety of uses.

Rae Hayes  
941-920-0364 • hayo838@aol.com  
WAGNER REALTY

**NOTABLE COMMERCIAL PROPERTIES**  
EVERY WEDNESDAY  
LIST YOUR PROPERTY TODAY  
(800) 366-3975  
sales.realestate@wsj.com

© 2017 Dow Jones & Company, Inc.  
All Rights Reserved.

DOW JONES

ALEX COOPER

800-272-3145 • WWW.ALEXCOOPER.COM

THE WALL STREET JOURNAL.

## AUCTIONS

**AUCTION**  
QUALIFYING BID DEADLINE: NOV. 2  
BANKRUPTCY COURT DIRECTED SALE

**101± TOTAL ACRES OF LAND  
8 TOTAL PARCELS**

John E. Sullivan Rd & Centerville Rd, Byron, GA  
Adjacent to the Medical Center of Peach County

• Located 0.86 miles west of Interstate 75  
• Ideal for Medical Office, Senior Living, Retail, Residential (single-family & multi-family), Flexible Zoning in Place  
• Nearby Robins Air Force Base contributes over 25,000 jobs to area

• Area of growing development & heavy traffic  
• Strong retail corridor to the east including Walmart, Target and Hobby Lobby

**Bid on One or Multiple Parcels**

PREEMPTIVE OFFERS CONSIDERED!

**Hilco**  
Real Estate  
847.313.4753 or 855.755.2300  
HilcoRealEstate.com

Trustees of Dartmouth College Sale at  
**AUCTION**  
2.02± Acre Development Site@Centerra Business Park Lebanon, New Hampshire Online Bidding Ends: Weds., October 25th at 3 pm

2.02± acre site has 255.85±' of frontage

**PAULMCINNIS INC**  
AUCTIONS • REAL ESTATE • RESULTS  
FOR INFO & COMPLETE TERMS GO TO  
www.paulmcinnis.com

LIC.#2089 - (603) 964-1301 - REF.#17PM-33

## BIGGEST 1,000 STOCKS

**How to Read the Stock Tables**  
 The following explanations apply to NYSE, NYSE Arca, NYSE MKT and Nasdaq Stock Market listed securities. Prices are composite quotations that include primary market trades as well as trades reported by Nasdaq OMX BXSM (formerly Boston), Chicago Stock Exchange, CBOE, National Stock Exchange, ISE and BATS.  
 The list comprises the 1,000 largest companies based on market capitalization.  
**Underlined quotations** are those stocks with large changes in volume compared with the issue's average trading volume.  
**Boldfaced quotations** highlight those issues whose price changed by 5% or more if their previous closing price was \$2 or higher.

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.

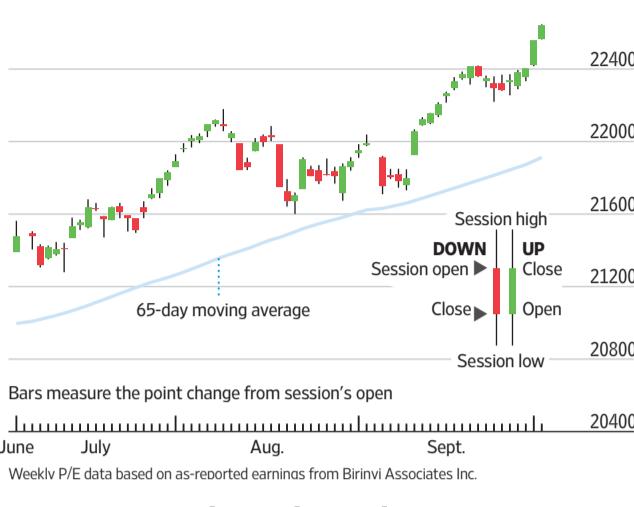
Tuesday, October 3, 2017																								
	Stock	Sym	Close	Net Chg	Stock	Sym	Close	Net Chg	Stock	Sym	Close	Net Chg	Stock	Sym	Close	Net Chg	Stock	Sym	Close	Net Chg	Stock	Sym	Close	Net Chg
	Autoliv	ALV	123.99	.28	CapitalOne	COF	86.37	.45	RalphLauren	RL	88.54	-.44	CiscoSystems	CSK	33.85	.01	MicrochipTech	MCHP	90.72	.17	Vmware	VMW	110.64	.45
	AutoZone	AZO	599.55	.13	CardinalHealth	CAH	67.60	-.64	Knight-Swift	KNX	40.94	-.48	CitrixSystems	CTXS	58.91	-.09	MicroTec	MU	40.37	.36	VornadoRealty	VNN	77.29	.28
	AvalonBay	AVB	177.69	.10	Carlisle	CSC	103.48	.23	Kohl's	KSS	44.46	-.06	Cognex	CGNX	114.69	.22	Microsemi	MSCC	52.79	.32	DukeEnergy	DUR	83.85	-.51
	Avgard	AGR	47.48	-.06	CarMax	KMX	76.33	-.26	KoninklijkePhil	PHG	42.03	.01	Raytheon	RTN	188.31	.66	MSFT	MSFT	74.26	-.35	Ecolab	ECL	29.01	.05
	AxesCoating	AXTA	29.53	.51	Carnival	CCL	64.10	-.02	RealityIncome	O	57.05	-.02	Realogy	HLD	111.93	-.25	Middleby	MIDD	127.89	1.87	AES	AES	33.14	.24
	B&T	BBT	46.88	-.28	Caterpillar	CAT	125.51	.11	Kroger	KRO	20.56	.04	RegencyCtrs	REG	62.38	.28	WEC Energy	WE	63.32	-.28	EdisonInt'l	EOT	64.21	-.15
	BCE	BCE	46.91	.09	Celanese A	CE	107.11	.16	Kyocera	KYO	63.07	.94	RegionsFin	RF	15.17	-.06	WPCarey	WPC	68.01	.24	Equifax	EFC	64.21	-.15
	BHPBilliton	BHP	41.07	.21	Cemex	CX	9.07	-.01	LATAAMerica	LTM	13.88	.05	ReinsuranceGrp	RGA	141.18	.58	CommerceBchs	CBSH	58.30	-.05	Wabtec	WAB	76.43	.02
	BHPBilliton	BBL	35.88	.01	CenovusEnergy	CVE	9.87	-.01	RelianceSteel	RS	77.68	-.33	CommScope	COMM	33.80	.32	Mondelez	MDLZ	40.94	-.16	Bp	BP	77.42	.77
	Bibby	BBV	89.70	-.69	CenterPointEnergy	CNP	28.78	-.18	RGU	RGU	65.55	-.02	Copart	CPT	34.65	.10	MonsterBeverage	MNST	52.57	.13	Accenture	ACN	134.25	-.19
	Birk	BRFS	14.85	.47	CentricaB	EBS	6.84	.38	RepuServices	RS	65.65	-.02	CoStarGroup	CPG	271.63	-.06	Mylan	MYL	32.53	.14	BT Group	BT	18.86	.01
	Bitly	BT	18.86	.01	CentricaB	EBS	6.84	.38	ResMed	RM	76.53	-.08	Costco	COST	165.08	.01	Nasdaq	NDAQ	77.05	-.04	BrightEdge	BRGE	15.90	-.01
	BlackRock	BWX	57.04	-.05	CenturyLink	CTL	20.18	.08	RestaurantsBrands	QSR	64.04	-.03	Tripp.com	CTRP	54.52	.14	NetApp	NET	144.39	-.01	CoatueCo	COAT	41.97	.22
	BakerHughes	BHGE	36.67	.01	Chomers	CC	53.44	.69	RiceEnergy	RICE	28.51	-.52	DISH Network	DISH	54.32	.49	NTes	NTES	227.17	.58	BB&T	BT	18.86	.01
	Ball	BL	45.18	.02	Chevron	CVX	117.82	.39	RioTinto	RIO	48.39	.46	Netflix	NFLX	178.90	.19	Wayfair	W	72.80	4.34	Las Vegas Sands	LVS	64.79	-.07
	BancoBilbaoViz	BBVA	8.76	.08	ChinaEasternAir	CEA	25.19	.47	RobertHalf	RHI	51.38	.22	DiamondsSyntra	XRAY	100.65	.08	NewsCorp A	NWSA	13.37	.09	BancoBilbaoViz	BBVA	8.76	.08
	BancoMacri	BBCB	94.34	.21	ChinaLifeIns	FHC	15.30	.22	Rockwell	ROK	180.80	.10	DiscoveryComm	DISCA	21.53	.01	NewsCorp B	NWSB	13.70	...	BancoBilbaoViz	BBVA	8.76	.08
	BancaMonte	BMO	77.14	.93	ChinaMobile	CM	50.72	.02	RockwellCollins	COL	132.22	.76	CoStarGroup	CPG	271.63	-.06	OldNorth	ON	18.91	.12	BancoBilbaoViz	BBVA	8.76	.08
	BancosChile	BCH	25.04	.13	ChinaPetrol	CNP	75.39	-.49	LibertyProperty	LPT	41.30	.06	Costco	COST	165.08	.01	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BancosSantander	BSC	30.64	.71	ChinaPetrol	CNP	75.39	-.49	LLY	LLY	86.45	0.10	Tripp.com	CTRP	54.52	.14	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BanColombia	CB	6.80	-.02	ChinaAirlines	ZNH	35.19	.51	LyondellBasell	LYB	99.76	-.09	WasteConnex	WCN	149.41	.35	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	Baptist	BAK	46.17	.28	CimarexEnergy	EXC	116.62	-.38	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	Barkley	BAX	62.62	-.54	Citigroup	C	74.13	.03	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	Barton	BBL	42.00	...	FibriaCelulose	FBR	13.77	.21	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	Bartley	BKL	45.70	.24	LiveNationEnt	LNT	18.22	.03	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BaskinRobins	BKR	139.73	-.26	LiveNationEnt	LNT	18.22	.03	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	Bethel	BKR	145.70	.24	LyondellBasell	LYB	99.76	-.09	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	Bethel	BKR	185.67	.02	LyondellBasell	LYB	99.76	-.09	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BerryGlobal	BERRY	57.90	.49	LyondellBasell	LYB	99.76	-.09	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BestBuy	BBY	56.91	-.51	LyondellBasell	LYB	99.76	-.09	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BidRadar	BIA	223.97	1.14	LyondellBasell	LYB	99.76	-.09	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BidRadar	BIA	223.97	1.14	LyondellBasell	LYB	99.76	-.09	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BidRadar	BIA	223.97	1.14	LyondellBasell	LYB	99.76	-.09	LyondellBasell	LYB	99.76	-.09	WestarEquity	WR	50.34	-.02	Northstar	ON	133.36	.24	BancoBilbaoViz	BBVA	8.76	.08
	BidRadar	BIA	223.97	1.14																				

## MARKETS DIGEST

### EQUITIES

#### Dow Jones Industrial Average

**22641.67** ▲ 84.07, or 0.37%  
High, low, open and close for each trading day of the past three months.



Bars measure the point change from session's open  
Current divisor 0.14523396877348

Weekly P/E data based on as-reported earnings from Birinvi Associates Inc.

#### S&P 500 Index

**2534.58** ▲ 5.46, or 0.22%  
High, low, open and close for each trading day of the past three months.



65-day moving average

#### Nasdaq Composite Index

**6531.71** ▲ 15.00, or 0.23%  
High, low, open and close for each trading day of the past three months.



65-day moving average

Last Year ago  
Trailing P/E ratio 25.69 24.32  
P/E estimate \* 21.32 20.18  
Dividend yield 1.10 1.20  
All-time high: 6531.71, 10/03/17

#### Major U.S. Stock-Market Indexes

	High	Low	Latest Close	Net chg	% chg	High	52-Week Low	% chg	YTD % chg	3-yr. ann.
<b>Dow Jones</b>										
Industrial Average	22646.32	22562.90	<b>22641.67</b>	84.07	<span style="color: green;">0.37</span>	22641.67	17888.28	<b>24.6</b>	14.6 <b>10.0</b>	
Transportation Avg	9978.71	9906.98	<b>9973.80</b>	65.97	<span style="color: green;">0.67</span>	9973.80	7967.02	<b>23.5</b>	10.3 <b>5.5</b>	
Utility Average	724.88	718.96	<b>723.59</b>	-1.88	<span style="color: red;">-0.26</span>	754.80	625.44	<b>12.1</b>	9.7 <b>9.2</b>	
Total Stock Market	26335.90	26264.16	<b>26332.87</b>	57.96	<span style="color: green;">0.22</span>	26332.87	21514.15	<b>18.2</b>	13.1 <b>8.8</b>	
Barron's 400	685.57	682.47	<b>685.51</b>	1.27	<span style="color: green;">0.19</span>	685.51	521.59	<b>25.0</b>	13.9 <b>10.0</b>	

#### Nasdaq Stock Market

Nasdaq Composite	6532.18	6509.71	<b>6531.71</b>	15.00	<span style="color: green;">0.23</span>	6531.71	5046.37	<b>23.5</b>	21.3 <b>13.4</b>	
Nasdaq 100	5999.19	5976.65	<b>5995.06</b>	13.14	<span style="color: green;">0.22</span>	6004.38	4660.46	<b>23.4</b>	23.3 <b>14.2</b>	

#### Standard & Poor's

500 Index	2535.13	2528.85	<b>2534.58</b>	5.46	<span style="color: green;">0.22</span>	2534.58	2085.18	<b>17.9</b>	13.2 <b>8.8</b>	
MidCap 400	1816.04	1807.23	<b>1815.47</b>	4.46	<span style="color: green;">0.25</span>	1815.47	1476.68	<b>18.4</b>	9.3 <b>10.0</b>	
SmallCap 600	918.93	912.49	<b>918.72</b>	1.73	<span style="color: green;">0.19</span>	918.72	703.64	<b>22.4</b>	9.6 <b>13.0</b>	

#### Other Indexes

Russell 2000	1512.26	1503.52	<b>1511.97</b>	2.49	<span style="color: green;">0.17</span>	1511.97	1156.89	<b>22.0</b>	11.4 <b>11.0</b>	
NYSE Composite	12303.72	12266.52	<b>12302.89</b>	38.22	<span style="color: green;">0.31</span>	12302.89	10289.35	<b>15.7</b>	11.3 <b>5.0</b>	
Value Line	544.79	542.56	<b>544.78</b>	1.24	<span style="color: green;">0.23</span>	544.78	455.65	<b>13.7</b>	7.6 <b>4.6</b>	
NYSE Arca Biotech	4286.12	4244.52	<b>4276.11</b>	-6.10	<span style="color: red;">-0.14</span>	4282.21	2834.14	<b>28.0</b>	39.1 <b>11.4</b>	
NYSE Arca Pharma	552.05	548.89	<b>551.07</b>	0.20	<span style="color: green;">0.04</span>	551.07	463.78	<b>7.6</b>	14.4 <b>1.2</b>	
KBW Bank	100.07	99.27	<b>99.81</b>	0.0003	<span style="color: green;">0.00</span>	99.81	70.90	<b>39.8</b>	8.7 <b>11.6</b>	
PHLX® Gold/Silver	86.12	85.17	<b>85.98</b>	0.95	<span style="color: green;">1.12</span>	96.72	73.03	<b>3.1</b>	9.0 <b>3.1</b>	
PHLX® Oil Service	140.08	138.50	<b>138.97</b>	-1.35	<span style="color: red;">-0.97</span>	192.66	117.79	<b>-13.8</b>	-24.4 <b>-18.3</b>	
PHLX® Semiconductor	1185.53	1177.16	<b>1182.43</b>	3.67	<span style="color: green;">0.31</span>	1182.43	802.88	<b>42.9</b>	30.4 <b>23.8</b>	
CBOE Volatility	9.75	9.30	<b>9.51</b>	0.06	<span style="color: green;">0.63</span>	22.51	9.36	<b>-30.2</b>	-32.3 <b>-13.2</b>	

\$Philadelphia Stock Exchange

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 5,000 shares.

#### Most-active issues in late trading

Company	Symbol	Volume (000)	Last	Net chg	After Hours % chg	High	Low
SPDR S&P 500	SPY	17,595.8	252.87	0.01	<span style="color: green;">0.004</span>	252.99	252.28
Energy Transfer Equity	ETE	12,000.0	17.44	...	<span style="color: green;">unch.</span>	17.44	17.44
Energy Transfer Partners	ETP	11,879.8	18.24	...	<span style="color: green;">unch.</span>	18.28	18.24
Van Eck Vectors Gold Miner	GDX	8,619.7	23.28	...	<span style="color: green;">unch.</span>	23.29	23.26
Enterprise Pdts Partners	EPD	8,000.6	26.02	0.02	<span style="color: green;">0.08</span>	26.02	26.00
Aegon ADR	AEG	6,029.8	5.66	-0.03	<span style="color: red;">-0.53</span>	5.71	5.65
Cnsmr Staples Sel Sector	XLP	5,746.3	53.94	...	<span style="color: green;">unch.</span>	53.99	53.90
Herbalife	HLF	3,511.3	67.51	...	<span style="color: green;">unch.</span>	67.51	67.49

#### Percentage gainers...

CytomX Therapeutics	CTMX	171.8	25.65	6.65	<span style="color: green;">35.00</span>	26.75	19.00
Manhattan Associates	MANH	32.5	49.80	2.60	<span style="color: green;">5.51</span>	50.00	47.20
BroadSoft	BSFT	6.7	54.15	2.75	<span style="color: green;">5.35</span>	54.50	51.40
Sterling Construction	STRL	11.8	16.25	0.78	<span style="color: green;">5.04</span>	16.25	15.26
LB Foster Co	FSTR	6.1	25.05	1.20	<span style="color: green;">5.03</span>	25.05	23.43

## COMMODITIES

[WSJ.com/commodities](http://WSJ.com/commodities)

### Futures Contracts

#### Metal & Petroleum Futures

	Contract	Open	High	hilo	Low	Settle	Chg	Open interest
Copper-High (CMX)-25,000 lbs.; \$ per lb.		2,9380	2,9505		2,9375	2,9485	0.0090	2,088
Oct	2,9380	2,9505		2,9375	2,9485	0.0090	2,088	
Dec	2,9450	2,9720		2,9260	2,9635	0.0080	176,797	
Gold (CMX)-100 troy oz.; \$ per troy oz.		1269.70	1273.10		1268.60	1271.50	-1.20	2,222
Oct	1269.70	1273.10		1268.60	1271.50	-1.20	2,222	
Dec	1273.10	1277.40		1271.00	1274.60	-1.20	420,373	
Feb'18	1277.30	1281.10		1275.20	1280.70	-1.20	55,456	
April	1282.00	1284.70		1279.50	1282.60	-1.30	10,914	
June	1284.20	1288.90		1283.60	1286.50	-1.30	10,734	
Dec	1297.10	1300.60		1297.10	1298.30	-1.30	10,925	
Palladium (NYM)-50 troy oz.; \$ per troy oz.		909.80	919.45		904.30	916.90	5.60	29,659
Dec	909.80	919.45		904.30	916.90	5.60	29,659	
Platinum (NYM)-50 troy oz.; \$ per troy oz.		907.90	910.80		901.00	912.15	5.50	1,154
Jan'18	915.10	919.30		909.80	915.50	-1.10	6,502	
Silver (CMX)-5,000 troy oz.; \$ per troy oz.		16.530	16.585		16.530	16.581	-0.004	563
Oct	16.605	16.690		16.570	16.650	-0.004	144,437	
Crude Oil, Light Sweet (NYM)-1,000 bbls.; \$ per bbl.		50.59	50.73		50.14	50.42	-0.16	518,158
Dec	50.92	51.04		50.45	50.74	-0.16	351,299	
Jan'18	51.12	51.28		50.70	50.99	-0.15	228,357	
March	51.17	51.46		50.94	51.22	-0.11	207,886	
June	51.16	51.36		50.91	51.18	-0.06	193,246	
Dec	50.71	50.87		50.47	50.69	-0.07	254,905	
NY Harbor ULSD (NYM)-42,000 gal.; \$ per gal.		1,7670	1,7670		1,7505	-0.0160	127,396	
Nov	1,7670	1,7670		1,7407	1,7505	-0.0160	127,396	
Dec	1,7632	1,7653		1,7399	1,7504	-0.0146	91,344	
Gasoline-NY RBOB (NYM)-42,000 gal.; \$ per gal.		1,5553	1,5696		1,5423	1,5655	0.0102	143,933
Nov	1,5553	1,5696		1,5423	1,5655	0.0102	143,933	
Natural Gas (NYM)-10,000 MMBtu.; \$ per MMBtu.		1,50507	1,5625		1,5389	1,5583	0.0068	76,104
Natural Gas (NYM)-10,000 MMBtu.; \$ per MMBtu.		2,925	2,935	▼	2,880	2,895	-0.021	342,403
Dec	3,110	3,119		3,068	3,085	-0.021	131,819	
Jan'18	3,238	3,247		3,200	3,217	-0.017	157,078	
Feb	3,243	3,250		3,205	3,222	-0.018	84,623	
March	3,195	3,202		3,158	3,176	-0.017	128,698	
April	2,905	2,916		2,887	2,906	-0.004	127,748	

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Agriculture Futures

Corn (CBT)-5,000 bu.; cents per bu.	16.40	16.45	16.30	16.43	.10	4,505
Dec	351.50	351.50	348.75	349.50	-2.00	802,632
March'18	364.00	364.25	361.75	362.25	-2.00	252,318
Oats (CBT)-5,000 bu.; cents per bu.	17.40	17.50	17.25	17.45	-1.75	108,473
Dec	252.50	253.25	250.50	251.25	-1.25	4,416
March'18	256.00	256.00	255.00	255.50	-1.00	1,262
Soybeans (CBT)-5,000 bu.; cents per bu.	14.33	14.38	14.01	14.04	-2.27	428,143
May	14.44	14.48	14.12	14.15	-2.7	116,500
Soymeal (CBT)-100 tons; \$ per ton.	27.10	27.10	27.10	27.11	...	2,899
Oct	307.90	310.40	307.40	307.30	-1.80	2,522
Dec	313.10	315.10	311.40	311.50	-2.10	173,135
Soybean Oil (CBT)-60,000 lbs.; cents per lb.	12.40	12.70	12.50	12.75	.23	982
Oct	32.35	32.53	32.24	32.51	.23	180,864
Rough Rice (CBT)-2,000 cwt.; \$ per cwt.	120.00	120.00	119.50	120.50	-50	8,498
Nov	120.00	120.00	119.50	120.50	-50	1,506
Wheat (CBT)-5,000 bu.; cents per bu.	122.80	122.80	122.80	122.50	-50	1,506
Dec	152.45	152.45	149.25	148.00	3.25	248,037
March'18	143.25	146.75	142.25	145.50	2.25	85,898
Wheat (KC)-5,000 bu.; cents per bu.	143.75	144.75	143.25	141.75	2.50	153,147
Dec	145.75	146.50	145.00	145.25	.25	74,968
Wheat (MPLS)-5,000 bu.; cents per bu.	111.70	111.70	111.70	111.70	0.00	1,244
Dec	111.70	111.70	111.70	111.70	0.00	1,244
Cattle-Feeder (CME)-50,000 lbs.; cents per lb.	150.950	152.925	150.500	152.425	2.075	10,291
Oct	150.950	152.925	150.400	152.425	2.075	10,291
Cattle-Live (CME)-40,000 lbs.; cents per lb.	151.875	154.750	151.600	154.300	2.700	21,891
Oct	107.725	109.475	107.400	109.100	1.275	35,701
Dec	113.250	115.475	112.900	114.900	1.475	146,917
Hogs-Lean (CME)-40,000 lbs.; cents per lb.	58.075	58.075	58.075	59.875	2.625	31,236
Oct	58.075	60.250	58.075	59.875	2.625	31,236
Dec	62.200	63.450	61.400	62.075	.100	118,622
Lumber (CME)-110,000 bd.ft.; \$ per 1000 bd.ft.	407.00	412.50	407.00	410.40	3.60	4,271
Nov	407.00	412.50	407.00	410.40	3.60	4,271
Milk (CME)-200,000 lbs.; cents per lb.	397.50	402.00	397.50	400.80	2.50	1,209
Sept	16.38	16.39	16.37	16.37	-.01	4,828

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

#### Contract

#### Open High hilo Low Settle Chg Open interest

## NEW HIGHS AND LOWS

The following explanations apply to the New York Stock Exchange, NYSE Arca, NYSE Mkt and Nasdaq Stock Market stocks that hit a new 52-week intraday high or low in the latest session.  
% CHG-Daily percentage change from the previous trading session.

Tuesday, October 3, 2017

NYSE highs - 304												NYSE lows - 12												NYSE Arca highs - 377											
Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg	Stock	Sym	52-Wk % Hi/Lo Chg			
CVR Energy	CVI	26.89 -3.2	Haverty'sFurn	HVT	27.05 -0.8	NationalHoldings	NHBC	36.41 -0.1	TimeWarner	TW	129.71 0.2	DirexionBtchB3	LARV	90.93 -0.8	GuggenheimTop50	XLS	179.15 -0.4	GlobalConDisc	RXJ	102.28 -0.4	ProsharesUc400	UNDD	100.60 1.0	HancockMultifinl	JHM	34.70 0.3	SPDRSciWorldRat	QWLD	72.77 0.5						
CallawayGolf	ELY	14.75 -0.1	HiltonGrandVac	HGV	40.11 0.0	NewMarketCorp	FG	105.48 -1.0	TimeWarner	TW	32.48 -0.3	SpxS&P500EW	GEW	18.79 -0.1	SPDRIndustrial	YD	89.47 -0.4	ProsharesUc400	UNDD	100.60 1.0	HancockMultifinl	JHM	34.70 0.3	SPDRRussell5000	SPRN	118.83 0.7									
CarMax	KMX	77.64 -0.3	HonyFrontr	HFC	36.68 1.0	NewGermanyFund	GF	18.62 0.5	TopBuild	BLD	104.35 -0.1	SpxS&P500EW	SOXL	11.99 -0.1	GuggS&P500EW	EWC	61.85 -0.3	SPDRS&P5000	US	150.83 -0.2	SPDRGetIntheTech	XITK	79.03 0.5												
Carter's	CRS	50.52 -0.4	Honeywell	HD	165.28 0.7	NorthropGrumman	NOA	33.62 0.6	TravelportWorld	TPT	17.09 0.1	TopBuild	BLD	42.12 0.9	GuggS&P500EW	EWC	53.41 -0.3	SPDRS&P5000	US	150.83 -0.2	SPDRGlobalDow	DGT	80.95 0.8												
Carter'sEqity	CT	15.31 -0.1	Hotels	HT	149.35 0.4	NorthropGrumman	NOA	143.15 0.4	TransportAg	TGS	66.97 2.6	TopBuild	BLD	42.12 0.9	HartfordMultiBlsc	ROGS	30.56 -0.1	SPDRS&P5000	Core	116.84 -0.2	SPDRMFSsSvCore	SYV	71.72 0.4												
Casters	CTT	99.75 -1.2	Hotels	HT	140.46 0.7	PWT Innovations	PGTI	15.05 -0.3	TransportAg	TGS	67.75 0.6	TopBuild	BLD	57.43 0.8	HartfordMultiBlsc	ROGS	45.53 -0.1	SPDRMFSsSvCore	SYV	71.72 0.4	FidelityBtchB3	IBLN	30.08 -0.5	HartfordMultiBlsc	IBLN	54.12 0.8									
CatchmarkTimber	CTT	12.92 -1.2	HoulihanLokey	HLI	40.21 0.5	NuvEmDebt2022	JEMD	20.09 0.7	TransportAg	TGS	21.27 2.3	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
Celanese	CE	102.34 -1.3	HuntingtonInngals	HII	23.29 0.9	NuvEmDebt2022	JEMD	10.09 0.7	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
Chemours	CC	102.34 -1.3	HysterYeateMats	HY	79.28 0.9	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
Chesapeake	CE	102.34 -1.3	Hypoion	HPS	10.46 0.4	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroup	CG	144.56 -0.7	CloudGroup	CDP	25.21 -0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	25.21 -0.1	Inveity	IN	10.75 -0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CooperStandard	CPS	118.60 -0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	25.90 0.2	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	26.49 0.4	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0	CostarPreMfd	CMRE	27.15 0.1	PembinaPipeline	PBM	67.32 0.4	TransportAg	TGS	19.27 0.5	TravelportWorld	TPT	14.51 -0.1	HartfordMultiBlsc	IBLN	28.97 -0.9	HartfordMultiBlsc	IBLN	54.12 0.8	SPDRMSIACWMI	ACIM	75.74 0.1												
CloudGroupPd	CDP	111.02 0.0</td																																	



## MARKETS

# Stocks Extend Gains on Car Sales

BY RIVA GOLD  
AND CORRIE DRIEBUSCH

U.S. stocks extended gains as upbeat car-sales data and a rise in airline stocks helped lift major indexes to records.

Large auto makers posted solid sales increases in September, a boost to the industry following

**TUESDAY'S MARKETS** months of declining results and the latest upbeat data on the U.S. economy.

**General Motors** shares rose \$1.30, or 3.1%, to \$43.45 and **Ford Motor** stock climbed 25 cents, or 2.1%, to 12.34 after both companies reported sharply higher sales of pickup trucks and SUVs, their most profitable products.

Separately, **Delta Air Lines** updated its third-quarter outlook, including the impact from Hurricane Irma, which resulted in 2,200 flight cancellations. Aside from that, the pricing environment for Delta "appears to be stabilizing, which should be viewed favorably," according to an analyst note from Cowen & Co. The carrier's shares rose 3.18, or 6.6%, to 51.25, while competitors **American Airlines Group** rose 2.78, or 5.8%, to 50.51 and **United Continental Holdings** added 3.71, or 6.1%, to 64.14.

The gains helped lift broader indexes. The Dow Jones Industrial Average rose 84.07 points, or 0.4%, to 22,641.67, its 44th record close of the year. The S&P 500 added 5.46 points, or 0.2%, to 2,534.58 and the Nasdaq Composite gained 15.00 points, or 0.2%, to 6,531.71—fresh highs for both.

Tuesday's rise built on Monday's records, which came as data showed that a gauge of U.S. manufacturing activity reached a 13-year high in September, exceeding expectations. That followed solid readings in China and Japan earlier in the week.

"We have another round of data that shows the U.S. economy and international global economy is doing quite well right now," said Willie Delwiche, investment strategist at Robert W. Baird & Co.

"That's being fairly well received by stocks," he added, though he cautioned the market may have gotten slightly ahead of itself in the short term with investor sentiment quite optimistic.

The Stoxx Europe 600 rose 0.2% in its ninth straight session of gains, its longest winning streak since July 2015.

The euro stabilized Tuesday after falling Monday, and was up 0.1% at \$1.1746 in late New York trading.

Earlier, Hong Kong led a climb in Asian markets, with the Hang Seng Index jumping 2.2% in its best session of the year. Car maker **Geely** surged after Morgan Stanley upgraded its rating, while Chinese bank stocks moved higher after the nation's central bank over the weekend reduced the reserves that select banks are required to keep with it. Early Wednesday, the index was up a further 0.8%.

Also early Friday, Japan's Nikkei Stock Average was up 0.2%.

# Oil-Price Forecasts Are Cut Again

For fifth month in row, banks register concern about impact of oversupply of crude

BY MARINA FORCE  
AND GEORGI KANTCHEV

Banks cut their oil-price forecasts for a fifth consecutive month despite a recent price rally amid concerns that the oversupply of crude will grow next year.

**COMMODITIES** A poll of 15 investment banks

surveyed by The Wall Street Journal at the end of September predicted that Brent crude, the international benchmark, will average \$53 a barrel next year, down \$1 from the August survey. The banks expect West Texas Intermediate, the U.S. oil gauge, to average \$50 a barrel in 2018, also down \$1 from the previous survey.

U.S. crude prices in the third quarter registered their biggest quarterly gains since last year amid geopolitical upheaval and signs of strong demand. Some analysts, however, say the gains could become self-defeating if higher prices motivate U.S. shale drillers to ramp up activity and the greater demand proves transitory.

On Tuesday, Brent settled at \$56 a barrel, down 0.2%, while

WTI settled at \$50.42 a barrel, down 0.3%.

"We think the demand forecasts are, perhaps, a little too optimistic and as a result we are left with all the bearish factors that come from the supply side," said Harry Tchililnguirian, head of commodity strategy at **BNP Paribas**.

Prices rose last month on fears that the Iraqi Kurdish independence referendum could interrupt the flow of oil. A fall in OPEC production over the summer and a moderation in the growth of U.S. oil production have also boosted prices in recent weeks.

However, with U.S. crude rising above \$50 a barrel, U.S. shale drillers are using hedges to lock in those higher prices and are putting more rigs to work. On Friday, oil-services company Baker Hughes Inc. said the number of active U.S. oil rigs rose for the first time in seven weeks, adding six rigs to a total of 750.

"As prices increased on geopolitical risk, this has given the opportunity for shale producers to hedge a greater share of their production and as a result that gives us a lot more confidence that the supply growth in the U.S. is going to be strong," Mr. Tchililnguirian said.

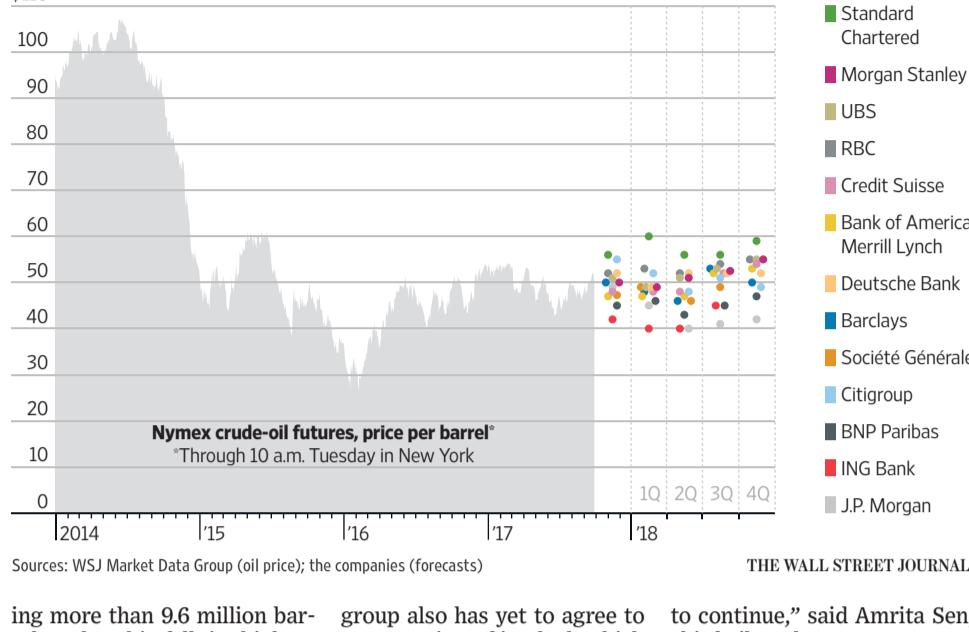
Analysts at Commerzbank said that due to the increased drilling activity, U.S. output should continue to rise, reaching

more than 9.6 million barrels a day this fall, its highest level since 1970.

The rally could also lead to an increase in OPEC output, analysts say. The Organization of the Petroleum Exporting Countries has limited its production this year as part of a deal to support the market. That has left many members cash-strapped and could lead them to turn on the taps to benefit from the higher prices. The

## Looking Ahead at Oil Prices

Where investment banks in September's survey see the price of U.S. crude-oil futures in the next few quarters



Sources: WSJ Market Data Group (oil price); the companies (forecasts)

THE WALL STREET JOURNAL.

ing more than 9.6 million barrels a day this fall, its highest level since 1970.

group also has yet to agree to an extension of its deal, which expires in March 2018.

Still, some analysts see more upsides for crude.

The global oversupply shows some signs of abating, with the surplus in commercial stocks in the OECD region falling, according to the International Energy Agency.

"We are drawing inventories, both crude and products, and we expect this rebalancing

to continue," said Amrita Sen, chief oil analyst at Energy Aspects consultancy. "As a result of that, we see prices edging toward \$62 or slightly higher next year."

Most analysts, though, continue to be more bearish. The WSJ survey forecasts Brent will rise to an average of \$55 a barrel by the end of next year.

Further out, the banks in the survey expect prices to stay below \$60 a barrel in 2019.

# Hog Glut Knocks Down Pork Prices

BY BENJAMIN PARKIN  
AND JACOB BUNGE

More hogs than ever are heading to U.S. slaughterhouses, producing so much extra pork that futures prices have fallen nearly 40% since mid-July.

New meatpacking plants in the Midwest have put the industry on track to kill a record number of hogs this year. To supply them, farmers have expanded their herds to the largest ever for this time of year—73.5 million hogs and pigs, the U.S. Department of Agriculture said.

Americans aren't eating enough pork chops and ham to keep up. Slaughterhouse owners and hog farmers are banking on selling the surplus in countries like Mexico and South Korea, where demand for U.S. pork is climbing.

For now, though, the glut is weighing on lean-hog futures, wholesale pork prices and the price of some consumer staples. Wholesale prices for pork bellies, used to make bacon, fell more than 50% from an all-time high in July that came as consumers ate through tight stocks of the meat cut.

Pork chops were 7% cheaper at retail in August than a year earlier, according to the Bureau of Labor Statistics.

"We're really betting that we're going to be able to sell this pork outside of our country," said Jan Archer, a hog farmer in Goldsboro, N.C., and former president of the National Pork Board. "That's a big bet."

A fifth of the pork produced in the U.S. this year will be exported, the USDA projects. Pork exports were up 11% in the first seven months of 2017 compared with a year earlier.

Already, some farmers who ramped up production to feed the new plants are losing money as pork piles up in the



New meatpacking plants have put the industry on track to kill a record number of hogs this year.

in September will kill an estimated 22,000 hogs a day. **Pre-stage Farms** Inc. plans to open another Iowa plant next year that can slaughter 10,000 more.

Already, some farmers who ramped up production to feed the new plants are losing money as pork piles up in the

U.S.

Livestock industry analysts say rising foreign demand justifies the build-out. But U.S. pork exports rely on politically vulnerable trade agreements.

If the Trump administration's efforts to renegotiate the terms of trade disrupt those

pacts, the U.S. pork industry

could suffer, farmers say.

"We can get them dead, but they've got to go somewhere," said Curtis Meier, who raises hogs near Clarinda, Iowa. Mr. Meier traveled to Washington in September to stress Iowan hog farmers' reliance on trade to the state's congressional delegation.

# Treasurys Pause Following Selloff

BY SAM GOLDFARB

U.S. government bonds edged higher as the market took a break from its recent selloff.

The yield on the benchmark 10-year Treasury note settled at 2.332%, compared with 2.337% Monday.

**CREDIT MARKETS** Yields, which fall when bond prices rise, had ticked higher overnight but fell back at the start of the U.S. trading session.

Yields have trended higher in recent weeks due to a variety of factors, including speculation that Federal Reserve Chairwoman Janet Yellen could be replaced next year with someone more inclined to raise interest rates.

Yields also have been supported by the prospect of a tax-cut package, following the release of a Republican plan on taxes last week and movement in Congress to pass a budget blueprint that would allow Republicans to reduce revenues by as much as \$1.5 trillion over the next decade without votes from Democrats.

A large tax cut for individuals and corporations could weigh on Treasurys in part by boosting economic growth, leading investors to favor riskier assets.

It also could stoke inflation, which chips away at the fixed returns of government debt, and expand the budget deficit, forcing the government to sell more bonds to the public at a time when the Fed is also starting to scale back its purchases of Treasurys.

"A lot of moving parts" have led investors to sell bonds recently, said Stanley Sun, interest-rates strategist at Nomura Securities International in New York.

One question for investors is what type of bonds, from short-term bills to longer-term notes, the Treasury Department plans to sell as the Fed shrinks its balance sheet and Congress considers tax cuts.

More information on that front is likely to come on Nov. 1, when the agency makes its quarterly refunding announcement.

## AUCTION RESULTS

Here are the results of Tuesday's Treasury auction. All bids are awarded at a single price at the market-clearing yield. Rates are determined by the difference between that price and the face value.

### FOUR-WEEK BILLS

Applications	\$112,914,270,000
Accepted bids	\$35,000,350,000
Noncompeting	\$549,864,000
Foreign noncompetitively	\$0
Auction price (rate)	99.923778
(0.980)	0.994%
Coupon equivalent	57.07%
Cusip number	912796MAA

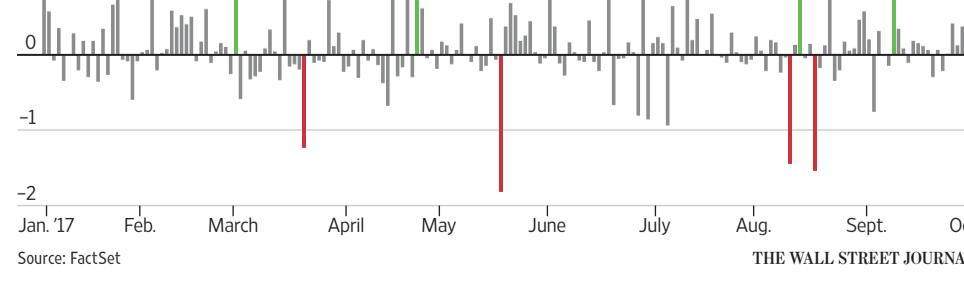
The bills, dated Oct. 5, 2017, mature on Nov. 2, 2017.

# The Lesson to Be Learned From a Placid Market

BY BEN EISEN

## Small Moves

The S&P 500 has had only eight moves of 1% in either direction this year, the fewest for a comparable period in more than four decades.



THE WALL STREET JOURNAL.

tends to rise and fall alongside expected swings in the stock market, has averaged 11.33

this year, on track for its lowest since the index launched in

1993. If it ends the year at this level, it would be a full point below the 12.39 average in

1995, the record before this year.

While there have been many reasons to expect a pullback, there have also been important factors supporting the S&P 500's 13% rise this year.

U.S. gross domestic product rose 3.1% in the second quarter, the strongest in two years, a robust rebound after a weak first quarter. S&P 500 earnings gained more than 10% in each of the year's first two quarters and are projected to have racked up another period of solid growth in the July-to-September quarter. Meanwhile, global central banks have maintained easy monetary policies that have created loose financial conditions, helping to prop up the market.

But it is an outcome few had predicted at the end of last year, showing once again the markets always seem to defy expectations.

# MARKETS

## A Primer on the Initial Coin Offering

Nontraditional way for a tech startup to raise money involves digital currencies and wallets

By PAUL VIGNA

A new method of capital raising called the initial coin offering has exploded this year. It is a process by which tech startups, mainly from inside the digital-currency sector, create a new virtual coin or token and offer it for public sale. It lies somewhere between a traditional initial public offering of stock and a crowdfunding. Firms raised a record \$1.32 billion this way in the third quarter alone. Here are some of the most common questions about the offerings:

### What are they?

An initial coin offering, also called an ICO or token offering, is a way for private, generally younger startups to raise money that goes around the traditional capital markets. Some coin offerings are selling a token that can be used within an online service; some are selling the equivalent of shares in an investment fund. The token can be used to encourage certain uses and goals, which is why some people also call it "programmable money."

### How does it work?

In an ICO, a company simply creates a new digital currency and sells it publicly. The original digital currency, bitcoin, is an open-source software project, meaning anybody is welcome to create their own version of it. Another digital-currency platform, Ethereum, standardized the coding for creating a token. That made it easy to create new coins, which is a big reason the field took off.

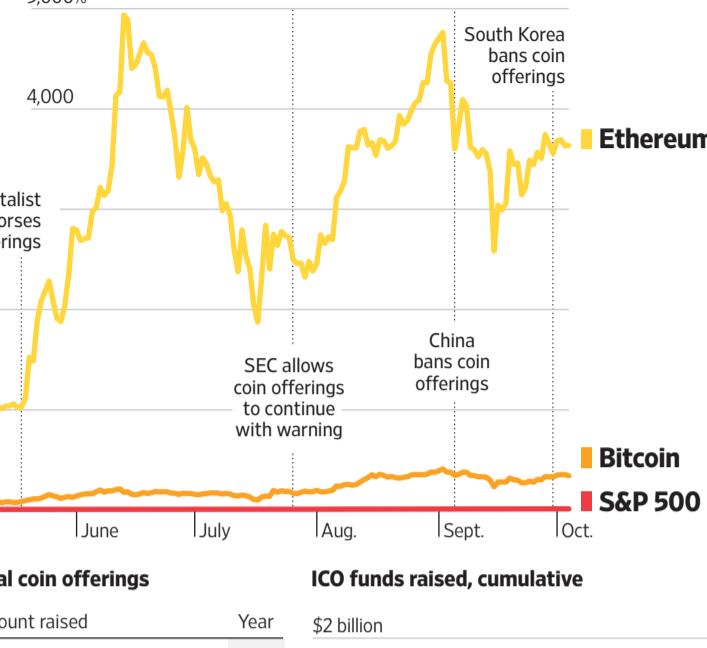
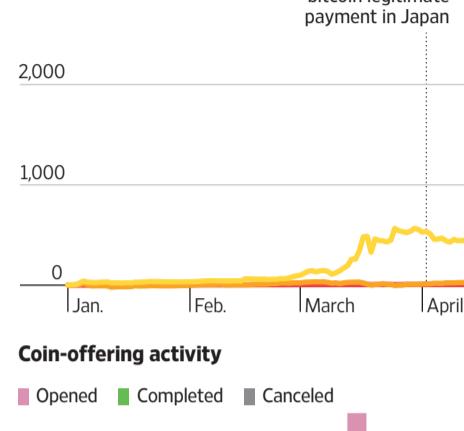
### How much money are we talking about?

In the third quarter through last Wednesday, 105 coin offerings worth \$1.32 billion were sold, according to re-

### Minting Money

Initial coin offerings have soared in popularity this year along with the rallies in bitcoin and the smaller virtual currency ethereum.

#### Performance, year to date



#### Coin-offering activity



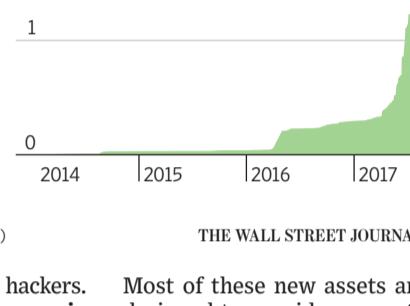
Note: With coin offerings, people invest in technology and other services in exchange for virtual tokens instead of shares.

Sources: FactSet (S&P 500); CoinDesk (bitcoin, largest offerings, funds raised); CoinMarketCap (ethereum); Token Report (activity)

#### Largest initial coin offerings

	Amount raised	Year
Filecoin	\$262M	2017
Tezos	\$232M	2017
Bancor	\$153M	2017
The DAO	\$152M	2016
Status	\$95M	2017
TenX	\$83M	2017
PressOne	\$82M	2017

#### ICO funds raised, cumulative



THE WALL STREET JOURNAL.

trying to find the best mix of terms. If you miss the offering, many coins will later trade on digital exchanges in the secondary market, much like a stock after its IPO. A warning though: The high volatility can make the penny stocks of old look like a stable Treasury bill.

### What does a business need to conduct an ICO?

On one level, it needs the right code, a story to sell and some luck. The reality, though, is it helps to have a product. Perhaps it is an online commerce website or a gaming site. ICOs have raised millions in minutes, which can be both a blessing or a curse for a new company.

### How can I tell if a coin offering is legit?

The easiest way to tell a fraud from a legitimate offering is simple: information. The less provided, the higher the odds of a scam. Does the startup have identifiable ownership? Not all do. Does it have a working product? Does it at least have the code for the product? Does it have outside advisers? Legal counsel? If the company makes vague statements like "we're backed by a major sovereign nation" but won't give specifics, that could be a red flag, too.

### Where are the regulators?

They have been rushing in. The U.S. Securities and Exchange Commission in July warned about coin offerings, and China and Korea recently banned them. On Friday, the SEC charged a businessman and two companies with defrauding investors in a pair of small coin offerings.

### If not a scam, should I buy?

The success rate for new companies is notoriously low. You may find an investment idea with a promising product, a legitimate, well-meaning team and even, perhaps, celebrity appeal. But the company may still fail to find a market. Many coin offerings come from people who started working on their idea only weeks ago. Be prepared to endure losses.

search firm Token Report. That is more than the \$956 million raised from 67 offerings in the first half of the year. And the year-to-date tally of \$2.27 billion is more than 20 times the roughly \$100 million raised in 2016. Even though these totals are commonly quoted in dollars, investors generally aren't sending U.S. currency. Instead, investors send bitcoin and Ethereum's native currency, also called ether.

Coin offerings have quickly become big enough to be comparable to venture-capital fundraising. The \$1.32 billion raised in the third quarter was close to the \$1.41 billion raised by early-

stage tech companies, according to data from research firm CB Insights. In the first quarter, these angel and seed-stage venture fundraisings totaled \$1.43 billion, compared with just \$38 million for coin offerings.

### How big are the individual fundraisings?

The largest was \$262 million raised by startup Protocol Labs for a computer-memory marketplace called Filecoin. San Francisco-based Dynamic Ledger Solutions raised \$232 million for its Tezos ledger-technology service. Before 2017, the largest coin offering was for a project called The DAO that raised \$152 million. But about a third of that

money was stolen by hackers.

### What kinds of companies are doing coin offerings?

Mainly, tech companies, more narrowly in the cryptocurrency sector. Most of the time, it can be hard for an outsider to even understand the project. On the other hand, the company PAquarium raised \$620,000 in a coin offering to build a giant aquarium.

### What exactly am I buying?

The ICO coin-offering moniker makes it sound very much like an IPO. That is an initial public offering, often a highly regulated sale of securities. What exactly you are buying in an ICO, though, varies widely.

Most of these new assets are designed to provide access to some kind of service or app. In that way, they are like the tokens you used to get at video arcades or presale tickets to a Broadway show. Others are constructed like shares in an investment fund.

### How do I buy one?

You will need one of the digital currencies mentioned earlier, (ether or bitcoin) and a digital wallet. In general, firms conduct the offerings through their own websites, so you would be sending the digital currency directly to a wallet the firm maintains. But every firm does it somewhat differently,

## HEARD ON THE STREET

FINANCIAL ANALYSIS & COMMENTARY

WSJ.com/Heard

Email: heard@wsj.com

## A One-Two Punch for Insurance

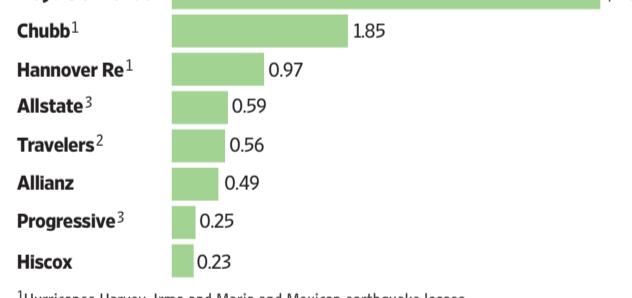
Hurricane Maria has devastated Puerto Rico. The damage could prove very costly for insurers, too.

The losses in the U.S. territory—still cut off in large areas from power and communications—may even surpass the more than \$50 billion caused by hurricanes Harvey and Irma in a way that now looks more likely to push up insurance rates. Unlike other Caribbean islands, Puerto Rico's main business isn't tourism, but manufacturing goods like pharmaceuticals and electronics—heightening payouts for business interruption as well as property damage.

**Lloyd's of London**, the historic insurance market, said last week that Harvey and Irma were likely to cost it \$4.5 billion. That would more than wipe out this year's profit and eat into capital. But for most companies that have estimated costs associated with the hurricanes—including Hiscox of London on Monday, and Chubb and Allstate of the U.S. previously—profit is

### Paying Out

Losses estimated from recent major catastrophes, in billions



<sup>1</sup>Hurricanes Harvey, Irma and Maria and Mexican earthquake losses

<sup>2</sup>Midpoint of forecast

<sup>3</sup>Hurricane Harvey alone

Source: the companies

likely only to be diminished. Many others are yet to report, including most U.S.-listed reinsurers. Their numbers could change the view that this year's losses weren't going to be enough to bring higher insurance and reinsurance prices.

Maria exacerbates another problem that could restrict catastrophe bonds and other alternative reinsurance: trapped capital. In catastrophe bonds, in-

vestors' funds are held back after a bond matures if the money might be needed to pay claims. The harder it is to assess claims and the more uncertain the final cost, the more funds can be held back. And while capital is trapped, it isn't available to back new reinsurance cover in new catastrophe bonds. Many catastrophe policies are priced on Jan. 1, meaning time is of the essence.

In Puerto Rico, the costs are unusually uncertain, as illustrated by a big gap between catastrophe modelers' forecasts: RMS and Karen Clark both expect up to \$30 billion of losses, while AIR Worldwide has forecast up to \$85 billion.

Investors therefore face two bad surprises: First, that a location outside the U.S. mainland could cause such a large loss. And that they may have to wait months, or even years, before getting their money back.

Some may be put off reinvesting. Hiscox says property and catastrophe price rises are already coming through. The question is how far prices will rise. After 9/11, alternative capital, including cat bonds, and smaller Bermudian startups became increasingly efficient at pulling in fresh money after disasters. And with returns on other bonds still so low—that may prove true again. But investors haven't been tested like this. They might be more reticent than in the past.

—Paul J. Davies

### OVERHEARD

Never say never.

**Doug Parker**, the chief executive officer of **American Airlines**, apparently never got the memo about that one. In a meeting with financial analysts last week he declared that "I don't think we're ever going to lose money again."

If ever an executive was guilty of extrapolating the recent past, then this is it. American lost money for six years in a row through 2013 and the entire industry globally was in the red as recently as 2009 according to 2009 according to the International Air Transport Association.

In fact, as Mr. Parker well knows, there are things a lot worse than just being in the red for a year or even a few. The predecessor company to his own airline went bankrupt in 2011.

It exited bankruptcy through a merger with US Airways which itself had gone bankrupt in 2002 and then again in 2004.

Runways are long but memories are short in this business.

## Tesla Has a Forecasting Problem

The mass-market car of the future is taking its sweet time to arrive.

**Tesla** said Monday that it delivered 220 Model 3 sedans in the third quarter and produced just 260. The company had predicted it would produce 1,500 in the quarter. Tesla attributed the shortfall to "production bottlenecks."

It is unlikely that this stumble will immediately reverse much of the 55% in gains Tesla shareholders had reaped so far this year. No U.S. company enjoys a more loyal shareholder base than Tesla and this moment is unlikely to be different.

Still, Tesla's persistent inability to predict its results should raise concerns. Tesla issued the forecast of 1,500 cars just two months ago and missed it by over 80%. Monday's announcement marked the third time since January that Tesla has cited production issues as a reason for a missed forecast, yet Tesla is no startup—the company has been in business since 2003.

Given those stumbles, the longer-term forecasts that have investors so excited deserve some scrutiny. Analysts expect Tesla to deliver 748,000 cars by 2020, according to FactSet. That is up from a forecast of 114,000 this year.

To reach that goal, Tesla will have to consistently deliver reliable cars while selling them at a profit, something the company has never been able to accomplish. It will also have to fend off new competition from better-capitalized rivals showing renewed interest in developing electric cars of their own.

Long-term shareholders have been richly rewarded for their faith. Exiting before the story sours would be wise.

—Charley Grant

## Ctrip May Hit Turbulence Despite China's Travel Boom

It is "Golden Week" in China—an eight-day holiday that began Sunday, during which millions of Chinese tourists travel to see the sights at home and abroad. For investors, that might seem like a golden opportunity to