

# THE WALL STREET JOURNAL.

DOW JONES | News Corp

TUESDAY, OCTOBER 3, 2017 ~ VOL. XLII NO. 23

WSJ.com

ASIA EDITION

As of 12 p.m. ET DJIA 22483.93 ▲ 0.35% NIKKEI 20400.78 ▲ 0.22% STOXX 600 390.13 ▲ 0.51% BRENT 55.72 ▼ 1.88% GOLD 1274.00 ▼ 0.59% EURO 1.1747 ▼ 0.57% DLR ¥112.58 ▲ 0.07%

## What's News

Business & Finance

Investors are betting that Japan is on course to pull out of its economic slump, reflecting hopes that growth is accelerating world-wide and sending stocks to multiyear highs. **A1**

◆ Apple rival Samsung stands to make billions of dollars supplying screens and memory chips for the highest-end new iPhone. **A1**

◆ Equifax's board is reviewing the actions of the firm's top lawyer in connection with share sales by executives in the wake of a data breach. **B1**

◆ Goldman is weighing a new trading operation dedicated to bitcoin and other digital currencies. **B1**

◆ Exchange Capital is interested in buying the Chicago Stock Exchange if opposition sinks a Chinese bid. **B5**

◆ Insurers are likely to see widespread losses and shrunken capital cushions after one of the most expensive years for natural disasters. **B1**

◆ Monarch Airlines declared bankruptcy, grounding its flights and leaving more than 100,000 passengers stranded overseas. **B2**

◆ Uber's manager for Northern Europe said she was quitting after London's top transport regulator decided to strip the firm of its license to operate there. **B4**

◆ Nissan said it will recall 1.2 million cars in Japan, after regulators said the vehicles received improper quality checks at the factory. **B3**

### World-Wide

◆ At least 58 people are dead and more than 500 wounded after a gunman opened fire on a music festival in Las Vegas. **A1**

◆ Catalonia's leader said that any declaration of separation from Spain won't come for at least several days. **A3**

◆ The European Commission said a referendum in Catalonia where voters overwhelmingly backed independence was illegal. **A3**

◆ Palestinian Authority officials arrived in Gaza City for talks with Hamas, as the two major Palestinian sides work to mend ties. **A4**

◆ Two women pleaded not guilty to charges of murdering the half brother of Kim Jong Un. **A5**

◆ Trump administration officials pushed back against criticism that the GOP tax plan would provide its biggest benefits to the wealthy. **A6**

◆ U.K.'s May made light of public divisions within her top team over plans for Britain's exit from the EU. **A4**

◆ The new FDA commissioner said high drug prices are a public-health concern, and offered concrete steps the agency will take to speed drugs to market more efficiently. **A7**

◆ School districts across the U.S. are anticipating an influx of Puerto Rican students displaced by Hurricane Maria. **A7**

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China: RMB28.00; Hong Kong: HK\$23.00;  
Indonesia: Rp25,000 (incl PPN);  
Japan: Yen620 (incl JCT); Korea: Won4,000;  
Malaysia: RM750; Singapore: \$55.00 (incl GST)

KDN PP 9315/10/2012 (03275); MCI (P)  
NO. 066/01/2017; SK MENPEN RI NO. 01/  
SK/MENPEN/SCJ/1998 TGL 4 SEPT 1998

ISSN 0377-9920 4.20.23  
9 770377 992000

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Gruff was the response from

Kelly Carnes, who teaches the discipline on the cemetery grounds. "She said quite the opposite—the baby goats just love to interact with humans."

Gruff was the response from

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## WORLD NEWS

# Between War and Acceptance on North Korea



### CAPITAL JOURNAL

By Gerald F. Seib

The Trump administration now finds itself in a remarkable position: Nobody in the world knows where it stands on the most dangerous international issue of the day, and nobody is sure who speaks for the administration on that issue.

That's the situation that

emerged on Sunday, when President Donald Trump openly contradicted his own secretary of state on the approach the administration is taking with North Korea and its nuclear program. Rex Tillerson, speaking after a visit with Chinese leaders, said the U.S. has direct lines of communication with North Korea; within hours, Mr. Trump tweeted that his secretary of state is "wasting his time trying to negotiate."

The resulting confusion would be risky under any circumstances. Yet the most ominous part of the exchange actually lies else-

where, in the implication that Mr. Trump now sees only what Sen. Bob Corker, head of the Senate Foreign Relations Committee, referred to Sunday as a "binary choice": capitulation to North Korea or military conflict with potentially catastrophic consequences.

In fact, there is a third way, one that a variety of analysts from across the ideological spectrum have begun pointing to as a way out of the binary-choice box. It is a strategy called "deterrence and containment": Deter the North Koreans from ever using their weapons against the U.S. and its allies, and contain Pyongyang until sustained pressure brings about a change of heart or a change of regime.

This isn't a novel approach, because it was the basis for perhaps the most successful national-security strategy in American history. Precisely 70 years ago this summer, American diplomat George Kennan wrote a famous article for Foreign Affairs magazine outlining the basis for a strategy of containment of the Soviet Union, which came to pose a much larger nuclear threat.

Mr. Kennan, a staunch foe of Communism with on-the-ground experience in the Soviet Union, wrote in 1947 that the U.S. had little hope



Secretary of State Rex Tillerson, right, is wasting his time trying to negotiate with Pyongyang, President Donald Trump tweeted on Sunday.

EVAN VUCCI/ASSOCIATED PRESS

of good relations with the Soviets in the short term, given Moscow's conviction it had both right and might on its side. But he also argued that the Soviet system, with its combination of paranoia and the resulting suppression of its citizens, carried the seeds of its own demise.

"This would of itself warrant the United States entering with reasonable confidence upon a policy of firm containment, designed to confront the Russians with unalterable counter-force at every point where they show signs of encroaching upon

the interests of a peaceful and stable world," Mr. Kennan wrote.

Mr. Kennan wasn't advocating the U.S. stand idly by, but rather that it actively work to keep the Soviets in a box, while also seeking to undermine Communism internationally and to "influence" internal Soviet developments. His writing implied he thought this strategy might be necessary for 10 to 15 years. In fact, it took half a century, but ultimately the Soviet Union collapsed without a shot being fired.

The differences between

the Soviet Union then and North Korea now are enormous, of course, starting with whether Kim Jong Un can be counted on to respond rationally to pressure. Still, the parallels exist: a hostile and paranoid foreign power, its population kept under tight control, posing a military threat while a military confrontation risks horrific consequences.

Flash forward to today, and Michael J. Mazarr and Michael Johnson, senior researchers at the nonpartisan Rand Corp., write: "Contain, deter and transform. Not a

radical solution, but one that has worked before—and an approach that holds out the hope of preserving U.S. interests while avoiding war."

Jeffrey A. Bader, former Asia specialist on the National Security Council staff in the Obama administration now at the Brookings Institution, argues for an "assertive policy of deterrence and containment."

As Mr. Bader suggests, the contain-and-deter option hardly implies sitting back and watching. It would require significant buildup of American and allied missile-defense systems, a larger U.S. military presence on land and at sea in Asia, a robust effort to isolate North Korea economically and diplomatically, and efforts to undermine the regime internally and externally.

There are, of course, skeptics. "To be sure, this may be the only option left, but many who are advocating the policy don't seem to be thinking through its military requirements and possible regional consequences," writes Daniel Blumenthal of the conservative American Enterprise Institute. The approach also led, he notes, to costly proxy wars.

Still, the deter-and-contain idea at least shows there remains middle ground between capitulation and war.

## STOCKS

Continued from Page One

The combination has meant good news for Japanese stocks. The Nikkei Stock Average hit a new two-year high on Monday. The close was some 2.2% below the 2015 high, which was the highest since 1996.

Yet many remain cautious on Japan, where relatively cheap stocks and the promise of a resurgent economy have beguiled generations of bargain hunters. Rallies in the Nikkei over the past few years have come and gone, but the average has never approached the 1989 high of 38916, amid lackluster growth, low inflation and poor corporate governance. While Japan's stocks have traded at a nearly 40% discount to their global peers, flows from foreign investors have been sporadic, with few willing to buy into Japan for the long term.

Many investors would see a sustained rebound in Japan, where growth has lagged behind Europe and the U.S. for decades, as a sign that the global recovery from the financial crisis is picking up steam.

"The U.S. recovered, and then Europe came on and accelerated, and now it looks

like the Japanese data is starting to come along," said Torsten Slok, chief international economist at Deutsche Bank. "Despite the facts staring them in the eyes, people hang on to the old story for too long before they realize a new story has developed."

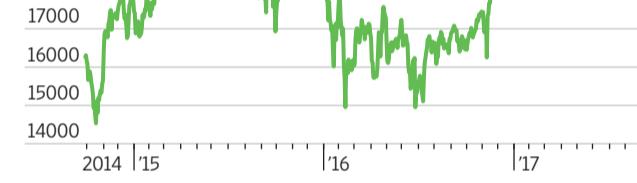
The Japanese market's long funk has roots in the bursting of the "bubble economy" in the early 1990s. Land and stock prices collapsed, sending Japan's financial system into a tailspin from which it didn't fully recover until the early 2000s. Companies and consumers tried to pare debt, leading to deflation and a sense of stagnation, while political turmoil delayed shareholder-friendly policies.

Through false starts and years of subpar economic performance, many global investors have stayed away, even as Japanese companies have become more profitable.

Return on equity—one measure of profitability—has improved to around 8.4% in 2017 from just above 5% when Prime Minister Shinzo Abe took office in late 2012, according to research by AllianceBernstein Holding L.P. Yet Japanese stocks trade on average at 1.5 times book value, or the total value of their assets outside of what they owe—a 36% discount to the developed-

### Chugging Ahead

The Nikkei Stock Average is at its highest level in two years...



...as the economy notches its longest growth streak in more than a decade.

Annualized rate of change in Japan's GDP from previous quarter



Sources: WSJ Market Data Group (index);

Japan Cabinet Office (GDP)

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market average. Foreign investors remain thinly represented in Japanese equities despite a roughly 6.5% rally in the Nikkei in 2017, according to an AllianceBernstein analysis.

"Investors have left Japan for dead and are only now starting to come back," said Vadim Zlotnikov, chief market strategist at AllianceBernstein.

But "many investors are

still skeptical," Mr. Zlotnikov said. "People have been burned over and over."

Even as signs of improvement mount, the Bank of Japan continues to support markets by buying ¥6 trillion (\$53 billion) in exchange-traded stock funds annually. Japanese companies have taken steps to make themselves more attractive to investors, such as adding outside directors to their boards and boosting returns through share buybacks.

Areas where Japanese companies are at the forefront include artificial intelligence and robotics. The country's auto-parts makers are poised to benefit from a move to electric vehicles, while cosmetic makers reap profits from selling to Asia's growing middle class, investors said.

Strong profit growth has helped drive up shares of Sony Corp. and cosmetics maker Kose Corp. this year. Year to date, those two stocks have gained roughly 28% and 31% respectively, according to FactSet.

Benjamin Segal, a senior portfolio manager at Neuberger Berman, says he has grown more optimistic on Japan and added select companies to his equity portfolio this year. "I'm emerging from the 'no way' camp into an incrementally more positive

view," Mr. Segal said. "There does seem to be change afoot."

Better profit margins and dividend payouts that have improved from "pathetic to simply mediocre" all argue in Japan's favor, Mr. Segal said. Japanese companies "merit more of an inspection today they would have a year or two ago, or even 10 years ago," he said. Among the companies he owns are chemicals and cosmetics maker Kao Corp. and air-conditioner manufacturer Daikin Industries Ltd.

Still, money managers own too few Japanese equities, and the yen is "grotesquely undervalued," Charles Gave, founder of research firm Gavekal, wrote in a note to investors. Corporate profits have grown faster in Japan than in the U.S. for the past five years, he said, while Japanese companies are sitting on around \$4 trillion in cash. "The great beauty of these recommendations is that nobody...is positioned accordingly," he wrote.

Japan's economy remains shaky, especially because wages haven't grown fast enough under Mr. Abe to spark solid consumer spending. Some investors are nervous about Mr. Abe's plans to push through a tax increase for 2019. A recession followed a sales-tax increase in 2014.

## RIVALS

Continued from Page One

months after the new iPhones go on sale Nov. 3. The majority of sales for a new smartphone occur in the first 20 months after its introduction.

Counterpoint expects Apple will sell 130 million iPhone X units, earning Samsung \$110 on each through the summer of 2019, while Galaxy S8's global sales are expected to be 50 million, earning Samsung \$202 each from components such as displays and chips in its first 20 months of sales, according to estimates based on a projected bill of materials. The Counterpoint analysis includes parts sales from Samsung Electronics plus two Samsung affiliates that make batteries and capacitors.

The findings show a highly dependent corporate relationship that dominates the top tier of the global market for mobile devices.

"These are two of the largest companies on the planet deeply tied at the hip and directly competitive," said David Yoffie, a professor at Harvard Business School, who has studied Apple and serves on Intel Corp.'s board. "That makes this stand out compared with almost any relationship you can think of."

Apple and Samsung are expected to be the world's two most-profitable companies in

2017, excluding Chinese banks, according to S&P Global Market Intelligence. And they will depend on each other to get there. Apple needs Samsung's parts to make the iPhones that accounted for two-thirds of the Cupertino, Calif., company's \$215.64 billion in revenue in fiscal 2016, according to investment bank CLSA. Samsung needs Apple's orders to fuel a component business that delivered about 35% of the South Korean firm's total revenue of about \$195 billion last year.

Samsung and Apple declined to comment for this article.

Business rivals sometimes depend on each other. LG Electronics Inc., for example, produced its own home appliances while simultaneously

working with General Electric Co. Oil majors Royal Dutch Shell PLC and Exxon Mobil Corp. compete for drilling rights in some markets and collaborate in others.

But the complex relationship between Apple and Samsung is unique.

Their close association started more than a decade ago. Lee Jae-yong—the grandson of Samsung's founder—personally negotiated with Apple founder Steve Jobs to provide flash memory for iPods, according to people familiar with the matter.

The relationship grew after Apple moved into selling smartphones. Apple's immense demand for parts—it sells more than 200 million iPhones a year—limits the field of possible suppliers. Samsung is

one of a handful of semiconductor makers that can make a small-sized chip crammed with extra memory capacity. And it is the only significant manufacturer of the organic light-emitting diode, or OLED, displays Apple has adopted to create the iPhone X screen.

At meetings, Samsung executives are known to tell attendees who pull out iPhones: "It's OK. They're our best client," according to people familiar with the matter.

Samsung employees often refer to Apple with code names. One of the most popular is "LO," short for "Lovely Opponent," people familiar with the matter said. Apple's descriptor for Samsung, meanwhile, is Samsung, according to people with knowledge of the situation. Employees at the iPhone maker are often critical of its rival's devices, pointing out software and hardware flaws behind closed doors.

The relationship took an acrimonious turn in 2011, when Apple sued Samsung over alleged patent infringement, accusing the Galaxy S of ripping off the iPhone's design. Samsung countersued Apple with its own patent-infringement allegations. Steve Jobs called it a "thermonuclear" legal war.

Six years on, the U.S. lawsuit is unresolved. A federal appeals court is set to determine this month whether a new jury trial is necessary to resolve a case in which Sam-

sung is challenging a nearly \$400 million award to Apple for design patent-infringement damages.

Samsung Electronics is run by three chief executives, a separation the company has said creates a sufficient firewall between the smartphone and components units.

Apple will look to reduce its supply-chain reliance on Samsung, according to industry analysts, and is working to diversify OLED production by 2019 at the latest.

Apple has encouraged others to build out OLED production operations, according to people familiar with its efforts, including Sharp Corp. and Japan Display Inc. It is supporting Bain Capital's bid for Toshiba Corp.'s memory-chip business, which would give it an alternative supplier in that market.

But for now, the two remain close.

Apple and Samsung vacuum up nearly 95% of the smartphone industry's profits, according to market researcher Strategy Analytics. They can plow those earnings into research-and-development and



STEPHEN LAW/REUTERS

The iPhone X is expected to benefit both companies.

### CORRECTIONS & AMPLIFICATIONS

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THE WALL STREET JOURNAL  
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Hong Kong  
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842 9600; Paris: 33 1 40 17 17 01; New York:  
1-212 659 2176.  
Or email: [MarkRogers@wsj.com](mailto:MarkRogers@wsj.com)

Printers: Hong Kong: Euron Limited, Block 1, Tai Ping Industrial Centre, 57 Ting Kok Road, Tai Po, Hong Kong; Indonesia: PT Gramedia Pratama, Jl Palmerah Selatan 22-28, Jakarta 10270; Japan: The Mainichi Newspapers Co., Ltd, 1-1 Ichi-otsubashi, Chiyoda-ku, Tokyo 100-8051; Korea: JoongAng Ilbo, 100 Seosomun-ro, Jung-gu, Seoul, 100-814; Publisher/Printer: Sony Pi-Ho, Malaysia: Dasar Cetak (M) Sdn Bhd, Lot 2, Jalan Sepana 15, Off Persiaran Selangor, Seksyen 15, 40200 Shah Alam, Selangor, ROC No: 048885K; Singapore: Singapore Press Holdings Limited, 2 Jurieng Port Road, SPRINT Centre, Singapore 619088

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USPS 337-350; ISSN 0377-9920

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# WORLD NEWS

## Catalan Leader Awaits Move by Madrid

After secession vote, region's president says he won't immediately declare independence

BY JEANNETTE NEUMANN  
AND MARINA FORCE

BARCELONA—Catalonia's leader said Monday that any declaration of separation from Spain won't come for at least several days, putting pressure on the central government in Madrid to make the first move to resolve its standoff with the restive region.

The two sides are carefully weighing their next steps the day after Catalan voters appeared to overwhelmingly back independence in a referendum boycotted by opponents and marred by violence that left hundreds of civilians injured and raised the political stakes.

Carles Puigdemont said Catalonia authorities were still tallying the official results and weren't likely to send them to regional lawmakers until at least Wednesday. The Catalan parliament, where separatists have a majority, would then have 48 hours to declare Catalonia's separation from Spain.

The central government in Madrid says the vote was illegal because Spain's constitution pledges to uphold the "in-dissoluble unity" of Spain.



Catalan President Carles Puigdemont called for international mediation on Monday in Barcelona.

Police, acting on court orders, tried to prevent voters from entering polling stations and using voting material.

Mr. Puigdemont's decision throws the ball into the court of Spanish Prime Minister Mariano Rajoy, a conservative who has taken a hard line against Catalan separation. It marks the latest in a political back-and-forth in which the Catalan leader and other regional authorities have pushed

Mr. Rajoy as they try to make a case for independence at home and abroad.

Mr. Puigdemont is seeking to muster international attention and backing for his independence push and assess his domestic support, analysts said.

"You burn political capital by moving too quickly and unilaterally," said Antonio Barroso, a political analyst at consulting firm Teneo Intelligence.

Mr. Puigdemont called for international mediation of Catalonia's bid to separate from Spain, although foreign states are unlikely to be willing to be drawn into a bitter conflict that most have characterized as an internal Spanish matter.

Mr. Rajoy now has some time to assess his options. He could attempt to open up talks with separatists on a political solution to the crisis or he

could pursue a hard line and invoke constitutional powers that allow Madrid to take control of the region.

He was set to meet with opposition leaders Monday afternoon in Madrid to gauge their support for various responses. Leaders from the centrist Ciudadanos party, who oppose Catalan independence and say the vote was illegitimate, called on the prime minister to pre-emptively strip Catalonia of its autonomy and call early regional elections.

Common ground between Messrs. Puigdemont and Rajoy will be hard to find. Both men maintain they have been open to negotiations for several years, but accuse each other of bad faith.

Mr. Puigdemont said the prime minister leads a "repressive" state and pointed to the injuries suffered by 893 people in clashes with police. Mr. Rajoy, meanwhile, accuses the Catalan leader of subverting the rule of law for his own political gain.

Catalan leaders said preliminary results showed that 2.02 million votes, or about 90% of the total, were cast in favor of a split with Spain.

Those ballots represent about 40% of voters Catalan authorities declared eligible for the referendum, which was outlawed by the central government.

### Regional Tension Is Centuries Old

The conflict over Catalonia has escalated in recent years, but the clash is centuries in the making. Catalonia was a collection of counties that became independent in the 10th century. It was absorbed into the Crown of Aragon and later Spain, but retained its own government, parliament and legal system until 1714, when it sided against Spain in the Spanish Succession War. Its institutions were abolished and its language suppressed.

When democracy arrived in 1931, Francesc Macià, an ex-Spanish soldier, declared Catalonia independent. Madrid responded by giving Catalonia wide autonomy, but Catalan president Lluís Companys tried to declare independence again three years later.

Spain spent decades under dictator Gen. Francisco Franco, who executed Mr. Companys. The Catalan government was restored in 1977, a year before Spain's constitution was approved with Catalan support. The constitution aimed to keep Spain united, but gave Catalonia many freedoms. The spirit of that law is now broken, both sides say.

—Jon Sindreu

## EU Backs Spain, Says Secession Ballot Is Illegal

BY VALENTINA POP

BRUSSELS—The European Commission said a chaotic referendum Sunday in Catalonia in which voters overwhelmingly backed independence was illegal but called on all parties to end violence and start a dialogue.

The commission, the European Union's executive branch, said on Monday that it trusts Spanish Prime Minister Mariano Rajoy to manage the situation in Catalonia "in full respect of the Spanish constitution and of the fundamental rights of citizens enshrined therein."

Hundreds of Catalan citizens were injured amid clashes with riot police sent in by Madrid and scenes of violence were broadcast around the world. The commission's spokesman, Margaritis Schinas, said that "violence can never be an instrument in politics."

"These are times for unity and stability, not divisiveness and fragmentation," Mr. Schinas said. He added that were Catalonia to hold a legal referendum and break away from Spain, it would find itself outside the EU.

The European Union faces similar secessionist movements in Europe, and only a handful of officials reacted to Sunday's vote. Mr. Rajoy's party is also part of the EU's largest political family, the European People's Party, whose members are at the helm of all EU institutions and serve as prime ministers in seven other EU countries, notably Germany's Angela Merkel.

British foreign secretary Boris Johnson tweeted that "Spain is a close ally and a good friend" and that the Catalan referendum remains a domestic matter of Spain.

In Germany, industrial lobby group BDI, which groups the country's largest compa-



Spanish Civil Guard officers on Monday removed demonstrators outside a Barcelona polling station for the independence referendum.

nies, expressed concern at the situation, noting that the region is one of Spain's most industrialized, with over 1,600 German firms present. "A break from the Spanish state

would cause deep losses for both sides," BDI said in a statement.

Catalan leaders said preliminary results showed that 2.02 million votes, or about

90% of the total, were cast in favor of a split with Spain. Those ballots represent about 40% of voters Catalan authorities declared eligible for the referendum, which was out-

lawed by the central government in Madrid as unconstitutional. Many opponents of independence, or those who felt the referendum was illegitimate, boycotted the vote.

## After Quake, Home for Some in Mexico City Is a Park

BY JUAN MONTES

MEXICO CITY—Guadalupe Romero would often bring her 10-month-old daughter to a children's playground in a tree-lined park in southern Mexico City.

Now, after a devastating earthquake that damaged thousands of homes in the capital, she is living in the park with her husband, Eduardo Paredes, and their daughter, Grecia, at an improvised campsite. They are waiting for authorities to determine whether their apartment building was so badly damaged it has to be demolished, or is safe to return to.

Neighbors say there are about 100 people at the camp, all residents of a 57-year-old housing complex where one of the 10 apartment blocks fell apart in the earthquake, killing nine people, and the others appear severely damaged.

Several people at the camp said they are reluctant to move, even temporarily. "We want to be here, near our building, to put pressure on the authorities to repair or rebuild it. We won't go," said Magdalena Trejo, a worker at the country's electoral agency who said her apartment was damaged in the quake.

The 7.1 magnitude earthquake on Sept. 19 killed at



Left, Guadalupe Romero and her daughter, Grecia, at a Mexico City camp where she is staying after last month's earthquake. Right, a woman adjusts a lightbulb on a street where she is camping.



least 361 people, including 220 in Mexico City, where it toppled 38 buildings and seriously damaged about 1,800 others, according to Mexican authorities.

Some 1,150 people are staying in 30 government-run shelters in the capital, and hundreds more like Ms. Romero are in informal camps

set up in parks, church grounds and schools.

At night, when the temperature drops sharply, Ms. Romero and her husband take turns sleeping with the baby in their car, parked several blocks away, while the other remains in the tent. Like many others, they don't have family in town, and they can't

afford to stay at a hotel.

"We live in uncertainty. For us, the problems start now after the earthquake," said Ms. Romero, a schoolteacher, staring vacantly at the ground.

Finding accommodation for people like Ms. Romero will be a huge challenge in the months after the earth-

quake, Mexico's most destructive in 32 years. More than 150,000 homes in total were damaged or destroyed in the earthquake and an 8.1 magnitude quake that killed about 100 people in the states of Chiapas and Oaxaca less than two weeks prior.

Mexico City Mayor Miguel Ángel Mancera announced last week a battery of measures to help the victims. The city government will offer \$167 a month—in a country where the average monthly wage is around \$310—to people who need to pay rent while repairs are made. Owners of collapsed or condemned buildings will be offered long-term mortgage loans at preferential rates to buy new homes, he said.

The camp is a colorful jumble of tents covered by tarps. Like a miniature town, the camp has a storage center with blankets, chairs, food, and bottled water. Medical and psychological assistance are provided by the local government.

The neighbors take turns sweeping up. All around are signs that read: "Keep your space clean." A nearby hotel allows the camp residents to use the toilets, and neighbors bring freshly made food every day.

On a recent day, a group of amateur musicians arrived

and struck up a ranchera tune. Some smiles broke out on the tired faces.

"We want to make this difficult moment more bearable for them," said Laura Andrade, a university student and one of the musicians.

There is also a sense of community in the camp.

"Welcome home!" Ms. Trejo yelled at Roberto Zárate, a 76-year-old retiree who has some difficulty hearing, as he wandered back in from his daily morning walk.

Near the camp, a group of neighbors discussed the nine blocks of flats that remained standing in the earthquake but were evacuated.

"When will we be able to return to our homes?" shouted one.

"We have to be patient, it won't be today or tomorrow. It can be a month, two, three, four, six...who knows?" another replied.

Ms. Romero and her husband, who is also a schoolteacher, said they may go to Acapulco or Querétaro, two cities where they have relatives, if they can't eventually return to their home.

Baby Grecia is learning to crawl in the park where she used to play. The earthquake "was a nerve-racking experience for her," said Ms. Romero. "She throws her toys and cries a lot."

## WORLD NEWS



A convoy carrying Palestinian Prime Minister Rami Hamdallah and his government ministers arrive in the Gaza Strip for talks with Hamas.

# Three Awarded Nobel Prize in Medicine

BY DAVID GAUTHIER-VILLARS AND DENISE ROLAND

STOCKHOLM—Three Americans won this year's Nobel Prize in physiology or medicine for their discoveries of molecular mechanisms controlling biological rhythms.

Jeffrey C. Hall, Michael Rosbash and Michael W. Young received the prize for research that led to the understanding of how plants, animals and humans synchronize their biological clocks with the Earth's revolutions.

Using flies for their research, the biologists were able to isolate a gene that governs the normal daily biological rhythm. They elucidated clockwork mechanisms in which the gene is active or inhibited depending on oscillation in the level of a protein.

The trio's work gave rise to our understanding of molecular clocks in all biology, said Russell Foster, head of the Sleep and Circadian Neuroscience Institute at the University of Oxford.

"Many of us have built our careers on the layer above this," he said.

*Americans show how animals, plants, synchronize biological clocks as Earth turns.*

This year's Nobel has had implications in the understanding of how night and day cycles influence the human clock, and how things can go wrong when we behave out of synchrony with our inner timekeeper, hopscotching time zones for instance.

"It raises awareness to proper sleep hygiene," said Juleen Zierath, a member of the Nobel Committee.

Scientists have since linked disruption in the sleep-wake cycle to myriad health problems like an increased risk of heart disease and cancer. Although the medical application of circadian-rhythm biology is still a young field, early efforts are under way to develop treatments that can stabilize sleep-wake cycles in people whose circadian rhythms have been disrupted, like night-shift workers, said Prof. Foster.

David Ray, professor of medicine and endocrinology at the University of Manchester, said the prize winners' discoveries had also informed research relating to agriculture, food security and management of the natural world.

The award, announced Monday by the Nobel committee in Stockholm, comes with a check for nine million Swedish kronor (\$1.1 million).

Nobel Committee Secretary-General Thomas Perlmann said he was able to reach Messrs. Hall and Rosbash by phone, and inform them of the award.

At first Mr. Rosbash was silent, according to Mr. Perlmann. "You're kidding me," the biologist said.

Last year, the Medicine Prize was awarded to Japanese biologist Yoshinori Ohsumi for elucidating how the body's cells deal with and recycle waste.

*—Dominic Chopping contributed to this article.*



Thomas Perlmann, secretary of the Nobel Committee for Physiology or Medicine, announces the winners.

## Palestinian Heads Move to Fix Ties

Palestinian Authority, Hamas open talks aimed at mending fractured leadership

BY RORY JONES

GAZA CITY—Palestinian Authority officials arrived here for two days of talks with militant group Hamas, as the two major Palestinian sides work to mend ties after a decade of deadlock.

The talks are the latest attempt at reconciliation between the two sides after years of mistrust, and could lead to a united Palestinian national movement that would participate in peace talks with Israel. Their success hangs on whether Hamas agrees to hand over security of the strip to the Authority

for the first time in 10 years. Officials are expected to discuss the return of thousands of Authority employees to jobs administering the strip, and steps toward national elections across Gaza and the West Bank. The talks involve Palestinian Authority Prime Minister Rami Hamdallah and Ismail Haniyeh, leader of Hamas.

Israel and the U.S. are keenly watching the outcome of the discussions, which will likely continue for a number of weeks after the delegation's departure. Israel has fought three wars in the past 10 years with Hamas.

Officials from the Authority, which is dominated by its President Mahmoud Abbas's Fatah party, entered Gaza from Israel on Monday and were met by hundreds of jubilant Gazans lining the

streets. They waved Fatah and Hamas flags and held pictures of Egyptian President Abdel Fattah Al Sisi, whose officials are helping broker the Palestinian discussions.

The two sides began discussions last month in Cairo after Hamas agreed to allow the Authority back to the strip. They will continue in the Egyptian capital next week.

"If Fatah takes over, the borders will be open and business will be better," said Mohammed Abu Zoraiq, a 27-year old construction worker, as he watched the Palestinian Authority motorcade pass.

The Middle East Quartet, made up of envoys from the U.S., Russia, the European Union and the United Nations, last week welcomed the talks and called on Hamas and Fatah to create the conditions

necessary for the Authority to take over the strip.

"The grave humanitarian situation in Gaza, most notably the crippling electricity crisis and its impact on health, social, and economic well-being of the population, must be addressed," the Quartet said in a statement.

Mr. Abbas, whose government helps fund Gaza's impoverished economy, has for months financially pressured Hamas to cede control of the territory, which it has held since a bloody 2007 conflict.

In April, he cut the salaries of some Palestinians in Gaza who the Authority has continued to pay over the past 10 years. In June, the Authority stopped paying for part of the electricity that Israel supplies to the power-starved strip.

Mr. Abbas aims to prove to

U.S. President Donald Trump that he is able to unite Palestinians and negotiate on behalf of both the West Bank and Gaza, the territories where Palestinians hope to create a future state.

The Authority coordinates security with Israel on a regular basis in the West Bank, and Mr. Abbas largely preaches peaceful resistance to what Palestinians consider an Israeli occupation in the West Bank and Gaza. Hamas, meanwhile, vows to one day take over Gaza, the West Bank and all Israeli territory.

The White House hasn't committed publicly to the establishment of a Palestinian state in those territories, saying such a move would bias negotiations with Israel. That position has frustrated Palestinian officials, as it reverses decades of U.S. policy.

## Tories Play Down Brexit Fissures

BY JENNY GROSS

MANCHESTER, England—British Prime Minister Theresa May made light of public divisions within her top team over her plans for Britain's exit from the European Union, as her party gathered for its annual conference in the northern city of Manchester.

The gathering on Sunday, the first since the Conservative Party, under Mrs. May's leadership, lost its parliamentary majority in a snap election in June, comes at a difficult moment for the British leader as she seeks to manage splits in her party and the electorate over Brexit.

On the eve of the conference, Foreign Secretary Boris Johnson set out a series of aims for Brexit talks that go beyond those outlined by the prime minister, underscoring the difficulty of her political position.

Over the coming days in Manchester, Mrs. May will seek to appeal to the Conservative Party base, most of whom voted for Brexit and seek clarity on her long-term vision for Britain's exit and for her to take a strong stand in negotiations.

She also is expected to be careful not to reverse any goodwill she built up with EU leaders in a key speech in Florence, Italy, where she sought to revitalize stalled Brexit talks by saying the U.K. would honor its financial commitments to the EU's current budget for two years after its planned exit.

"What I have is a cabinet that are united in the mission of this government, and that is what you will see this week," she told the British Broadcasting Corp. on Sunday. She said Mr. Johnson was "absolutely behind" her Brexit plans.

In an interview with the Sun newspaper, Mr. Johnson, a leader of the campaign for the U.K. to leave the EU and a possible successor to Mrs. May, said any transition period shouldn't

last more than two years. He said the U.K. shouldn't accept new rulings by the European Court of Justice during the transition and the U.K. shouldn't make payments for access to the single market after it.

A spokesman for Mr. Johnson said the aims were in line with the ones Mrs. May set out in Florence.

Aside from managing adversaries in London, Mrs. May faces pressure to move Brexit talks beyond their current impasse. Negotiations on Britain's future trade relationship with the EU have been held up by the EU's insistence that sufficient progress first be made on critical issues around the separation itself, such as how to manage Ireland's border with Britain and Britain's financial commitments to the EU.

Mrs. May told the BBC that the U.K. and the EU would have an agreement about their future relationship by the time the U.K. leaves the EU in March 2019.

"That's what you might call the end state, where we're going to get to," she said. But she said the government was drawing up plans in case the two sides couldn't agree on a deal.

ASSOCIATED PRESS

British Prime Minister Theresa May said her Conservative cabinet is united.



## U.K. Official Defends Capitalism

BY JASON DOUGLAS

MANCHESTER, England—Treasury chief Philip Hammond offered a staunch defense of free-market capitalism in Britain, in a speech that underscores the disquiet in the ruling Conservative Party over the rise of the country's left-wing opposition leader.

In an address to the Conservatives' annual conference in the northern English city of Manchester on Monday, Mr. Hammond said a 35-year political consensus among Britain's major political parties has now come to an end, as Labour leader Jeremy Corbyn espouses the nationalization of British railways and utilities and higher taxes on companies and the wealthy.

Such policies have been tried before in the U.K. in the decades after World War II, Mr. Hammond said, culminating in double-digit inflation and the need in 1976 for the U.K. to seek a loan from the International Monetary Fund. "By abandoning market economics, Corbyn's Labour has abandoned the aspirations of ordinary working people," Mr. Hammond said.

Mr. Hammond's appeal comes amid signs voters in the

U.K. are moving away from the embrace of free markets that was ushered in by Margaret Thatcher in the 1980s and broadly sustained by Labour under Tony Blair.

In common with other major economies, public support for free markets was tested by the financial crisis. Opinion polls suggest Mr. Corbyn's policies continue to strike a chord with voters—especially the young—wary of years of government belt-tightening and feeble wage growth.

Labour economy spokesman John McDonnell said the Conservatives have presided over years of stagnant wage growth since coming to power in 2010. In a series of messages on his verified Twitter account, he dismissed Mr. Hammond's speech as "an embarrassing rant."

Mr. Hammond's defense of free markets comes after a June election deprived the Conservatives of their Parliamentary majority. Mr. Corbyn's Labour performed better than expected, gaining 40% of the vote and 30 additional seats in the 650-seat Parliament. Prime Minister Theresa May remains in office, though, as head of a minority Conservative government supported

on key votes by the Democratic Unionist Party, a group of Northern Irish lawmakers.

A survey of 2,000 adults published on Friday by polling firm Populus for the Legatum Institute, a free-market think tank, found widespread public support for nationalizing railways, utilities and banks.

In his speech, Mr. Hammond urged Conservative activists to confront Labour's policies head on. "We will defeat them by the power of argument, by logic and by the experience of history," he said.

The party conference comes as Britons look for more clarity on questions about the government's vision for its departure from the European Union. The Chancellor of the Exchequer said he favors a period of "around two years" after Britain leaves in early 2019 for businesses to adapt to whatever new trading arrangements are negotiated between London and Brussels.

Disagreements over Brexit test of the unity of Mrs. May's top team, with Foreign Secretary Boris Johnson saying in a newspaper interview published on Saturday that any transition must not last "a second more" than two years.

Thomas Perlmann, secretary of the Nobel Committee for Physiology or Medicine, announces the winners.

## WORLD NEWS

# Business Confidence Skyrockets in Japan

By MEGUMI FUJIKAWA

TOKYO—Business confidence is riding a 10-year high in Japan as the economy enjoys its longest stretch of growth in more than a decade, a central bank survey showed, less than three weeks before a national election.

Prime Minister Shinzo Abe is highlighting his handling of the economy and his Abenomics economic program in an election campaign he was initially expected to win easily before two opposition parties joined forces last week.

While opinion polls show Mr. Abe's opponents may be eating into his large lead, the latest Bank of Japan survey of businesses finds that in company board rooms at least, bullish sentiment over Japan's outlook under its current leadership is strong.

The quarterly *tankan* survey of companies showed an improvement in business sentiment across a wide range of businesses including small chemical makers and the nation's giant technology and auto manufacturers.

The business-sentiment index among large manufacturers rose to plus 22 in the July-September quarter from plus 17 previously, its highest reading since September 2007. Results for small manufacturers

and large and small nonmanufacturers also matched or outperformed economists' expectations.

Big manufacturers see their profit growing by 4.7% in the year ending March 2018, contrasting sharply with the 3.3% drop they forecast for the year just three months ago, with recent weakness in the yen and continued strength in tech demand helping to fuel optimism over earnings.

Heavy-machinery maker **Komatsu** Ltd.'s net profit jumped 134% in the April-June quarter, while **Soken Chemical & Engineering** Co. said last week that it expects net profit to almost double in the first half of the business year—a reflection of increasing demand for electronics-related materials including liquid-crystal displays.

Analysts say the data will likely give Mr. Abe's Liberal Democratic Party a tailwind as he heads into the general election on Oct. 22. A new party led by Tokyo Gov. Yuriko Koike is his main challenger following the unexpected decision by the Democratic Party to recommend that its members run under the ticket of Ms. Koike's party.

"The tankan result gives clearer evidence that the economy is firmly recovering and that people have started to feel it gradually, though not



People walked in Tokyo's Shibuya shopping and entertainment district last week. Japan's economy is enjoying a long growth stretch.

strongly. Ultimately it is supportive of the current administration," said Takuji Aida, chief Japan economist at Société Générale.

The tankan result comes after gross domestic product data showing that Japan's economy has expanded for six straight quarters, its longest

stretch of growth since 2006.

Mr. Aida said he sees only a low possibility that Ms. Koike's Party of Hope can take power, given that details of the party's policies are still unclear and the unity of the nascent party members is weak. Cracks in the solidarity with Democratic Party mem-

bers also appeared over the weekend when Ms. Koike said she would reject candidates who don't align with her hawkish views on security and the constitution.

Ms. Koike may be able to deflect attention away from the recent growth in the economy and toward a scheduled

sales-tax increase she wants to postpone, said Mari Iwashita, chief market economist at SMBC Friend Securities. But while that may gain traction among pensioners worried about household finances, it wouldn't be enough for Mr. Abe's coalition to lose its majority, she said.

# Accused Killers of Kim's Half Brother Plead Not Guilty

By YANTOULTRA NGUI



DANIEL GHAN/ASSOCIATED PRESS

Siti Aisyah, left, and Doan Thi Huong are charged with murder.

SHAH ALAM, Malaysia—Two women pleaded not guilty to charges of murdering the half brother of North Korean dictator Kim Jong Un, opening a trial over an assault that shocked the world and accelerated an international drive for sanctions against the rogue regime.

The women, 25-year-old Siti Aisyah of Indonesia and 28-year-old Doan Thi Huong of Vietnam, stand accused of colluding with a team of North Koreans to kill Kim Jong Nam at Kuala Lumpur International Airport on Feb. 13. Proceedings are scheduled through the end of November, with verdicts and any sentencing to follow.

Mr. Kim, the estranged, self-exiled older sibling of North Korea's leader, died shortly after the two women exposed him to what Malaysian authorities said was VX nerve agent. The United Nations classifies the banned substance as a weapon of mass destruction.

Both women face the death penalty, which is carried out in Malaysia by hanging. They have said that they were un-

witting accomplices in the plot and that they thought they were being paid to perform a prank for a television show. North Korea has denied any involvement in the killing.

The women arrived in separate vehicles at the courthouse under heavy security on Monday, wearing bulletproof vests. They wore handcuffs inside the courtroom and gave their pleas through interpreters.

Ms. Aisyah and Ms. Huong are being tried jointly in proceedings expected to last until the end of November, with

prosecutors expected to call as many as 40 witnesses. The verdicts and any sentencing would come later.

No one else has been charged or is on trial. Several North Koreans identified as suspects in the plot fled Malaysia quickly after the killing. Three were allowed to leave Malaysia in exchange for North Korea letting Malaysian diplomats leave Pyongyang.

Defense attorneys want the North Koreans involved to be formally identified and to face charges. Prosecutors said they

would reveal the identities in the course of the trial.

The first witnesses to appear were an airport information-counter employee and a police officer to whom a disoriented Mr. Kim spoke after the assault. The police officer said he took Mr. Kim down one floor to the airport clinic from the departure hall and that Mr. Kim asked him to walk slowly and said his eyes were blurry.

Police say Ms. Aisyah, a single mother from a rural area outside Indonesia's capital, Jakarta, worked as a spa masseuse on regular visits to Kuala Lumpur. Her lawyers say that a North Korean approached her in January to act in prank videos in Malaysia and neighboring countries, and that she thought he was Japanese.

Ms. Aisyah's lawyer says the man asked her to approach strangers in malls, airports and casinos, and to put liquids such as oil and Tabasco sauce on their hands or faces.

She said she earned around \$100 for each prank and was always directed to target men whom she describes as Chinese looking, the lawyer said.

Ms. Huong, the youngest of

five in a farming family in rural Vietnam, had moved to Hanoi at age 18 to become a pharmacist. There, she dropped out of school, eventually taking up work, until last year, as a drinks server at a downtown cowboy-themed bar.

In December, her defense team says, a North Korean man approached her with a proposition similar to the one offered to Ms. Aisyah.

Malaysian investigators say she later traveled to Kuala Lumpur and practiced smearing liquids on people's faces at a shopping mall and other locations.

Both women were captured on airport security cameras assaulting Mr. Kim as he arrived at a departures hall on Feb. 13.

The women were also seen gathered beforehand with several North Koreans who intelligence officials in Seoul say worked for the foreign and security ministries in Pyongyang.

Many onlookers hope the trial will answer questions about Mr. Kim's demise, including by revealing new clues about the members of the alleged North Korean hit team.

The attack at one of the

world's busiest airports added to calls by the U.S. and others to tighten sanctions on Pyongyang over the drastic increase in the pace of its weapons testing. North Korea has launched well over a dozen missiles this year, including two in recent weeks over Japan's main island. In September, it tested what it said was a hydrogen bomb.

The killing led the U.S. to cancel back-channel talks with Pyongyang on its missile program and set in motion a severe downgrade in ties between North Korea and many Southeast Asian nations that have been conduits for Pyongyang to evade international sanctions.

Malaysia rescinded the rare privilege of visa-free travel for North Koreans, expelled Pyongyang's ambassador, sent home many North Korean citizens working in the country and last week banned Malaysians from traveling to North Korea, citing growing tensions on the Korean Peninsula. Other Southeast Asian nations say they have begun investigating North Korean activities in their countries and limiting approvals for North Korean diplomats.

## WORLD WATCH

FRANCE

### Suspected Attacker Was Arrested Before

The country's main counterterrorism prosecutor said a man who fatally stabbed two women at Marseille's main train station had used seven different identities in previous encounters with police.

Prosecutor François Molins said the suspect's most recent arrest occurred two days before Sunday's attacks. Mr. Molins said the suspect was picked up for shoplifting and released the next day, and the case was dropped. The suspect, who was killed by soldiers, has never been convicted in the French justice system.

The prosecutor said the victims of the attack were cousins visiting each other for a birthday celebration.

Eguilles Mayor Robert Darbone said residents of the southern town that was home to the victims planned to gather on Monday evening for a memorial.

Investigators are trying to determine the attacker's real identity and whether he had links to Islamic State, which claimed he was one of its soldiers.

—Associated Press

KENYA

### Police and Protesters Clash in Several Cities

Police lobbed tear gas and fired shots in the air in Nairobi and Kisumu to disperse protesters who are demanding a change of leadership at the country's election commission.



Three groups of diplomats were taken to three different areas, said Ye Htut, district administrator of Maungdaw in Rakhine. He didn't provide details on the diplomats' nationalities.

Myanmar has come under international criticism for barring aid groups, journalists and other outsiders from independently traveling to the region to see the situation there.

A previous guided visit for diplomats scheduled for last week was abruptly canceled.

More than half a million Rohingya have fled from the region to Bangladesh in just over a month, the largest refugee crisis to hit Asia in decades.

The current exodus is in addition to hundreds of thousands of Rohingya who fled prior violence in Myanmar, where the Muslim ethnic group has faced decades of persecution and discrimination in the Buddhist-majority nation.

Bangladesh's foreign minister said on Monday that Myanmar "has made proposals for taking back Rohingya refugees."

A.H. Mahmood Ali made the remarks after meeting in Bangladesh's capital with a Myanmar delegation led by Kyaw Tint Swe, a minister in the State Counselor's Office.

Mr. Ali told reporters that the countries had agreed to form a joint working group to start work on repatriation.

"Both countries want to settle the issue peacefully," he said.

—Associated Press

In addition to the protests in the capital Nairobi and the opposition stronghold of Kisumu, in western Kenya, there was a peaceful protest in the coastal city of Mombasa.

The protests were called by the opposition National Super Alliance, whose leader, Raila Odinga, faces incumbent President Uhuru Kenyatta on Oct. 26 in a rerun election.

Kenya's top court nullified Mr.

Kenyatta's August victory, citing irregularities and illegalities in vote counting. The court said the election commission had failed to verify the results.

Mr. Odinga has said he won't participate in the fresh poll without major overhauls to the electoral commission. Mr. Kenyatta has said he doesn't want any changes.

In Kisumu, hundreds of protesters chanted "Chiloba must go," referring to Ezra Chiloba, the chair-

man of the election commission. Emerging from Kisumu's Kondele slum, the protesters broke a police barrier and forced their way into the center of the city, waving placards and twigs and chanting slogans against the election commission. Police responded with tear gas and fired shots in the air. No casualties were reported.

Mr. Kenyatta said the protesters' demands are "unrealistic."

—Associated Press

BANGLADESH

### Myanmar Seeks Return of Refugees

Myanmar authorities took foreign diplomats and United Nations representatives on a tour of conflict-torn northern Rakhine state, where a security crackdown has led to an exodus of more than 500,000 Rohingya Muslims.

## U.S. NEWS

# Trump Officials Defend GOP Tax Plan

Aides say the cuts are designed to help middle-income earners and businesses

By JOSH MITCHELL  
AND WILLIAM MAULDIN

WASHINGTON—Trump administration officials pushed back against criticism that the emerging GOP tax plan would provide its biggest benefits to the wealthy.

Treasury Secretary Steven Mnuchin and White House bud-

get director Mick Mulvaney said on Sunday news programs that key details of the plan remained undecided and thus it was too early to know how individuals would benefit. But they said the plan is designed, above all, to cut taxes for middle-income earners and businesses.

"The objective of the president is that rich people don't get tax cuts," Mr. Mnuchin said on ABC. "As the president has said all along, the changes to the income tax system are meant to create middle-income tax cuts and also make corporate and

business tax competitive."

Mr. Mulvaney said on CNN that it was impossible to determine how individual earners would fare under the plan because details—such as the dollar amounts that would determine each income-tax bracket—hadn't been set.

The officials were mainly responding to an analysis from the Tax Policy Center, a nonpartisan group headed by a former Obama administration tax official. It showed the top 1% of households would get an average tax cut of \$129,030 in 2018, boosting their after-tax incomes

by 8.5% and lowering the share of U.S. taxes they would pay. Overall, Americans would get a 2.1% increase in after-tax income.

Congressional Democrats and other critics have pointed to the analysis in their opposition to the plan. Sen. Bernie Sanders, a Vermont independent, called the plan "the Robin Hood principle in reverse." It is unacceptable and we're going to fight it as hard as we can," he said on CNN.

The GOP tax plan, worked out between administration officials and Republican leaders in Congress, would reduce from

seven to three the number of tax brackets with a top rate of 35%. But the plan also leaves open the option for a fourth bracket with a top rate not far from its current 39.6%.

Mr. Mnuchin said any reductions in rates for high-income households "are offset with elimination of almost every single type of deduction other than charitable giving and the mortgage interest deduction."

Mr. Mnuchin sought to draw a distinction between changes to income taxes—aimed at middle-income families—and a

planned repeal of the estate tax, which would benefit wealthy families. The estate tax is unfair, he said, because some people get taxed twice—once on their income and again when it's passed to family members.

The Trump officials defended the use of "dynamic scoring" to take into account economic growth generated under the tax plan in assessing its impact. "You can't look at the tax cut on a family until you realize how much better off they're going to be in a growing economy," Mr. Mulvaney said on Fox.

## VEGAS

Continued from Page One  
is aware of the claim of responsibility by a foreign terrorist organization for the shooting in Las Vegas," said Central Intelligence Agency spokesman Jonathan Liu. "We advise caution on jumping to conclusions before the facts are in. We defer to law enforcement on the status of the investigation."

Witnesses described a frantic scene as bullets rained down from Paddock's hotel room perch onto the concert venue where country singer Jason Aldean was finishing up his show. The crowd of thousands tried to flee, some ducking for cover as relentless, rapid gunfire quickly turned the packed festival near Las Vegas Boulevard into a massacre.

"People would run one way and then you'd hit a dead end. It was just a kill box," said Russell Bleck, a 28-year-old who was shooting video of the concert from a VIP tent when the shooting started.

"No one could run and scatter," Mr. Bleck said. "You were kind of getting led down like cattle would to a slaughterhouse. I saw bodies everywhere. The guy was just spraying the crowd."

While the barrage of gunshots pinned down the crowd, some huddled in the basement of Tropicana Las Vegas, a nearby hotel-casino. As police rushed to the scene, some officers took cover behind their vehicles while others, armed with assault rifles, ran into the Mandalay Bay.

Mr. Lombardo said police found at least 10 rifles in Paddock's room. Officers were also at his residence, about 80 miles northeast of Las Vegas. The police in Mesquite said they had no prior contact with Paddock there.

Authorities have also learned of another property associated with the suspect in northern Nevada, and authorities are responding there, Mr. Lombardo said.

Those killed in the rampage include an off-duty Las Vegas Metropolitan Police Department officer, police confirmed. They are withholding his name pending next-of-kin notification. Two police officers were also wounded, including one in stable condition after surgery early Monday, police said. The other had minor injuries.

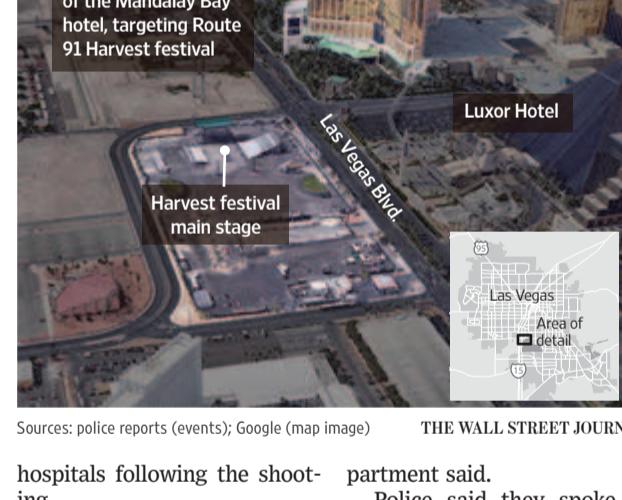
The Clark County Fire Department estimated that about 406 people were taken to area



People scrambled for shelter at the Route 91 Harvest Festival after gunfire was heard on Sunday in Las Vegas. More than 22,000 people attended.

### Shooting in Las Vegas

At least 58 people were killed and 515 wounded after a gunman opened fire on a music festival Sunday in the deadliest shooting in modern U.S. history.



Sources: police reports (events); Google (map image)

THE WALL STREET JOURNAL.

hospitals following the shooting.

At least two off-duty members of the Los Angeles Fire Department were also shot while attending the concert in Las Vegas. Their wounds don't appear to be life-threatening, the de-

partment said.

Police said they spoke to Paddock's female companion, identified as Marilou Danley, who they said is outside the U.S. Mr. Lombardo said authorities don't believe at this time that she was involved in the

### President Calls Las Vegas Shooting 'Act of Pure Evil'

President Donald Trump called the gun massacre in Las Vegas an "act of pure evil" and said he would visit the city on Wednesday, looking to comfort victims and their families in the wake of a mass shooting that killed at least 58 people.

"In moments of tragedy and horror, America comes together as one," the president said Monday in his five-minute address at the White House.

Americans are joined together in "sadness, shock and grief," he said.

Casting the shooting as an expression of hatred, Mr. Trump said, "We pray for the entire nation to find unity and peace and we pray for the day when evil is banished and the

innocent are safe from hatred and fear."

Mr. Trump ordered that the U.S. flag be flown at half-staff at all government and military facilities through Oct. 6.

The president has spoken to Nevada Gov. Brian Sandoval, Las Vegas Mayor Carolyn Goodman and Las Vegas Metropolitan Police Department Sheriff Joseph Lombardo, according to the White House.

In addition to the fatalities, more than 500 people were injured after the gunman fired from a hotel room on a crowd of thousands attending a music festival Sunday night on the Las Vegas Strip. It was the deadliest shooting in modern U.S. history.

Authorities identified the suspect as Stephen Paddock of Mesquite, Nev., 64 years old. Sheriff Lombardo said that the suspect killed himself.

—Peter Nicholas

tourist corridor lined with casinos, restaurants and other attractions. The resort and surrounding area is adjacent to

McCarran International Airport.

The airport temporarily suspended all flights before partially reopening. Authorities also shut down part of the Las Vegas Strip and Interstate 15.

Kodiak Yazzie, who was at the concert with his girlfriend, said he initially thought the pop-pop-pop sounds he heard might have been fireworks. After an initial burst came a continuous series of pops, and he could see band members on stage sprinting for cover.

"That's when we just ran," said Mr. Yazzie, 36, who lives in nearby Henderson, Nev.

Their heads tucked down, the couple raced to a concession stand where they ducked behind a counter. Mr. Yazzie said he could tell the gunfire was coming from an elevated area and saw what looked like a camera flashing nonstop about halfway up the resort tower.

"There was a massive amount of people running and yelling and screaming," he said. "People were bloody everywhere. A lot of people were just getting trampled."

—Del Quentin Wilber, Peter Nicholas and Nour Alakraa contributed to this article.

# Mass Shootings Are a Global Scourge, Researchers Say

BY JOE PALAZZOLO  
AND VANESSA O'CONNELL

The shooting at a Las Vegas concert Sunday night that left at least 58 dead and 500 injured was one of dozens of mass killings in the U.S. over the past decade. While the U.S. has produced more mass shooters over the past half century than any other country, research suggests mass shootings are a world-wide phenomenon.

### The U.S. produces more mass shooters than other countries

Although the U.S. represents less than 5% of the global population, it accounted for 31% of global mass shooters from 1966 to 2012, more than any other country, according to Adam Lankford, associate professor at the University of Alabama Department of Criminal Justice.

### Murder rates may not coincide with mass shootings

Countries such as Venezuela,

Nigeria and Mexico—which have the highest rates of homicide per 100,000 people—have very few mass shooters, Mr. Lankford found. Countries with higher rates of gun ownership—the U.S. is estimated to have the highest—recorded more mass shooters than those with lower gun-ownership rates, such as Mexico.

### The U.S. doesn't have the highest proportion of mass-shooting deaths

Although the U.S. recorded more mass shootings, Switzerland, Norway and Finland registered a higher rate of mass-shooting deaths per 100,000 citizens than the U.S., according to Jaclyn Schildkraut, who teaches about homicide at the State University of New York in Oswego and looked at data from 2000 to 2014 for several countries.

### Mass shootings are difficult to count

Even researchers measuring the prevalence of mass shootings say they must rely largely

on news reports. That is because there isn't any government database that counts the number of people killed in targeted, public shootings around the world. Researchers' reliance on news reports can make it more difficult for them to keep accurate tabs on the shootings, particularly those taking place overseas.

### The definition of "mass" varies

The Federal Bureau of Investigation refers to mass shootings as "active-shooter" events, which it defines as "an individual actively engaged in killing or attempting to kill people in a populated area." Previously, the FBI defined an active shooter as one who killed at least four victims, according to Mr. Lankford, who adopted that definition for his study on mass shooters and firearms. Dr. Schildkraut said she defines a mass shooting more broadly, as "targeted violence carried out by one or more shooters at one or more public or populated locations."



An ambulance leaves the intersection of Las Vegas Boulevard and Tropicana Ave. in Las Vegas.

DAVID BECKER/GETTY IMAGES

ETHAN MILLER/GETTY IMAGES

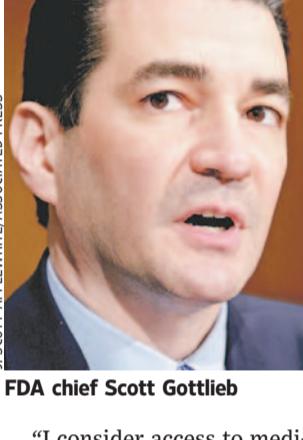
## U.S. NEWS

# Costly Drugs Worry FDA's New Chief

By THOMAS M. BURTON

WASHINGTON—The new commissioner of the Food and Drug Administration declared high drug prices are "a public-health concern that FDA should address," and he began offering concrete steps the agency will employ to speed new, complex drugs to market through more efficient processes partially designed to address high drug prices.

Commissioner Scott Gottlieb is focusing first on what he terms "complex generics." The move to speed the regulatory approval process for drugs in this fast-growing area of the drug market would help introduce competition that might act to slow drug price increases, or even lower prices.



FDA chief Scott Gottlieb

"I consider access to medicine a matter of public health," Dr. Gottlieb declared in a blog post Monday. "If consumers are priced out of the drugs they need, that's a public health concern."

Dr. Gottlieb's move is largely unprecedented for an FDA commissioner. The FDA has traditionally taken the position that the agency's sole role in medical-product approval is assessing safety and effectiveness, and that pricing is generally out of its purview.

## U.S. WATCH

### ECONOMY

#### ISM Manufacturing Index Rises to 60.8

Manufacturing activity in the U.S. reached a 13-year high in September, as strong demand and order growth rode out a severe hurricane season.

The Institute for Supply Management said Monday that its index of manufacturing activity climbed to 60.8 last month from 58.8 in August, its highest reading since May 2004. A reading above 50 indicates sector expansion as measured by factors such as sales, output and hiring.

The reading exceeded economist expectations and suggests high consumer and business confidence and a soft dollar are continuing to boost American manufacturers.

Timothy Fiore, head of the ISM survey, said the factory sector appears to be weathering the impact of three recent major Atlantic hurricanes—Harvey, Irma and Maria. He expects residual impact from the hurricanes over the next three to six months, but "overall, they are not going to change the fundamental factors of demand, and in fact could reflect increased demand because of the destruction element."

The survey found "expanding business conditions, with new orders, production, employment, order backlog and export orders all growing in September," ISM said.

—Harriet Torry

Pricing for some particularly important, high-price drugs, such as those used for cancer and hepatitis, remain beyond the FDA's reach.

Yet, in Monday's blog post, Dr. Gottlieb appears to be trying to address high drug prices. Dr. Gottlieb said that in the case of chemically complex drugs, such as the multiple-sclerosis drug glatiramer acetate injection or drug-device combinations, the agency will be taking steps like publishing a guidance to manufacturers on how to make early meetings with the agency more scientifically efficient.

The idea, he said, is to create "more efficient generic drug development, review and approval pathways," adding the agency also will be issuing a draft guidance to generic manufacturers about when FDA submissions for generic versions of certain particularly complex chemicals called peptides will be appropriate.

"There are a number of branded medicines that are peptides, where exclusivity has lapsed, but these drugs face little or no competition," the commissioner wrote.

He mentioned a range of such drugs, including those that go by generic names glucagon, liraglutide, nesiritide, teriparatide and teuduglutide, that will be covered by the draft guidance. The FDA uses guidances as a way to make its intent clear without going through the more time-consuming process of getting a federal regulation adopted.

"We'll soon release other important policies aimed at spurring competition to complex drugs," he wrote. This will include scientific work within the agency to develop newer analytical tools to measure the effects of generics.

Dr. Gottlieb's actions take place as public concerns about high drug prices have led to proposals in Congress. So far, no significant legislation has passed.



Kindergartner Elionet Saez Martin, left, of Puerto Rico, attends school in New Britain, Conn., after going to live with his grandfather.

## Schools Prepare for Student Influx

By JOSEPH DE AVILA  
AND ARIAN CAMPO-FLORES

School districts from Florida to Massachusetts are anticipating an influx of Puerto Rican students displaced by Hurricane Maria and have begun preparations to identify which schools have space and which resources will be needed.

Puerto Rican schools have been closed since the Category 4 hurricane made landfall on Sept. 20, battering the island and knocking out the electrical grid and communication systems. Officials there said schools could open on Oct. 16.

"We are living through a unique, difficult and unprecedented situation that none of us has experienced before," Julia Keleher, Puerto Rico's education secretary, told staff members in a letter Friday.

Amid estimates that it will take months for power to return fully across the island, states that have large Puerto Rican populations are expecting that many island residents with financial means will move to the mainland once air travel returns to normal. Edwin Meléndez, director of the Center for Puerto Rican Studies at Hunter College in New York, said his conservative estimate is that more than 200,000 children and adults will leave Puerto Rico for the mainland.

"I think the reality is we are going to see, temporarily or permanently, more of our citizens move from the island," said Connecticut Gov. Dannel Malloy, a Democrat.

Hassan Abderrahim Jiménez, a teacher at a private school in Guaynabo, Puerto Rico, is seriously considering sending his 16-year-old son to the mainland so he doesn't fall behind in school. He said a friend in Florida is checking on whether a high school in Kissimmee might be able to take his son, but he would also have to figure out a housing situation.

"We know it's a complicated decision, and we're evaluating our options," he said.

Puerto Rico's education system was already facing tough times. Over the summer, the island closed about 170 public schools, as the government contends with bankruptcy and residents flee for the U.S. mainland.

The Miami-Dade County school district has enrolled about a dozen Puerto Rican children. "I think that number will grow exponentially," said Alberto Carvalho, superintendent.

ent of Miami-Dade Public Schools.

Miami-Dade's school system is accustomed to sudden arrivals triggered by events in the Caribbean and Latin America. It took in waves of new enrollees in the wake of the 2010 earthquake in Haiti and has received a steady stream of arrivals from Venezuela because of unrest in that country.

Mr. Carvalho said he has spoken to Ms. Keleher, the Puerto Rico education secretary, about aligning the systems' curricula and standards to try to ease students' transi-

tions. "As we are able to fully assess the number of students impacted, the department will be able to provide the flexibility and assistance needed to states to accommodate these displaced students," the spokeswoman said.

In the Orlando area, home to a ballooning Puerto Rican population, about a half-dozen new enrollees from the U.S. territory have arrived since the storm, but that figure is expected to climb, said Barbara Jenkins, superintendent of Orange County Public Schools.

To anticipate which areas of Orange County could experience surges of Puerto Rican students, the district is studying maps of where the existing population resides, Ms. Jenkins said. In those areas, it plans to beef up transportation and free-lunch programs.

Boston superintendent Tommy Chang said his district was expecting Puerto Rican students to arrive in the first week of October.

Mr. Chang said he recently asked a class of fifth-graders that had many Puerto Rican students if they had friends or family that were expecting family from the island.

"Literally half the kids raised their hands," Mr. Chang said.

—Daniela Hernandez contributed to this article.

Many Puerto Rican families are expected to send children to schools on the mainland.

We know it's a complicated decision, and we're evaluating our options," he said.

Puerto Rico's education system was already facing tough times. Over the summer, the island closed about 170 public schools, as the government contends with bankruptcy and residents flee for the U.S. mainland.

Miami-Dade's school district estimates the additional cost to address the needs of students arriving from offshore, including Puerto Rico, is \$2,000 to \$2,200 a year per pupil, on top of the roughly \$7,000 in per pupil funding allocated by the state.

A spokeswoman with the U.S. Education Department said the department was mon-

## Puerto Rico Town Suffers in Solitude

By DANIELA HERNANDEZ

HUMACAO, Puerto Rico—In the days after Hurricane Maria battered this beachside town, tearing off roofs, flooding homes, and toppling trees, few have come to help.

Instead, Milton Rivera Peña, a 69-year-old Vietnam War veteran who has been leading local efforts to cope with the devastation, has worked to marshal resources to clear debris and obtain relief supplies, while working through 90 degree heat amid a scarcity of water. He said the area needs more relief supplies.

"Nothing is left here," said Mr. Rivera Peña, whose house was flooded with 6 feet of water. "It's going to take years to recover."

Before the storm, the economy of this community about an hour southeast of San Juan was based on fishing and tourism. But Maria's strong winds and heavy rains ravaged hotels, and local fishermen say they can't afford to replace the boats Maria destroyed. The pier near Playa de Humacao, where many live, was ripped apart, and the neighborhood smells of rotting fish, some that washed ashore, others that went bad from having been in homes and restaurants that lost power.

Mr. Rivera Peña said federal-government inspectors have visited the region to conduct damage assessments, but so far there isn't a major relief effort under way for the area's 56,000 residents. The Salvation Army was offering meals on Saturday throughout town.

There is mounting criticism that the government response—both federal and lo-



Like many of her neighbors, Helen Rodriguez is relying on friends and family to bring her food and fuel.

cal—hasn't moved fast enough to deal with the crisis, leaving people without access to medical care, food, water and other essential supplies, including batteries and fuel. The electrical grid is down, leaving much of the island in the dark, and more than 80% of cell towers are still out of commission some 11 days since the storm made landfall. A lack of fuel has slowed delivery of supplies.

Gov. Ricardo Rosselló said Sunday the government is working to bring in fuel and supplies, restore communications and improve air travel.

Humacao is grappling with Maria's aftermath mostly on its own. There are long lines at local grocery stores, where food is being rationed. Public

transportation is nonexistent. There is a shortage of fuel, and many residents no longer have working cars. Flooding continues to be a threat.

Residents say government officials have instructed the public to call an emergency hotline for help or sign up on a website, but there is no cellphone or landline service in town, nor an internet connection. "We're totally cut off," said Luz Teresa Costa Rodriguez, who suffers from depression and heart disease and cares for a nephew with autism. "Emotionally, I'm not doing well."

As the floodwaters rose during the storm, Ms. Costa Rodriguez said she thought she and her family would

drown. A family across the street from her house had to break a window and swim out to save themselves, she said.

"Every day that passes, the situation gets more precarious," said Helen Rodriguez, a nurse who lives with her 79-year-old mother. She left to weather the storm with family in a nearby town, only to find her home flooded and her furniture destroyed when she returned.

Like many of her neighbors, Ms. Rodriguez is relying on friends and family to bring her food and fuel. Relatives living abroad are flying in with suitcases filled with canned food, batteries and water. "We're all in this sunken ship together," she said.



Family of El Faro crew members shown in February with photographs of their loved ones.

## IN DEPTH

# CARS

*Continued from Page One*  
half the global total, according to EV-Volumes, a research group that tracks electric-car sales.

Chinese auto makers built nearly all those. Tesla Inc. is the only foreign electric-car maker to have sold in significant numbers, having imported and sold 11,000 cars last year.

### New-energy mandate

Foreign makers will have to join the fray if they want to keep selling. Beijing on Thursday said it would require foreign auto companies manufacturing in China to start making new-energy vehicles in the country by 2019.

The nation's overall car market is so huge, making up one-third of 2016 global sales, according to Macquarie Research, that foreign auto makers have little choice but to adjust strategies to adapt.

"That's why we're investing so heavily in electrification," General Motors Co. Chief Executive Mary Barra told reporters in Shanghai last month, when asked about China's push to phase out traditional cars.

Of GM's global unit sales, 40% were in China last year. Beijing's bet has translated into "a very aggressive rollout on electrification in China," said Ms. Barra, who detailed GM's plans to have at least 10 plug-in models available in China by 2020. GM hasn't outlined such targets in its other markets. GM currently has three plug-in models in China, including a local version of the Volt, introduced several months ago.

Foreign manufacturers were already making millions of gasoline cars in China annually, but they had held off building electric cars in the country until recently, and imports were discouraged by a 25% tariff. Bill Russo, a former Chrysler executive who is now managing director of auto consultancy Gao Fung Advisory Co. in Shanghai, said they had been reluctant to plunge into a market that didn't yet offer significant scale.

Hints of scale are appearing. Sales of plug-in passenger

cars in China have increased 40% this year, EV-Volumes said. They will make up 22% of Chinese auto purchases by 2025, projects Bernstein Research, up from 1% to 2% this year.

Volkswagen AG was firmly committed to diesel engines until it recently announced a sharp shift to embrace electric vehicles after its diesel-emissions scandal forced it to rethink strategy. China accounts for half its revenues, and VW Chief Executive Matthias Müller at last month's Frankfurt auto show indicated China will help drive VW's global transformation: "China and California are leading the way."

Propelled by a China sales target of 1.5 million annual electric cars by 2025, VW will invest \$83 billion rolling out 300 electric models worldwide by 2030, he said.

Some auto makers wonder if China's electric-car demand growth will slow as the government dials back subsidies, as it has begun doing. "It's the state's support which is really driving the attention and demand for EVs," Toyota Motor Corp.'s China head, Hiroji Onishi, told reporters at April's Shanghai auto show, where Toyota said it would start building electric vehicles to fit Chinese requirements.

*In Beijing, millions enter a monthly lottery for 14,000 gasoline-car plates.*

"I just have a slight skepticism that in the future, if these subsidies are gone," Mr. Onishi said, "whether the consumers would still want to buy EVs at the market price."

Still, global auto makers fear if they don't build in China now they may lose out in other markets that move decisively toward electric cars, said Mr. Russo. "China," he said, "will drive large-scale electrification of the global automotive industry."

This year, Ford Motor Co., the Renault-Nissan Alliance and Volkswagen have formed new Chinese joint ventures to build battery cars. Ford in a June statement pledged that 70% of its Chinese cars will be



**A driver charged an electric car in Huzhou City in 2016. China will have 4.8 million charging points by 2020, the government forecasts.**

### Electric Avenue

A comparison of the best-selling pure-electric cars in China and the U.S. in the first half of 2017

CHINA	Range*, miles	Price†	Units sold
Zhidou D2	117	\$6,954	18,693
BAIC EC180	97	7,400	17,939
BYD e5	224	19,302	10,826
JAC iEV6E	127	8,767	8,197
Geely Emgrand EV300	224	17,949	7,982
Chery eQ	106	8,737	6,605

U.S.	Range*	Price†	Units sold
Tesla Model S	259	\$74,500	11,195
Tesla Model X	250	115,500	8,945
Chevrolet Bolt	234	36,620	7,592
Nissan Leaf	107	36,790	7,248
Fiat 500e	87	32,995	3,828
BMW i3	87	32,995	2,992

\*Those claimed by manufacturers †Retail prices after subsidies

Source: yiche.com (China); Amazon Vehicles (U.S.); the manufacturers (ranges)

authorities have guaranteed sales for Chinese makers, in part by buying vehicles for public fleets. Beijing's municipal government has earmarked \$1.3 billion to replace 70,000 city taxicabs with electric models.

China will have 4.8 million charging points by 2020, the government forecasts, up from 156,000 in March. The U.S. had 43,000 points in June, according to a University of Michigan study.

At those rates, China has roughly one charging point for every six electric cars, versus about one for every 17 in the U.S. and Norway.

2017 was the Zhidou D2, retailing for under \$7,000. At a Shanghai dealership of car maker Beijing Auto, manager Wang Yipeng said his top seller is the electric EV160 at roughly \$11,000 with government subsidies—\$22,000 without subsidies.

Many foreign makers, recognizing that the bulk of Chinese demand is at the low end, are producing entry-level cars. In July, GM launched its first pure-electric car for the Chinese market, the Baojun E100, with a \$5,300 price tag. The Chevrolet Bolt, its premier U.S. electric model, isn't available in China. Ford and Volkswagen have said their recently announced joint ventures will concentrate on entry-level electric cars.

Chinese auto makers are honing quality enough to improve their reputations in China, said Jeff Cai, general manager for auto product and quality at the China unit of J.D. Power, which rates autos by surveying consumers. "In the past two years, some Chinese manufacturers have made a breakthrough," he said.

Among Chinese consumers, "their perceived quality has taken a big jump."

BYD Co., one of China's big privately owned auto makers, hired Wolfgang Egger, formerly Audi Group's head de-

signer, to become its design chief last year. BYD has figured out the industrial part of the equation, Mr. Egger said, and now the challenge is overcoming a "Made in China" stigma—a commonly held view that foreign cars are superior. "The product can be excellent from a technical point of view," he said, "but it needs a strong character."

Cao Zhen, 35, wanted to buy a foreign gasoline car in April. "People feel that those brands are better quality, and that they make them look good," he said. The Shanghai writer abandoned that idea because of the license-plate restrictions. Seeking a high-end Chinese-made electric vehicle, though, he struggled to find one expensive enough to fit his \$45,000 budget.

He ended up spending \$35,000 on a Roewe eRX5 plug-in made by state-run Shanghai Auto. It exceeded expectations, he said, and was a marked improvement on his previous car, a foreign make.

"In the next three years, the quality of Chinese EVs will improve a lot again," said J.D. Power's Mr. Cai. "Soon foreign [auto makers] could be the ones that struggle to compete."

—Junya Qian, Mike Colias and Yoko Kubota contributed to this article.



An electric-car battery about to be installed at a BYD assembly line in Shenzhen in 2016.

# YOGA

*Continued from Page One*  
aspiring goat yogis have butted heads with local officials who say health codes and land-use rules don't contemplate the commingling of livestock and students of the practice rooted in ancient India.

Tracy Longoria began hosting goat yoga in May on her Manchester, Conn., farm after reading about Ms. Morse's sessions. She hired a local instructor for sessions that proved popular, including among the young goats, who loved jumping on yogis' backs.

Ms. Longoria is ready for any goat eventualty. "If a goat goes potty, we have people walking around with pooper scoopers," she says. "We are ready."

Then came the cease-and-desist order in July from the local zoning-enforcement office. "It is hereby ORDERED," the order ordered, that she cease using her farm "as a hosting location for 'yoga with baby goats.'

The missive, issued on the grounds that her "rural residence" property wasn't zoned for health and recreation use, appears to have originated in an inquiry from neighbor

Mark Connors.

The retired businessman in August said he asked officials whether the zoning code permitted the sessions. Among other things, he was worried about the health risks of human contact with farm animals.

"It's not a goat yoga story," he said. "It's a zoning story."

Ms. Longoria appealed, and the zoning-appeals board ruled in her favor, finding the code's definitions of farming and agriculture overly vague. Mr. Connors didn't respond to inquiries after the ruling.

Goat yoga, says Gary Anderson, Manchester's director of Planning and Economic Development, "was indeed customary to agricultural uses and not primarily a use relating to health and recreation."

Ms. Morse, the goat-yoga pioneer, locked horns with regulators after she contemplated a loan to buy a new farm that would better suit the business. When she approached Linn County officials last autumn to ensure the enterprise complied with Oregon's land-use rules, "they just said, 'no, we wish we could help you,'" she says. "I was devastated. I quit my job and I was trying to make this work."

Aiming to preserve farmland, the county hasn't adopted

Oregon's agritourism-permitting program that lets farmers host commercial events. And under state law, agritourism activities must promote the agricultural product produced on the land. Ms. Morse doesn't breed her pet goats or sell their milk, meat or hides.

"Even if we had the agritourism business, which we don't, we have to be able to say this activity promotes the sale of your farm commodity," says Robert Wheeldon, director of the Linn County Planning and Building Department. "How does goat yoga promote the sale of her farm commodity?"

Ms. Morse has pressed on, holding classes at a bed-and-breakfast and a vineyard and licensing her brand. While goats present some challenges—they nibble on cellphones, purses and patterns printed on yoga mats—they offer something unique to humans, she says.

"When they chew their cud they go into this meditative state," she says. "When you're around that you soak up that energy and it's hard to think about anything else."

This spring at the Congressional Cemetery, Ms. Carnes read about goat yoga and raised the idea with participants in her "yoga mortis" classes at the cemetery. They

were "crazy to try it," she says.

She spoke with Paul Williams, president of the nonprofit that manages the cemetery, about trying it with the goats they had twice hired over the past several years to eat down unwanted plants.

The cemetery planned to hold goat classes in a pen in a

grass area. In June, Mr. Williams sought permission from the health department.

The "no" came that month. The capital's health code, says Dr. Vito DelVento, manager of the District of Columbia Department of Health's animal-services program, bans animals beyond common household

pets from within district limits. People can apply for a special permit for, say, a horse show or circus. The department approved the landscaping goats after the cemetery furnished proof a veterinarian had examined them, Mr. Williams says.

In addition, Dr. DelVento says, the goats would need to be tended by a U.S. Agriculture Department-licensed animal exhibitor. Mary Bowen, the Maryland farmer who agreed to provide the goats, says she applied for a license but hasn't received it.

Then there's Washington's "no touch" policy barring direct contact between humans and animals beyond household pets.

"Baby goats are probably one of the most fun animal species—they are a blast," says Dr. DelVento, who has farm animals outside the District and has raised goats. "But the fact that we have baby goats jumping on people and interacting with people obviously violates our 'no touch' policy."

Mr. Williams says he will try again next year when Mrs. Bowen has a fresh herd of kids. He will seek a no-touch-policy exemption.

"We're really trying to offer a service," says Mrs. Bowen, "that is good for people's mental health and physical health."



Goat yoga has spread nationwide since last year; above, practitioners in Glendale, Calif., in May.

EUGENE GARCIA/EPA SHUTTERSTOCK

# LIFE & ARTS

YOUR HEALTH | By Sumathi Reddy

## Prep for a Bad Flu Season

Signs from Australia suggest a tough version of the virus could hit the northern hemisphere next

**IT'S BEEN** an ugly flu season in Australia.

That's why some experts are bracing for more of the same in the U.S., which has already started seeing scattered outbreaks at college campuses and nursing homes.

The southern hemisphere's experience with the influenza virus during its winter, from June to the end of August, tends to be a good predictor of how hard it hits the northern hemisphere later the same year, says Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, part of the federal National Institutes of Health.

But there are several things notably different between the U.S. and Australia. In Australia it's only recommended that high-risk groups like children and the elderly get the annual flu shot. In the U.S., the Centers for Disease Control and Prevention recommends that everyone over 6 months old gets vaccinated.

How widely influenza spreads also depends on the background immunity of the population, Dr. Fauci says. If we've been exposed to a similar strain of the virus in the previous season, it might lessen the burden this year.

Dr. Fauci says it appears that this year's flu vaccine is pretty well-matched to the virus that experts expect to circulate. However, this could change.

Making the flu vaccine is an imprecise science that includes some guesswork. Scientists must predict months ahead of time which strains will circulate the following flu season. It's a moving target: The flu virus can and does mutate or change quickly.

There are three main types of the flu virus—A, B and C—though humans are infected mainly by the A and B viruses. The A viruses are more serious, and include H1N1 and H3N2.

The CDC recommends getting the influenza vaccine by October's end. It usually takes about two weeks to be protected from the vaccine, and flu season typically starts in November and peaks in February, says Dan Jernigan, head

of the CDC's influenza division. Dr. Jernigan says the vaccine can last up to a year in younger, healthy adults, though it is more likely to wear off more quickly for the elderly.

He says Australia was hit with the H3N2 virus during their winter, similar to what happened in the U.S. last winter. "It's possible that they may be seeing what we saw last year since the viruses are relatively the same," he says. H3N2 typically causes more deaths and hospitalizations than H1N1 and causes more illnesses in the elderly especially, Dr. Jernigan says.

This year manufacturers are predicting that 75% of the U.S. vaccine supply will be "quadrivalent," meaning the shot will provide protection against two influenza A viruses and two influenza B viruses. The trivalent shot protects against the A viruses and one B virus.

Influenza B usually shows up later in the flu season, about a month after influenza A. It's not as severe for most age groups.

For those who are needle-shy, there is also a version of the vaccine that uses a microneedle that is 90% smaller than the standard needle used for vaccinations.

For those 65 and up, experts recommend two stronger vaccines. One is Fludac, a vaccine made using an adjuvant, which helps create a stronger immune response in the body and first became available last year. The other is Fluzone High-Dose, a vaccine that contains four times the amount of antigen as the regular vaccine and was approved for use in 2009.

Both options may result in more pronounced side effects, such as muscle aches, headaches and redness or swelling at the site of injection.

Two other vaccines are made using newer technologies that do not require growth of viruses in chicken eggs, the procedure for most flu vaccines: Flucelvax, from Seqirus, and Flublok, from Protein Sciences. They may be able to maintain a better match to circulating H3N2 influenza viruses.

Dr. Jernigan says flu vaccines have improved in recent years. Still, their effectiveness widely varies depending on the year. At



The Centers for Disease Control and Prevention recommends that everyone 6 months and older get the annual influenza vaccination by the end of October. The H3N2 strain of the virus, left.

best, they prevent the flu in 60% of recipients.

That helps explain disappointing coverage rates. Last year only 46.8% of the eligible U.S. population received a flu shot, according to new CDC data, up just 1.2 percentage points from the previous year.

There are ways to improve your body's response to the influenza vaccine. Studies have found that behavioral and psychological factors such as exercise, sleep and moods are associated with how well the body can produce antibodies when getting a vaccination.

"We're very clear that psychological and behavioral factors are associated with how well vaccinations work," says Kavita Vedhara, a professor of health psychology at the University of Nottingham, in England.

Dr. Vedhara was senior author on a study of 138 adults between 65 and 85 that was published in September in the journal Brain, Behavior, and Immunity.

It found that people who reported a positive mood based on a validated questionnaire on the day they received the influenza vaccine had an enhanced response to the vaccine, producing more antibodies.

WEEKEND CONFIDENTIAL | By Alexandra Wolfe

## SURFER LAIRD HAMILTON: STILL MAKING WAVES

**LAIRD HAMILTON** can't escape his fans. It's a warm summer day on Long Island in New York, and he has just finished conducting an awards ceremony for a stand-up paddleboard race with his wife, the professional volleyball player Gabrielle Reece. The 6-foot-2 surfer, with a mop of bright blond hair, is hard to miss. As he tries to make his way out of the tent, people keep stopping him to ask if they can take a picture with him.

He gets into the back seat of a friend's unlocked Jeep so that we can talk in peace. Just as he's shutting the door, a woman spots him and shouts, "Laird!" He waves.

Mr. Hamilton, 53, made his name as an extreme surfer, often taking on waves more than 80 feet high. He was one of the pioneers of tow-in surfing, in which surfers are pulled on a rope by jet ski or helicopter into the path of a huge wave that they couldn't otherwise reach. Now he is the subject of a documentary, "Take Every Wave," released Sept. 29 in theaters and on demand.

It looks like a glamorous life: The movie shows him tanned and buff, riding massive waves and doing underwater workouts, and features interviews with his equally tall and buff wife.

The film also goes into his difficult childhood. The son of a single mother, Mr. Hamilton spent a lot of time alone at the beach as a child in Hawaii. (His mother later married famed surfboard maker Bill Hamilton, whom Laird had met on the beach and brought home.) He says that other children often beat him up and picked on him, especially because he was one of the few white children at his school.

Mr. Hamilton acted up at school,

at times throwing chairs out the window and writing obscenities on the chalkboard (and then eating the bar of soap his teacher told him to wash his mouth out with).

But he loved surfing. Ms. Reece says that Mr. Hamilton has told her, "Going to sleep and dreaming, I'd always wished I would wake up brown," so that he could be like the Hawaiians who created surfing.

By age 16, he had dropped out of school to work in construction and try modeling. A year later, a Men's Vogue photographer saw him on the beach and got him a modeling contract in Life Magazine with actress and model Brooke Shields.

Although he loved surfing, he shunned surf competitions. (He was able to get sponsorships for his daring big-wave feats.) He dabbled in acting, including work as Kevin Costner's body double in "Waterworld" (1995), but didn't want to confine himself to that either.

Mr. Hamilton considers himself a contrarian and likes to quote Henry David Thoreau's maxim: "Disobedience is the true foundation of liberty. The obedient must be slaves." Later in our conversation, talking about people's tendency to discourage new ideas, he quotes Ralph Waldo Emerson, who said, "Blame is safer than praise." I ask him if he reads a lot. "No, I don't read really that much," he says. "I listen. I think I just retain stuff."

He was always most excited about trying new stunts in the water—another topic that makes him philosophical. "The ocean is so honest," he says earnestly. "There's no discrimination in the ocean, and there are no referees. It's just pure and reliable."

Mr. Hamilton and Ms. Reece

split their time between Kauai, Hawaii, and Malibu, Calif. Two daughters, ages 9 and 13, live at home with them while a third, Mr. Hamilton's from a previous marriage, is finishing college. Mr. Hamilton and Ms. Reece run a three-day sports program and retreat called XPT together in places like Kauai and Montauk, N.Y. Preventing injury is high on their list of fitness priorities. Last year, on the same day and at the same hospital, she had knee-replacement surgery while he had his hip reconstructed because of excessive wear and tear.

Outside of athletics, Mr. Hamilton designs a line of clothing and has a line called Laird Superfood, which includes "performance mushroom blend powder" and dairy-free coffee creamers with coconut milk powder and sea algae.

Mr. Hamilton is working on some inventions, too, such as a GolfBoard, an electric scooter for riding around a course. He came up with the idea after a friend—84-year-old Don Wildman, founder of the company that became Bally Total Fitness—wanted to play golf with him and agreed to let Mr. Hamilton ride his electric scooter as they played. Mr. Hamilton found it to be so much fun that he started working on creating one that he could sell.

He still spends about five hours a day in the water and likes to experiment with new water sports, such as bodysurfing underwater, like a dolphin. He says people ask him whether he has a "fear defect." "I've been scared so much, so often at such a young age that I think I kind of became fear-tolerant," he says. Eventually, he adds, getting scared "made me feel really alive."



MATT FURMAN FOR THE WALL STREET JOURNAL  
Mr. Hamilton is the subject of a new documentary, 'Take Every Wave.'

## OPINION

### REVIEW & OUTLOOK

## Tax Policy Center Propaganda

Rеспubicans face an uphill battle on tax reform, not least because opponents are willing to invent evidence to stop it. Take Friday's Tax Policy Center report claiming to be clairvoyant about details of the Republican reform "framework" that haven't been proposed.

The Tax Policy Center is a joint project of the left-leaning Brookings Institution and the Urban Institute that the media routinely labels "nonpartisan." Its record of hostility to any GOP tax reform that cuts tax rates shows the opposite. And the latest evidence of bias is its willingness to jump to conclusions about the GOP plan before crucial details are known.

The center's progressive economists released a "preliminary" estimate of the GOP tax plan that claimed the proposal would "reduce federal revenues by \$2.4 trillion over the first ten years and \$3.2 trillion over the subsequent decade." Also: The top 1% of taxpayers would "receive about 50 percent of the total tax benefit." The press immediate broadcast this with headlines like "Republican Tax Cut Would Benefit Wealthy and Corporations Most, Report Finds." Political mission accomplished.

Yet the analysis is impossibly specific, given that last week's blueprint excluded the income ranges for the individual brackets of 12%, 25% and 35%; the value of the expanded child tax credit, and when that would phase out; rates for pass-through businesses, or safeguards for abuse that may limit who can claim the income or how much; the discount rate at which cash and other corporate assets will be invited back to the United States; which deductions will be eliminated; and many other details that would be essential for any honest score.

The report says it based its guesses on the

The media's go-to think tank trashes GOP reform without evidence.

assumptions of the House GOP's "Better Way" blueprint from 2016, yet that campaign document will certainly differ from any bill that emerges this year. Last week's GOP framework explicitly included discretion for committees in Congress to iron out details. Case in point: The paper doesn't assume a fourth tax-rate bracket for high earners that the framework left as an option.

The larger issue concerns economic assumptions. The Tax Policy Center assumes almost no growth impact from tax cuts, whether on capital or income. When growth increases or revenues rise after a tax cut, as they did after the 2003 tax cut, the center's progressives attribute it to something else.

The tax center is essentially consigning the U.S. economy to a fate of slow growth as far as the Obama "secular stagnation" crowd can see. Yet if the rate of GDP growth speeds up from the Obama pace of 2% a year to 3%, incomes would rise and revenues would increase to the Treasury by some \$2.5 trillion.

Partisans can honestly debate economic assumptions, but the Tax Policy Center betrays its bias by making premature guesses based on partisan assumptions. The center did a similar sandbag job on Mitt Romney's tax reform proposal during the 2012 campaign, claiming it would have to raise taxes on the middle-class and poor because it wouldn't reduce certain loopholes. But those loopholes were very much on the table in the Romney plan.

The lesson for Republicans is that they had better be prepared to fight back—early and often. House Ways and Means Chairman Kevin Brady called the report "misleading, unfounded, and biased," and they shouldn't hesitate to describe the Tax Policy Center as the anti-reform propaganda shop that it is.

## Trump's Excellent Judges

The start of a new Supreme Court term is a good moment to note some under-reported news: President Trump is rapidly remaking the federal appellate and district courts, with highly qualified nominees who fulfill his campaign promise to pick "constitutional conservatives."

The White House announced its eighth batch of judicial nominees on Thursday, including four excellent choices for the Fifth Circuit Court of Appeals. They include a pair of Texans: Don Willett, who is now on the Texas Supreme Court and is well known for his witty Twitter feed; and James Ho, a Gibson, Dunn partner in Dallas who clerked for Justice Clarence Thomas and was Texas solicitor general.

The other two Fifth Circuit nominees have notable legal achievements to their credit. Stuart Duncan was solicitor general of Louisiana and general counsel for the Becket Fund for Religious Liberty. He was counsel of record in *Burwell v. Hobby Lobby Stores*, the landmark 2014 decision allowing closely held companies to be exempt from regulations they object to on religious grounds.

Kurt Engelhardt is chief judge for the federal district court for eastern Louisiana. In 2013 he wrote a withering 129-page opinion documenting misconduct by the Justice Department's Civil Rights Division and the U.S. Attorney in prosecuting New Orleans police. Prosecutors attempted to inflame the potential

His four latest nominees highlight his biggest political success.

jury pool against the officers with prejudicial public comments, including the use of a fake name on the website of the Times-Picayune. Justice appealed, but Judge Engelhardt was upheld by the Fifth Circuit he will join if he's confirmed.

The speed of the nominations and the quality of the nominees is a result of the close ties between White House judicial vetters and the Federalist Society that is a national clearinghouse for conservative legal talent. Judicial nominations are arguably the most successful part of the Trump Presidency.

By our count—and we may have missed a name or two—Mr. Trump has made 18 nominations to appellate courts, 39 to district courts and three to the U.S. Court of Federal Claims. The Senate has confirmed only four for the appellate courts as Democrats use every possible delaying tactic. They're even trying to disqualify Amy Coney Barrett, a nominee for the Seventh Circuit, because she's an "orthodox Catholic," as Senator Dick Durbin put it in a question at a Senate hearing.

With confirmation politics increasingly polarized, Mr. Trump and Republicans are wise to move quickly to take advantage of this moment of Senate and White House control. If Democrats take the Senate in 2018, Chuck Schumer will try to block the confirmation of any conservative nominee. Mr. Trump deserves more credit than he's getting for his judicial-nominating operation.

## Arbitration Is Back at the Supreme Court

The Supreme Court is back in session this week, and so are the trial lawyers with attacks on legal arbitration despite repeated legal rebukes. On Monday the Justices will get a chance to reinforce their rulings when they hear challenges to an Obama National Labor Relations Board (NLRB) opinion that bars arbitration class-action waivers in employment contracts.

At issue is the NLRB's 2012 *D.R. Horton* decision that opened the door to labor class-action lawsuits. Three appellate courts differed over whether an NLRB interpretation of the National Labor Relations Act overrides the Federal Arbitration Act. (The cases are *NLRB v. Murphy Oil*, *Epic Systems v. Lewis*, and *Ernst & Young v. Morris*.)

The labor board held in *D.R. Horton* that arbitration class-action waivers violate Section 7 of the NLRA, which protects workers' ability "to bargain collectively through representatives of their own choosing, and to engage in other concerted activities for the purpose of collective bargaining or other mutual aid or protection." According to the NLRB, class actions constitute a "concerted activity" even though this section of the law doesn't mention litigation.

But the Supreme Court ruled in *AT&T Mobility v. Concepcion* (2011) that the Federal Arbitration Act makes arbitration agreements "valid, irrevocable, and enforceable, save upon such grounds as exist at law or in equity for the revocation of any contract." The Supreme Court has construed these exceptions narrowly to include violations of law and contract principles such as fraud.

Trial attorneys have time and again tried to convince the Supreme Court to strike down ar-

Obama's labor board ignored precedent to promote class actions.

bbitration agreements that conflict with state laws. Yet the High Court has repeatedly ruled—notably in *Concepcion* and *DirecTV v. Imburgia* (2015)—that the FAA preempts state laws and court rulings that prejudice arbitration.

The Obama NLRB in *D.R. Horton* attempted to end-run the High Court's rulings by holding that arbitration class-action waivers in employment contracts conflict with federal labor law and therefore are invalid. But the Supreme Court held in *CompuCredit Corp. v. Greenwood* (2012) that a federal statute supersedes the FAA only when there is a "contrary congressional command." Yet the NLRA—enacted before the era of class-action torts—contains no such command.

Unions argue that mandatory arbitration requires workers to renounce their substantive rights under federal law, but class actions are a procedural mechanism. The NLRA doesn't confer a right to engage in collective litigation, and workers may pursue claims for violations of federal labor law in arbitration. Workers are more likely to vindicate their rights in arbitration where claims can be considered and resolved on an individual basis.

An eclectic coalition of Justices has upheld arbitration. Justice Stephen Breyer wrote the *DirecTV* 6-3 majority opinion while Justices Elena Kagan and Sonia Sotomayor concurred in *CompuCredit Corp.* Although Justice Clarence Thomas has held that the FAA doesn't apply to proceedings in state courts, none of the cases on Monday present a tension between federal and state law. What's really at stake is whether a federal agency can impair valid contracts and override federal law as well as Supreme Court precedent.

## LETTERS TO THE EDITOR

## Doctors, Not Bureaucrats, Make Innovations

As men and women of science, we agree with Centers for Medicare & Medicaid Services Administrator Seema Verma ("Medicare and Medicaid Need Innovation," op-ed, Sept. 20) that Medicare could use a jolt of innovation. Physicians have long viewed innovation as a way of helping our patients.

Ms. Verma's vision is spot on when it comes to harnessing the work of innovators from across the country. Physicians believe the Center for Medicare & Medicaid Innovation (CMMI) has the potential to be an innovation lab by embracing transparent model design and evaluation.

When the CMS follows through on its outreach to the medical field, it will find that physicians have been focusing on how to better serve their patients. Small-scale testing will help develop the most promising ideas. Physicians are eager to highlight their ideas.

DAVID O. BARBE, M.D.  
President  
American Medical Association  
Chicago

In no other market sector is the claim made that people paying cash (a fee) for goods or services results in cost inflation or lack of innovative competition.

Ms. Verma forgets to mention that physicians will not be paid unless agreeing to be gatekeepers loyal to corporate profit-driven cost-control outcomes. The scandal will be when profiteering payment schemes and the coercion of physicians into a gatekeeper role are legalized.

ROBERT W. GEIST, M.D.  
North Oaks, Minn.

Perhaps Ms. Verma can explain why Medicare Advantage HMOs don't have to report actual patient outcomes for things like acute heart attacks, heart catheterizations and surgeries to bypass arterial blockages to the heart and brain. Every study published in the leading medical journals looks at the volume and outcome of such procedures and surgeries only in fee-for-service (FFS) Medicare. The results of Medicare HMO care are never available for review. So how can consumers make the "better" clinical decisions she desires?

Why has Medicare HMO care consistently been shown by the GAO and other CMS-funded analyses to cost billions more than comparable FFS care? Why have studies shown that

those Medicare enrollees with high cost and complex care exit Medicare HMOs for FFS practices? Why did it take the government so long to join the current whistleblower lawsuits that allege that Medicare HMOs have padded their diagnostic codes to up-code risk and rip off taxpayers for billions?

The Medicare and Medicaid managed-care lobbies have convinced everyone—except doctors and patients on the front lines—that insurance companies can do the harsh rationing necessary to balance the budget. They always want to start with capitated care so they can pit doctors against patients for a fixed sum of money.

BRANT S. MITTLER, M.D., J.D.  
San Antonio, Texas

Would you buy a house or a car without knowing the complete price and condition of the item? CMS calls for innovation in the way we run both Medicare and Medicaid. How about leading with price transparency? Publish the mean and median for the top 100 services reimbursed by CMS.

Lehigh University  
Lehigh, Pa.

The pioneering cardiovascular surgeon at the medical school I attended had less than average results because he had less than average surgical candidates who otherwise had little help or hope. In Ms. Verma's world he might have found work washing windows. She refers to practitioners as health-care providers, but the term health-care provider is an Orwellian disguise improvised by HMOs to have doctors build Model Ts, or else. No wonder so many are demoralized.

MICHAEL O'BRIEN, M.D.  
Vero Beach, Fla.

We strongly endorse CMMI's approach in which "health-care providers . . . compete for patients in a free and dynamic market." In a market-based system that pays for value over volume, patients will receive better care; providers will be rewarded for doing the right things for their patients; purchasers will be paying for what works; and our businesses will no longer have to siphon money from investments in innovation and job creation to pay for rising health-care costs.

WILLIAM E. KRAMER  
Pacific Business Group on Health  
San Francisco

## Florida Not Leader in Flood Insurance Claims

In "Let's Get Rational About Disaster Risk" (Business World, Sept. 16), Holman Jenkins claims that the value of Florida coastal property is inflated due to artificially low insurance costs, particularly for flood. Furthermore, he asserts that this status quo is maintained by politically influential Northerners with beach homes in Florida.

Surprisingly, page one of the same issue shows a figure under the caption "Repeated Claims Flood Insurance Program," which provides data that is incompatible with Mr. Jenkins's point of view. It shows the number of homes with severe repetitive losses due to flooding in five selected states between 1978 and 2015: Louisiana, Texas, New Jersey, New York and Florida. The number of

high-risk homes (accounting for 30% of flood claims) still insured is 3,828 (Calif.), 1,899 (Texas), 2,060 (N.J.) and 917 (Fla.). From this information alone, Florida is not among the top beneficiaries of repeated flood claims.

Now consider total flood insurance payments for those same selected states. Again, Florida trails the pack. This is particularly striking considering Florida has a relatively huge coastline of 1,350 miles, greater than the four other states combined. Relative to length of coastline, New York and New Jersey receive far more total compensation for floods than Florida. Perhaps the influential Northerners are subsidizing flood insurance far closer to home.

DERK BERGSMA  
Port Charlotte, Fla.

## The Excess of Lawyers Is a Burden on Society

Jonathan Adler's review of Benjamin H. Barton and Stephanos Bibas's "Rebooting Justice" ("Why We Need Fewer Lawyers," Bookshelf, Sept. 7) is a welcome and insightful analysis of a serious problem in America that needs to be corrected. The likelihood of that happening is very slim.

In 2014, the population of attorneys in the U.S. surpassed 450,000 and law schools add more than 34,000 new lawyers yearly. About 12% of them are government employed, including 59% of the Senate and 42% of the House in the 113th Congress who had law degrees. This is three times as many as any other common law nation. These attorneys significantly contribute to the ubiquitous, unclear and voluminous government regulations that guarantee a vast number of potential lawsuits and their potential income when they leave government. Trial lawyers are a major source of Democratic Party funding. Couple this with the inefficiency of the courts causing trials to be frequently delayed and to go on for years, the legal system has become a tremendous burden to Americans, especially the taxpaying middle class.

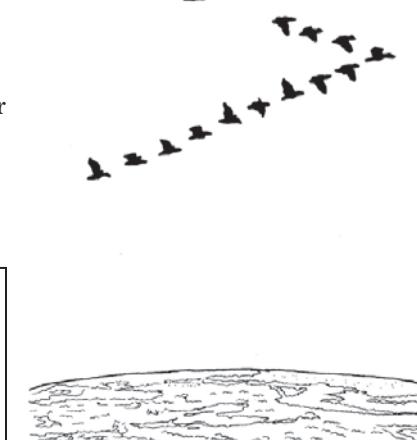
I was named in a medical malpractice suit. The plaintiff's medical ad-

viser documented I had no involvement in the client's poor outcome. Since there were multiple defendants, my attorney went to a high number of depositions and meetings over the next three years, being paid \$500 per hour. When it came to trial, as I predicted, the judge dismissed me from the case, "with prejudice," but my attorney made tens of thousands of dollars for attending meetings, knowing that I would be dismissed from the case when the trial started.

RYAN SEARLE, M.D., ABEM  
Newburyport, Mass.

## Pepper ... And Salt

THE WALL STREET JOURNAL



"Harry's going to Uber this year."

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.

## OPINION

# Campus Speech and Anti-Klan Laws

By Jay Weiser

A brawl broke out in an "Empathy Tent" at the University of California, Berkeley last week, marking the official start of college riot season. Last week Attorney General Jeff Sessions braved protesters at Georgetown Law Center, where he promised to intervene in campus free-speech cases and urged students and universities to "stand up against those who would silence free expression by violence or other means." The targets of suppression have ways to hold colleges and rioters to account using civil-rights statutes and common-law torts.

Administrators often "coddle" and "encourage" censorship, Mr. Sessions observed. That's nothing new. After the Civil War, white students at what is now Washington and Lee University in Virginia attacked blacks associated with the Freedmen's Bureau.

**Have you been censored or shouted down? You may have legal recourse. Here's a handy guide.**

The college president, Robert E. Lee, offered pieties and looked the other way. In response to similar incidents, Congress safeguarded civil rights with legislation known as anti-Ku Klux Klan acts.

Public universities are subject to the full sweep of the anti-KKK laws, as well as more recent civil-rights statutes. At San Francisco State University, Jewish students have filed suit under Section 1983 of the federal civil-rights law, alleging disruption of their events violates the First Amendment and the Equal Protection Clause of the 14th Amendment. The First Amendment requires public universities to treat speech neutrally, regardless of the message. Administrators may not tell police to stand down in the face of a "heckler's veto."

In 2013 at New York's University at Buffalo, police let counterprotesters shut down a pro-life demonstration. This June the university settled, paying the plaintiffs' attorney fees and promising to refrain from viewpoint

discrimination in the future.

But universities are responsible only for taking reasonable precautions. A target of last semester's antispeech riots, Bret Weinstein, was mobbed and hounded out of Evergreen State College after refusing to comply with a college-sponsored "Day of Absence" in which white people were "asked" to stay off campus. While Mr. Weinstein claimed that Evergreen State violated his right of free speech, the college could have argued that it acted reasonably because violent antispeech protests were still novel and Mr. Weinstein was physically threatened in class only once. He and his wife, also an Evergreen professor, settled their claim for \$500,000 and an agreement to resign. Public universities now have notice of their duty to provide security, which UC Berkeley and the University of Utah just fulfilled for conservative writer Ben Shapiro.

Private universities have no First Amendment obligation to provide a forum for speech. But many riots purport to attack white "supremacy" or "privilege," and if private universities act with deliberate indifference to racially motivated attacks, they may be liable to students or speakers. Colleges are subject to antidiscrimination statutes such as Section 1981, an anti-KKK act that would cover student and speaker contract rights. If they accept federal funding—and all but a handful do—they are also subject to Title VI of the Civil Rights Act of 1964.

Institutions are not the only prospective defendants. Campus rioters themselves may be liable under



Section 1985(3), which covers private conspiracies and targets those who, like masked Antifa attackers, go in disguise—"a common tactic also used by the detestable Ku Klux Klan," as Mr. Sessions noted. The statute applies most clearly to racially motivated physical attacks or efforts to exclude persons. Evergreen State is a classic case: After disrupting Mr. Weinstein's class, students detained the college president and apparently posted photos of themselves brandishing baseball bats on Facebook. Some faculty members demanded disciplinary action against Mr. Weinstein and later assembled with masked Antifa members who attacked counterprotesters.

Section 1985(3) may also apply to

racially motivated "no-platforming"—group intimidation to suppress speakers. Middlebury College demonstrators violently disrupted social scientist Charles Murray's talk, pursued him, and physically attacked a Middlebury professor, giving her a concussion. Even without violence, Section 1985(3) makes protesters liable for racially motivated conspiracies at public universities and perhaps private ones. In contrast to the usual American rule, prevailing plaintiffs under civil-rights statutes are eligible for attorneys' fees.

At both public and private universities, regardless of racial or religious motivation, state tort law allows people who are physically attacked, threatened or detained to bring civil lawsuits for damages. Businesses suffering property damage, such as the \$100,000 attributed to February's protests against Milo Yiannopoulos at Berkeley, can sue, too. Tort law can also make antispeech rioters liable for the loss of public-speaking contracts, as when DePaul University barred Mr. Shapiro because his appearances had been disrupted elsewhere.

While Section 1985(3) covers only conspiracies, state common law covers everyone who acts in concert to deprive victims of their rights, whether or not they conspired beforehand. Many college riots are planned in advance, but some participants just show up, like the Berkeley undergraduate who told Newsweek he wanted the safety of an anonymous mob. Liability for intentional torts is joint and several: Each member of the group is responsible for all damages caused by any member.

Unlike garden-variety street thugs, antispeech rioters often have substantial assets and potential earnings: 23% of Middlebury students come from households earning more than \$630,000 a year. Plaintiffs can subpoena colleges to expose the perpetrators, unsealing disciplinary information that would otherwise be confidential under the Family Educational Rights and Privacy Act. And although criminal convictions require a "beyond a reasonable doubt" standard, civil cases apply the easier "preponderance of the evidence" standard.

Nonviolent, nondisruptive protests are crucial to American civic life, and conspiracy and action-in-concert lawsuits cannot suppress protesters' right of free expression. In *NAACP v. Claiborne Hardware Co.* (1982), the U.S. Supreme Court struck down a conspiracy lawsuit by white merchants against a boycott. The justices held 8-0 that the defendants were merely exercising their First Amendment rights.

Students retain the right to advocate illegal acts, such as the demands for segregated facilities at several colleges. "Cultural appropriation" advocacy, which seeks to enforce Jim Crow-style identity etiquette, is also protected, including the Yale Halloween protests over whether blondes could costume themselves as Disney's Chinese heroine Mulan. But success in obtaining segregated facilities or cultural-appropriation penalties (such as Bowdoin College's reported sombrero sanctions) could result in Section 1985(3) liability for students and colleges. One civil-rights-era case held theater-company managers potentially liable for conspiring with the local sheriff to enforce segregation. Police could also be liable under a related statute, Section 1986, which imposes a duty on law-enforcement agents to prevent Section 1985(3) conspiracies.

Like homecoming, political intimidation is a college tradition. With many college administrators seemingly seeking an empty plinth for one of those Robert E. Lee statues coming down elsewhere, civil lawsuits may save free speech from becoming a lost cause.

*Mr. Weiser is an associate professor of law at Baruch College.*

## The U.S. Can No Longer Afford Deficit-Increasing Tax Cuts

By Jason Furman

During the debt-ceiling crisis of 2011-12, I frequently heard from business leaders about the need for a grand bargain to raise revenue and cut spending in the manner proposed by the Simpson-Bowles fiscal commission. The tax-reform proposal announced by the White House and Republican leaders last week would do the opposite, adding trillions of dollars to the debt. If the business community still believes in fiscal responsibility, now would be the time to speak up.

**Compared with 1981 and 2001, revenue is down and the debt is way up as a share of GDP.**

The tax-reform effort started on a different track. The House Republicans' 2016 "Better Way" plan called for revenue-neutral tax reform that would bring down rates while closing loopholes and broadening the base. Senate Majority Leader Mitch McConnell said tax reform "will have to be revenue-neutral" so as not to add to the debt. The Business Roundtable has also stated that tax reform should "be achieved in a revenue-neutral manner." Though the Trump administration has been inconsistent in its public pronouncements, the president's budget proposed an even more fiscally

responsible stance, calling for revenue-neutral tax reform under so-called static scoring with any additional revenue generated by growth used for deficit reduction instead of offsetting even more tax cuts.

The wide consensus on the need for revenue-neutral reform reflected a recognition that the 1981 and 2001 model of tax cuts makes no sense in today's fiscal environment. Tax revenue as a percentage of gross domestic product is lower today than it was when Presidents Reagan and George W. Bush cut taxes. Moreover, the ratio of debt held by the public to GDP is now 77% and rising—more than twice the level of 1981 or 2001.

After much fanfare, Republican leaders have announced the latest iteration of their tax-reform plan. Even being generous and assuming the plan will include offsets that have never explicitly been proposed or defended, the cost would exceed the \$1.5 trillion in proposed cuts Senate Republicans are considering. That would balloon the debt to 98% of GDP in 10 years. It is as if I sent my children off to perform chores in exchange for a candy bar, but instead they discussed doing chores for six months, did none of them, asked for \$1.50, and tried to use it to buy five \$1.50 candy bars.

Defenders of large unpaid-for tax cuts argue that we cannot bring our deficit down without higher growth. Growth has been too low for too long and raising it should be a top priority, but no serious analyst has ever claimed that tax cuts generate enough growth to

### A Growing Burden

Revenue and debt as a share of GDP at time of previous and proposed tax cuts

	1981	2001	2017
Revenue	19.1%	18.8%	17.3%
Debt	25.2%	31.4%	76.7%

Source: CBO THE WALL STREET JOURNAL

pay for themselves. Estimates by a wide range of economists and the nonpartisan scorekeepers at the Joint Committee on Taxation have found that the additional growth associated with well-designed tax reform may offset 20% to 30% of the gross cost of tax cuts—not counting dynamic feedback. It is simply illogical to claim that we will make progress on the deficit with a \$1.5 trillion tax cut even if the true cost of the tax cut after factoring in account growth is a mere \$1 trillion.

Moreover, the 20% to 30% offset

applies only to a well-designed tax reform. Reducing rates can help the economy, but sustained higher deficits hurt it. The net effects may be positive at first. Over time increased deficits will outweigh the benefits from rate reductions, resulting in lower growth and a smaller economy. The Penn-Wharton Budget Model, run by Kent Smetters, a respected economist who served in the George W. Bush administration, found that over two decades dynamic scoring would add to the cost of the Trump tax cuts.

In addition, Republicans are proposing to allow businesses to expense their investments—but only temporarily. The budget-reconciliation procedures will likely require the rest of the tax cuts to be temporary as well—hardly the reduction in uncertainty for which so many in the business community have been clamoring.

Another weak defense of deficit-increasing tax cuts is that Congress

can cut taxes by an additional \$450 billion without counting the cost because this would simply be replacing a set of temporary stimulus measures and low-priority tax breaks that it deliberately phased out just two years ago. Does anyone believe Congress will not come back and extend these tax cuts again even after crediting itself twice with the savings from ending them?

The economy needs a fiscal plan that combines an increase in revenues with entitlement reforms that protect the poor à la Simpson-Bowles. I do not expect such a plan anytime soon, but the business community could do us all a service by telling Congress not to make the problem worse.

*Mr. Furman, a professor of practice at the Harvard Kennedy School, was chairman of the White House Council of Economic Advisors, 2013-17.*

## Close Calls for Big-League Leaders

By Fay Vincent

In my time as the commissioner of Major League Baseball, I often recalled Franklin D. Roosevelt's support for the continuation of professional baseball games after the U.S. entered World War II. In the aftermath of the 1989 San Francisco earthquake, I decided not to cancel the World Series—played between the Oakland Athletics and the San Francisco Giants—because I thought the games would demonstrate the community's resiliency. Sports are often an escape from daily life, but they don't exist in a vacuum. The idea that American sports can avoid becoming enmeshed in major events and the hot-button issues of the day is a myth.

Sports have always had a political dimension, and politicians have long tried to use them for parochial purposes. Similarly, sports leaders realize there are times when athletic competitions must take a back seat to current events. Commissioner Bud Selig canceled Major League games for a week after 9/11. Pete Rozelle, the National Football League commissioner when President Kennedy was assassinated, did not cancel the games on the weekend after the killing. He regretted the decision for the rest of his life. The art of determining when to step back and when not to requires the

ability to predict the public's reaction. Not all sports commissioners have that political acumen: I was roundly criticized for my decision not to cancel the World Series.

The often ignored aspect of this interplay between sports and public issues is the reality that the sports commissioners work for the owners

**Sports have always had a political dimension, and commissioners often face difficult decisions.**

for life. Sports decision makers seldom sell a tough decision as well as Giamatti did.

How should executives and other officials deal with the recent spate of protests at NFL games? There is an ancient legal maxim that the person who defines the issue can command the decision, but the NFL situation already has become a raucous mess. It cries out for a balanced and measured statement of governing principles by people who can command respect. Perhaps former Secretaries of State Condoleezza Rice or James Baker.

In sports management, as in the political world, there is no skill more valuable than the ability to state what has to be decided. Even as private businessmen, professional sports commissioners must respond to public pressure and define what constitutes tolerable behavior on the part of the players. They must move quickly to explain that disrupting games or offending paying customers is out of bounds. After all, the ultimate authority is the customer, whose commercial support pays everyone's salaries.

Accommodation is possible when good leaders meet fuzzy protests with focused responses. Unfortunately, that hasn't happened yet.

*Mr. Vincent was commissioner of Major League Baseball, 1989-92.*

## THE WALL STREET JOURNAL.

PUBLISHED SINCE 1889 BY DOW JONES & COMPANY

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## LIFE & ARTS

TURNING POINTS | By Clare Ansberry

# When Did You First Feel Old?

It can hit us at any age; just feeling young at key moments helps us live longer and happier lives

### "I FEEL OLD."

Those three little words pop into just about everyone's head, often at random moments. Your back gives out after a workout. Walking by a store window, you catch a glimpse of yourself that looks like your dad. You're at a concert, can't wait for it to end and dreading traffic.

Even the young feel old. Matt McDermitt, who just turned 31, recently bought a coffee at Starbucks on the campus of Duquesne University in Pittsburgh where he works as a social media manager. The barista called him "Sir," which is what his mother taught him to call older people when he was little. It was around the time a student jokingly said Mr. McDermitt, who has a beard and shaved head, could pass as her dad and get a free guest meal pass.

He's not particularly fond of his birthday either, because each one distances himself further from the innocence of childhood. He still remembers his uncle telling him on his 10th birthday that it was the end of his single-digit years. "I was like 'What? What do you mean?'"

Usually, when someone says they feel old, it's not a good thing because the word "old" is applied widely and disparagingly. An old car means a wreck. An old dress means don't be seen in it. "There is almost no way of saying 'I feel old,' to mean 'I feel great,'" says Laura Carstensen, a Stanford University psychology professor and founding director of the Stanford Center on Longevity.

She says people come to feel old for two reasons, one physical and one social. On the physical side, the doctor prescribes heart medication for the first time. Hairlines recede. The social "you're old" cue often comes from others, either directly—the "You're too old to wear that" comment from a friend while shopping—or indirectly by comparing ourselves with others or our previous faster and leaner selves.



Feeling old matters, says Dr. Carstensen, 63. If you feel young, regardless of age, you tend to live longer than if you feel old, as in sick and tired. "Subjective age predicts how long you live," she says.

People don't mind feeling older when it's in the context of being more capable and competent, says Bill Thomas, an author and geriatrician.

He distinctly remembers the day horsing around with his youngest son, then about 15, and realizing his son was stronger than he was. "I was no longer the dad who was stronger," says Mr. Thomas, who describes himself as a big person who has always taken a lot of pride in his physical strength. "That time is gone from me and it's not coming back." He had to shift his ego center, away from physical strength, to emotional and intellectual strength.

"Feeling old isn't bad. But it is really complicated," he says.

Professional athletes and those who labor physically for a living might feel older before others. An NBA team with an average age of

The barista called him 'Sir,' which is what his mother taught him to call older people.

28 might be considered old. Women tend to feel old more often because they pay close attention to their bodies and notice sagging arms.

Carolyn Black Becker, a professor of Psychology at Trinity University in San Antonio, surveyed more than 900 women between

the ages of 18 and 87 and found that more than half of 18- to 29-year-olds worried about looking old. She blames, in part, the proliferation of antiaging products and procedures, which send the message that aging is bad.

Ms. Becker, an expert on eating disorders, launched her study after her Pilates instructor came up to her and said, "So, the fat talk is much better, but what do I do about the old talk?"

Ms. Becker celebrates age, and says she is 50, even though her 50th birthday isn't until January. Yet, she was taken aback a bit when she received a mailing saying she would soon be eligible for senior discounts. "I'm not dying to be 28 again, but even I found that it feels a little old to be a member of AARP."

While young people sometimes feel old, the older often feel young

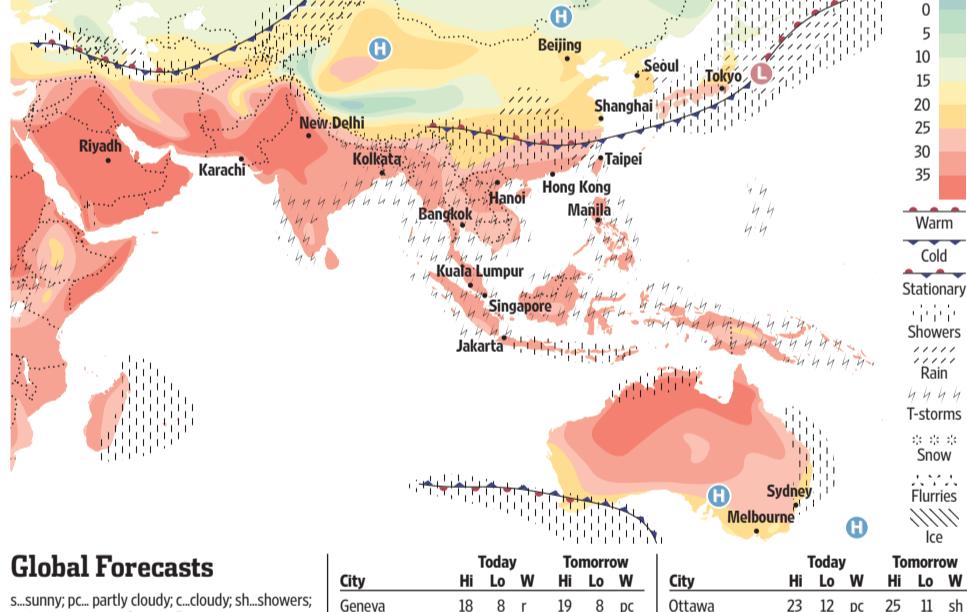
or at least not as old as they are. A 2009 Pew Research Center study found that 60% of adults 65 and older feel younger than their age, with the gap between actual age and "felt age" widening as people grow older. Nearly half of those ages 50 and older say they feel at least 10 years younger, while a third of those 65 to 74 feel 10 to 19 years younger.

Rev. Beatrice Lamonte, who turns 101 in October, continues to preach at the small church she founded. She traveled to Africa when she was 97 and recently passed her driver's test. This summer, she made her national TV debut on the 700 Club TV. She says people who spend their time talking about being old and sick feel old and sick, so she avoids it. "I haven't seen my doctor for about a year now, and the only reason I go to see him is because I like him and I have good insurance."

Age hit Jon Banuelos, a musician, when he was about 35 and moved from flat Texas to hilly Pittsburgh and went for a long bike ride. "I came home and passed out for like five hours. I thought, 'What is wrong with me?'" says Mr. Banuelos, now 40. A friend recently asked him to play tennis. "I can't, man. My knees are hurting," he recalls saying. But the birth of his son six months ago has made him feel young and determined to stay fit. "I need to be ready for when he's 2 and 3 and running around."

Awareness of age isn't necessarily a bad thing, says Ellen Langer, a Harvard psychologist and author. Appreciating that time isn't endless helps set priorities. People feel and act old because they are expected to once they reach a certain age, in part because of cultural markers, like senior discounts. If anyone over 50 is sore after gardening, they blame age, rather than spending 45 minutes in an awkward position, she says.

### Weather



### Global Forecasts

s...sunny; pc...partly cloudy; c...cloudy; sh...showers; t...storms; r...rain; sf...snow flurries; sn...snow; l...ice

City	Today			Tomorrow		
	Hi	Lo	W	Hi	Lo	W
Amsterdam	16	11	sh	15	12	c
Anchorage	13	7	r	12	9	r
Athens	23	16	s	25	17	s
Atlanta	26	16	s	26	16	s
Bahrain	36	21	s	36	19	s
Baltimore	24	11	s	25	13	s
Bangkok	29	24	t	29	24	t
Beijing	21	8	pc	22	8	pc
Berlin	15	8	pc	13	9	c
Bogota	19	10	sh	18	8	t
Boise	16	4	s	15	4	pc
Boston	19	12	s	24	17	pc
Brussels	16	8	pc	15	10	pc
Buenos Aires	21	11	pc	25	14	pc
Cairo	31	21	s	30	20	s
Calgary	6	-4	s	13	1	p
Caracas	32	25	pc	33	24	pc
Charlotte	25	12	s	26	14	s
Chicago	29	20	pc	24	14	r
Dallas	30	23	t	31	22	c
Denver	14	4	s	19	9	pc
Detroit	27	19	s	27	15	t
Dubai	38	29	s	38	29	s
Dublin	13	8	c	14	9	r
Edinburgh	13	9	c	13	7	r
Frankfurt	17	7	pc	15	9	pc

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



# BUSINESS & FINANCE

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THE WALL STREET JOURNAL.

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**Yen vs. Dollar** 112.5760 ▲ 0.07%

**Hang Seng** Closed (27554.30)

**Gold** 1274.00 ▼ 0.59%

**WTI crude** 50.22 ▼ 2.81%

**10-Year JGB** yield 0.071%

**10-Year Treasury** yield 2.331%

## Equifax Lawyer Draws Scrutiny

Board reviews actions of chief legal officer in connection with executives' share sales

By ANNAMARIA ANDRIOTIS  
AND EMILY GLAZER

The board of **Equifax** Inc. is reviewing the actions of the credit-reporting company's top lawyer in connection with share sales by executives there in the aftermath of a massive data breach, according to a person familiar with the matter, as it tries to size up who knew what, and when, about the hack and how it was handled.

John J. Kelley, Equifax's chief legal officer, had the ultimate responsibility for ap-

proving share sales by top executives days after the company discovered in late July that it had been hacked, according to people familiar with the matter. He also is central to broader questions facing the board because he is responsible for security at the company.

Both Equifax's security approach and the share sales are expected to be the subject of extensive questioning at three congressional hearings this week where the company's former chief executive, Richard Smith, is set to testify. Equifax announced last week that Mr. Smith would step aside as both chairman and chief executive. Before he resigned in what he called "the best interests of the company," Mr. Smith wrote that the

breach was the "most humbling moment" in the company's 118-year history.

Equifax's security practices have been a matter of intense interest since the company said hackers apparently breached its data via a publicly identified software vulnerability, which it said it has since patched. Analyses based on publicly available information of Equifax's security systems in the months before the hack by four cyber-risk-analysis companies found weaknesses, showing the company was behind in basic maintenance of websites and scored poorly in areas that would likely play a role in the data breach.

Equifax didn't respond to requests for comment. An Equifax spokeswoman previ-

ously said the company takes seriously its responsibility to protect the security of consumers' information.

"We have taken short-term remediation steps and continue to implement and accelerate long-term security improvements as part of ongoing actions to help prevent this type of incident from happening again," she said.

Mr. Kelley didn't respond to multiple requests for comment.

Mr. Kelley's position at Equifax differed from peers at rival credit-reporting companies in that he had broad responsibilities beyond legal services, according to people familiar with the industry.

He is one of the senior Equifax executives in charge of security. The company's former chief security officer, Su-

san Mauldin, reportedly to him, according to people familiar with the company. She, along with the company's chief information officer, retired a week after the hack was publicly disclosed in early September.

Mr. Kelley was involved in hiring Ms. Mauldin for her role and was her main contact among senior leadership, both for flagging potential issues and for capital requests, according to one of those people.

Equifax put the chief legal officer in charge of cybersecurity so that the chief security officer would report to an unbiased executive, someone

Please see HACK page B2

◆ Former CEO details Equifax troubles..... B2

## Rio Tinto Driverless Ore Train On Track

By ROBB M. STEWART

MELBOURNE, Australia—Driverless trains hauling iron ore across Australia's arid Pilbara region were meant to transform the mining industry, until the technology proved much trickier than companies expected. But a successful test run by **Rio Tinto** PLC suggests the automation strategy may finally have shifted up a gear.

On Monday, Rio Tinto said it had completed a pilot run spanning nearly 100 kilometers with trains operated by individuals in an air-conditioned control room hundreds of kilometers away. The milestone puts the company on track for a late-2018 commissioning of the so-called AutoHaul project, which has been dogged by software problems and repeated delays. Until now, Rio Tinto's trains have run about half of the distance across its Pilbara network in autonomous mode, albeit with drivers still on board to oversee operations.

Driverless mining vehicles promise greater efficiency for an industry that continues to target costs even as it pulls out of a tough few years following a slump in commodities prices. Rio Tinto and others have bet hundreds of millions of dollars on being able to control trains, drill rigs and massive trucks from remote offices. Rio Tinto said it has already seen the benefits from AutoHaul in increased train speeds and fewer stops that have cut more than an hour from average journey times.

"This successful pilot run puts us firmly on track to meet our goal of operating the world's first fully autonomous heavy-haul, long-distance rail network," said Chris Salisbury, chief executive of Rio Tinto's iron-ore division.

The Anglo-Australian company is one of the world's top exporters of iron ore. It runs about 200 locomotives around some 1,700 kilometers of track in the Pilbara, hauling ore from 16 mines to four port terminals.

In early 2012, shortly after agreeing to buy at least 150 driverless trucks from Komatsu Ltd. over several years, the company said it would spend US\$518 million converting trains to driverless locomotives that would be rolled out after two years. But testing since 2014 has been a drawn-out affair, and software problems early last year set the schedule back and led to a pared-down target for annual iron-ore production.

The autonomous test of the train was overseen from Perth, where Rio Tinto in 2010 opened an operations center that has become a control hub for a network of mines. Employees monitor trains remotely via satellite links. A fully autonomous rail network still needs to meet safety criteria and receive regulatory approval.

## Goldman Explores Trading Bitcoin

**Goldman Sachs Group** Inc. is weighing a new trading operation dedicated to bitcoin and other digital currencies, the first blue-chip Wall Street firm preparing to deal directly in this burgeoning yet controversial market, according to people familiar with the matter.

By Paul Vigna,  
Talis Demos  
and Liz Hoffman

Goldman's effort is in its early stages and may not proceed, the people said. The firm's interest, though, could boost bitcoin's standing among investors and fuel the debate around digital currencies, which were initially viewed as havens for illicit activity but are pushing further into the mainstream investment world.

China in recent weeks has banned exchanges that trade bitcoin, fearing the virtual currency could provide an avenue for capital flight. J.P. Morgan Chase & Co. Chief Executive James Dimon, whose bank is the largest dealer in global currencies, last month called bitcoin a "fraud" and said he would fire any employee who traded it.

Yet Japan's government has embraced bitcoin, creating regulations to legitimize its trading. India and Sweden have mused about creating their own virtual currencies, and the U.S. Federal Reserve has studied bitcoin and the technology underpinning it.

"In response to client interest in digital currencies, we are exploring how best to serve them in this space," a Goldman spokeswoman said.

Bitcoin is a digital currency that runs on a decentralized network of computers, rather than a centralized ledger under the control of a central bank or government. Users can exchange value directly, without a middleman such as a bank.

Big banks, including J.P. Morgan and Goldman, have dabbled in the technology behind bitcoin, known as blockchain, and opined on its potential to reshape industries. But they have been wary of venturing directly into a market whose early enthusiasts included anarchists and drug dealers.

As digital coins proliferate and draw interest from professional investors, though, they become harder for Wall Street trading desks to ignore.

Bitcoin's price has soared this year, from \$969 to more than \$5,000 last month before pulling back. Ethereum, a rival, traded as high as \$400 after ending 2016 at \$8. In all, nearly \$150 billion of digital currencies are in circulation.

Goldman seeks to serve a growing cadre of institutional investors wagering on bitcoin. Its effort could eventually entail a team of traders and salespeople making markets in bitcoins much as they do Japa-

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GERALD HERBERT/ASSOCIATED PRESS

U.S. property and casualty insurers and global reinsurers entered the hurricane season with a record \$1.3 trillion in claims-paying capacity.

## Natural Disasters Rack Up Big Bill

By NICOLE FRIEDMAN  
AND LESLIE SCISM

One of the most expensive years for natural disasters on record is expected to cause widespread losses for insurance firms in quarterly earnings and shrink their capital cushions.

The confluence of three major Atlantic hurricanes—Harvey, Irma and Maria—and two Mexican earthquakes in recent weeks could cost the global insurance industry more than \$100 billion, according to estimates. Of that natural-disaster damage bill, a large amount is expected to be borne by reinsurance companies, which provide insurance to insurers.

But in the long term, the string of natural disasters could help insurers on one front if the damage costs run that high. After years of falling prices, executives say reinsurance and commercial insurers could charge customers more the next time their prop-

erty policies come up for renewal.

"You can't suffer over \$100 billion of loss and not have an effect" on pricing, said Jean-Paul Conoscente, chief executive of reinsurance firm Scor U.S. Corp., a division of **Scor SE**, at an industry conference on Thursday. The reinsurance industry collects roughly \$150 billion in premiums a year, he said, and faces the prospect of losing that full amount.

The extent of damage is still unclear, especially in Puerto Rico, which was devastated by Hurricane Maria last month. Two of the island's largest insurers, **Universal Group** Inc. and **Mapfre** SA, said they are helping employees obtain such things as batteries, generators, and even food, while also handling incoming claims.

Millions of Puerto Ricans currently lack basic necessities including electricity and cellphone connectivity to file insurance claims.

Early estimates put Maria's

insured losses within a wide range, between \$15 billion and \$85 billion. Harvey, which hit Texas in August, is expected to cost at least \$10 billion for private-sector insurers, and Irma's destruction in Florida and the Caribbean is estimated to cost at least \$32 bil-

lion. The two Mexican earthquakes could cost more than \$1 billion each. These losses come after damage from hailstorms and tornadoes in the first half of the year.

U.S. property and casualty insurers and global reinsurers entered the 2017 hurricane season with a record \$1.3 trillion in claims-paying capacity.

Reinsurance firms have lowered property-catastrophe prices by about 50% in the past five years, according to **Morgan Stanley**. Pension funds and others have entered the industry, increasing the supply of available capital. At the same time, the lack of major natural disasters in the U.S. reduced property-insurance payouts.

Some Wall Street analysts have said that losses of \$100 billion or more would be needed to rid the industry of excess capital and stop reinsurance prices from falling further. After the hurricanes, it looks increasingly like that day has arrived.

The global insurance and reinsurance industry's worst year ever was 2011, when companies paid out \$137 billion in inflation-adjusted dollars following a tsunami in Japan, earthquakes in New Zealand, floods in Thailand and tornadoes in the U.S., according to

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## Twitter Bots Get New Focus

By GEORGIA WELLS  
AND ROBERT McMILLAN

The openness and anonymity of **Twitter** Inc. that rocked the short-messaging service to global fame are now landing it in trouble.

As Congress and others scrutinize Russia's alleged use of social media to influence the U.S. presidential election, one focal point is the prevalence on Twitter of bots, or automated accounts, that can be used to disseminate manipulative information.

Twitter doesn't require its users to provide identifying information, such as a name, mobile number or birthday,

when setting up accounts. And Twitter makes it easy for third-party software to interact with its platform, enabling bots. Researchers say malicious actors exploit that anonymity to create legions of bots and flood the platform with an identical hashtag, or retweet of a post, which can artificially boost the popularity of a topic.

In presentations on Thursday to congressional investigators probing alleged Russian meddling in the U.S. election, Twitter said that bots distributed misleading content about how to vote and attempted to influence the lists of trending topics to

make certain ideas appear more popular. Russia has denied meddling in the election.

Nearly all of the 201 accounts Twitter found that were linked to Russian actors recently identified by Facebook Inc. were bots, according to a person close to the matter. Facebook said the accounts ran ads on its platform meant to sow political and social division during the election.

But the problem of hidden influence on Twitter is much greater than what the company identified last week, academics say. Twenty percent of the messages viewed by Twitter users during the last

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**INSIDE**

**BRITISH AIRLINE MONARCH DECLares BANKRUPTCY**

BUSINESS, B2

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Flooding from Hurricane Harvey severely damaged Houston homes.

## INSURE

Continued from the prior page  
**Barclays.**

Even if this year's insured damage isn't enough to break a record, 2017 will go in the history books, industry executives said. The clustering of the events within about a month means that insurance adjusters can't always get

surance industry's \$605 billion in capital, according to **Aon Securities**.

If those investors face a large loss, they might pull out of the market or demand higher returns on new transactions, pushing prices up, analysts say. In addition, some of their money is tied up while claims are being handled, reducing the capital available for contract renewals in January.

"A lot of alternative capital providers are going to take big losses," said Larry Greenberg, analyst at **Janney Montgomery Scott LLC**. "How much pain they feel...will become a really big driver in what ultimately happens in the reinsurance space and even the primary space."

Demand for reinsurance could also rise as insurers try to limit their future losses.

"Everyone's going to take a look at, 'What if Irma was a [Category] 5 through Miami [instead of making landfall in western Florida]?' Would we have showed up the next day and turned the lights on?" said Kathleen Reardon, chief executive of reinsurer Hamilton Re, at Thursday's industry event. "Maybe it's a little scary, but everybody is thinking that."

where they are needed quickly, exacerbating the damage in some cases. And the extent of destruction in Puerto Rico surprised many insurers, executives said.

A significant insurance payout is expected to come from "alternative capital," or pension funds and other investors that have entered the reinsurance industry in recent years. This new capital represents about \$90 billion of the rein-

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"Everyone's going to take a look at, 'What if Irma was a [Category] 5 through Miami [instead of making landfall in western Florida]?' Would we have showed up the next day and turned the lights on?" said Kathleen Reardon, chief executive of reinsurer Hamilton Re, at Thursday's industry event. "Maybe it's a little scary, but everybody is thinking that."

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If those investors face a large loss, they might pull out of the market or demand higher returns on new transactions, pushing prices up, analysts say. In addition, some of their money is tied up while claims are being handled, reducing the capital available for contract renewals in January.

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## BUSINESS NEWS



Cher's is the second lawsuit filed by Altor BioScience shareholders making similar allegations against current and former executives.

# Cher Sues Over Stock Sale

Star claims biotech company concealed data that led her to sell at a cheap price

By JOSEPH WALKER

Pop star Cher alleges she was duped into selling her shares in a small biotechnology company to billionaire entrepreneur Patrick Soon-Shiong "at a fraction" of their real value, according to a civil complaint filed in Los Angeles Superior Court on Friday.

The complaint says Cher sold her stake in privately held Altor BioScience Corp. for \$1.50 a share, or \$450,000, to Dr. Soon-Shiong in January 2016. Her lawsuit targets Altor, Dr. Soon-Shiong, Hing C. Wong, Altor's former chief executive, and Fred Middleton, its former vice chairman, accusing them of conspiring to conceal promising clinical trial data of the company's drugs, in an effort to help Dr. Soon-Shiong take control of the Miramar, Fla.-based company for a cheap price.

"The lawsuit has no merit and we intend to vigorously defend against it," Mike Sitricker, a spokesman for Dr. Soon-Shiong, said in an email.

Mr. Wong denied that he or Altor concealed information from Cher or any other shareholders.

Cher's is the second lawsuit filed by Altor shareholders making similar allegations against Dr. Soon-Shiong and Messrs. Middleton and Wong. A June lawsuit filed by two Altor shareholders and former directors alleges that Dr. Soon-Shiong and Messrs. Middleton and Wong conspired to help Dr. Soon-Shiong acquire Altor at an "egregiously low ball" price. In court filings, the three men have denied the allegations.

Dr. Soon-Shiong was named Altor's chairman in April 2016, after his January 2016 purchase of stock from Cher and other minority shareholders, according to court records.

The June suit was filed by C. Boyden Gray, an ambassador to the European Union under President George W. Bush, and Adam Waldman, an attorney who has represented Cher in the past in an unrelated matter. Messrs. Gray and Waldman introduced Cher and other "high net worth investors" to Altor, according to an amended complaint filed by the men in July.

Cher's lawsuit says she "learned for the first time" of Altor's alleged misrepresentations through the earlier lawsuit. The same law firm—Manatt Phelps & Phillips LLP—is representing Cher and Messrs. Gray and Waldman in their respective suits against the defendants.

Cher's suit doesn't say how much she originally paid for her Altor shares, or whether she turned a profit on the sale to Dr. Soon-Shiong, a pharmaceutical entrepreneur and surgeon who by some estimates is the richest person in Los Angeles. Representatives for Cher declined to respond to a request for comment.

Mr. Middleton, Altor's former vice chairman, said in an email Sunday that he was "aware of nothing improper regarding Cher's decision to either purchase in 2013 or sell her shares in 2016 which represented a profitable transaction to her for what was a 2-3 times profit on her investment."

Mr. Middleton, who was also an early member of Genentech Inc.'s executive team in the 1980s, said he believed Cher's suit to be "instigated by Adam Waldman, an advisor to her, to provide [Waldman] and Boyden Gray more visibility in the press to bring pressure on a settlement of their own baseless lawsuit."

Mr. Waldman declined to comment on the allegation, citing a confidentiality agreement he previously agreed to with Altor. Mr. Gray declined to comment.

Cher's suit alleges that Altor "concealed and withheld from Cher key facts concerning clinical trial successes of Altor's compounds." Cher is

seeking to have the court retroactively cancel the transaction. Around the same time that Cher sold her stock in January 2016, Messrs. Gray and Waldman also sold shares to Dr. Soon-Shiong and resigned from the company's board of directors, according to court records.

But according to court filings, the men still owned about three million Altor shares combined in June of this year, when NantCell Inc., a privately held company controlled by Dr. Soon-Shiong, said it agreed to purchase Altor for \$2 a share, or a total value of about \$361 million, in cash and NantCell stock. The total deal value could rise to about \$1.1 billion if future regulatory and sales milestones are achieved, Altor has said in court filings.

In an interview Saturday, Altor co-founder Mr. Wong said Dr. Soon-Shiong contacted him in late 2015 about potentially investing in the company.

Mr. Wong said he suggested to Dr. Soon-Shiong that he buy out Messrs. Gray and Waldman, who he said were dissatisfied with Altor's progress.

After Altor proposed the idea to Messrs. Gray and Waldman, it was Mr. Waldman who suggested a purchase price of \$1.50 a share and that Cher sell her stock, Mr. Wong said.

# Shire Says Allergan Blocked Drug From Medicare Contracts

By JONATHAN D. ROCKOFF

Shire PLC filed an antitrust suit against Allergan PLC, alleging Allergan's contracts with Medicare Part D drug plans for its Restasis eye drops effectively blocked access to Shire's rival drug.

The complaint, filed Monday in federal court in Newark, N.J., says Shire offered steep discounts in bids to secure insurance coverage of the company's dry-eye drug Xiidra but the Part D plans refused, due to Allergan's "bundled discounts, exclusive dealing" and other tactics.

"There was not a level playing field for us to compete" in Part D, John Neely, Shire's head of U.S. pricing and market access, said in an interview. Some 13% of Part D patients have access to Xiidra on their drug formularies, compared with about 88% of commercially insured patients, a Shire spokeswoman says.

Allergan said there is "no merit" to the lawsuit. "In our negotiations with Medicare Part D sponsors, we are competing on value and price, and competition in the chronic dry-eye therapeutic market has driven pricing down for patients and payers in Medicare Part D and commercial plans," Allergan said.

Shire's lawsuit is the second in the past few weeks to take aim at the closely guarded contracts between drugmakers and health insurers and pharmacy-benefit managers that play an important but hidden role determining which drugs patients can get and will sell well.

Last month, Pfizer Inc. filed such a suit alleging Johnson & Johnson used "exclusionary contracts" to shield its arthritis drug Remicade from Pfizer's biosimilar. J&J has said the lawsuit lacked merit and the biosimilar competition was already driving down costs.

The lawsuits reflect just how influential the contracts between drug companies and drug-benefit managers have become in the commercial success of prescription medicines

at a time when health plans are trying to control costs.

In the name of limiting spending, drug-benefit managers have been securing steep discounts with one drug company in exchange for restricting access to another company's product. The recent lawsuits are exploring the legality of these increasingly common contracts.

Shire's suit centers on Restasis, Allergan's second-biggest selling drug, after Botox, with \$1.4 billion in U.S. sales last year.

The drops treat patients, many of them elderly, whose eyes don't produce tears properly and can result in irritation, blurred vision and other symptoms.

Dry-eye disease is a big market, with about a million patients in the U.S. receiving a prescription, according to Shire's lawsuit.

**Suit alleges Shire's eye drops were unable to compete effectively in Part D plans.**

Restasis has dominated the market for dry-eye treatment since its approval in 2002. For years, it was the only Food and Drug Administration-approved treatment.

Now Restasis is under threat on multiple fronts. Generic-drug makers have lawsuits in federal court to invalidate Allergan's patents so they can sell lower-priced copies. In early September, Allergan sold its Restasis patents to an Indian tribe in a legal maneuver designed to avoid challenges filed at the U.S. Patent and Trademark Office.

In August 2016, Shire began selling its own brand-name drug, called Xiidra. Shire thought it had a competitive advantage because Xiidra was approved for all dry-eye patients, while Restasis was greenlighted for only a subset, according to the lawsuit.

# U.S. Hotel Industry Battles With Airbnb

By CHRIS KIRKHAM

Airbnb Inc. and the hotel industry have waged a shadow war in cities and states across the U.S. that are grappling with how to regulate the popular short-term rental market.

The stakes are high: Closely held Airbnb has a \$31 billion valuation, according to people familiar with the matter, and has more than doubled its world-wide listings over the past two years.

The hotel industry stands to lose market share as Airbnb continues to expand. A Morgan Stanley report last year found that nearly half of Airbnb users surveyed said they had substituted Airbnb for a traditional hotel during their travels in the past year.

While many top hotel executives have sought to play down the threat posed by Airbnb, the industry's lobbying group has sharpened its attack and developed publicity campaigns with affordable housing advocates and other neighborhood groups to sway policy makers. Meanwhile, Airbnb has organized residents who use the platform to show up at local hearings, where they stress how it provides them crucial supplemental income.

"As far as the resources going toward this issue, I've never seen anything quite like this," said Los Angeles City Councilman Marqueece Harris-Dawson.

Los Angeles is the latest battleground, with its city council expected to begin crafting regulations this fall that could limit the number of days Airbnb hosts can rent out their homes. Mr. Harris-Dawson said he has been impressed with how Airbnb has organized hosts, who he said approach him regularly at

neighborhood events to discuss short-term rental rules.

AirbnbWatch is an example of a hotel industry-funded effort that doesn't look like one. Internal board meeting documents from the American Hotel & Lodging Association last year say the trade group "stood up" AirbnbWatch as a way of "gathering stories of short-term rental's harms" and "highlighting Airbnb's lack of transparency."

Another AHLA document from August, reviewed by The Wall Street Journal, outlines a communications strategy for the next year intended to create partnerships with "groups, think tanks and other credible voices to weigh in on this issue."

On its website, AirbnbWatch advertises itself as a project of American Family Voices, a communications firm that wants to "fill gaps in the progressive movement."

Mike Lux, a former Clinton administration staffer who is president of the group, said he has often opposed the hotel industry on wage and workplace issues, but "on this particular issue, they obviously are in alignment."

"That's what you do in politics," he said.

Troy Flanagan, vice president of state and local government affairs for the American Hotel & Lodging Association, said its relationships with local advocates are "partnerships in a coalition setting," while Airbnb's approach is to flood city and state government with professional lobbyists.

Airbnb, meanwhile, is helping fund the Checks and Balances Project, a "public watchdog blog" that has gone after the hotel industry, particularly when it funds research about short-term rentals.

## BUSINESS WATCH

BACARDI

### Liquor Maker Names Successor to Its CEO

Bacardi Ltd. has accelerated its succession plans, naming the successor for Chief Executive Michael Dolan to the role six months earlier than previously announced.

Mahesh Madhavan, a 20-year employee who has held multiple leadership positions, has been named CEO effective immediately, the company said Monday.

The Bermuda-based maker of Bacardi rum and Grey Goose vodka said in March that Mr. Dolan would serve as CEO until April and serve on the board until he retires after the company's annual meeting in 2019.

The company didn't disclose a reason for pushing up its succession plans.

Mr. Dolan had served as CEO of the world's largest privately held spirits company since 2014.

Mr. Madhavan has had oversight of operations in Europe, Asia, the Middle East and Africa.

Mr. Madhavan also announced two leadership appointments. John Burke will serve as



Bacardi has tried to diversify amid reduced demand for rum, vodka.

global chief marketing officer and president of Bacardi Global Brands and Ignacio del Valle will serve as the company's regional president of Latin America and the Caribbean.

Messrs. Burke and del Valle have each worked at Bacardi for more than 20 years and will report directly to Mr. Madhavan.

Bacardi has been attempting to diversify as consumers, who have lost interest in rum and vodka, spend more on aged bourbons and whiskeys.

—Cara Lombardo

DENTSPPLY SIRONA

### Senior Leaders Quit Dental-Products Firm

The chief executive, chief operating officer and executive chairman of Dentsply Sirona Inc.—one of the largest manufacturers of dental products and equipment—have all resigned, the company said Monday.

While the company didn't give reasons for the resignations, newly elected Chairman Erik Brandt said new leadership

is "critical" for the company's future success.

The leadership changes come less than two months after the company disclosed it was cooperating with a U.S. Securities and Exchange Commission probe regarding its accounting and disclosures relating to transactions with a distributor.

The three men who resigned—CEO Jeffrey Slovin, President and Chief Operating Officer Christopher Clark and Executive Chairman Bret Wise—didn't immediately respond to requests for comment. The company said the resignations "weren't related to any issues or disagreements regarding the company's financial disclosures, accounting policies or practices."

The board appointed Mark Thierer as interim CEO and Bob Size as interim president and operating chief. Mr. Thierer was most recently CEO of pharmacy benefit manager OptumRx Inc. Mr. Size had been a senior vice president at Dentsply Sirona.

Dentsply Sirona, based in York, Pa., said it is searching for permanent successors for the executive positions.

—Cara Lombardo

## TECHNOLOGY

WSJ.com/Tech

# Facebook Adds Reviewers

BY GEORGIA WELLS

**Facebook** Inc., on the defensive as it hands over data on Russian-backed ads on its platform, said it plans to add 1,000 new workers to review ads, even though it will count mostly on users to flag questionable ads.

On Monday, Facebook, elaborating on broad new guidelines revealed by Chief Executive Mark Zuckerberg last month, said the new ad reviewers will be tasked with helping to make sure advertising on the platform complies with its policies. Facebook declined to say how many ad reviewers it currently employs. The 1,000 new reviewers will be added in the next year.

The announcement came the same day Facebook was due to give congressional investigators information on more than 3,000 ads paid for by Russian

entities. Facebook said the buyers of the ads—470 different accounts linked to a Russian organization called the Internet Research Agency—violated the social network's policies by misrepresenting their identities.

The new reviewers are also part of a second announcement last month that Facebook will add more human reviews of ads after a report showed that people could target ads at users who expressed an interest in anti-Semitic and other hateful topics.

However, Facebook said it would continue to rely on its users to flag inappropriate ads, using a new tool that will let users see all the ads an organization or company paid for. That puts the burden for sifting through and judging an enormous quantity of information on users who have been misled on the platform in the

past. For instance, the Russian-backed ads were about sensitive social and political issues, Facebook said, and attempted to sow discord.

The measures show how Facebook is struggling to understand how its platform of more than 2 billion monthly users is being manipulated. Last month, the company disclosed that Russian-backed entities spent \$150,000 on the platform during the U.S. presidential election, two months after saying it found no evidence of such activity. After being called to meet with congressional investigators probing alleged Russian tampering in the election, Facebook committed last month to protecting election integrity.

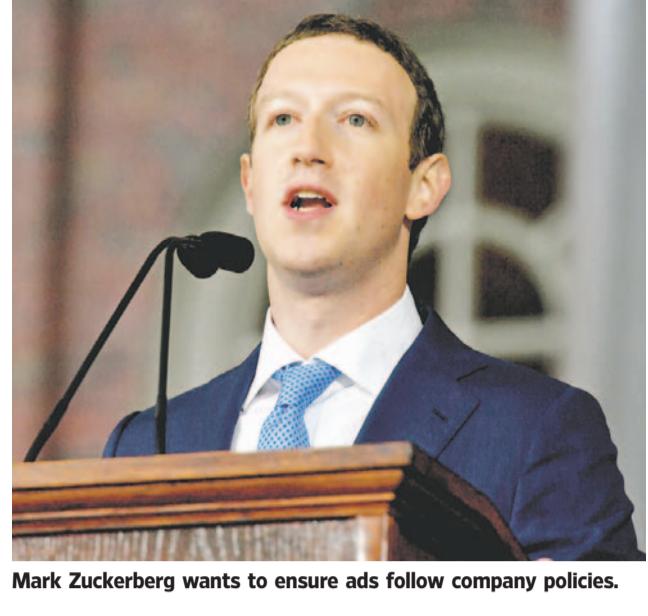
Russia has denied U.S. intelligence agencies' reports that it interfered in the election.

Facebook's playbook of responding to a crisis by adding

more human reviewers is now a familiar one. For instance, Facebook in May said it would add 3,000 more content reviewers after a rash of violent videos on its site. Last month, Facebook said it would add 250 employees to its team working on election integrity.

It is also fine-tuning its automated ad review. Facebook said it would direct its software to take into account the intended audience for an ad and the context in which it was bought.

In the future, Facebook will require more thorough documentation from advertisers who want to run election-related ads, to confirm they represent the business or organization they claim. However, it is uncertain that Facebook's new transparency requirements would have prevented the Russian-backed ads currently under scrutiny because



Mark Zuckerberg wants to ensure ads follow company policies.

ads on social issues wouldn't qualify as election-related, according to a Facebook spokesman.

Mr. Zuckerberg has expressed regret several times recently for how Facebook was used during the election. In a

post on Saturday marking the end of the Jewish holiday Yom Kippur, Mr. Zuckerberg said, "For the ways my work was used to divide people rather than bring us together, I ask forgiveness and I will work to do better."

# Oracle Aims at Amazon's Cloud Division

Larry Ellison touts new database as cheaper in effort to challenge rival's lead

BY JAY GREENE

**SAN FRANCISCO**—Oracle Corp. often frames its product strategy around the biggest competitive threat it faces, and currently that rival is **Amazon.com** Inc.

On Sunday night, Oracle co-founder Larry Ellison took aim at Amazon's cloud-computing division, touting his company's newest database technology that he claimed his rival can't match.

At Oracle OpenWorld—the company's annual conference for developers, partners and customers in San Francisco—Mr. Ellison ran through several demonstrations of Oracle Database 18c, saying customers would pay several times more using Amazon's technology.

"Why would anyone do that?" said Mr. Ellison, the executive chairman and chief technology officer of the Redwood City, Calif., company.

The reason Oracle's database costs less, Mr. Ellison said, is that 18c autonomously provisions only the computing resources as customers need them. When the new database technology is rolled out in December, Oracle will guarantee its bill will be less than half what Amazon would charge customers for a similar service.

Amazon disputed Mr. Ellison's claims, saying its customers can scale its database offerings to their specific needs.

"This sounds like Larry be-



Co-founder Larry Ellison called Oracle's new database technology 'the most important thing we have done in a long, long time.'

ing Larry. No facts, wild claims, and lots of bluster," an Amazon Web Services spokeswoman said.

The online retailer has upended the business software industry over the past decade with its pioneering cloud-computing offering, Amazon Web Services.

The technology challenges legacy software vendors such as Oracle by offering customers the ability to run their computing operations in Amazon's data centers instead of spending money on servers and software.

With 18c, Oracle said it

would guarantee nearly 100% reliability and availability, or less than 30 minutes a year of downtime.

"This is the most important thing we have done in a long, long time," Mr. Ellison said.

The database is at the core of a new cybersecurity product Oracle will announce Tuesday, Mr. Ellison said. Using machine learning, the service built on the new database will automatically detect threats and immediately patch itself.

"We do everything we possibly can to avoid human intervention," Mr. Ellison said.

"It's our computers versus their computers in cyberwarfare."

This isn't the first time Mr. Ellison targeted Amazon. At last year's OpenWorld conference, Mr. Ellison said "Amazon's lead is over" in the so-called infrastructure as a service market, in which tech companies provide web-based, on-demand computer power and storage for customers. At the time, Oracle introduced a new version of its cloud infrastructure service.

And yet, a year after proclaiming Amazon's dominance over, it isn't.

Amazon expanded its world-wide lead in infrastructure as a service business, holding 44.2% share of the market in 2016, up from 39.8% in 2015, market research firm Gartner Inc. said.

Its nearest rival, Microsoft Corp., held a 7.1% share, up from 5.8% in 2015.

Oracle barely registers, garnering 0.3% share in 2016, up from 0.1% in 2015, Gartner analyst Sid Nag said. The company updated its technology last year, but Mr. Nag said, "It hasn't seen the market traction compared to the other market leaders."

*The exit comes after London regulators stripped Uber of its operating license.*

cerns about how Uber reported serious crimes and conducted driver background checks.

Uber has said it complies with all laws about reporting crime and conducts the same background checks as London's licensed black cabs. It is appealing the ruling in court and will continue to operate in London while it does so.

Ms. Bertram, a former consultant who joined Uber four years ago, said in her email that over the year she been reflecting on "what might come next for me" and discussed the matter with her boss, Pierre-Dimitri Gore-Coty, Uber's head of Europe, Middle East and Africa.

"I would have liked to have announced my move in smoother circumstances," she said.

As well as the legal appeal, the company is trying to persuade Transport for London to reverse its decision. Uber Chief Executive Dara Khosrowshahi plans to meet Tuesday with the agency's chief to see what can be done. Mr. Khosrowshahi has also been making a public case that Uber—which has fought battles with regulators world-wide and been embroiled in scandals over its treatment of employees, drivers and rival firms—is changing its ways.

Following Ms. Bertram's departure, Uber's London chief, Tom Elvidge, will be the acting U.K. general manager. Niek Van Leeuwen, Uber's general manager for the Nordics, Baltics and Benelux, who reported to Ms. Bertram, will now answer directly to Mr. Gore-Coty.

# Google Offers a Hand to News Publishers

BY JACK NICAS

Google is rolling out a package of new policies and services to help news publishers increase subscriptions, a move likely to warm its icy relationship with some of the biggest critics of its power over the internet.

Google said it will end this week its decade-old "first click free" policy that required news websites to give readers free access to articles from Google's search results. The policy upset publishers that require subscriptions, believing it undercut their efforts to get readers to pay for news.

Google, a unit of **Alphabet** Inc., said it also plans tools to help increase subscriptions, including enabling users to log in with their Google passwords to simplify the subscription process and sharing user data with news organizations to better target potential subscribers.

With billions of people using its search, YouTube and other web properties, Google has an outsize influence on a wealth of industries and modern society. The Wall Street Journal reported Friday that the company is investigating whether Russian-linked entities used its ads or services to sway opinion ahead of last year's U.S. presidential election, following similar moves by Facebook



Google is ending the decades-old 'first click free' policy that had been controversial with publishers.

Inc. and Twitter Inc.

The new publisher rules are good news for the print industry, which has largely struggled to convert its business model to the internet as print advertising sales have plummeted in the digital age.

Google and Facebook dominate the internet ad industry, and news organizations are increasingly reliant on those two tech giants for web traffic. Google says it drives 10 billion clicks a month to publishers' sites.

Some newspapers even

asked Congress this year to exempt them from antitrust laws so they could negotiate collectively with the tech giants.

Those challenges have caused years of budget cuts and staff reductions at news organizations, which Google says led it to act.

"We really recognize the transition to digital for publishers hasn't been easy," Google Chief Business Officer Philipp Schindler said in an interview. He said a strong news industry boosts the utility of

Google search and helps Google's ad business, which sells ads on news sites. "The economics are pretty clear: If publishers aren't successful, we can't be successful."

News publishers, some of whom called for such changes for years, greeted the moves with cautious optimism. "The felicitous demise of First Click Free (Second Click Fatal) is an important first step in recognizing the value of legitimate journalism," News Corp Chief Executive Robert Thomson said in a statement. "We will

monitor this change closely to ensure that consumers can indeed find the work of our journalists online, and will report what we learn, for better or for worse."

News Corp owns The Wall Street Journal, which this year disabled free access to its stories from Google search. As a result, Journal stories were demoted in Google's search rankings, reducing traffic from Google search by 38% and from Google News by 89% in August compared with a year earlier.

Google said articles were demoted because its search engine didn't index stories its users couldn't access free. Google said it is now ending that policy. The company said it will still encourage publishers to offer free samples, but the decision won't affect their search rankings. Google labels articles that require subscriptions in Google News.

Google is exploring other changes to boost subscriptions, including enabling publishers to tap Google user data to more directly target users who are likely to subscribe.

Google is also considering changes to surface more articles from publications subscribed to by users.

Google said it aims to simplify the subscription process by enabling users to use login information and credit-card numbers already entered into their Google profiles.

## FINANCE & MARKETS

THE INTELLIGENT INVESTOR | By Jason Zweig

# Are You Ready If Stock Market Crashes Again?



With U.S. stocks hitting highs last week and the calendar just about to flip to October, think 30 years back with me to Friday, Oct. 16, 1987.

The stock market is up more than 30% for the year. But traders are jittery: Interest rates are rising, tax rates are in flux and the U.S. is bickering with international trade partners and skirmishing with Iran.

James O'Shaughnessy, a young investor in St. Paul, Minn., has made a "five-figure" bet on stock-index put options, a way of profiting from a sharp fall in price on a basket of big U.S. stocks. Plugging his phone into a modem that dials up a stock-quotation service, he becomes more nervous as the day goes on and the Dow Jones Industrial Average falls a record 108.35 points on unprecedented volume of nearly 339 million shares.

The selling is "completely overdone," he thinks: Stocks are bound to bounce back big on Monday "and then I'll get killed" for hanging on to the bearish bet. "A feeling of panic washed over my entire body," Mr. O'Shaughnessy says. "I've just got to get out." He calls his broker a half-hour before the market

closes and sells it all.

That weekend, Mr. O'Shaughnessy feels "greatly relieved," as if "I had just dodged being hit by a bullet." All the negative talk among investors has convinced him that stocks will have a "relief rally" on Monday; by selling his puts, he has surely averted a huge loss.

Then comes Monday. In New York, the Dow drops 208 points in the first 90 minutes, triggering a wave of selling by institutional investors using a technique called portfolio insurance to minimize losses. Futures traders in Chicago, who would normally buy, step back, expecting a further fall.

By day's end, the Dow has fallen 23%, "the worst day in Wall Street history," as journalist Diana Henriques calls Oct. 19, 1987, in her excellent new book, "A First-Class Catastrophe." An equivalent drop in 2017 would knock more than 5,000 points off the Dow in a day.

You can't survive a market crash if you think it can't happen. And something like Oct. 19, 1987, will happen again. In fact, it already has: On May 6, 2010, many stocks dropped 60% or more in a flash, although they bounced right back. On Aug. 24, 2015, the Dow fell more than 1,000 points, or 7%, in six minutes,

before closing down nearly 4% for the day. Between the market's peak in October 2007 and its bottom on March 9, 2009, the S&P 500 fell 55%, even after counting reinvested dividends.

Ms. Henriques's book, and the story Mr. O'Shaughnessy told me, are a reminder that "human nature can't be repealed," as she says. "Historical amnesia leaves us doomed to repeat our past disasters, and the only antidote is to remember accurately what happened."

Take it from Mr.



CHRISTOPHE VOLET

O'Shaughnessy, who today manages nearly \$6 billion at **O'Shaughnessy Asset Management** LLC in Stamford, Conn. Even though he based it on factors he no longer believes in, his original analysis was absolutely right: The stock market was overvalued. Between September 1986 and the end of August 1987, stocks had gone from trading at 16 times earnings to a price/earnings ratio of 21.4, a 33% rise that put the market's P/E at its highest level since the end of 1961.

His emotional reaction,

however, was dead wrong. Had Mr. O'Shaughnessy held his ground for one more day, he would have made roughly 10 times his money, he recalls.

Ms. Henriques attributes the crash of 1987 to ineffectual regulation and breakdowns in the complex mechanics of trading. But no one knows for sure what caused it or the far more devastating crash of 1929 either, says financial historian and retired **Goldman Sachs Group** Inc. partner Barrie Wigmore.

History does offer a few clear lessons.

Stocks have been overvalued, by long-term standards, for most of the past three decades. So, on average, you were more likely to have missed consistent gains than to have dodged a crash if you got out of the market entirely.

Investors today who hold large positions in the hottest stocks of the past few years—the so-called FANGs, or **Facebook** Inc., **Ama-zon.com** Inc., **Netflix** Inc. and the parent company of Google—should consider trimming their positions, however. In 1987, as in 1929, the stocks that had previously gone up the most tended to fall the furthest.

Above all, says Staley Cates, vice chairman of

**Southeastern Asset Management** Inc. in Memphis, Tenn., "don't be afraid to hold cash."

On Oct. 19, 1987, he and his young colleagues clustered around a Quotron machine putting in buy orders as they watched the market crash, "and the ultimate comfort we had that day was holding 25% to 30% of our portfolios in cash."

Without it, "we couldn't have bought stocks," he says. Having the cash to buy when others are selling is the surest source of courage in a crash.

## Chinese-Led Bid for Chicago Exchange Has a Rival

If political opposition sinks the efforts of a Chinese-led group to buy the Chicago Stock Exchange, one suitor who has stirred up some of the controversy is looking to swoop in.

By Dave Michaels,  
Kate O'Keeffe  
and Alexander  
Osipovich

A firm called **Exchange Capital** LLC, which has lobbied the U.S. Congress for months to put pressure on regulators to block the deal, is interested in buying the Chicago bourse if the bid led by China's **Chongqing Casin Enterprise Group** Co. falls through, according to lobbyists and others familiar with the matter.

Exchange Capital has since last year paid \$170,000 to **Sconset Strategies** LLC, a Washington firm run by Adam Olsen, who would be among the investors in a bid by his client to buy the Chicago market, a person familiar with the matter said. Mr. Olsen first called Chicago exchange executives with a competing bid in De-

cember and mentioned that congressional opposition would likely sink Casin's offer, people familiar with the matter said.

"I and Sconset Strategies represent a very substantial group of American investors who are interested in potentially purchasing the Chicago Stock Exchange," Mr. Olsen said in a Friday interview. "We have been actively highlighting the flaws of the Casin Group's bid."

Exchange Capital's Colorado incorporation records don't reveal its shareholders. The company's bid, should it proceed, would include around a dozen investors, according to Chas Thomas, a lobbyist at Thorn Run Partners, which shares an office with Mr. Olsen in Washington and is also now lobbying alongside him. The bid would be "all American money," he said.

The Securities and Exchange Commission's review of Casin's proposal to buy the Chicago exchange has dragged on for more than nine months. SEC Chairman Jay Clayton, whose agency must approve the sale,

put the agency's endorsement on hold in August after the White House cautioned against it, The Wall Street Journal reported Thursday. The SEC's three commissioners now must vote to approve or deny the transaction.

The Chicago exchange handles a sliver of U.S. equities trading, but its license to operate is valuable. Getting authority to launch a new exchange is a drawn-out process, making it

attractive to buy an existing license when one goes on sale.

Chicago executives say Casin and its co-investors have satisfied the regulatory requirements to buy the exchange, but are still having to rebuff what they said are misleading allegations stirred up by the lobbying effort against them. "This costs us and our investors money in opportunity costs, legal costs and banker costs," said John Kerin, the



A bid for the Chicago Stock Exchange has hit political opposition.

chief executive officer of **CHX Holdings** Inc., the exchange's parent. "It's quite unfortunate that this is how business is now done."

Mr. Olsen, who keeps an office in the Trump Building at 40 Wall Street in Manhattan, had previously registered to lobby on Casin's bid on behalf of New York Global Group, according to Senate lobbying records. New York Global's founder, Benjamin Wey, was arrested in 2015 and charged with manipulating shares of Chinese companies he helped take public through reverse mergers, a maneuver in which a firm buys a publicly traded shell company to get its spot on an exchange. Federal prosecutors in August dropped a fraud case against Mr. Wey, who had pleaded not guilty, while the SEC dropped a related civil lawsuit in September.

A lawyer for Mr. Wey didn't immediately comment.

Mr. Thomas said he began lobbying against the deal with Mr. Olsen in recent weeks. He previously worked for Rep.

Robert Pittenger (R., N.C.), who has led the charge on Capitol Hill against Casin's purchase of the Chicago bourse.

Mr. Pittenger began his campaign against the Chinese bid for the exchange in February 2016, when he cited national-security concerns in a letter to regulators that was signed by 45 other House lawmakers.

An aide for Mr. Pittenger said Mr. Thomas offered to help gather support from senators for the lawmaker's most recent letter criticizing the sale, which was sent to the SEC last week but begun before Mr. Thomas began lobbying on the issue. Mr. Olsen said the lobbyists also communicated with senators who asked critical questions about Casin's proposal when Mr. Clayton, the SEC's chairman, appeared before the Senate Banking Committee last week.

"It is highly unethical that someone would use concerns about national security and investor protection when really the motivation is personal gain," Mr. Kerin said of Mr. Olsen's lobbying effort.

## BITCOIN

Continued from page B1

ne yen or Apple Inc. shares.

Keeping abreast of the day-to-day cryptocurrency market could also position Goldman to capitalize on further development of this market. Digital-currency proponents envision a world where coins will be widely accepted by online retailers and companies will use the tokens for cross-border commerce.

Already, cryptocurrencies are infringing on some traditional banking activities. Some startup companies that historically might have hired banks to take them public are bypassing Wall Street by selling digital tokens, rather than shares, to the public. Such "initial coin offerings" raised \$1.3 billion over the past three months without paying fees to underwriting banks.

Goldman's effort involves both its currency-trading division and the bank's strategic investment group, the people said. That suggests the firm believes bitcoin's future is more as a payment method rather than a store of value, like gold.

Launched in 2009, bitcoin grew as a communal software project championed by cypherpunks, who embraced its technological promise, and libertarians, who cheered its independence from government influence. In recent years, more sophisticated exchanges have cropped up to host trading, attracting professional investors.

Some 70 hedge funds now invest in cryptocurrencies, according to Autonomous NEXT.

Exchange-traded funds meant to track digital currencies have so far faced pushback from regulators, but they could one day give a wider base of investors a way to indirectly own bitcoin and create new opportunities for savvy traders.

Such interest from institutional investors has propelled the bitcoin market to a size that merits banks' attention. About \$750 million of bitcoin trades on exchanges every day, on par with the daily trading volume of shares of Caterpillar Inc., the equipment maker.

As digital coins lure professional investors, they are harder for Wall Street to ignore.

Already, a handful of non-bank finance firms, such as **DRW Holdings** LLC's Cumberland Mining and **Genesis Global Trading** Inc., broker bitcoin trades for institutional investors that want to buy or sell larger amounts than exchanges could handle.

That is a role that banks could easily step into. Wall Street firms also offer leverage to juice trading returns, and hold assets on clients' behalf. So far, though, none of the big banks has dealt directly in bitcoin.

For starters, bitcoin is

highly volatile. After doubling in price between July and early September, bitcoin lost 35% of its value in two weeks. That exposes dealers to the risk of big, quick losses.

But it also offers an opportunity for quick-footed traders to profit by anticipating price moves and facilitating panicked trading. Volatility has been sorely missing lately in traditional markets, leading to a slump in banks' trading revenues.

Goldman, once known as the nimblest trader on Wall Street, has struggled more than peers. Revenue in its fixed-income division fell 21% from last year through June, dragged down by poor performance in commodities and currencies.

Already, some of the infrastructure for trading bitcoin is cropping up. The Commodity Futures Trading Commission this summer approved the first derivatives exchange for cryptocurrencies. LedgerX, founded by two former Goldman traders, will clear options and futures that would allow dealers to protect themselves from drastic price swings and lock in profits.

Many prominent financiers, including Mr. Dimon, believe central banks such as the Federal Reserve will move to shut down digital currencies before they go mainstream enough to rival government-backed notes.

Morgan Stanley Chief Executive James Gorman recently took a nuanced view. He said bitcoin is "obviously highly speculative, but it's not inherently bad."

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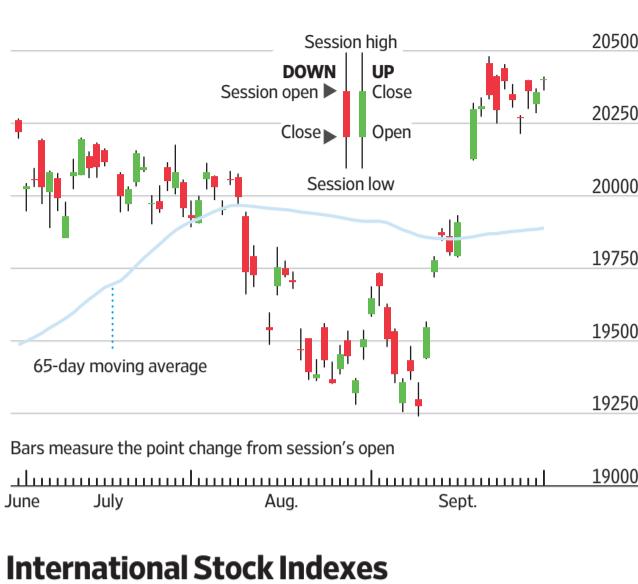
For starters, bitcoin

## MARKETS DIGEST

### Nikkei 225 Index

**20400.78** ▲ 44.50, or 0.22%

High, low, open and close for each trading day of the past three months.



Bars measure the point change from session's open

June July Aug. Sept.

### STOXX 600 Index

**390.13** ▲ 1.97, or 0.51%

High, low, open and close for each trading day of the past three months.

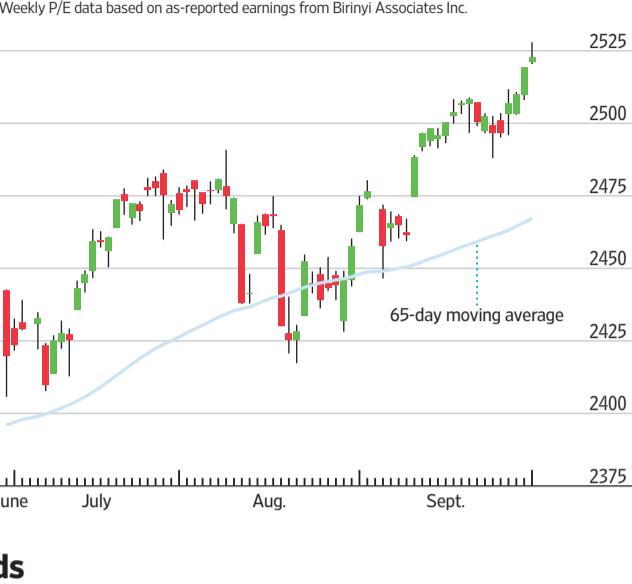


June July Aug. Sept.

### S&P 500 Index

**2522.61** ▲ 3.25, or 0.13%

High, low, open and close for each trading day of the past three months.



June July Aug. Sept.

Data as of 12 p.m. New York time

Last

Year ago

Trailing P/E ratio

24.22

24.45

P/E estimate \*

19.19

18.52

Dividend yield

1.98

2.13

All-time high:

2519.36, 09/29/17

Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.

### International Stock Indexes

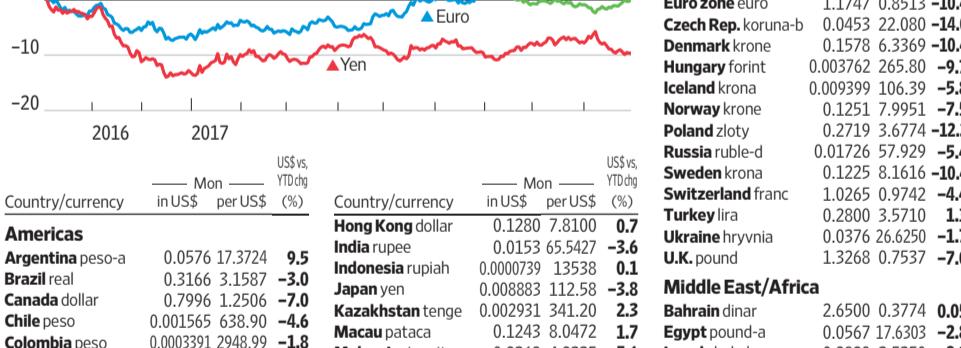
Data as of 12 p.m. New York time

Region/Country	Index	Close	Net Chg	% chg	52-Week Range	Low	Close	High	YTD % chg
<b>World</b>	<b>The Global Dow</b>	<b>2908.87</b>	1.20	<span style="color: green;">▲ 0.04</span>	2386.93	2910.53	2910.53	2915.53	15.1
	<b>MSCI EAFE</b>	<b>1971.62</b>	-2.19	<span style="color: red;">-0.11</span>	1614.17	1981.49	1981.49	1984.49	14.9
	<b>MSCI EM USD</b>	<b>1081.79</b>	0.07	<span style="color: green;">▲ 0.01</span>	838.96	1112.92	1112.92	1115.92	36.2
<b>Americas</b>	<b>DJ Americas</b>	<b>609.11</b>	0.87	<span style="color: green;">▲ 0.14</span>	503.44	610.36	610.36	612.36	12.7
Brazil	<b>Sao Paulo Bovespa</b>	<b>74047.01</b>	-246.49	<span style="color: red;">-0.33</span>	56828.56	76419.58	76419.58	76719.58	22.9
Canada	<b>S&amp;P/TSX Comp</b>	<b>15682.88</b>	47.94	<span style="color: green;">▲ 0.31</span>	14468.03	15943.09	15943.09	15973.09	2.6
Mexico	<b>IPC All-Share</b>	<b>50381.13</b>	35.07	<span style="color: green;">▲ 0.07</span>	43998.98	51772.37	51772.37	51772.37	10.4
Chile	<b>Santiago IPSA</b>	<b>4066.30</b>	11.11	<span style="color: green;">▲ 0.27</span>	3126.61	4068.36	4068.36	4068.36	26.2
<b>U.S.</b>	<b>DJIA</b>	<b>22483.93</b>	78.84	<span style="color: green;">▲ 0.35</span>	17883.56	22487.11	22487.11	22517.11	13.8
	<b>Nasdaq Composite</b>	<b>6487.63</b>	-8.33	<span style="color: red;">-0.13</span>	5034.41	6527.22	6527.22	6557.22	20.5
	<b>S&amp;P 500</b>	<b>2522.61</b>	3.25	<span style="color: green;">▲ 0.13</span>	2083.79	2527.96	2527.96	2527.96	12.7
	<b>CBOE Volatility</b>	<b>9.44</b>	-0.07	<span style="color: red;">-0.74</span>	8.84	8.84	8.84	8.84	32.8
<b>EMEA</b>	<b>Stoxx Europe 600</b>	<b>390.13</b>	1.97	<span style="color: green;">▲ 0.51</span>	328.80	396.45	396.45	396.45	7.9
	<b>Stoxx Europe 50</b>	<b>3191.29</b>	18.50	<span style="color: green;">▲ 0.58</span>	2720.66	3279.71	3279.71	3279.71	6.0
France	<b>CAC 40</b>	<b>5350.44</b>	20.63	<span style="color: green;">▲ 0.39</span>	4344.88	5442.10	5442.10	5442.10	10.0
Germany	<b>DAX</b>	<b>12902.65</b>	73.79	<span style="color: green;">▲ 0.58</span>	10174.92	12951.54	12951.54	12951.54	12.4
Greece	<b>ATG</b>	<b>746.48</b>	-9.13	<span style="color: red;">-1.21</span>	566.64	859.78	859.78	859.78	16.0
Israel	<b>Tel Aviv</b>	<b>1429.88</b>	2.04	<span style="color: green;">▲ 0.14</span>	1346.71	1490.23	1490.23	1490.23	2.8
Italy	<b>FTSE MIB</b>	<b>22811.19</b>	114.87	<span style="color: green;">▲ 0.51</span>	16039.59	22811.19	22811.19	22811.19	18.6
Netherlands	<b>AEX</b>	<b>541.04</b>	3.98	<span style="color: green;">▲ 0.74</span>	436.28	541.26	541.26	541.26	12.0
Russia	<b>RTS Index</b>	<b>1128.69</b>	-8.06	<span style="color: red;">-0.71</span>	956.36	1196.99	1196.99	1196.99	-2.1
Spain	<b>IBEX 35</b>	<b>10255.70</b>	-125.80	<span style="color: red;">-1.21</span>	8512.40	11184.40	11184.40	11184.40	9.7
Switzerland	<b>Swiss Market</b>	<b>9242.15</b>	84.69	<span style="color: green;">▲ 0.92</span>	7585.56	9242.15	9242.15	9242.15	12.4
South Africa	<b>Johannesburg All Share</b>	<b>55778.27</b>	783.92	<span style="color: green;">▲ 1.43</span>	48935.90	56896.89	56896.89	56896.89	10.1
Turkey	<b>BIST 100</b>	<b>103930.67</b>	1022.94	<span style="color: green;">▲ 0.99</span>	71792.96	110530.75	110530.75	110530.75	33.0
U.K.	<b>FTSE 100</b>	<b>7438.84</b>	66.08	<span style="color: green;">▲ 0.90</span>	6676.56	7598.99	7598.99	7598.99	4.1

Region/Country	Index	Close	Net Chg	% chg	52-Week Range	Low	Close	High	YTD % chg
<b>Asia-Pacific</b>	<b>S&amp;P/ASX 200</b>	<b>5729.30</b>	47.70	<span style="color: green;">▲ 0.84</span>	5156.60	5956.50	5956.50	5956.50	1.1
China	<b>Shanghai Composite</b>	<b>3348.94</b>	...	<span style="color: green;">▲ 0.84</span>	3004.70	3385.39	3385.39	3385.39	7.9
Hong Kong	<b>Hang Seng</b>	<b>27554.30</b>	...	<span style="color: green;">▲ 0.58</span>	21574.76	2815.77	2815.77	2815.77	25.2
India	<b>S&amp;P BSE Sensex</b>	<b>31283.72</b>	...	<span style="color: green;">▲ 0.22</span>	25755.14	32575.17	32575.17	32575.17	17.5
Indonesia	<b>Jakarta Composite</b>	<b>5914.03</b>	13.18	<span style="color: green;">▲ 0.22</span>	5027.70	5915.36	5915.36	5915.36	11.7
Japan	<b>Nikkei Stock Avg</b>	<b>20400.78</b>	44.50	<span style="color: green;">▲ 0.22</span>	16251.54	20400.78	20400.78	20400.78	6.7
Malaysia	<b>Kuala Lumpur Composite</b>	<b>1754.78</b>	-0.80	<span style="color: red;">-0.05</span>	1616.64	1792.35	1792.35	1792.35	6.9
New Zealand	<b>S&amp;P/NZX 50</b>	<b>7928.89</b>	-1.51	<span style="color: red;">-0.02</span>	6664.21	7930.40	7930.40	7930.40	15.2
Philippines	<b>PSEI</b>	<b>8256.28</b>	84.85	<span style="color: green;">▲ 1.04</span>	6563.67	8294.14	8294.14	8294.14	20.7
Singapore	<b>Straits Times</b>	<b>3262.10</b>	42.19	<span style="color: green;">▲ 1.31</span>	2787.27	3354.71	3354.71	3354.71	13.2
South Korea	<b>Kospi</b>	<b>2394.47</b>	...	<span style="color: green;">▲ 1.31</span>	1958.38	2451.53	2451.53	2451.53	18.2
Taiwan	<b>Weighted</b>	<b>10465.16</b>	135.22	<span style="color: green;">▲ 1.31</span>	8931.03	10631.57	10631.57	10631.57	13.1
Thailand	<b>SET</b>	<b>1688.64</b>	15.48	<span style="color: green;">▲ 0.93</span>	1406.18	1688.64	1688.64	1688.64	9.4

### Currencies

Yen, euro vs. dollar; dollar vs. major U.S. trading partners



Country/currency	Mon. in US\$	per US\$ (%)	US\$ vs. Mon. in US\$	YTD% (%)



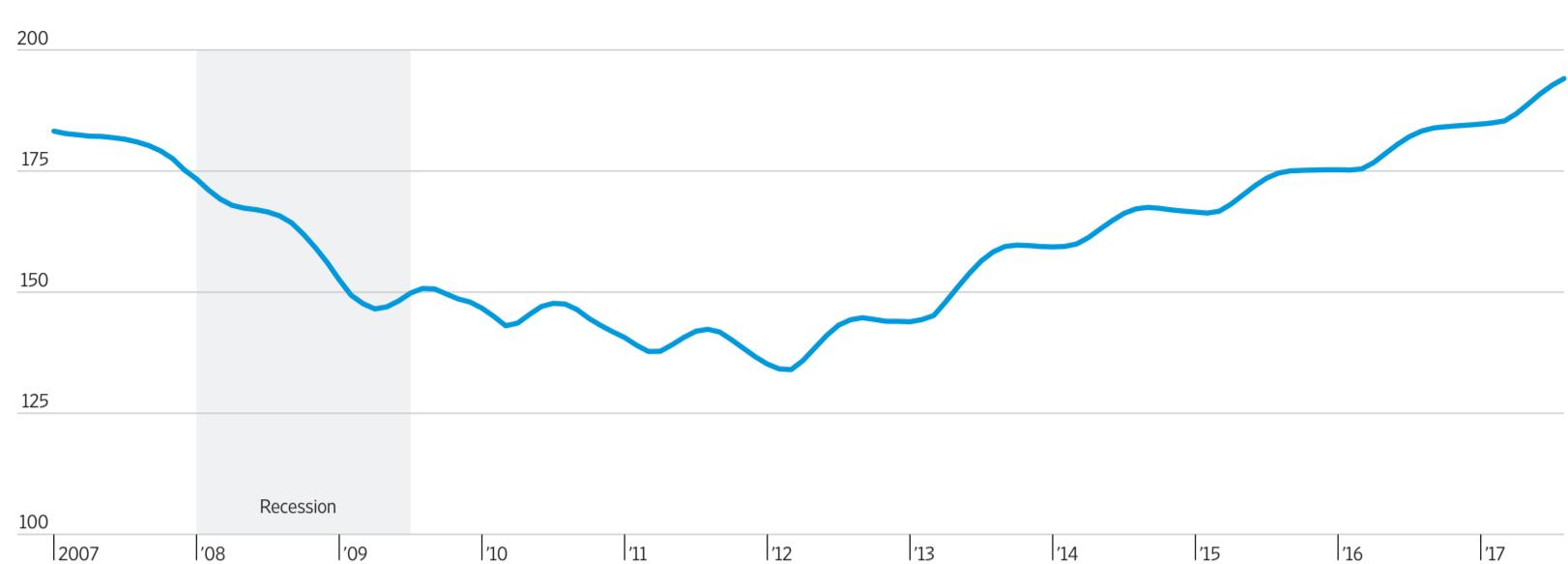
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## FINANCE & MARKETS

THE DAILY SHOT | By Lev Borodovsky and Amrith Ramkumar

# Cracks in the Housing Rally

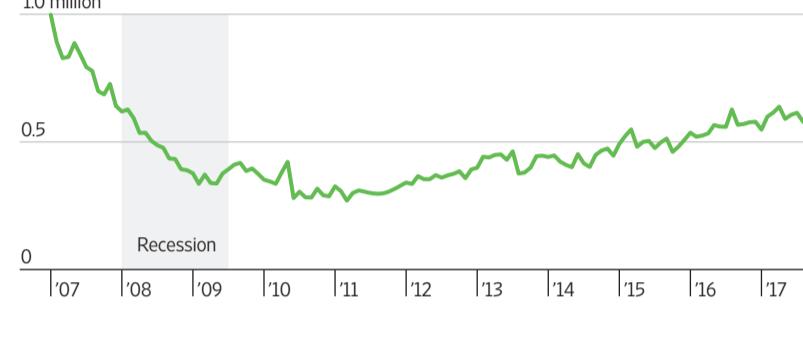
**S&P/Case-Shiller U.S. national home price index**



**New privately owned housing units started\***



**New-home sales, one-family houses\***



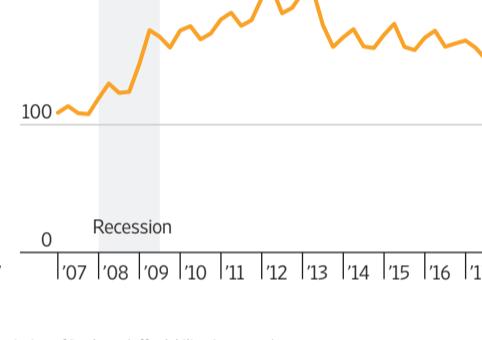
**Months of supply of new houses in the U.S.**



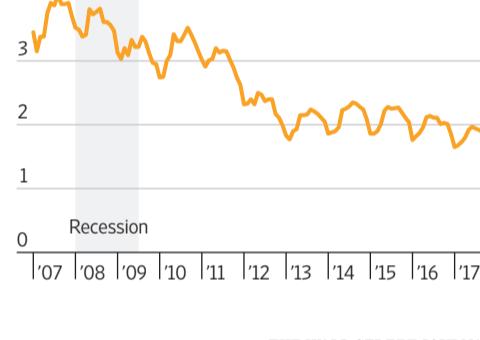
**Yearly change in U.S. households†**



**Housing affordability index**



**Inventory of existing homes for sale**



\*Seasonally adjusted annual rate †Change from a year earlier; not seasonally adjusted

Sources: S&P Dow Jones Indices via Federal Reserve (home prices); U.S. Census Bureau via Federal Reserve (starts, sales, supply, households); National Association of Realtors (affordability, inventory)

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# MARKETS

## Emerging-Market Stocks Soar, but Investors Worry

BY CAROLYN CUI

Emerging-market stocks are on pace for their best year since 2009, but more investors are seeking protection against a possible downturn.

Stocks in emerging markets rose 6.6% in the third quarter. That brought the year's gains to 25%, which—if the level holds—would be its best annual performance since a 75% return eight years ago. The MSCI Emerging Markets Index has yet to post any significant losses this year, a rare tranquility for an asset class that routinely experiences sharp selloffs.

The rally reflects faster earnings growth, a weaker dollar and easy global monetary policies that make riskier investments more attractive.

But as the gains pile up, many investors are taking steps to hedge themselves as they worry about a pullback.

Rising demand for this protection has pushed the cost of buying options against declines in the iShares MSCI Emerging Markets exchange-traded fund to the highest level since January 2016, according to Trade Alert.

These investors have been buying options as a hedge against any downturn in emerging-market stocks, rather than exiting their positions and giving up the ability to benefit from additional gains. Still, the higher cost of hedging reflects how investors are becoming more concerned that the forces that have supported this year's rally may be giving way.

Some worry that as central banks in the U.S. and Europe rein in stimulus measures, that could upend the easy-money environment that has helped lift emerging markets. A slow-



An electronic-product mall in China. Concern rose in August that China's economy might have cooled.

down in emerging-market growth could also trigger capital outflows from developing countries and chip away at gains in the stocks. If the recent rebound in the dollar continues, that would cut into emerging-market returns for dollar-based investors.

Others are concerned that geopolitical uncertainties including escalating tensions between the U.S. and North Korea are a threat to risky assets like emerging markets.

"It's prudent to recognize these are the risks and we want to have some downside protection in place," said Dennis Cogan, co-portfolio manager of the \$323 million Calamos Evolving World Growth Fund.

Toward the end of the second quarter, the fund started to purchase put options on certain Indian stocks that had risen sharply and appeared less attractive. Put options are

contracts that give the owner the right, but not the obligation, to sell a security at a certain price. Mr. Cogan's put options cover about one-fourth to one-third of the value of the assets in the Calamos fund's portfolio, he said.

The \$250 million Driehaus Emerging Markets Small Cap Growth Fund has added put options on the iShares MSCI Emerging Markets ETF and a Brazil-focused ETF, which accounted for 14% of the fund's assets, as a way to protect its portfolio, according to the fund's statement for August.

Investors have reasons to turn defensive. So far this year, the MSCI EM index's biggest drop was a 3.6% slide in late September. In every calendar year since 1996, the index has posted a market drop exceeding 10%, with half of these drawdowns exceeding 20%, even in years when emerging markets delivered big gains,

according to MSCI Inc. Luca Paolini, chief strategist at Pictet Asset Management, which has about \$500 billion of assets under management, said he sees the risk for a correction in emerging markets over the next three to six months.

In August, China's factory output, retail sales and fixed-asset investment all slowed from the prior month, raising concerns that the world's second-largest economy might have cooled down again. In the U.S., rising business confidence, a recovery in economic growth and the onset of the Federal Reserve's balance-sheet reduction efforts all pointed toward higher U.S. interest rates, which could help stabilize or even strengthen the dollar.

"I think it's time to reduce some exposure or put some hedge on emerging markets," Mr. Paolini said.

## Gains in Health Care, Financials Lift Shares

BY RIVA GOLD  
AND MICHAEL WURSTHORN

Rising shares of health-care and financial companies helped put major U.S. indexes on track to hit records Monday.

The Dow Jones Industrial Average rose 77 points, or 0.3%, to 22482

**MONDAY'S MARKETS**

around midday, while the S&P 500 added 0.2%. Both indexes were trading above their closing highs. The Nasdaq Composite slipped 0.1%.

Improving economic data and expectations of solid earnings have helped equity investors brush off a range of geopolitical risks this year. The S&P 500 rose 4% last quarter—its eighth consecutive quarter of advances. Stocks have more room to advance, analysts say, with an unusually high number of S&P 500 companies issuing positive revenue guidance for the third quarter, according to FactSet.

"There's still pretty good mix of economic indicators that is positive for stocks," said Mark Spellman, portfolio manager at Alpine Funds. "For the first time in a long time, everything is working in unison," he said, referring to synchronized improvements in growth across major economies.

Health-care stocks rose broadly to gain 0.6% in the S&P 500, with biopharmaceutical companies Regeneron Pharmaceuticals and Gilead Sciences up nearly 2% each.

Shares of financial firms advanced. Citigroup gained 1.5%, while Goldman Sachs Group added 0.7%, making the bank one of the biggest contributors to the Dow industrials' gain.

Trading activity has been lighter than usual over the past month, and with little risk currently priced into the

market, things could snowball quickly if anything goes wrong, some money managers said.

"We're hitting these records on light volume. That means a couple of bad news items or some bad earnings could cause a sell-off," said Larry Peruzzi, managing director of international equity trading at Mischler Financial.

Shares of hospitality and entertainment companies fell after a shooting on the Las Vegas Strip left at least 58 dead and more than 500 wounded. Shares of MGM Resorts International were down 5%. MGM operates the Mandalay Bay Hotel and Casino, where police said the gunman was located, and the company said its resorts in the vicinity were on lockdown.

Meanwhile, escalating tensions in Catalonia dented the euro and Spanish assets after voters overwhelmingly backed independence in a referendum Sunday that was boycotted by opponents and marred by violence as Madrid sent in thousands of extra security forces.

The Stoxx Europe 600 rose 0.5% amid support from a weakening euro and the British pound—despite a 1.2% drop in Spain's IBEX 35 index. The euro fell 0.6% to \$1.1740.

Asia-Pacific equities were mostly higher, benefiting from gains in the dollar. The WSJ Dollar Index, which tracks the greenback against a basket of 16 currencies, climbed 0.4%.

Australia's S&P/ASX 200 rose 0.8%, and Japan's Nikkei Stock Average added 0.2%.

Markets in China and South Korea will be shut all week, while those in Hong Kong and India were closed for holidays Monday.

Oil prices were weaker amid a stronger dollar and signs of rising global production, with U.S. crude down 2.8% at \$50.22 a barrel by midday.

## HEARD ON THE STREET

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## Catalonia: A Headache for Spain

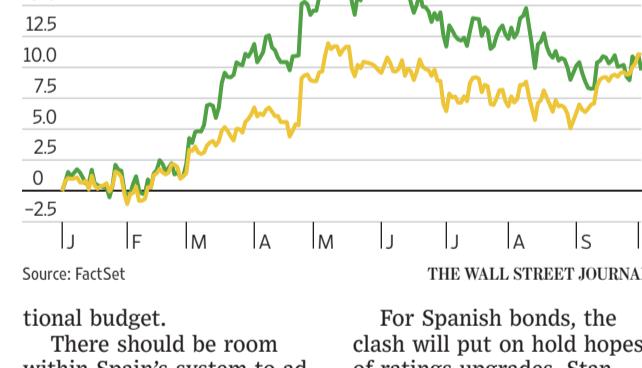
Spain wasn't supposed to be on the list of political risks for investors in 2017. But the violence in Catalonia on Sunday during an independence vote declared illegal by Madrid is an ugly reminder of Europe's complexities. For now, however, this is a bigger problem for Spain than for Europe.

Tensions would be raised further if the Catalan government goes ahead with a declaration of independence, even if this would be mostly symbolic: While Catalan leaders said 90% of votes cast supported independence, turnout was about 40%.

Crucially, this isn't a clash over Europe or the euro, which should limit the wider impact on markets. But it is partly a legacy of a eurozone crisis that put the focus on tax and spending in many countries. While the Catalan independence movement has cultural, linguistic and historic roots, a key issue is the level of control over fiscal policy and the contribution the region makes to the na-

### Ceding the High Ground

Performance of stock indexes



tional budget.

There should be room within Spain's system to address these concerns, although the fiscal math would be tricky, given Catalonia's position as one of Spain's richer regions. And the response of the central government in Madrid in cracking down on the vote has made it difficult to see how this situation can be resolved quickly or easily.

percentage points, isn't anywhere near an alarming level.

Spanish stocks, one of the Heard on the Street's summer stock picks, face headwinds. Catalonia accounts for close to one-fifth of Spain's gross domestic product and persistent trouble could dim one of Spain's attractions—growth running at 3% annualized. The IBEX 35 index eked out a small gain in September, rising 0.8%, but underperformed the Euro Stoxx index, which rose 4.5%. Spanish stocks fell 1.2% early Monday. If the situation were to calm down, which will take time, there is clearly room for Spain to catch up, benefiting from the recent softening in the euro.

The clashes in Catalonia don't mean investors should pull back from Europe as a whole. But the government in Madrid needs to find a way to open the road to a political solution. Without that, Spanish markets will be preoccupied with Catalonia.

—Richard Barley

## China Tries to Rescue Sinking Private Sector

It isn't easy being an entrepreneur in China.

A high-level document published last week by China's cabinet emphasized that entrepreneurs are important contributors to growth, but also that they need to be more patriotic and approach their role with the mind-set of serving society. Little wonder private investment has been weak for years.

This weekend's move by China's central bank—offering banks that plow at least 1.5% of their total loans into small enterprises and agriculture a 0.5-percentage-point cut to the amount of cash they have to hold in reserve next year—is unlikely to do much to lift the dark mood of China's private sector. That is especially given the clear tilt of China's "reform" agenda back toward the state under President Xi Jinping.

But it does show that policy makers are getting worried that squeezing the main source of jobs and income growth too hard just ahead of China's twice-a-decade leadership reshuffle in mid-October may not be politically expedient.

Two of Beijing's recent campaigns are threatening to make matters even worse. Forced factory closures this year in the name of curbing

"overcapacity" have fallen disproportionately on private firms in steel and aluminum. Plans to expand the campaign to other sectors mean the squeeze will intensify.

China's crackdown this spring on dodgy "wealth management products" peddled by banks has also probably had the perverse effect of raising borrowing costs for some cash-strapped private companies who have trouble accessing formal bank finance, unlike many well-connected state firms. As a result, reliance on even more expensive forms of lightly regulated nonbank finance—like trust loans and bankers' acceptances—rebounded sharply in the first half of 2017.

With growth downshifting again and private capital under assault, China's central bank is right to extend a helping hand, and the amounts involved aren't insignificant: The cut should inject an extra 300 billion to 400 billion yuan (\$45 billion to \$60 billion) into the banking system in 2018, according to OCBC Bank.

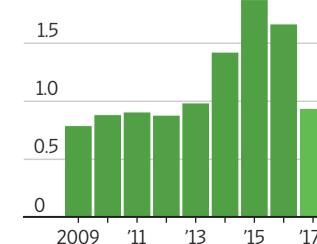
But fiddling around the edges of the banking system is unlikely to goose private investment when the overall policy signal remains so clear: The East is still red, and the tint is deepening.

—Nathaniel Taplin

## Why M&A Bankers Are Rooting for Tax Plan

### Catalyst Needed

M&A deal volume targeting U.S. companies



\*Year to date  
Source: Dealogic  
THE WALL STREET JOURNAL.

because it would trigger a big tax bill. Those assets now sit in a rump entity called Alataba, which is waiting to see how the potential tax bill will change its circumstances.

Besides this, there were many spinoffs in recent years that could easily have been sales if corporate taxes were lower, says Ernie Perez, head of the tax practice at M&A and restructuring advisory firm Alvarez & Marsal.

The most likely candidates for fast-pitching bankers are the large number of underperforming units sitting within conglomerates that the owners would be thinking more seriously about selling if the tax penalty were lower, according to one M&A banker.

The tax plan, which could eliminate the tax deduction for interest payments, could also hurt deal making that requires a lot of borrowing. Details on this part of the plan are still vague but if they stick, it would be a strong negative for private-equity deals, which are frequently financed through debt.

M&A deals targeting U.S. companies are down 15% this year, according to Dealogic data, partly due to uncertainty over future tax rules. Just getting clarity on the changes could prompt a near-term rebound. But overhauls that significantly lowered corporate tax rates would support deal activity for years to come. —Aaron Back



China's central bank made a move to boost the private sector.