

# THE WALL STREET JOURNAL.

DOW JONES | News Corp \*\*

THURSDAY, JUNE 15, 2017 ~ VOL. XLI NO. 201

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ASIA EDITION

As of 12 p.m. ET DJIA 21340.60 ▲ 0.06% NIKKEI 19883.52 ▼ 0.08%

STOXX 600 387.58 ▼ 0.30% BRENT 46.90 ▼ 3.74%

GOLD 1276.20 ▲ 0.82% EURO 1.1278 ▲ 0.59% DLR \$109.14 ▼ 0.85%

## What's News

Business & Finance

The Fed raised its benchmark federal-funds rate by a quarter percentage point and it detailed plans to start shrinking a \$4.5 trillion portfolio of assets this year. **A1**

◆ Anbang's chief was detained last week by a special investigative unit looking at economic crimes. **A1**

◆ The BOJ's government-bond purchases in May raises the question of whether it is trying to taper by stealth. **B1**

◆ A Treasury report on bank oversight is raising industry expectations that the postcrisis era of heightened regulation is over. **B7**

◆ Mattel's new CEO will be confronted with whether the company can afford to maintain its generous dividend. **B1**

◆ David Bonderman, the co-founder of TPG, resigned from Uber's board after he made a sexist remark during a companywide meeting. **B4**

◆ IBM said it is pairing with BMW to provide cloud-based data management for BMW's connected car initiative. **B4**

◆ The global oil glut will remain through 2017 as OPEC's efforts to restrain petroleum production have hit a wall in the U.S., the IEA said. **B1**

### World-Wide

◆ Rep. Steve Scalise, a top House Republican, was in stable condition after U.S. officials said he and four others were shot while practicing baseball on a field in Virginia. **A1**

◆ Hong Kong upheld the convictions of property tycoon Kwok and disgraced government official Hui. **A2**

◆ The White House sent a secret diplomatic mission to North Korea this week to recover a U.S. citizen who was in a life-threatening coma. **A3**

◆ Islamic state fighters launched a counterattack against Iraqi government forces in western Mosul. **A2**

◆ A huge fire engulfed a high-rise residential building in London, killing at least twelve people and sending dozens to the hospital. **A1**

◆ Jeff Sessions told a Senate panel that he never met with any Russian officials last year to discuss the U.S. presidential campaign. **A6**

◆ The Trump administration played down the notion of special counsel Mueller's dismissal. **A6**

◆ Trump has granted the Pentagon unilateral authority to send new American troops to Afghanistan, a U.S. official said. **A5**

### Journal Report

A new Wall Street Journal ranking identifies tech startups that show signs of becoming leaders in the industry. **Tech Companies to Watch, Pages R1-6**

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Indonesia: Rp25,000 (incl PPN);  
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Randy Fruchter says the exchange has happened a few times. He leans over a man lying prone on his massage table and turns on a buzzing, handheld device.

"Hey, that sounds like a jigsaw," the client says.

"Actually," Mr. Fruchter replies, "it is a jigsaw."

A year ago, the massage specialist in Orange County, Calif., balked at the \$3,500 price of a massage device. Instead, Mr. Fruchter bought a \$100 cordless jigsaw, filed down the blade and covered the point with a hard-rubber stopper. He uses the device daily to work on painful

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cades, Mr. Pouyanné wants to turn his company into one of the world's biggest suppliers of electricity, or

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Source: Company filings  
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## WORLD NEWS

CAPITAL ACCOUNT | By Greg Ip

# Lousy Pay Raise? It May Be as Good as It Gets



For anyone who collects a paycheck, there's some bad news, and some worse news.

First, the bad: Unemployment may be at a 16-year low and the economic expansion may be third-longest on record, yet wage growth is miserably, clocking in between 2.5% and 3% for the past year. When unemployment was this low in the late 1990s and the mid-2000s, wages grew 4%.

Now, the worse: If a labor market this tight can't generate better pay, quite possibly it never will. In Japan and Germany, where unemployment is plumbing generation lows, wages are moribund. This suggests the problem transcends borders: Minimal corporate pricing power, lackluster productivity growth and an aging workforce have all undercut employers' ability to pay better.

This threatens to throw a wrench into the Federal Reserve's plans. It was expected to raise interest rates at its meeting Wednesday and plans to keep doing so gradually over the next two years.

Yet its longstanding assumption that a fully employed economy would eventually nudge prices and wages higher looks shakier by the month. Consumer-price inflation excluding food and energy slipped to 1.7% in May, the Labor Department reported Wednesday, a two-year low. The Fed targets a different index, which shows

even lower "core" inflation.

For most of the past eight years, the Fed's assumption was a decent base case. Lousy pay was easily explained by a deep recession that left a glut of spare workers, many uncounted in the most common measure of unemployment, which robbed those with jobs of bargaining power. That explanation no longer washes. Broader measures of underemployment are close to their 2007 lows. Some 4% of jobs are vacant, matching the highest recorded since 2000. Anecdotes of worker shortages are too

### Employers' inability to increase wages is complicating the Fed's plans.

pervasive to ignore: Maine has released some prisoners early as tourism struggles to fill jobs, and in the Western U.S., some farmers threw out crops for lack of workers to harvest them.

Which raises the obvious question: If employers are so desperate for help, why not pay more? Because pay is closely tied to what employers can recover by raising prices (inflation) or sales per employee (productivity). Since 2012, U.S. businesses' selling prices have risen by 1.4% and worker productivity by 0.6% per year. At 2% the sum of those two figures, a proxy for sustainable wage growth, is the lowest in more than 60 years.

Worker pay has actually grown faster than that subdued 2% benchmark, because employers have absorbed the excess in their profit margins, which have fallen from record highs. As a result, labor's share of the total economic pie has been recovering and isn't far from its long-run average.

Raises may also be more prevalent than the subdued average pace of wage gains lets on. The Federal Reserve Bank of Atlanta looks at how much respondents to the monthly household employment survey say their pay has risen in the past year and finds the median raise has doubled since 2010 to 3.5%, meaning half of workers saw pay rise by more, half by less.

Why the median is so much higher than the average is unclear but may reflect the changing composition of the workforce. Employers hold on to their best employees in recessions. As the expansion matures they hire less-skilled and experienced workers. Because they come on board at much lower pay levels than incumbents, these newly hired workers' raises don't move the average much.

The same phenomenon happened late in the last expansion. This time there's an added wrinkle: Baby boomers have retired in droves since 2008, and their replacements are typically less experienced and thus earn less.

This is good news for many workers at the bottom. The median raise for a low skilled worker has risen from 1% in 2013 to 3% now, and for a young worker (aged 16 to 24) from 3.5% to over 7%. But

it spells trouble for the economy as a whole. As more low-skilled workers join the workforce, its average quality suffers, which is bad for productivity. Researchers at the Federal Reserve Bank of San Francisco and Bart Hobijn at Arizona State University predict that in the next few years, labor quality would continue to deteriorate assuming more of the newly hired come from the fringes.

That doesn't dictate worse productivity and pay, but it sure doesn't help.

For wage gains to grow sustainably faster, either prices, productivity or both have to grow much faster. But inflation is below the Fed's 2% target and has lately actually drifted lower. Even if it returned to 2%, higher real (i.e., after inflation) wages requires better productivity growth. It did edge above 1% in the last year, and with business investment picking up, that pace may be sustained.

Experience abroad, however, is not encouraging. In Japan, unemployment is the lowest in decades and labor shortages are rampant. Yet wage growth hovers around zero in part because retirees are taking menial jobs to supplement their pensions.

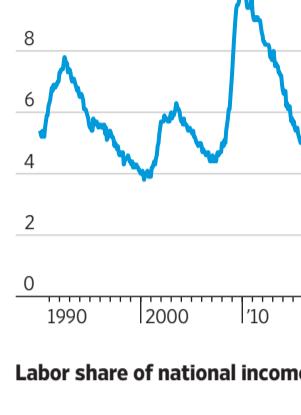
Germany has the tightest labor market in two decades, but pay gains are below 2%. Like the U.S., both countries are grappling with the interrelated problems of lackluster productivity and an aging labor force whose most-experienced and best-paid workers are retiring.

Inflation is subdued in both.

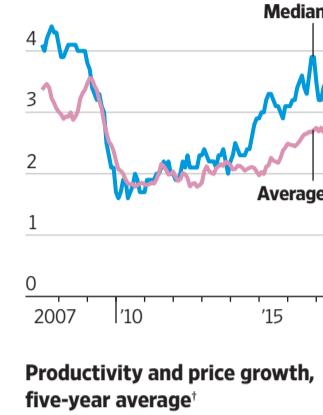
### A Recovery for Labor but Not Wages

Low unemployment has elevated the median raise and labor's share of national income is rising, while poor productivity and low pricing power hold back broader wages.

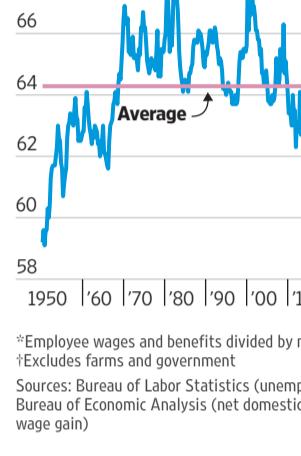
#### Unemployment



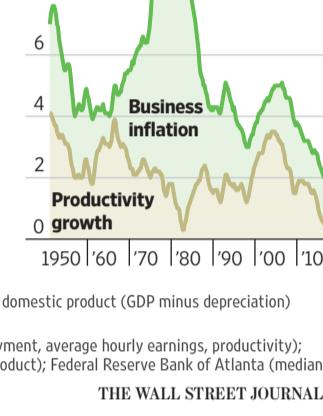
#### Annual hourly wage growth



#### Labor share of national income\*



#### Productivity and price growth, five-year average<sup>†</sup>



\*Employee wages and benefits divided by net domestic product (GDP minus depreciation)

<sup>†</sup>Excludes farms and government

Sources: Bureau of Labor Statistics (unemployment, average hourly earnings, productivity); Bureau of Economic Analysis (net domestic product); Federal Reserve Bank of Atlanta (median wage gain)

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wage growth back to 4% is a stretch, all the more so when an expansion is as long in the tooth as this one. In short, if you just got a raise, enjoy it: It might be as good as it gets.

funding insufficient, according to people involved and official statements. Disclosure was also an issue for the multi-agency Committee on Foreign Investment in the United States when it looked at the bid, according to a person familiar with the situation.

At times, Anbang has criticized scrutiny of its shareholder base. Mr. Wu has told staff that a level of secrecy is needed for competitive reasons, a trait common to insurers but taken to the extreme at Anbang.

After a string of takeovers following the global financial crisis, Anbang shot to international recognition in 2014 when it agreed to pay nearly \$2 billion for New York's historic Waldorf Astoria hotel from Hilton Worldwide Holdings Inc. President Xi stayed in the hotel for the following year's United Nations General Assembly, while Barack Obama broke with U.S. presidential tradition and went elsewhere.

In 2015, Mr. Wu offered rare public insight into his thinking with an appearance at Harvard University. He played down his skills as a deal maker, describing himself as "even a bit simple, like a child," according to a transcript posted to the company's website but since deleted. "In the future, Anbang will be an internet-based financial insti-

tution providing full services via internet," he said.

Mr. Wu's aggressiveness was exhibited in Anbang's efforts to change how insurance is sold in China. Instead of offering commissions to agents who sell home and life coverage, Anbang pulled in revenue through banks and online platforms by selling products that look more like short-term deposits than insurance policies.

The Anbang chairman defended his company's strategy in an interview published by state-owned Beijing News earlier this year, a time of insurance-sector turmoil that included a 10-year ban for a competitor and the toppling of the top regulator. The interview showed Mr. Wu still in control of Anbang, but signaling his willingness to get in step with government priorities by pursuing more-traditional business lines, such as pensions, which he called its "new starting point."

Mr. Wu made a public appearance on May 15, hoisting a champagne flute at an event at the Belgian Embassy in Beijing. Anbang owns both a bank and an insurer in Belgium.

—Lingling Wei  
and Chao Deng  
contributed to this article.



Wu Xiaohui in Boao, China, earlier this year. The Anbang Insurance chairman is now out of sight.

Commission for Discipline Inspection couldn't be reached to comment.

A sign of the political sensitivity emerged late Tuesday when Chinese authorities ordered a report that Mr. Wu had been detained deleted soon after it was published online by the magazine Caijing.

In building Anbang, Mr. Wu was aggressive and detail-oriented, say people who have done business with him. "He's very hands-on, very quick in

decision making," said the head of an Anbang-controlled European company who sees Mr. Wu a few times a year in Beijing.

Anbang claims assets approaching \$300 billion, but the structure of the company is complex and it has no key business units listed on a stock exchange. That keeps Mr. Wu off lists of the country's richest tycoons.

"The shareholder structure is so obscured that it's impos-

sible to see who owns it," says Rupert Hoogewerf, who runs a Shanghai wealth-tracking service called Hurun Report.

Disclosure concerns this year thwarted Mr. Wu's bid to expand into the U.S. insurance sector: Anbang's \$1.5 billion play to take control of Iowa-based Fidelity & Guaranty Life. The deal unraveled after it failed to win approval from New York insurance regulators, who had found Anbang's answers about shareholders and

Sun Hung Kai shares were flat in Wednesday trading, while the benchmark Hang Seng Index was slightly lower.

The court also upheld the convictions of two intermediaries in the bribery, including a former Sun Hung Kai executive.

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# WORLD NEWS

## Frantic Mission Freed American Prisoner

North Korea releases prisoner, but questions about how he fell into coma raise tensions

The White House secretly sent a diplomatic mission to North Korea this week to recover a U.S. citizen who the Trump administration had learned was in a life-threatening coma, senior U.S. officials said, an episode that could inflame tensions with Pyongyang.

By Jay Solomon and Felicia Schwartz in Washington and Jonathan Cheng in Seoul

The freed American, University of Virginia student Otto Warmbier, arrived late Tuesday at Cincinnati's Lunken Airport and was taken by ambulance to a hospital, the Associated Press said.

Mr. Warmbier, who is from Ohio, was sentenced early last year to 15 years of hard labor for allegedly defacing a political poster while on a private tour of North Korea.

The 22-year-old's dire health condition, U.S. officials said, risked escalating a stand-off between Washington and Pyongyang, fueled by North Korea's advancing nuclear-weapons program and repeated ballistic missile tests.

Mr. Warmbier slipped into a coma more than a year ago, U.S. officials and members of his family said. North Korea told U.S. officials during a secret meeting last week that he first lost consciousness after contracting botulism and taking a sleeping pill. The news



A person believed to be Otto Warmbier is transferred from an airplane to an ambulance at Lunken Airport in Cincinnati.

prompted a frantic week within the State Department to assemble a mission to retrieve him.

U.S. officials said the ad-

Mexico governor who sent a delegation to North Korea last year to seek the release of Mr. Warmbier and other imprisoned Americans.

The Trump administration has been ratcheting up financial sanctions on North Korea in an effort to pressure leader Kim Jong Un to dismantle his nuclear program. China has been urging talks, while increasing its role in the rising U.S.-North Korean tensions.

Under ordinary circumstances, the release of a detained American could ease hostilities. But Mr. Warmbier's

behind his lapse into a coma, could undercut efforts to establish a diplomatic channel to defuse the nuclear crisis, current and former U.S. officials said.

Former U.S. basketball star Dennis Rodman is visiting Pyongyang this week on what he has described as a peace mission. Senior Trump administration officials said they are worried Pyongyang could be trying to use the trip as a cover for returning Mr. Warmbier without taking responsibility for his medical condition.

The White House denied Tuesday that it coordinated with Mr. Rodman on his trip,

or that it is seeking to use him as a channel to Mr. Kim.

Senior U.S. officials said the Obama and Trump administrations repeatedly had sought information on Mr. Warmbier's health, using Sweden's Embassy in Pyongyang, but were rebuffed. President Donald Trump in February ordered redoubled efforts to free Mr. Warmbier and three other imprisoned Americans, using all "appropriate measures," officials said Tuesday, describing the sequence of events.

—Eun-Young Jeong in Seoul and Jon Kamp in Boston contributed to this article.

### Student Checked In To an Ohio Hospital

Otto Warmbier is thought to have been in a coma for months

CINCINNATI—An American college student who was released from a North Korean prison is in a coma and undergoing treatment at an Ohio hospital where he was taken shortly after returning to the U.S.

An airplane carrying Otto Warmbier, who is from Ohio, landed in Cincinnati late Tuesday night. The 22-year-old was then taken by ambulance to the University of Cincinnati Medical Center.

Mr. Warmbier was serving a 15-year prison term with hard labor in North Korea on charges of carrying out anti-state acts.

In Mr. Warmbier's hometown of Wyoming, just outside Cincinnati, residents helped tie blue and white ribbons, Wyoming High School's colors, to trees and said news of his release had sent waves of shock and joy through the community.

Mr. Warmbier's parents, Fred and Cindy Warmbier, said they were told he has been in a coma since his trial early last year, when he was last seen in public, and they had learned of this only one week ago.

"We want the world to know how we and our son have been brutalized and terrorized by the pariah regime" in North Korea, Mr. Warmbier's parents said.

—Associated Press

## North Korea Release Highlights the Risk for Tourists

By JONATHAN CHENG

SEOUL—North Korea's release of American student Otto Warmbier after 17 months turns a spotlight on the risks taken by the roughly 5,000 Western tourists who visit the country each year, dangers amplified by heightened tensions between Washington and Pyongyang.

North Korea is isolated, but it isn't cut off. Tourism is one of the most visible ways in which North Korea retains ties to the outside world, despite wide-ranging sanctions on its economy.

Over the past decade, a steady stream of American citizens have been detained in North Korea. Some U.S. lawmakers called last month for a travel ban; advocates say it is a relatively easy way to curb the risk of U.S. citizens' arrests and cut off a modest but reliable source of income for Pyongyang. Others argue that the U.S. government shouldn't restrict its citizens' movements.

Rising international tensions with North Korea's can damp tourism, but not by much, according to estimates by Simon Cockerell, general manager of Koryo Tours, a Beijing-based company that has been bringing visitors to the country since 1993.

The number of Western

tourists visiting North Korea each year peaked at about 6,000 around 2013 and has since dropped slightly to around 5,000 as the international dispute over the regime's nuclear and missile programs intensified, he said.

U.K.-incorporated Koryo Tours accounts for about 40% of the overall volume, Mr. Cockerell estimated.

Roughly 1,000 Americans travel to North Korea each year, accounting for about one-fifth of Western tourists, he said.

There are, in addition, from "scores to a few hundred" American educational and humanitarian aid workers in North Korea at any given moment, according to an estimate from the National Committee on North Korea, a Washington-based nongovernmental organization.

President Barack Obama's former U.S. special envoy for North Korean human rights, Ambassador Robert King, agreed with the estimate. He said Washington didn't keep precise figures on the number of American aid workers there.

Tourists visiting North Korea aren't typically allowed to travel independently and generally join group tours, where they are closely chaperoned by representatives of official state entities. It is unclear how



Dancers mark the anniversary of the birth of Kim Il Sung in Pyongyang, where most tourism is focused.

much of the money they spend ultimately goes into the pockets of the state.

For many, the allure of the forbidden is a central part of the draw. But for a small handful of visitors, things can go badly wrong—often for seemingly minor misdemeanors.

Mr. Warmbier, a University of Virginia undergraduate, was sentenced to 15 years of hard labor for allegedly defacing a political poster while on a tour of North Korea. The 22-year-old Cincinnati native, who U.S.

officials learned last week had been in a life-threatening coma for more than a year, was released Tuesday and reunited with his family after about a year and a half in detention.

At least three other Americans are being held in North Korea, though none was a tourist. At least two are tied to a Christian university in Pyongyang.

Tourism agencies based in the U.S., Europe, China and Australia have sprung up in recent years to meet demand from tourists with less-conven-

tional tastes. Most tours last from three days to two weeks and are focused on Pyongyang, though some have included activities such as train travel, skiing and surfing.

Andrea Lee, chief executive officer of Kearny, N.J.-based Uri Tours, which bills itself as the largest American provider of North Korea travel, said simple exchanges can break down "historical barriers of hate on both sides."

Brian Sayler, a police officer in Wilkes-Barre, Pa., said visit-

ing Pyongyang last month opened his eyes to a country often demonized in the Western press. "Once you actually get on the ground there and look around, it can't help but change your opinion, the way you look at it," said Mr. Sayler, who traveled with Uri Tours. "When you realize that these are real people living over there, it humanizes the place to a certain extent."

A growing number of tourists have been detained in North Korea. Jeffrey Fowle, an Ohio maintenance worker, was arrested after he left a Bible in a nightclub bathroom during a tour in 2014; he was released after months of detention. Matthew Miller, another tourist, was arrested after he ripped up his visa upon arriving in 2014.

Some tourists have been freed only after a visit from a high-level U.S. delegation.

There has been bipartisan support on Capitol Hill for tightening restrictions on North Korea. Legislation to strengthen sanctions, including a ban on U.S. tourism and a license requirement for aid workers, passed the House overwhelmingly in a 419-1 vote in early May. The Senate hasn't taken up the bill.

—Kristina Peterson in Washington contributed to this article.

## Data Suggest Some Success in China's Economic Revamp

By MARK MAGNIER

BEIJING—A snapshot of China's economy in May showed some success for Beijing in balancing its bid to rein in debt with preventing growth from declining too rapidly in an important political year.

Among a series of data, one indicator not usually in the spotlight stood out: the broadest measure of overall money supply known as M2, which rose less than 10% compared with a year earlier, slipping below that mark for the first time in the decades that the central bank has published the data, evidence of less credit sloshing around the system.

"Shadow banking financing is in retreat while bank financing remains stable," said Nomura economist Yang Zhao.

Economists cautioned that the real test of Beijing's commitment to paring debt will be

### Money Management

China is so far managing to keep the economy stable while tightening the reins on credit.

#### Industrial production

Change from a year earlier



average from 2018 to 2020.

The National Bureau of Statistics reported on Wednesday that industrial output, a rough

proxy for economic growth, rose 6.5% in May from a year earlier, matching April's pace, that retail sales also held

steady at double-digit growth rates while fixed-asset investment decelerated modestly.

China's bid to gradually adjust to slightly lower growth has been helped by a still-robust property market, solid consumption and trade, while factory inflation, industrial output and industrial profits have weakened.

"The economy at this moment is relatively stable," said Larry Hu, an economist at Macquarie Group Ltd. "But I think it will slow in the third quarter, causing policy makers to shift their focus to growth from financial restructuring."

Beijing has sought in recent months to stem financial excess and real-estate speculation without undercutting growth, a key priority in advance of a Communist Party congress this fall when top leaders are chosen in a meeting held once every five years, economists said.

Some companies on the front lines are already feeling a chill. Lower steel prices have cut into profits and squeezed cash flow, according to the state-owned Baogang Group, based in the northern city of Baotou. The company also faces something of a dilemma, said company director Hao Zhizhong: While the central government wants steel companies to limit overcapacity, local governments want firms to help spur economic growth.

"If prices drop too much, we can end up losing money on every ton we produce," Mr. Hao said.

Economists expect investment to slow in the coming months as aggressive public infrastructure spending decelerates, the property market weakens and financing costs rise. Government spending ebbed in May.

—Pei Li and Liyan Qi contributed to this article.



Sources: National Bureau of Statistics (industrial production); Wind Info (M2)

THE WALL STREET JOURNAL

## WORLD NEWS



Grenfell Tower, a 24-story public-housing block in London's North Kensington neighborhood, burned on Wednesday as firefighters battled the deadly blaze, which started overnight, for hours.

## FIRE

Continued from page A1

[flashlights]. Someone was waving a blanket," he said, adding that he counted around six or seven cases of people trying to signal for help, particularly between the 18th and the 22nd floor.

Michael Paramasivan, who lived on the seventh floor, said he woke up to the smell of burning plastic and then heard people shouting, "It's getting bigger, it's getting bigger!" Through his apartment's peephole, he saw big clouds of smoke, he said.

He said he wasn't sure if there were sprinklers but that none had activated. The fire alarm was "very light" and wouldn't have woken anyone up, he said.

He, his girlfriend and her child ran down the stairs in their robes with their neighbors through a central staircase and then watched the building burn from outside with at least a hundred other residents, some desperately trying to call people they believed were still inside. The

cladding was falling off the building and went up in seconds, he said.

"I saw three kids near the top floor, and next thing we knew, bang, it went up in flames," he said. "They must have perished. It was horrific."

The fire brigade said a structural engineer was assessing the stability of the building, which sits in the North Kensington area near Notting Hill, a largely upscale district dotted with low-income housing a few miles from central London.

Forty fire engines and 200 firefighters were dispatched to the scene, while 30 adjacent flats were evacuated by police, the London Fire Brigade said on Twitter.

Prime Minister Theresa May was deeply saddened by the loss of lives and is being constantly updated on the situation, a Downing Street spokesman said.

The public-housing block was built in 1974 and recently went through an £8.6 million (\$11 million) refurbishment, including new exterior cladding and a new heating system.

The cladding appears to have significantly contributed to the spread of fire, said Angus



A firefighter inspects damage inside the apartment building.

wasn't immediately clear how many residents heeded the advice and what impact this may have on the final death toll.

David Collins, the former chairman of the Residents Association for Grenfell, told the BBC that residents' concerns included the location of the building's water heaters and fire escape routes.

A spokesman for the Kensington and Chelsea Tenant Management Organization, which manages the building for the local Kensington and Chelsea council, couldn't be reached.

The council said it was "distressed at the terrible news of the fire" and was focused on supporting emergency responders. "The cause of the fire will be fully investigated and we will keep people informed," it said.

Rydin Group Ltd., which carried out the refurbishment, said the work met fire and health and safety requirements.

Vassiliki S. Lorraine, who lives near the tower, said she heard children screaming shortly after the fire started.

"They screamed very loud, 'save us, save us, save us' and 'can we jump?'" but the cries

stopped after about an hour, she said. "There was a lady on one of the top floors with a [flashlight]. She was absolutely out of her mind. Everyone was telling her to wait for the fire brigade to rescue her. She was still screaming around 4 o'clock."

A woman identified only as Zoe told the British Broadcasting Corp. that she had escaped from the fourth floor after someone banged on her door and told her to get out.

"When I got on the landing it was thick with smoke but the smoke alarms weren't going off, which is quite scary," she said. "Then I just ran down the stairs. You could see the fire is in one of the flats."

Paul Littlejohn, who lives across from the tower, told the BBC he saw people jump from the building or try to climb out on bed sheets.

London Mayor Sadiq Khan said "there will be a great many questions over the coming days as to the cause of this tragedy and I want to reassure Londoners that we will get all the answers."

—Michael Wright,  
Jason Douglas, Jenny Gross  
and Joanna Sugden  
contributed to this article.

## Australia Settles Abuse Lawsuit With Asylum Seekers

By ROB TAYLOR

CANBERRA—Australia will pay 70 million Australian dollars (US\$53 million) in compensation to hundreds of asylum seekers held in Papua New Guinea, some of whom may soon be heading to the U.S.

Lawyers for 1,905 current and former inmates at the Australia-backed refugee-processing center on Manus Island said Wednesday they had agreed to the settlement, the largest ever in a human-rights case in Australia. Their class-action lawsuit alleged physical and psychological abuse as well as false imprisonment. On average, each inmate will get around A\$37,000.

The people detained on Manus Island have endured

extremely hostile conditions, but they will no longer suffer in silence," said Andrew Baker, a lawyer at Slater & Gordon, the firm that spearheaded the two-year lawsuit.

"Most were fleeing religious persecution and violence and came to Australia seeking protection, only to be denied their basic human rights."

Australian Immigration Minister Peter Dutton said in a statement that settling the case was considered more prudent than going ahead with a trial expected to cost millions of dollars in legal fees and last more than six months. As part of the settlement the government denied liability, arguing the camp was overseen by the Papua New Guinea government, according to Rory

Walsh, lead lawyer on the inmate side.

Australia's government recently admitted that Papua New Guinea soldiers opened fire indiscriminately at the Manus center in April, injuring nine people.

"Our voices have never been listened to but today we are finally being heard and I hope everyone's suffering can be over as quickly as possible," said the lead plaintiff, Iranian inmate Majid Kamasaee, in a statement released through lawyers.

Rights groups and the United Nations have long condemned Australia's policy of intercepting migrants and asylum seekers at sea and sending them to camps in Nauru or Papua New Guinea while their

refugee claims are assessed. Some have been held for almost four years.

Late in the Obama administration, the U.S. agreed to resettle 1,250 of the refugees, mostly from Afghanistan, Pakistan, Iraq, Iran and Sri Lanka—a deal derided as "dumb" by President Donald Trump after a contentious January phone call with Australian Prime Minister Malcolm Turnbull.

Though Mr. Trump threatened to pull out of the deal, the U.S. is preparing to accept the first refugees by September, said a report this week by the U.S. Center for Immigration Studies, a Washington think tank that favors restricting immigration. About 850 people had been put forward

by the U.N. as candidates, the report said, with decisions on the first 70 due within weeks, after an accelerated process that began with Department of Homeland Security interviews in May.

The Manus center is scheduled to shut down in October, following a ruling last year by Papua New Guinea's highest court that detention at Australia's behest is unconstitutional. Detainees must be sent elsewhere or agree to settle in impoverished Papua New Guinea.

Australia's top court last year ruled that detaining asylum seekers in third countries is legal, and the policy has wide support among voters there—only 25% believe it is too tough, an Essential Media

survey last month found, while 61% believe it is either correct or too soft. It has also drawn interest from European nations roiled by migrants fleeing Syria and Africa.

The class action alleged Australia's government and the companies it hired to run the detention centers—G4S and later Broadspctrum—oversaw a system in which detainees suffered "serious physical and psychological injuries."

The case covered only refugees and asylum seekers held on Manus Island between November 2012 and December 2014. During riots there in February 2014, Iranian inmate Reza Barati was killed by guards and more than 70 other detainees were injured.

## WORLD WATCH

### UKRAINE

#### Tillerson Backs A Moscow-Kiev Deal

Secretary of State Rex Tillerson said the U.S. would support efforts by Russia and Ukraine to resolve a yearslong conflict outside of an internationally backed agreement signed by both countries, the implementation of which has long been a U.S. condition for lifting sanctions against Moscow.

The comments by Mr. Tillerson, in testimony Wednesday before the House Foreign Relations Committee, appeared to mark a departure from longstanding U.S. policy and represents a potential break from other world powers, including Germany and France, who have supported the cease fire and peace accords reached in Minsk, Belarus, in 2014 and 2015.

"I think it's important we be given sufficient flexibility to achieve the Minsk objectives," Mr. Tillerson said. He added: "It's possible that the govern-



### CUBA

#### U.S. to Scale Back Opening to Havana

The Trump administration likely will scale back policy changes it believes have benefited the Cuban government while preserving some of the increased commercial activity that has begun after former President Barack Obama moved to normalize U.S.-Cuban ties, Secretary of State Rex Tillerson said Tuesday.

President Donald Trump is expected to announce an amended Cuba policy during an appearance in Miami on Friday, according to people familiar with administration discussions. The White House hasn't confirmed Mr. Trump's plans.

Sen. Bob Corker (R., Tenn.), chairman of the Senate Foreign Relations Committee, said Tuesday that he knew Mr. Trump would announce the changes Friday, and asked Mr. Tillerson to explain them further.

### SPAIN

#### Premier Survives Confidence Vote

Spanish Prime Minister Mariano Rajoy survived a parliamentary vote of confidence on Wednesday, but the two-day debate was an uncomfortable public airing of the corruption investigations that have dogged his party.

Lawmakers rejected by 170 to 82 the no-confidence vote against Mr. Rajoy, who was re-elected prime minister of the eurozone's fourth-largest economy at the end of October. Ninety-seven lawmakers abstained.

As expected, the only votes in favor of ousting the prime minister came from far-left Podemos, the three-year-old party that called the no-confidence motion, and some other left-wing parties.

Podemos proposed its leader, 38-year-old Pablo Iglesias, as the successor for the 62-year-old Mr. Rajoy.

—Jeannette Neumann

ment of Ukraine and the government of Russia could come to a satisfactory resolution through some structure other than Minsk, but would achieve the objectives of Minsk, which we're committed to."

Mr. Tillerson previously has said the U.S. would maintain sanctions against Russia until

the Minsk agreements are fully implemented, and Washington and European allies have long been united in demanding so.

—Felicia Schwartz

—Felicia Schwartz

the Minsk agreements are fully implemented, and Washington and European allies have long been united in demanding so.

—Felicia Schwartz

—Felicia Schwartz

—Jeannette Neumann

## WORLD NEWS

# ISIS Sinks Teeth Into Philippines

By JAMES HOOKWAY

The signs are mounting that the Philippines is now a primary target for Islamic State.

The southern reaches of the mostly Roman Catholic country have long been home to Muslim insurgents seeking to carve out an independent state. Until now, counterterrorism officials and experts have largely viewed local declarations of loyalty to Islamic State founder Abu Bakr al-Baghdadi as little more than pleas for attention. That is changing.

One of the newest insurgent groups shocked the country three weeks ago by marching into Marawi City and waving black Islamic State flags; they are still holding around 20% of the town along with hundreds of hostages. The standoff with the Philippine military so far has claimed the lives of at least 58 security forces, nearly 200 rebels, and dozens of civilians.

Since the May 23 attack, Islamic State has taken a stronger interest in the Philippines, profiling some of the militants in its propaganda magazine *Rumiyah* and falsely claiming responsibility for the burning of a Manila casino that left 37 people dead; police say it was in fact a botched robbery by a heavily indebted gambler.

On Sunday, Philippine President Rodrigo Duterte said "it appears that al-Baghdadi himself, the leader of ISIS, has specifically ordered terrorist activities here in the Philippines." Mr. Duterte didn't say



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how he knew about Mr. Baghdadi's instructions.

Islamic State's spokesman, in an audio recording circulated on Tuesday, appeared to single out the Philippines for further attacks and praised the assault on Marawi.

The battle for Marawi is being waged by one of the region's most powerful militias, and its aftermath could determine whether Islamic State can lay down a marker in the Philippines.

Some intelligence officials now worry that the Philippines' growing profile in jihadist circles could bring more foreign fighters to its shores as Islamic State loses ground in Syria and Iraq. Amid the losses in the Middle East, Islamic State has said it was behind an array of attacks around the world, in a bid to sustain its power.

Governments across South-



A Philippine soldier takes aim at militant positions from a rooftop in the southern city of Marawi, where jihadis have taken hold.

east Asia and Australia already are watching the Philippines with concern as militants from Indonesia, Malaysia, Yemen and Saudi Arabia join the fight. The U.S. is getting involved: U.S. Special Operations Forces are providing support for the Philippine military in Marawi.

The danger, said an intelligence official in the Philippines, is that "the southern Philippines is becoming a cause célèbre again."

The potential for recruiting the Philippines' Muslim minority, whose lands were gradually taken over by waves of settlers under Spanish then American colonizers, has long drawn the interest of foreign jihadists.

Osama bin Laden was in regular contact with the late Muslim separatist leader Hashim Salamat, while the architect of the September 11 at-

tacks on the U.S., Khalid Sheikh Mohammed, planned an attempt on the life of Pope John Paul II in Manila in the 1990s and railed against the U.S.'s support for the Philippine government in a letter to then-President Barack Obama in 2015 from detention at Guantanamo Bay.

The Philippines' porous borders and lax immigration control also make it an attractive destination for foreign extremists, according to Sidney Jones, a terrorism expert at the Institute for Policy Analysis of Conflict in Jakarta. Fighters are also attracted, in part, because some of the combatants have extensive networks, Ms. Jones said.

"They're really quite sophisticated and have a lot of resources to draw on, and that's attractive," she said.

Islamic State's emir in the

Philippines is Isnilon Hapilon, a 51-year-old commander with the Abu Sayyaf terrorist group, which was seeded in the 1990s with help from al Qaeda. He swore loyalty to Islamic State in 2014, and since then has built an alliance with the Maute family, an aristocratic landowning clan who are able to command hundreds of followers.

Ms. Jones said the Mautes are likely the brains behind the Marawi operation, particularly 37-year-old Omarkhayam Maute.

Once the captain of the school baseball team in Marawi City, Omar, as he is known, studied Islam in Egypt and later married the daughter of an influential conservative cleric in Indonesia and has strong ties there. Indonesian armed forces chief Gen. Gatot Nurmantyo told report-

ers Monday that there were Islamic State sleeper cells in nearly every province of the country.

Omar returned to the southern Philippines where he and his brother Abdullah Maute took the reins of the family's local militia. The militia had been used to help settle local political scores, but in 2015, the brothers publicly aligned it with Islamic State.

Their ultimate goal, senior Philippine officials said, was to take control of Marawi, the Philippines' largest Muslim-majority city.

Military officials said they are trying to determine whether the Maute brothers are among several guerrillas killed in a battle with troops on Saturday. Their parents have been arrested as troops continue trying to clear militants from Marawi.

## Islamic State Attacks Iraqi Forces

ERBIL, Iraq—Islamic State fighters armed with machine guns and wearing suicide vests launched a counterattack against Iraqi government forces in western Mosul, po-

By Ben Kesling,  
Awadh Altaie  
and Ghassan Adnan

lice officials said, briefly retaking control of some city blocks before they were beaten back.

In the operation early Wednesday, at least 50 Islamic State fighters slipped from their positions in the Old City, with some moving down the bank of the Tigris River and evading defenses established

by U.S.-backed Iraqi forces, said Col. Faris Radhi, a top official in Iraq's Federal Police.

Underscoring the resilience of the estimated hundreds of Islamic State fighters still in the Old City, the militants swept into the Dendan neighborhood and set houses on fire, sending plumes of black smoke into the sky in what police said was an attempt to hamper air support for Iraqi government forces on the ground.

The death toll of civilians and combatants wasn't immediately known, as government forces continued to search the area late Wednesday, Col. Radhi said. Islamic State said it killed 40 police and seized

weapons in the attack.

Col. Ryan Dillon, spokesman for the U.S.-led international coalition fighting Islamic State, said no ground had been lost to Islamic State in Wednesday's fighting. He didn't respond to questions whether smoke from the burning houses impaired efforts to provide coalition air support for government ground forces.

Since driving Islamic State from eastern Mosul in January, Iraqi forces have seized large swaths of territory in the west of the city and have largely bottled up the militants in a small area of the Old City.

Dendan abuts the southern edge of the Old City's southern edge and was retaken by gov-

ernment forces from Islamic State months ago. Federal Police established defenses there, and some people had moved back into their homes nearby.

The government's campaign to take out Islamic State from Mosul began in October and in recent weeks, government forces have sought to complete and tighten their encirclement of the Old City, where tens of thousands of civilians are also believed to be holed up in addition to the militants.

The fighting to remove Islamic State from its last stronghold in the city is expected to be especially brutal because of the neighborhood's densely packed buildings and narrow, twisting streets.



An Iraqi Army helicopter launched a missile against Islamic State positions in western Mosul on Wednesday.

## Qatar Sets Up New Transport Links

By NICOLAS PARASIE  
AND SUMMER SAID

DUBAI—Tiny Qatar, cut off by its Arab neighbors, is trying to break out of its sudden isolation in ways that could reshape trade and transport in the region.

Qatar Airways, which already flies to 150 foreign destinations, plans to redeploy aircraft to serve new markets beyond the Middle East after Saudi Arabia, the United Arab Emirates, Bahrain and Egypt severed diplomatic ties with Qatar last week and closed their air, sea and land borders with the country.

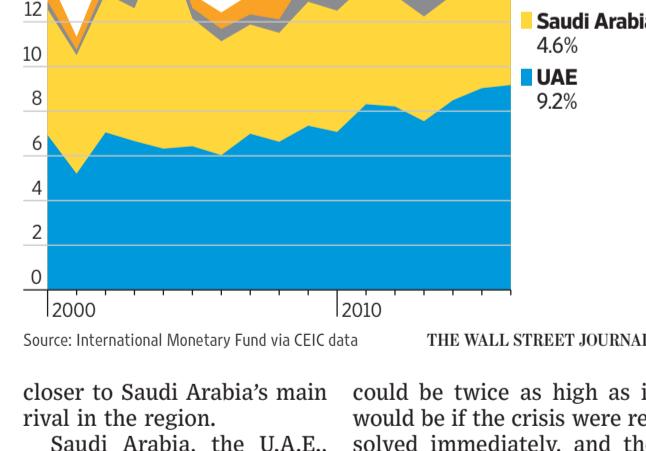
"We don't know how long this will last so we have to mitigate the risk by continuing our growth into markets that are outside this region," said Akbar Al Baker, chief executive of Qatar Airways, which has grounded about 50 daily flights to 18 destinations in the other four countries.

The airline funnels millions of passengers every year through its hub in Doha, the Qatari capital, helping boost tourism and business, which are vital to Qatar's plan to diversify its energy-dependent economy.

Qatari tankers, meanwhile, are avoiding the Suez Canal and looking into using ports in Oman now that they are shut out from the U.A.E., where they have traditionally stopped to refuel and to load and unload cargo. Qatar has also received shipments of food from Iran and is using Iranian airspace, drawing

### Import Impact

The four countries that recently cut diplomatic ties with Qatar combined to supply roughly one-sixth of its imports in 2016.



Source: International Monetary Fund via CEIC data

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closer to Saudi Arabia's main rival in the region.

Saudi Arabia, the U.A.E., Bahrain and Egypt accused the Qatari government of meddling in their affairs and harboring extremists. Qatar has denied the allegations.

Soon after the crisis erupted, residents of Doha emptied supermarkets to stock up on food items such as milk and chicken, before the government stepped in to quell concerns about potential shortages.

Shippers that supply Qatar with food, clothing and electronics remain wary of accepting cargo to and from the country, brokers say.

If the Arab sanctions remain in place for more than six months, inflation in Qatar

could be twice as high as it would be if the crisis were resolved immediately, and the growth rate for Qatar's gross domestic product could be cut in half from 2016, to 1.1%, the Institute of International Finance estimates.

The dispute between Qatar and its Arab neighbors is fraught for the U.S., because Qatar hosts the largest American military base in the region. U.S. military officials have expressed concern over prospects for the base, saying current operations haven't been interrupted or curtailed, but that long-term planning may be hindered.

"We're watching that very, very closely, but we've had good cooperation from all the

parties to make sure that we can continue to move freely in and out of Qatar," Gen. Joe Dunford, chairman of the Joint Chiefs of Staff, testified Tuesday at a Senate hearing on the military budget.

Qatar has focused on ensuring that air and sea routes remain open. Its only land border is with Saudi Arabia.

Qatar's main ports management company said it has established a direct shipping route between Doha's Hamad Port and Sohar Port in Oman, which has stayed out of the Gulf rift. The new shipping service will operate three times a week.

"The company is keeping an eye on the developments and is well equipped to ensure that the country's requirements" are handled, said Capt. Abdul Aziz al Yafei, director of Hamad Port in Qatar.

Some ships carrying Qatari liquefied natural gas to Europe, meanwhile, are bypassing the Suez Canal, even though Egypt hasn't closed the waterway for Qatari ships. Qatar, which depends on energy exports for a major chunk of its budget revenues, is the world's largest exporter of LNG with a 30% market share.

A Suez Canal official said the decision to change routes for some Qatari ships was "probably a message to Egypt that Qatari shipments don't really need the Suez Canal and can survive without it regardless of the cost."

Gordon Lubold contributed to this article.

## Pentagon to Decide Afghan Troop Levels

By DION NISSENBAUM  
AND GORDON LUBOLD

WASHINGTON—President Donald Trump has given the Pentagon unilateral authority to send thousands of new American troops to Afghanistan at its discretion, a U.S. official said Tuesday, clearing the way for the U.S. military to intensify its fight against the Taliban and Islamic State extremists in the region.

The decision to delegate control over troop decisions to the Pentagon, which was expected to be announced Wednesday, sets the stage for U.S. commanders to begin sending more forces to the country, after years of reductions made in the hope Kabul could handle internal threats on its own.

Earlier on Tuesday, Defense Secretary Jim Mattis told the Senate Armed Services Committee that the U.S. is "not winning" the war in Afghanistan and that he was ready to take steps to address resurgent Taliban militants.

The White House decision to cede authority to Mr. Mattis is another reflection of Mr. Trump's push to give the military wide latitude around the world. The White House has already given the Pentagon more power to carry out strikes in Yemen and Somalia.

In April, Mr. Trump gave Mr. Mattis similar freedoms in Iraq and Syria when he lifted a troop cap set by his predeces-

sor. But, unlike Iraq and Syria, the power is expected to have a bigger impact in Afghanistan, where the Pentagon could move expeditiously to send thousands of troops back into a 16-year war that has claimed the lives of more than 2,300 members of the U.S. military since 2001.

The top U.S. commander in Afghanistan has been urging the Trump administration for months to send more troops to Afghanistan. But a decision to do so has met with resistance from some members of the administration, who are wary of being dragged back into a fight that could require more forces, firepower and money.

The U.S. once had 100,000 troops in Afghanistan, after then-President Barack Obama approved a military surge in 2009 at a time when the war against the Taliban appeared to be in danger of failure.

Before leaving office, Mr. Obama declared an end to major military operations and sharply scaled back the U.S. military presence in Afghanistan. There now are fewer than 9,000 U.S. troops in Afghanistan, primarily to help advise and train Afghan forces, which have struggled to secure their country.

The Pentagon has been weighing plans to send between 3,000 and 5,000 troops to Afghanistan. But that decision could still take weeks, the U.S. official said.

# U.S. NEWS

## Sessions Calls Russia Collusion a 'Lie'

Attorney general says he never talked to Russian officials about election interference

Attorney General Jeff Sessions told a Senate panel on Tuesday that he never met with any Russian officials last

By Aruna Viswanatha,  
Paul Sonne  
and Del Quentin Wilber

year to discuss the presidential campaign and any suggestion that he colluded with them to help Donald Trump was "an appalling and detestable lie."

Mr. Sessions defended his role in firing former FBI Director James Comey, saying his decision to step aside from campaign-related investigations didn't apply to broad oversight of the Justice Department. He also refused to discuss the content of any conversations he had with President Trump on the subject.

Mr. Sessions, a former Republican senator from Alabama and a top adviser to Mr. Trump during the campaign, spoke forcefully before the Senate Intelligence Committee, saying he needed to defend himself from "scurrilous" accusations.

Mr. Sessions was at times combative and folksy in answering and parrying questions as he sought to dispel some of the shadows cast in part by Mr. Comey's testimony

last week about the attorney general's behavior.

Mr. Sessions alternated between strong denials and hazy recollections, saying he couldn't recall whether he had a passing encounter with the Russian ambassador to the U.S. at the Mayflower Hotel in Washington or any other undisclosed interactions with Russian officials.

Tuesday's hearing became heated at times, as Mr. Sessions said he didn't appreciate the "innuendo being leaked out there about me" while Sen. Ron Wyden (D, Ore.) suggested Mr. Sessions was "stonewalling" by declining to answer questions about his conversations with the president.

Mr. Sessions said he was protecting the president's "constitutional right" to keep such conversations confidential and citing a Justice Department policy on not commenting on conversations between the attorney general and the president.

Such answers didn't satisfy the Democratic senators on the committee. Sen. Martin Heinrich (D, N.M.) accused Mr. Sessions of blocking the Senate inquiry. "You took an oath," the senator said. "You raised your right hand here today and said that you would solemnly swear to tell the truth, the whole truth and nothing but the truth. And now you're not answering questions. You're impeding the investigation."

Testimony last week from



Attorney General Jeff Sessions said he needed to defend himself from 'scurrilous' accusations.

Mr. Comey before the same panel intensified attention on Mr. Sessions' interactions with the Russian ambassador, Sergey Kislyak. But he said his two meetings with Mr. Kislyak had nothing to do with the campaign. "I have never met with or had any conversations with any Russians or any foreign officials concerning any type of interference with any campaign or election," Mr. Sessions said. He also said he had "racked my brain" to see if he could recall a third meeting but couldn't.

The Senate Intelligence Committee and several other con-

gressional panels are investigating Russia's alleged interference in the 2016 election. The Russian government denies that, and Mr. Trump has called the probes a "witch hunt." He has said no one on his campaign coordinated with the Kremlin.

The attorney general's highly anticipated testimony came after Mr. Comey portrayed Mr. Sessions as an attorney general who did little to manage a relationship between Mr. Trump and Mr. Comey that was becoming increasingly problematic. The former FBI director also hinted that there

were reasons Mr. Sessions had to step away from the investigation into Russian interference in the election beyond what was publicly known.

Mr. Comey's abrupt firing on May 9 set off a chain of events that led to the appointment of Robert Mueller as special counsel to oversee the FBI's Russia probe.

Democrats have raised questions in recent days about why Mr. Sessions recommended that the president dismiss Mr. Comey, given Mr. Trump's suggestion that he fired Mr. Comey at least in part because

of his handling of the Federal Bureau of Investigation's Russia probe.

During his January confirmation hearing, Mr. Sessions said he would recuse himself from any investigations involving Mr. Trump's opponent in the campaign, Hillary Clinton. In March, he stepped aside from any investigations into the 2016 campaign, including into Russian interference, after it emerged he hadn't disclosed two meetings with Mr. Kislyak he had during the campaign.

In response to questions about why he then played a role in Mr. Comey's firing, Mr. Sessions said the recusals do "not and cannot interfere with my ability to oversee the Department of Justice, including the FBI, which has an \$8 billion budget and 35,000 employees."

He added: "I recused myself from any investigation into the campaigns for president, but I did not recuse myself from defending my honor against scurrilous and false allegations."

Mr. Sessions declined to say if he had talked about Mr. Comey's handling of the Russia investigation with Mr. Trump. And he couldn't explain the disparity between the reasons he and Deputy Attorney General Rod Rosenstein gave for firing Mr. Comey—namely the director's handling of the Clinton email investigation—and Mr. Trump's claim in an interview with NBC's Lester Holt that "this Russia thing" played into the decision.

## SHOT

Continued from Page One

Witnesses described seeing a gunman with a rifle open fire from near the third-base dugout at Eugene Simpson Stadium Park in Alexandria. Dozens of shots pierced the early-morning calm, as congressional aides and about 22 lawmakers practiced batting and fielding. Local residents walked their dogs in the muggy heat.

Police immediately opened fire on the gunman, police and witnesses said.

The Republican team, guarded by officers with the U.S. Capitol Police on a detail protecting Mr. Scalise, the House's third-ranking member, was warming up ahead of Thursday night's charity baseball game at Nationals Park against the Democratic Party's team.

Mr. Scalise was shot as he stood by second base, and he dragged himself into the outfield in a bid to reach safety, witnesses said.

Also wounded were Zach Barth, a staff member of Rep. Roger Williams (R, Texas), Mr. Williams' office said, and Matt Mika, a lobbyist for Tyson Foods Inc., the company said. Mr. Williams, who has been the Republican coach of the baseball team since 2013, wasn't shot, his office said.

Mr. Scalise was taken to MedStar Washington Hospital Center, his office said. A spokeswoman for George

### Scalise Known for Devotion to His Congressional Team

WASHINGTON—House Majority Whip Steve Scalise, the Louisiana Republican shot in the hip at Wednesday's congressional baseball practice, has been the third-ranking House Republican for three years.

House Republicans elected Mr. Scalise, one of their most gregarious colleagues, to be their whip in June 2014 in the leadership shuffle following the unexpected primary defeat of former Majority Leader Eric

Cantor (R, Va.). As whip, Mr. Scalise is tasked with counting the votes of the 237 other House Republicans and helping corral the often fractious group.

Buoyed by support from fellow Southerners, Mr. Scalise elbowed out Rep. Peter Roskam (R, Ill.) and former Rep. Marlin Stutzman (R, Ind.) in the race to succeed Rep. Kevin McCarthy (R, Calif.), who was elected majority leader.

Mr. Scalise has long been known for his devotion to the congressional baseball team. He had bats emblazoned with team mottos made during his leadership race and his office is festooned with jerseys from

past games. In fact, Mr. Scalise began the day when he was elected whip by attending congressional baseball practice.

Mr. Scalise was undergoing surgery Wednesday and his office said he was in "good spirits" at the hospital.

A former computer programmer, Mr. Scalise was first elected to the House in May 2008 to fill a vacancy created when former Rep. Bobby Jindal resigned. Before joining the House GOP leadership, Mr. Scalise served as the chairman of the Republican Study Committee, a large group of conservative House Republicans.

—Kristina Peterson

Washington University Hospital said it had received two other patients after the shooting and that both were in critical condition. The hospital didn't confirm the identity of those patients. Separately, Mr. Trump said the two shot officers were in "stable condition."

The Federal Bureau of Investigation was taking the lead on the investigation because it involves a member of Congress, police said. The FBI said it had found no indication the shooting had links to international terrorism. FBI and Secret Service agents were scouring databases to see if the suspect had previously appeared on investigators' radar.

Alexandria Police Chief Michael Brown said five individuals were transported to local hospitals. Law-enforcement officials wouldn't say if that

number included the suspect. "We are not going to get into any details because it is very early in this investigation," said Capitol Hill Police Chief Matthew Verderosa at a briefing held near the park.

Sen. Rand Paul (R, Ky.), who was in the batting cage at the time of the shootings, said he heard a single shot followed rapidly by a string of about 10 shots.

Mr. Paul said he then heard more rounds of gunfire. "I probably heard 50, 60 shots," he said. There was no way to get to the people in the field, he said on MSNBC.

He added, "Everybody probably would have died except for the fact that the Capitol Police was there," which was only due to Mr. Scalise's presence.

Rep. Jeff Duncan (R, S.C.)

said in an interview that he and Rep. Ron DeSantis (R, Fla.) left practice early and were stopped by a man asking if the team practicing was the Republicans or Democrats.

"I said 'Republicans' and he said 'thanks' and walked off," Mr. Duncan said. He said he believed the man was the shooter.

The Alexandria Police Department contacted Mr. Duncan and asked him to give a statement about the interaction.

The field is near a YMCA, and the practices often draw spectators, so "to have somebody ask me that question did not seem out of the ordinary," Mr. Duncan said from an Alexandria police station.

The congressional baseball game has taken place each summer for more than 100 years. The game raises money for charity and is one of the

last truly bipartisan social events on Capitol Hill. Republicans have been practicing every morning since late April. The practice sessions provide an opportunity for lawmakers to form deep friendships.

The game is also intensely competitive. After years of losing to the Democrats, Republicans last year made a comeback, breaking a years-long losing streak. The coach, Mr. Williams, is a former professional baseball player. Former professional baseball player Larry Hardy has also been helping to coach the GOP team and was at the practice at which the shooting took place, a lawmaker said.

The incident occurred in a quiet part of Alexandria known as Del Ray, considered by residents to be a Mayberry-like community with small

bungalows, restaurants and bike shops, where people know one another by name.

Holly Jackson, who lives in Alexandria, was in the dog park next to the baseball field when the shooting took place. She and others in the dog park got down on the ground, and dogs "started running around, terrified."

"They were playing baseball. I was like, 'Wow, some guy just hit a really hard shot.' And then I was like, 'That is not a baseball,' she said. "And then several more rang out. People started scattering."

She saw lawmakers in baseball uniforms climb over a fence surrounding the dog park, trying to escape, she said.

—Byron Tau,  
Louise Radnofsky  
and Del Quentin Wilber  
contributed to this article.

## FED

Continued from Page One

The Fed's plan would start reducing the holdings by allowing a small amount of net maturities a month—\$6 billion in Treasury securities and \$4 billion in mortgage bonds—and letting that amount rise each quarter, essentially setting a speed limit for any wind-down. Those limits would ultimately rise to a maximum of \$30 billion a month for Treasurys and \$20 billion a month for mortgage securities.

The reinvestments have helped to hold down long-term interest rates and allowing them to roll off without reinvestment could push up long-term rates. The Fed has been buying around \$24 billion in mortgage securities a month this year and around \$17.5 billion in Treasurys, according to FTM Financial.

The Fed said "all participants" had agreed to update their principles for reducing the balance sheet. "The committee currently expects to begin implementing a balance sheet normalization program

this year, provided that the economy evolves broadly as anticipated," the rate-setting Federal Open Market Committee said.

The moves Wednesday mark the latest test of the economy's ability to stand on its own as the central bank dial back the extraordinary stimulus measures it unleashed through successive bursts of bond purchases to boost household and business spending after the 2008 financial crisis.

Together with the decision to raise interest rates, the moves signal officials believe the economy will keep growing and the job market will stay healthy as the central bank withdraws support.

Fed officials marked down their projections for inflation this year, though they still see annual price gains reaching their 2% target by the end of 2018. They now expect prices excluding food and energy to rise 1.7% this year, from a projection of 1.9% in March.

Officials also dropped their unemployment rate forecast to 4.3% for the end of 2017 and to 4.2% at the end of 2018 and 2019, compared with their March projection, which saw an

unemployment rate at 4.5% in each year. Officials see the unemployment rate over the long run rising to 4.6%, down from 4.7% in the March projection.

Officials also released their updated projections for the economy and the path of interest rates. Their median expectation for the federal-funds rate showed few changes from projections released in March. The projections put short-term rates between 2.0% and 2.25% at the end of 2018, implying three more quarter-point increases next year, and between 2.75%

and 3% at the end of 2019, implying three additional quarter-point increases.

Such projections aren't set in stone and reflect how the views of Fed officials have shifted. In recent weeks, officials said they see opportunities to raise rates due to a brightening economic outlook and easing financial conditions, and they have dismissed the inflation softness as transitory.

Minneapolis Fed President Neel Kashkari cast a dissenting vote Wednesday because he wanted to hold rates steady.

The central bank had held short-term rates steady since March, when it raised them by a quarter-point to a range between 0.75% and 1%, the third increase since June 2006. The Fed held rates at near zero from the end of 2008 through most of 2015, before lifting the benchmark rate once in late 2015 and once in late 2016.

Wednesday's rate increase had been largely anticipated by investors and analysts, but expectations for how the Fed's plans later this year will unfold aren't clear.

In recent years, officials faced a recurring predicament in which they signaled a desire to tighten policy only to hold off after the economy underperformed or faced risks from abroad. That hasn't happened so far this year, and in fact financial conditions have eased, with stocks rising to new highs and bond yields drifting lower. Consumer and business confidence surveys have remained buoyant.

But inflation has weakened. When officials raised rates in March, the Fed's preferred inflation measure, released by the Commerce Department, showed prices excluding food

and energy had risen 1.8% over the year ended February, matching the strongest reading in nearly five years.

Since then, inflation has ticked lower, due only in part to an idiosyncratic decline in wireless phone plans. Core inflation, according to the Fed's preferred gauge, rose 1.5% over the year ended April.

A separate measure of inflation released Wednesday by the Labor Department showed price pressures remained muted in May, with more broad-based softness in categories that include used cars and apparel. As a result, economists at J.P. Morgan Chase & Co. expect core prices measured by the Fed's preferred inflation to show an annual gain of less than 1.4% in May.

In recent weeks, officials have said they expect low unemployment will ultimately force inflation to firm up and to eventually move closer to its 2% target, and they will want to see several more months of inflation readings before they significantly change their plans.

Still, the inflation softness has made markets even less likely to expect the Fed to raise rates over the coming year.

### On the Rise

Federal-funds interest rate target



Source: Federal Reserve

THE WALL STREET JOURNAL.

## U.S. NEWS

# Apprentice Programs Expanding

BY DOUGLAS BELKIN  
AND ERIC MORATH

Victor Gutierrez was working his way through community college by balancing two dead-end jobs when he heard about an apprenticeship that would enable him to finish his coursework while earning a paycheck.

"It fit perfectly," he said.

But Mr. Gutierrez, 18 years old, isn't studying welding or auto mechanics. He is majoring in business management—and the apprenticeship is in a landmark skyscraper which houses Aon PLC, one of the largest insurers in the world.

In addition to free tuition and training, the Chicago resident earns \$38,500 a year. He is among a small but growing number of young people apprenticeship in fields that require a suit and tie instead of coveralls and gloves.

President Donald Trump was expected to announce Wednesday a plan to expand apprenticeship programs into nontraditional industries in an effort to fill a record level of open jobs and draw back millions of Americans who have left the workforce.

To help fund the apprenticeship program, the White

House aims to use the money from fees paid by companies to bring in foreign workers, according to several people familiar with the plan.

The plan echoes Mr. Trump's "America First" campaign. But despite the rhetorical appeal of tying the two programs together, it is unclear how significant the reallocation would be given that some of that money is already directed to job-training programs and given that the visa program's fees are set in law.

The government has promoted apprenticeships since the Franklin Roosevelt administration. The Obama administration spent \$90 million last year intended to expand apprenticeships to nontraditional fields, including restaurants and hotels.

Firms ranging from J.P. Morgan Chase & Co. to Northrop Grumman Corp. to International Business Machines Corp. have embraced apprenticeship-style programs.

The move toward white-collar apprenticeships comes as the number of U.S. job openings hit a record 6.04 million in April and the cost of a college degree has scared off many potential students.

That tightening of the labor



Victor Gutierrez, a student majoring in business management, has an apprenticeship at insurance company Aon in Chicago.

market has prompted corporations to increase the amount of money they spend on training. That, in part, is fueling the expansion in apprenticeships, particularly for middle skills jobs which don't require a college degree.

"American companies want to hire," said Labor Secretary Alexander Acosta. "The issue is a mismatch between available jobs and prospective employees' job skills. This skills gap is a particular challenge in some of the fastest-growing sectors of the economy—health care

and information technology."

Traditionally, apprenticeships in the U.S. have been rooted in the skilled trades. More than two-thirds of federally registered apprentice programs are in construction and manufacturing, according to the Labor Department. And many of those are associated with unions, which provide the training to future members. Only 13 of more than 8,000 federal programs are in the finance and insurance field.

The administration sees the

model working in fields as diverse as retail, paralegal work and policing.

Unlike most internships, apprenticeships involve training toward a specific job and a promise to get one at the end.

In Germany, roughly half of high-school graduates opt for apprenticeships rather than college degrees. One draw: almost certain employment. In the U.S., 87% of apprentices are employed after completing their training, according to the Labor Department.

In America, however, many

high-school students and their parents are reluctant to embrace a career as plumber or welder over a college degree.

The average starting salary of apprentices is about \$60,000 a year, considerably more than most college graduates, Labor Secretary Acosta said. A U.S. Commerce Department report found apprenticeships cost companies between \$25,000 and \$250,000 a year but the return on the investment is strong for employers because graduates of apprenticeship programs have less turnover.

## Google Addresses Housing Crunch

BY LAURA KUSISOTO

VALLEJO, Calif.—Soaring home prices and apartment rents in Silicon Valley have become a growing headache for technology titans. Google owner Alphabet Inc. is taking a step toward addressing the issue.

The Mountain View, Calif., company is finalizing an order to buy 300 apartment units from Factory OS, a modular-home startup, in a building likely to serve as short-term housing for Google employees, according to executives from both companies.

The expected value of the deal is \$25 million to \$30 million, according to Rick Holliday, founder and chief executive of Factory OS. It would be the first order for the company.

Modular-building technology, essentially factory-built homes that are pieced together on-site, could help reduce the cost of construction in the Bay Area by 20% to 50%, experts said.

"Anything that can help us to move forward with a greater knowledge of how we can produce housing more effectively is something we're interested in," said John Iggoe, director of design and construction at Google. "We absolutely are confident that it will work. Hopefully it doesn't become false bravado."

To be sure, modular-building companies in places like California and New York have failed over the years, and the approval process can be just as difficult if not more so, because the technology is still developing. And so far, the cost savings haven't been as big as developers have hoped,



A Factory OS project for Holliday Development in San Francisco, which was completed in 2016.

though experts predict costs will come down sharply as the industry evolves.

As Silicon Valley battles its severe housing shortage, tech companies are becoming more active in trying to help solve the problem. Facebook Inc. has pledged to plan and design 1,500 units in Menlo Park, of which 15% will be classified as affordable housing. The project is still in the early planning phase.

A spokesman said the company is considering modular housing and is supportive of Mr. Holliday's project and "anything that has the potential to accelerate building housing in the Bay Area."

In modular construction, also known as prefab, builders

construct entire homes, apartment units or individual rooms in a factory and truck them to home sites, fitting them together like puzzle pieces. The process is quicker and usually cheaper than on-site construction, because companies can work through bad weather and bring more order to a job site.

"We won't have much of a housing market if we don't figure this out," Mr. Holliday said.

Experts said one of the few ways to reduce housing costs would be to build apartment towers in factories. San Francisco rents have jumped by almost 50% since 2010, while home prices have increased 98% since the bottom of the

market in 2009. "We've reached a tipping point where costs are just so high that people are desperate to figure out a solution," said Carol Galante, faculty director of the Terner Center for Housing Innovation and a former federal housing commissioner.

Mr. Holliday, who also is the owner of Holliday Development, a builder of affordable and market-rate housing in the Bay Area, said he became enamored of the idea after years of dealing with labor shortages, chaotic construction sites and difficulty finding workers.

Mr. Holliday expects to begin production of Google's order in the fall, and to employ some 300 people.

## Democrats Outman Trump on Labor

BY ERIC MORATH

The White House is considering William Emanuel, an attorney representing employers at the Littler Mendelson law firm, and Marvin Kaplan, counsel at the independent Occupational Safety and Health Review Commission, according to people familiar with the vetting process.

Mr. Emanuel has a background similar to the chairman's; both spent much of their careers at major law firms representing large companies in employment-law cases. Mr. Kaplan previously was policy counsel to the House Education and the Workforce Committee.

Mr. Emanuel declined to comment through his firm. Mr. Kaplan didn't respond to requests to comment. A White House spokesman said the administration doesn't comment on personnel matters.

Through the first five months of this year, the board has decided about 40% fewer cases compared with the same period in 2016. This year, it hasn't issued any "notable decisions," the designation given to cases that are of broad interest to employers and unions. Last year, 10 such decisions were issued before June.

"The delays are concerning," said Robert Cresanti, president of the International Franchise Association trade group. Uncertainty about how the board could rule in future cases is keeping firms from expanding and leaving it unclear how much involvement a franchisee can have in its franchisee's employment policies, Mr. Cresanti said.

Cases decided before the board don't in themselves set precedent, but that can change if rulings are challenged in federal court. NLRB decisions also guide businesses and unions on how the board could rule in future cases.



The National Labor Relations Board's position on joining unions will have big implications for chains like McDonald's, above.

## Michigan Health Chief Charged in Flint Probe

BY KRIS MAHER

Michigan prosecutors investigating the role of government officials in Flint's lead-tainted water crisis charged the head of the state health department with involuntary manslaughter in connection with an outbreak of Legionnaires' disease.

The charges against Nick Lyon were read in court Wednesday by members of Michigan Attorney General Bill Schuette, according to the Associated Press.

Mr. Lyon, director of the Michigan Department of Health and Human Services, is the highest-ranking official to be charged in the Flint investigation. He couldn't be reached to comment.

A spokeswoman for the attorney general's office declined to comment ahead of a scheduled news conference.

Some experts have linked an outbreak of the disease to poor water quality in the Flint area amid the city's lead contamination.

Flint's drinking water became contaminated when the city switched to using the Flint River as its water source from April 2014 to October 2015. During that time, state regulators failed to require the use of a chemical to prevent pipe corrosion, and lead leached into drinking water from aging lead service lines running to homes.

In September, Corinne Miller, a former Michigan state

epidemiologist, agreed to plead no contest to a misdemeanor count of willful neglect of duty for failing to report an epidemic of Legionnaires' disease in Genesee County in 2014 to healthcare providers and the general public.

**Mr. Lyon is the highest-ranking official to be charged in the investigation.**

In January 2015, Ms. Miller prepared a report about an outbreak of 42 cases of Legionnaires' disease in the county from May to August of

2014, according to her plea agreement. The number of cases exceeded those in the four prior years combined. Ms. Miller told two other officials at the time that the outbreak was related to Flint switching its water source from Detroit's system to the Flint River in April 2014, according to the plea agreement.

In January 2016, the agency issued a notice about the spike in Legionnaires' disease. The agency then said there were 45 cases from June 2014 through March 2015, including seven deaths, and 42 cases from May 2015 through November 2015, including three deaths.

At the time, the agency said it couldn't conclude the outbreaks were related to the change in Flint's water source.

## IN DEPTH

# TOTAL

Continued from Page One  
what he often calls "the energy of the 21st century."

More than any other oil major, Total sees electricity as a hedge against oil's eventual decline and is assembling a new business around it. Last summer, it paid \$1 billion for a French maker of industrial batteries. It bought a small utility that supplies gas and renewable power to households in Belgium and owns a majority stake in SunPower Corp., a California company that makes high-efficiency solar panels for governments, businesses and households.

If all goes to plan, a large piece of Total's business will one day be selling electricity to homeowners and businesses, some generated by natural gas it has extracted and some from solar panels and battery packs. By 2035, Mr. Pouyanné said, 20% of Total's energy output will be low-carbon energy such as electricity from renewable sources like wind and solar. The company recently created a "gas, renewables and power" reporting segment, which in 2016 earned about 5% of Total's \$9.42 billion net operating income.

For decades, Total and other large oil companies have employed a model pioneered by John D. Rockefeller over a century ago. They find crude, pump it from the ground, refine it into different fuels and chemicals and sell them to motorists, airlines and manufacturers. As oil prices rise and fall, different parts of this value chain make money.

Today, a prolonged downturn in oil prices has dented revenues and profits at the world's large producers. Oil demand is expected to come under further pressure as auto makers improve fuel efficiency, electric vehicles become more popular and many countries push ahead with commitments to burn fewer carbon-intensive fuels.

### Power grids

Producing and selling electricity is a very different business. While oil is a commodity that can be extracted in one locale and stored, shipped and sold to other parts of the world, electricity must be produced and consumed simultaneously. Power grids tend to be regional, so electricity generated in Europe can't be sold to Latin America.

Most electricity is generated from coal or natural gas, and increasingly from wind, solar and other renewable energy sources. Burning oil currently generates just 4.3% of global electricity, a share that has halved in the past two decades and is expected to shrink to 2.5% by 2025, according to the International Energy Agency, a Paris-based group that monitors energy trends.

Total is already a large producer of natural gas, a cleaner-burning fuel that is expected to overtake coal by 2040 as a source of electricity because of



Total Chairman and Chief Executive Patrick Pouyanné wants to turn his company into one of the world's biggest energy suppliers.

its flexibility and lower emissions, according to the IEA. While rivals including Exxon and Shell are also bulking up on natural gas production, Total wants to go further and enter the power business.

Predicting and betting on shifts in energy consumption is a notoriously tricky business. U.K. energy giant BP PLC invested heavily in solar power in 2000, only to shut that business in 2011 after struggling to make money. Shell in 2008 pulled out of a large offshore wind power project near the mouth of London's Thames River after costs mounted.

"Oil companies like to talk about themselves as energy companies, but they are not energy companies. They are commodity companies," said Bob Lukefahr, who helped develop BP's renewable strategy in the 2000s.

Capital budgets are beholden to commodity prices and new oil ventures are

company," and that remains a lucrative business. The company's net income last year, \$6.2 billion, was second only to the much-larger Exxon among its Western oil peers. At the same time, he said some investors feel Total needs a diversification plan if governments and the public increasingly demand cleaner energy.

"They have some questions about what will be the impact of climate change on our company. We are trying to bring them some answers," he said.

Some of the challenges are apparent in Mr. Pouyanné's own household. He said he tried and failed to persuade his wife that they should buy an electric car. He still drives a Renault with a conventional engine.

Most industry forecasters expect oil to remain a major source of energy fueling global economies. The IEA says consumer demand for oil will keep growing for another two decades unless governments take sharper action to curb emissions. But electricity consumption is expected to grow faster than oil—2% a year through 2040, compared with oil's 0.5% growth, according to the IEA.

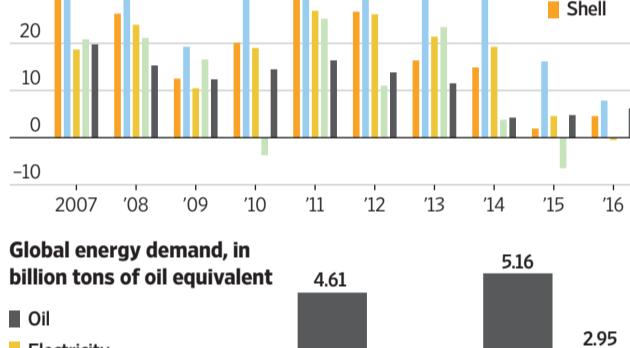
Underlying this shift is a global push to use fuels with lower carbon emissions. Over 140 countries have ratified an 2015 agreement struck in Paris to reduce emissions as a way to tackle climate change. Their methods generally include shifting away from oil and coal and toward energy sources like gas, renewables and even nuclear, which all generate electricity. The U.S. has since said it plans to pull out of the accord.

Producing clean energy was much more expensive in the late 1990s and early 2000s, when oil companies conducted highly public experiments with alternative energy sources.

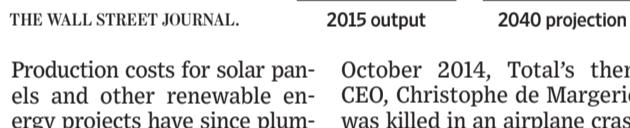
### Energy Prospecting

A prolonged decline in oil prices has dented profits of large oil companies. As global electricity demand grows, France's Total is pivoting to focus more on generating power from gas and renewable energy.

#### Profits of the oil majors



#### Global energy demand, in billion tons of oil equivalent



Sources: Capital IQ (profits); International Energy Agency (demand)

THE WALL STREET JOURNAL.

Production costs for solar panels and other renewable energy projects have since plummeted. "Sometimes you can be wrong if you are 15 years" too soon, said Mr. Pouyanné.

Shell last year led a consortium that won a bid to build a wind farm off the coast of Holland that could power a million homes at prices lower than competing coal and gas projects. Norwegian oil-and-gas company Statoil ASA recently announced plans to increase its spending on renewables from 5% today to at least 15% by 2030, with an emphasis on offshore wind.

"I became CEO at the worst possible moment," he said.

He took over a nearly century-old company with fossil fuel operations in 130 countries. Like its fellow Western oil companies, Total had large exploration, refining and

October 2014, Total's then-CEO, Christophe de Margerie, was killed in an airplane crash in Russia. Mr. Pouyanné, who was running Total's refining and chemicals business, was quickly promoted to the top job. At the same time, a glut of oil was overwhelming demand, causing oil prices to collapse from a high of \$107.26 a barrel to \$53.27 by the end of the year. Total recorded a \$5.7 billion loss in the final quarter of 2014, its worst quarterly result in decades, and the first quarter with Mr. Pouyanné at the helm.

"There is no model to emulate," he said.

Last June, Total acquired another piece of the puzzle it is trying to assemble when it paid about \$200 million for Lampiris NV, a gas and renewable power retailer in Belgium. After operating for a little over a decade in the Belgian residential energy market, the company won more than one million customers.

Now that Total controls companies that generate, store and sell electricity, Mr. Pouyanné is trying to figure out how to fit the pieces together.

"To be clear, these are investments," he said of Total's foray into electricity. "We have to be patient."

# TOOLS

Continued from Page One  
hips and stiff upper backs.

"In five minutes I can get about 30 minutes of work done," Mr. Fruchter says.

The popularity of massage is rising along with the price of electric gadgets for it. So some do-it-yourselfers are raiding garages and Home Depot and turning power tools into turbocharged robo-masseurs.

Bill De Longis, head strength coach at Trinity College in Hartford, Conn., uses a jigsaw—with a lacrosse ball pierced and epoxied to its business end—for limbering the limbs of the school's varsity athletes. He calls it his "jig-sawge." He opted to hack the \$60 saw after seeing a similar massage tool priced at \$600.

"I'm at a Division III school, so we don't have a lot of money to spend on luxury items like that," Mr. De Longis says.

The coach also has appropriated an orbital sander (with sandpaper removed) and a battery-powered car buffer, which Trinity's baseball pitchers and women's lacrosse team use to warm up.

Using power tools for massage seems to have originated among weightlifters and other serious athletes. The idea spread on social media, and now power tools can be found



The Electric Forest music festival in Rothbury, Mich., features car-buffer massages.

everywhere from chiropractors' offices to tie-dyed campouts.

Nova Han, artistic director for the Electric Forest music festival in Rothbury, Mich., equipped a 1940s Quonset hut-style space on the event's grounds with massage tables. Last summer, staff members dressed like Rosie the Riveter and worked rotating shifts for 12 hours a day, giving short car-buffer massages to contestants.

"When they come out of it, they're almost in this really

blissful state," says Ms. Han, adding that the massages will return for this year's festival, which starts June 22.

Tod Whitfield, a retired Toronto police detective, was so intrigued by his CrossFit gym's car-buffer massager that he experimented on his body's sore spots with a half-dozen tools in his home machine shop. The most effective, he reports, is a pneumatic-powered sander whose scratchy surface he replaced with a lamb's wool bonnet.

"The pad spins in a circular motion, but the shaft also spins on its own axis, which gives you this dual action," says Mr. Whitfield, who has used the sander on an aching shoulder and hip. "It gives this nice sort of vibration."

A spokesman for Clarence, N.Y.-based Dynabrade, maker of Mr. Whitfield's sander, was surprised to hear of someone massaging himself with company products, some of which are used in industrial finishing for tractors and motorcycles.

"Some of our orbital sanders, they're around 12,000 rpm," Dynabrade's Ron Veiders says. "It could cause abrasions or whatnot, or even contusions. It wouldn't be something I would encourage."

Peter Roberts, coach and owner of Quantum CrossFit, where Mr. Whitfield first saw car-buffer massage, says the buffer is especially effective on the lower body, including inner-thigh muscles. "But if you accidentally hit your testicle, it doesn't feel great," he says. "I'll just say that."

Kyra Williams, a personal trainer and powerlifting coach based in Tampa, Fla., uses a car buffer regularly since a friend introduced her to the idea. "I thought it was a little odd, but she brought it into the gym and other people were going crazy about how great it felt," she says. "So I figured I'd give it a shot, and it feels pretty awesome."

Power tools can be part of a team's warm up, says Michael Rehfeldt, the University of Cincinnati men's basketball team's director of strength and conditioning. He has four Black & Decker Random Orbit Waxer/Polishers for use before games.

"It's good for increasing blood circulation and almost has a numbing effect, almost like a massager," he says. "It heats up the muscle and creates blood flow."

Tim Perra, vice president of

chemical divisions. Mr. Pouyanné began cutting costs including the company's capital budget. Total returned to profitability in 2015 even as oil prices fell further. Oil currently trades around \$45 a barrel. Mr. de Margerie, his predecessor, was outspoken about the challenges facing the oil business. At an industry conference in London in 2007, the former CEO surprised the crowd by declaring that oil-production growth forecasts were too optimistic because of depleting conventional reservoirs.

That outlook prompted Total to begin exploring alternative energy sources. It paid \$1.37 billion for a 60% stake in SunPower in 2011 and scooped up smaller stakes in early-stage clean-energy startups.

### Storing solar energy

Total's stake in SunPower has since lost more than half its market value amid a sharp decline in prices of solar panels. SunPower has posted losses for the past two years.

Unlike oil and gas, where output can be turned up or down in response to demand, solar energy is produced only when the sun is shining. Its value to consumers and power companies is limited unless the energy can be stored. That thinking drove Mr. Pouyanné in 2016 to purchase Saft Groupe SA, a French battery maker.

Saft supplied high-end batteries for satellites, airplanes and smart meters. While much of the battery industry focused on bringing down prices, Saft specialized in long-life and durability. When the European Space Agency sends a robotic rover to Mars in 2020, the exploration vehicle will use Saft batteries.

Saft Chairman and CEO Ghislain Lescuyer said Saft is looking for ways to work with SunPower. While he declined to discuss details, such a partnership could produce a solar panel-and-battery combination that could compete with Tesla—which recently acquired SolarCity Corp.—and other companies exploring similar energy products.

Tom Werner, SunPower's Chairman and CEO, said the company benefits from Total's focus on long-term strategy and size, even though it can be at odds with the speed and nimbleness required of a solar company. "There is no model to emulate," he said.

Last June, Total acquired another piece of the puzzle it is trying to assemble when it paid about \$200 million for Lampiris NV, a gas and renewable power retailer in Belgium. After operating for a little over a decade in the Belgian residential energy market, the company won more than one million customers.

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"To be clear, these are investments," he said of Total's foray into electricity. "We have to be patient."

Kelly Starrett, a coach, physical therapist and author, recalls topping a reciprocating saw with a lacrosse ball years ago but said the contraption was too intense for massage. The San Francisco gym founded by Mr. Starrett and his wife, Juliet, also has an industrial buffer/polisher for human use.

"We call it 'informed free-styling,'" Mr. Starrett says. "The number of things I have tried to use off-label in order to improve human performance is considerable."

Mr. Starrett also is a founding owner of TimTam, a deep-tissue massager company that launched last year. The \$400 device was created from a jigsaw mold, according to Tom Pepe, managing director of TT Therapeutics, which owns TimTam.

Power tool-massage fans boast of their devices' versatility. Last year Mr. De Longis at Trinity College reinstalled the blade on his jigsaw massager and used it to saw wood for boxes he built for doing squat exercises. Another of his retooled massagers also does double duty.

"I intend to buff my car with it this summer," he says.

# LIFE & ARTS

THE MIDDLE SEAT | By Scott McCartney

## The Best and Worst Coach Seats

The space between seats on planes has never been tighter, though some carriers are resisting taking more legroom away

**ENGINEERS WOULD SAY** technically sardines are still packed tighter. But the difference between a can of oily fish and a coach cabin of sweaty airline passengers is getting smaller.

There's growing variation in legroom, hip room and headroom as airlines find more ways to cram seats into planes. Travelers had best pay attention: The bad seats aren't always where you might think.

Some airlines are down to 28 inches of space from the back of your seat to the seat back in front of you in their basic coach rows, down from the once-standard 32 inches of what's called seat pitch. That's a difference felt right in the kneecap. Airlines considered full-service have shrunk down to 30 inches and American Airlines, which 15 years ago gave each row of coach seats 34 inches of space, considered going to rows with as little as 29 inches.

They backed off Tuesday. Still, new 737-800s will have 172 seats, with two more rows of seats squeezed in compared with their existing 737-800s. Space will shrink to 30 inches from 31. American first flew that plane with 150 seats, then upped it to 160 in 2015.

Slimmer seats with flexible backs and bottoms make the pinch possible. But American's announcement of 29-inch rows raised eyebrows and ire as the first big airline to break below 30 inches.

"I wouldn't have expected a full-service carrier to go that low. That's very, very tight pitch, even with a slim-line seat," says Jami Counter, vice president of flight at SeatGuru and its parent TripAdvisor.

After hearing customer complaints, American said it agreed and would avoid dropping to 29 inches.

"We've reassessed what's appropriate" for 737 coach seating, President Robert Isom said in a message to employees Tuesday. "This is the right call for customers and the right call for our team members who take care of them."

Southwest Airlines is taking delivery of the same plane as American, now called the 737-Max 8, and using the same **Rockwell Collins** Meridian slim-line seats. But Southwest, which has no first-class or extra-legroom rows, has decided to keep its seat count at 175, the same as its other 737-800s, with 32-inch pitch. The airline says there are operational efficiencies to keeping the same number of seats. In addition, "we were focused on offering a great customer experience at an affordable price for everyone onboard," says Mike Van de Ven, chief operating officer.

Travelers say dense packing has done as much as baggage fees and overhead-bin anxiety to make flying coach a more miserable experience.

"When someone leans back, we all have to lean back," says Jim Chud, a frequent flier from Los Angeles who recently was on a plane packed so tightly that passengers kept hitting him while maneuvering into and out of a bathroom.

"It's a hassle to fly to begin with, and then they squeeze you into a cattle car."

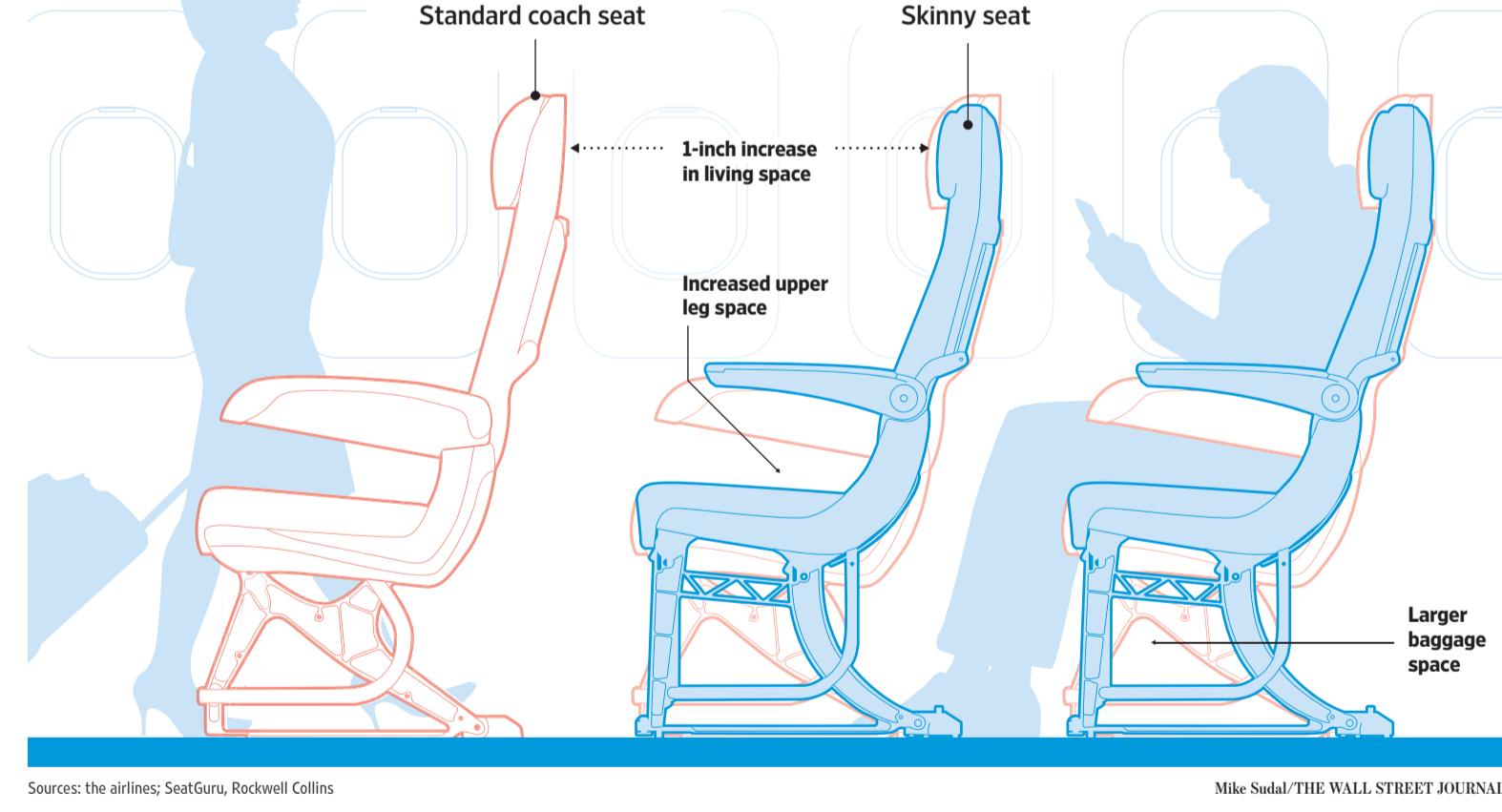
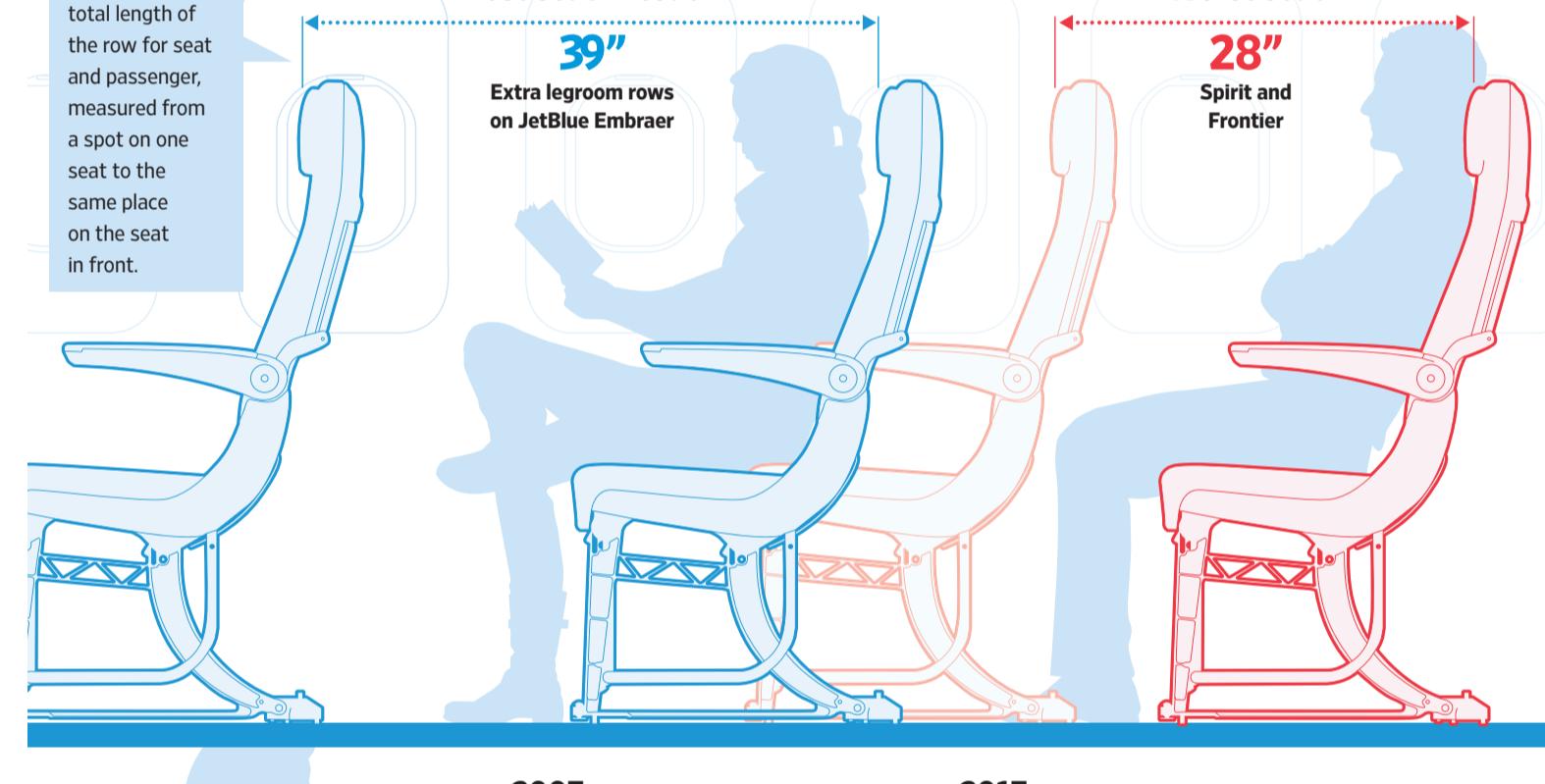
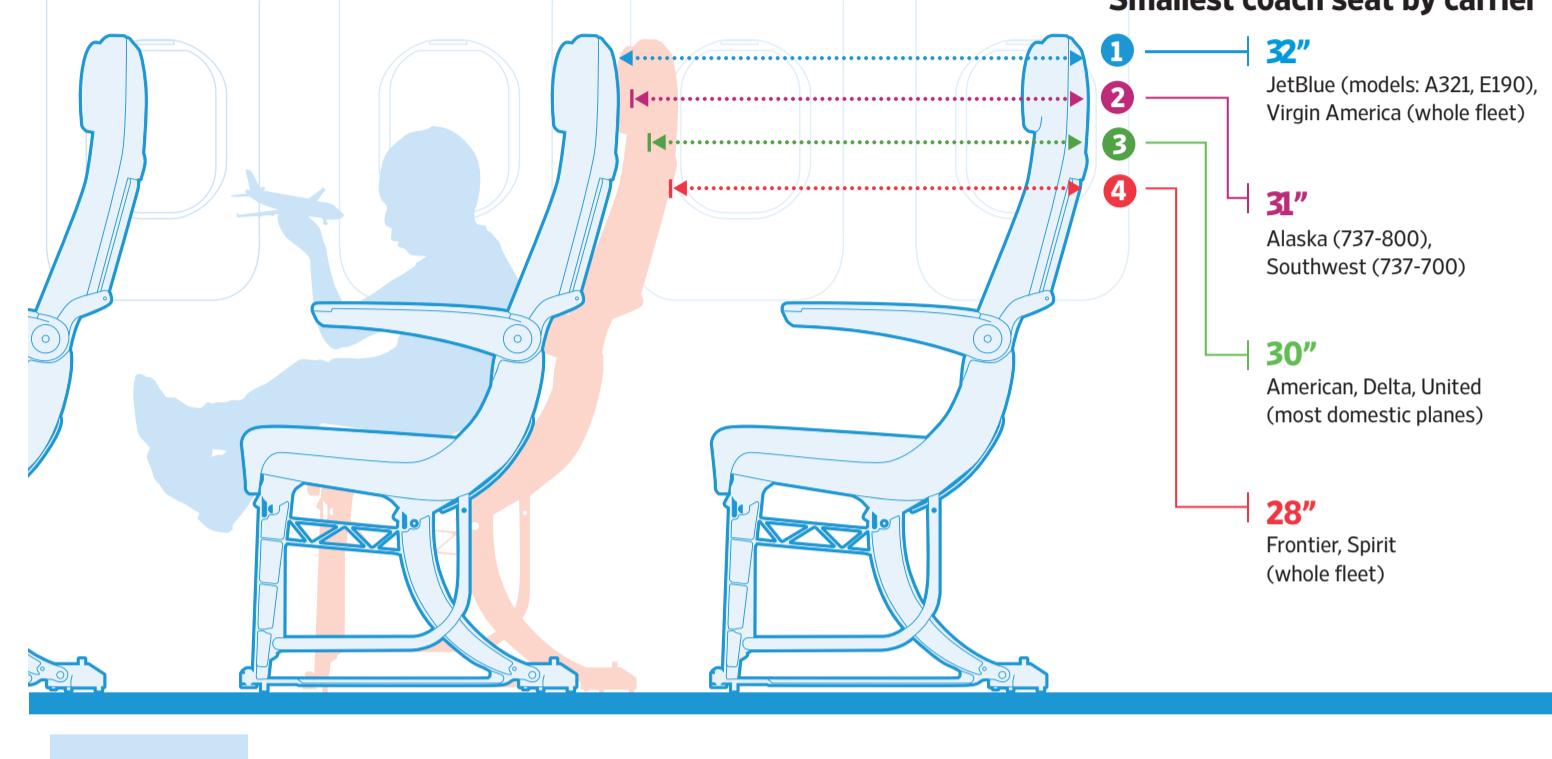
Cramming cabins really started after the post-2001 travel slump, when fares were low and airlines were losing lots of money. As travel recovered, discount carriers spread broadly, putting cheap fares in many markets. Rival carriers figured more seats would let them match cheap prices and still make money.

At the same time, seat manufacturers found ways to make coach seats lighter and smaller. New metals and composite materials make skinny frames stronger. Three-dimensional computer modeling aided seat design, manufacturers say. Instead of hard backs and seat pans, manufacturers started using mesh covered with thin layers of foam. (Think Aeron office chairs.) Magazine pockets were moved up high on the seat back and seat bottoms changed shape to open up shin room.

Take 3 inches out of padding out of a seat back and you can push the seats several inches closer together without reducing personal space. In many cases, the new seats are more comfortable.

"Comfort is not just about the dimensions and the measurements. It's also about how the cushion feels, where the pressure points are," says Mark Hiller, chief executive of Recaro Aircraft Seating.

American has new Airbus A321 planes with slim seats, power



Sources: the airlines; SeatGuru, Rockwell Collins

Mike Sudal/THE WALL STREET JOURNAL.

ports and seat-back video and older A321s from US Airways with thicker seats but no power and no video. There's an inch less seat pitch on the newer planes, but they score better in reviews, says Mr. Counter of SeatGuru, which rates airline seats plane-by-plane.

But heads are still several inches closer together, and people feel more confined. "Seat pitch is definitely one of the most important amenities based on the data points we collect," says Jason Rabinowitz, director of airline research at Routetech.

To sort through the cabin confusion, here's a guide to coach seating:

### Which airline has the best coach seats?

JetBlue. Rows are 32 inches long, planes have fast Wi-Fi service and seats have free seat-back entertainment. "Their Airbus aircraft consistently score higher than anyone else," says SeatGuru's Mr. Counter.

Virgin America is close with 32-

inch seat pitch and similar amenities. **Southwest** has some planes at 32 and others at 31. These three so-called value carriers, which often don't have the lowest prices but build a strong following with their comfort and service, offer the most legroom.

**Which have the worst?** **Spirit** and **Frontier** are two major U.S. airlines with 28-inch seat pitch on their fleets. Even renowned cheapskate Ryanair has more.

Around the world, only charter operators are typically that tight. SeatGuru says Spirit is "far and away" the most poorly rated in reviews for U.S. travelers.

### What about the Big Guys?

**American, Delta and United** have standardized most of their planes at 30 to 31 inches of seat pitch. Adding rows creates capacity growth without the expense of new airplanes and makes a low-margin business more profitable.

### Widest and skinniest seats?

Boeing single-aisle planes typically have 17.2-inch-wide seats in coach. Airbus single-aisle planes have 18.3 inches because of a wider fuselage. The newest seats coming from manufacturers actually are built to hug the sidewall more closely, moving the window seat closer to the window. That allows for a seat one-half inch wider on 737s, measured inside the armrests.

Seats on widebody planes used to be 18 inches wide, but now that is dwindling to 17 inches. The Boeing 787 was designed to have eight seats across, but now almost every airline flies it with nine 17-inch-wide seats in each row.

The Boeing 777 has gone from nine abreast to 10. One airline—French leisure line Air Caraïbes, has installed 10 seats across each row of its brand new Airbus A350 jets.

Other airlines have nine seats, but will that last?

"The difference between 17 and 18 is a big deal. You lose wiggle

room. You're shoulder to shoulder," Mr. Counter says.

### How did seats slim down?

Rockwell Collins says its newest seats have about 20% more living space than traditional seats before the slim-down diet.

If you take that and reduce pitch from 32 to 30, passengers still end up with an extra inch of space, says Tom Plant, vice president and general manager, aircraft seating.

The frame got smaller and lighter and the back portion of the seat moved forward—it tucks in around your bottom and opens up shin space for the person behind you.

The seat pan you sit on used to be padded metal but now is netting—a diaphragm that stretches to your shape.

Mr. Hiller of Recaro says seats have to stay attached to the floor against forces 16 times as strong as gravity and must not break with 14 G's of downward pressure.

## OPINION

### REVIEW & OUTLOOK

#### Uber's Growing Pains

Ride-hailing app Uber Technologies' growth curve has been as meteoric as its learning curve has been steep. But its leadership turmoil shows the perils of moving from Silicon Valley darling to durable success, especially if it wants to tap public markets for capital anywhere close to its \$68 billion valuation.

Uber said Tuesday that CEO Travis Kalanick will take an indefinite leave from the company he built, a day after chief business officer Emil Michael stepped down. The moves followed a unanimous vote by Uber's board—which consists of private investors—to adopt reforms to its "workplace culture." The San Francisco-based startup enlisted former U.S. Attorney General Eric Holder's law firm, Covington & Burling, after several women complained that Uber executives ignored sexual-harassment allegations.

Workplace culture often flows from the top, and the internal analysis seeks to correct lapses in executive judgment. In 2014 Mr. Michael floated a plan to dig up details about the private lives of journalists critical of the company. Earlier this year Mr. Kalanick was caught on camera berating a driver.

Yet Uber would never have achieved what it has if not for Mr. Kalanick's hard-charging attitude. The company has had to break through regulatory barriers backed by the taxi lobby in city after city, and it didn't do that by bowing at the first sign of resistance. Uber's innovation has greatly improved the lives of millions of urban travelers, and that breakthrough has in turn invited competitors such as Gett, Lyft and Via. There's no guarantee that Uber will emerge as the Facebook of this pack.

But Uber's hardball tactics also present business risks. Last year the California DMV pulled the registration on Uber's self-driving cars because the company didn't obtain a \$150 permit to test its vehicles. Twenty other car manufacturers had obtained permits, but Uber didn't see the need. It finally conceded to apply for a permit in March. The Justice Department is also investigating Uber's use of "greyball" software to evade regulators in jurisdictions where it wasn't authorized to operate.

Uber is the dominant ride-hailing app in most U.S. cities because private investors bankrolled its rapid expansion with recruitment bonuses for drivers. A high concentration of drivers in cities reduces rider wait times while heavy customer

traffic deters drivers—in effect free agents—from defecting to other apps.

Millennials are fickle customers, and a drop in ridership could divert drivers to competing apps. This would make it harder for Uber to raise capital to sustain its huge losses (\$2.8 billion last year) as it expands. Investors who may have tolerated Uber's earlier blunders because of its growth potential will draw a line when management failures impair the company's performance and profitability.

Consider the lawsuit by Google's self-driving startup Waymo that accuses former employee Anthony Levandowski of lifting trade secrets before joining Uber. Last month federal Judge William Alsup referred the case to prosecutors after declaring that the evidence that Mr. Levandowski pilfered Waymo's technology was highly incriminatory. Uber has denied colluding with Mr. Levandowski. But even if Uber isn't found complicit in the alleged piracy, the judge could bar it from using any cribbed code or technology. This would be a major setback in Silicon Valley's autonomous-car race.

All of this explains why investors are shaking up Uber's management, but that also carries risks. Sheryl Sandberg's collaboration with Mark Zuckerberg worked for Facebook, but John Scully clashed with Steve Jobs when he arrived at Apple from Pepsi. Jobs left Apple but returned to revive it with a new burst of innovation. One certainty: Uber won't survive the ride-sharing shakeout if the lawyers at Covington & Burling are in charge.

One question for capitalism is whether Uber's breakup would have occurred sooner if it had already braved public equity markets. Two decades ago startups went public much earlier in their business cycle. But Sarbanes-Oxley and other regulatory demands have made going public far more costly, and even successful tech startups tend to delay listing shares on exchanges. Public markets are sensitive to losses and bad publicity, so they can be as useful for disciplining managers as they are for rewarding investors.

The only story the business press likes better than a glorious startup is an inglorious failure, so Mr. Kalanick is now getting a rough ride. But he's built an innovative business that fulfills a public need, and Uber's investors had better hope his replacement is as good a manager as Mr. Kalanick has been an entrepreneur.

#### Otto Warmbier's Homecoming

University of Virginia student Otto Warmbier visited North Korea over New Year's in 2015 as a tourist, and on Tuesday the 22-year-old returned home to the U.S.—in a coma.

Mr. Warmbier traveled to North Korea for a five-day tourist trip, despite U.S. State Department warnings and the North's long record of taking Americans hostage. As he was preparing to leave with his fellow travelers in January 2016, he was detained and accused of stealing a propaganda poster from his hotel. The next month he gave a tearful public confession, and that March he was sentenced to 15 years of hard labor for a "hostile act" against the state.

Mr. Warmbier's parents told the Associated Press Tuesday that they recently learned their son has been in a coma since March 2016, or shortly after his show trial. They say North Koreans told U.S. authorities that their son contracted botulism and never awoke after he was

He visited North Korea as a tourist. He left 18 months later in a coma.

given a sleeping pill. "We want the world to know how we and our son have been brutalized and terrorized by the pariah regime," Fred and Cindy Warmbier said in their statement.

U.S. Secretary of State Rex Tillerson declined to comment on Mr. Warmbier's condition "out of respect for the privacy" of the family. But a U.S.

official told the New York Times that the U.S. had recently obtained intelligence indicating the young man had been repeatedly beaten in custody. A United Nations commission documented in 2014 that "the use of torture is an established feature of the interrogation process" in North Korea.

Otto Warmbier's fate underscores the grotesque nature of former basketball player Dennis Rodman's latest visit this week with his pal Kim Jong Un in Pyongyang. Kim still holds three other American hostages, and any American who visits is tempting torture and death.

#### An American Lesson in Pensions

U.S. state and local governments owe at least a trillion dollars to public employee pensions. So it is welcome news that some politicians are noticing, and this week Pennsylvania took a step toward sanity in worker benefits.

On Monday Pennsylvania's Democratic Governor Tom Wolf signed a bill that would enroll new state employees in "hybrid" retirement plans that feature defined-contributions from employees, much like 401(k)s offered by private businesses. The government would put up a smaller defined benefit. Employees could also choose a plan with only the 401(k), though it isn't clear how many would. Teachers and other current workers would have the option to switch into the new plans. The legislation passed the Republican legislature by wide margins.

Pennsylvania's pension system is among the most broke in the country, with up to \$70 billion in liabilities by some estimates. The state, like so many others, tries to conceal the damage with dubious assumptions—predicting 7% returns that never materialize while chasing yield in risky instruments. Pennsylvania ran a pension surplus as recently as the early 2000s, but that was blown up by expanding benefits and reducing payments.

The legislature has for a decade considered reforms, including borrowing money and dumping it into the stock market, as if that's never ended poorly. Meantime, the burden increased: Nathan Benefield at the Commonwealth Foundation notes that Pennsylvania school districts spent \$2.3 billion on pensions in 2014-15, a 25% increase since 2008-09. School-district

A bipartisan reform begins to address the state's funding abyss.

revenues increased \$3.9 billion from 2009 to 2015, but nearly half of the increase went to pensions. Many districts are strapped for cash as a result.

Thus the plan to enroll new employees in hybrid plans, effective 2019. This would eliminate the taxpayer risk for new hires. Another benefit is portability: A teacher who would

like to work five years but not three decades can bring her savings with her when she leaves. Perhaps some younger workers who doubt they'll ever see the promised pension will elect to join the hybrid plans.

Note also that the bill enjoys bipartisan support in a state with often dysfunctional politics, and Gov. Wolf deserves credit for signing the measure after vetoing a hybrid pension bill in 2015. Government unions didn't fight the legislation in a heretofore unseen display of restraint, and perhaps they think this will stave off more invasive changes for current workers or retirees. It's also instructive that former Republican Governor Tom Corbett couldn't pass his similar plan in 2013.

The new plans are still much more generous than private alternatives: A career employee could retire with benefits of up to 95% of his final earnings, which the American Enterprise Institute's Andrew Biggs says is much higher than the 70% replacement rate most financial advisers say is sufficient.

The law also can't erase government liabilities, and pension woes won't be fixed until governments are honest about what they owe and how to pay for it. But the Pennsylvania improvements are at least a start. Are you paying attention, Illinois and Connecticut?

#### What's Driving the Race Over Autonomous Cars



BUSINESS WORLD  
By Holman W. Jenkins, Jr.

Google-parent Alphabet isn't a litigious company. So proclaimed its chief financial officer, Ruth Porat, in a public forum two weeks ago. She added that its legal spat with Uber just happens to be a "compelling" exception.

Compelling, certainly, for the media, which love a tale of tech giants battling it out over autonomous vehicles. One thing the celebrated case won't do, though, is decide anything important about the future of driverless cars.

Too many questions remain unanswered and unanswerable. When commuting is effortless, won't people commute a lot more? Won't some buy Winnebagos and live in them, constantly in motion? Then traffic will be worse, not better.

If people won't need to own cars anymore and cars won't sit idle 95% of the time in driveways, supposedly vehicle sales will plummet. But if people are commuting more and shared cars are racking up 150,000 miles in a year instead of 10, won't they wear out and need to be replaced faster?

Will people still care about luxury and performance brands in a car-sharing world?

Talk of winners and losers isn't remotely sensible at this point, but that hasn't stopped anyone—Audi, BMW, Daimler, Ford, GM, Tesla, etc.—from engaging in such blather for reasons related to the stock market and brand management.

While GM or Ford must scrimp money from car sales to reinvest in robotics, Tesla can whittle up more cash from Wall Street on the back of an Elon Musk tweet. Apple and Google can dip into bottomless cash piles generated by their high-margin tech businesses.

Where another employer might have found this an intolerable case of employee self-dealing, Google rewarded Mr. Levandowski by buying his company for \$20 million.

Mr. Levandowski could hardly have gotten any message except to keep testing the limits of chutzpah. He allegedly did by spiriting a large amount of Google data into another startup, Otto. When he left Google and eventually sold Otto to Uber for \$680 million, this was apparently more employee initiative than Google could stomach.

Back in the real world, driver-assistance technology has been creeping into cars for decades and likely will continue to do so, with collision avoidance the next feature to become standard over the next several years. The driverless car won't arrive with a bang overnight.

For instance, the Lidar sensors at the heart of the Google-Uber litigation will have to become a cheap commodity before autonomous driving is widespread. That alone means however the case plays out, you should expect neither company to walk away with a meaningful advantage in the driverless vehicle sweepstakes.

#### LETTERS TO THE EDITOR

##### The Talented Mr. Comey Takes On Congress

Regarding "James Comey's Passion Play" (Review & Outlook, June 12): The former FBI director is a coward for failing to stand up to President Trump and former Attorney General Loretta Lynch. Anyone in the military, law enforcement, auditing, law or medicine at some point has to confront a supervisor and tell him he is wrong. When Mr. Trump said that Gen. Mike Flynn is a "good guy" and hoped Mr. Comey could "let this one go," he should have smiled and said: "We don't want to go there. We will work Flynn's case as quickly as we can."

When Mr. Trump asked for loyalty, Mr. Comey could have said he would keep the president in the loop. When Ms. Lynch told Mr. Comey to say that the Hillary Clinton investigation was to be described as a "matter," Mr. Comey should have said that he would not do it. Instead he caved.

Mr. Comey should have understood that his superior is a political novice, and instead of stabbing him in the back by leaking a memo, should have guided him into understanding the complex relationship between the president and FBI.

The FBI isn't independent and the president can fire the FBI director, but to do so risks precious political capital and invites a special counsel, which has happened.

Mr. Comey failed as a subordinate in supporting his boss's boss. He deserved to be fired.

O.S. MARTIN

Richardson, Texas

I believe Mr. Trump was surprised by Mr. Comey's refusal to pledge loyalty. Isn't that what Mr. Comey displayed toward Ms. Lynch? The FBI conducted a sham investigation of Mrs. Clinton and her associates' abuse of classified information. No grand jury was convened by the Justice Department. Mrs. Clinton wasn't interviewed until very late in the game, and then not under oath and the interview wasn't recorded. Mrs. Clinton's chief of staff, Cheryl Mills,

was given immunity for the contents of her laptop and allowed to serve as her former boss's lawyer though she had handled emails that were the point of the "matter."

Mr. Trump could have reasonably expected the same courtesy as Mr. Comey had shown to President Obama, Ms. Lynch and Mrs. Clinton.

FRANCIS G. KNIFE

Torrance, Calif.

It isn't clear to me how anyone can justify the head of the FBI leaking information. Mr. Comey's actions effectively say to all of the FBI that it is OK to leak.

JIM IKELER

Cincinnati

If Mr. Comey's backdoor approach to triggering the appointment of a special counsel to investigate the president or his advisers is honorable behavior in the swamp, do most of Washington's many deep-state leakers of information (sometimes classified) deserve to be reclassified as heroes?

Twenty-five-year-old federal contractor Reality Winner, described by friends and family as a passionate person, decided recently that the public deserved to know more about Russian military intelligence cyber-attacks. She shared classified information directly with the media and now is in trouble with the Justice Department. She should have used a friend to serve as a document-release buffer.

Please forgive us despicable simpletons for not understanding the mystifying ways of the Washington swamp ecosystem.

TOM WEST

Raleigh, N.C.

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

# How Trump Is Like Obama

By Josef Joffe

**U**nkle Sam is getting pushed around by the rest of the world, and we aren't going to take it anymore. That is the gist of President Trump's "America First" doctrine. But let's cut No. 45 some slack. He isn't the first to chop away at the made-in-the-USA global order designed by Harry S. Truman 70 years ago. Pride of place must go to No. 44, Barack Obama.

What that exemplar of international virtue? True, President Obama didn't trumpet "America First." His standard shibboleth was "It's time for a little nation-building at home," echoing George McGovern's "Come home, America!" from 1972. Let's lay down the burden and mend crumbling bridges and failing schools, Mr. Obama suggested. Cut to Mr. Trump, who wants to invest \$1 trillion in the domestic infrastructure.

**There's more continuity than difference between 'nation-building at home' and 'America First.'**

Come home or To hell with you—either way, the message reads: The world's housekeeper will now look out for No. 1. So Mr. Trump keeps bullying the allies on defense spending, demanding zillions in back pay for the security the U.S. has always delivered at a discount. Now listen to Mr. Obama. In a 2016 interview with the Atlantic, he rumbled: "free riders aggravate me."

Mr. Trump hasn't brought the boys home, but Mr. Obama did. He drew down the European force to about 50,000 from 75,000. During the 1980s, it numbered 350,000. That was supposed to be accompanied by the fabled "pivot" to Asia, but it didn't



President Obama at a NATO summit in Warsaw on July 9, 2016.

materialize. Instead Mr. Obama presided over a global retraction, most grievously in Iraq.

Then, refusing to enforce his "red line" in Syria, Mr. Obama invited in Russia and effectively welcomed Iran, too. Turning away from old allies, he chased the will-o'-the-wisp of Iranian friendship. In Mr. Obama's view, paraphrased by the Atlantic's Jeffrey Goldberg, "the Middle East is no longer terribly important to American interests." Meanwhile, Tehran has expanded to the Mediterranean.

The Obama agenda was *self*-containment, a first in the history of great powers. So who would mind the global store, as the U.S. had done since 1945? Under Mr. Obama, "Yes, we can" segued into "Others will." Beijing, Moscow and Tehran did, but not as retainers of Aloof America. Rising powers have never seen a vacuum they didn't like.

Set aside Mr. Trump's in-your-face tweets and savor the kinship between Donald the Crude and Barack the Cool. Each in his own way—brutally or softly—has signaled: America, previously the "indispensable nation," is vacating its penthouse at the top of the global hierarchy.

No great power has ever done so voluntarily; all America's predeces-

sors were sent packing by more-muscular competitors.

Yes, but doesn't Mr. Trump want to "make America great again"? First, this is a mendacious slogan. By any measure, America wasn't a limping giant on Jan. 20 but the greatest power on earth, given its economic primacy, military clout, diplomatic centrality and cultural sway. The world dresses, watches, listens and dances American. Some has-been.

Second, what makes a nation "great"? Mr. Trump thinks it is unbridled national egotism, flanked by the extended middle finger, as when he withdrew from the nonbinding Paris climate accord. Promptly, China began to posture as the guardian of global goodness. Another great victory was pushing aside the leader of tiny Montenegro at the NATO summit's photo-op last month.

The short take on Trumpist diplomacy: A schoolyard bully is never elected class president. The other kids may fear him, but they won't follow him. Leadership means taking care of others while going to the top. It comes from authority grounded in consent, not humiliation of the weak.

Still, America's slide into abdication began in 2009, not in 2017. What made America great after World War

II? Sheer clout, at first. So why did the Pax Americana endure while Europe and Japan rose from the ruins and China grew into the world's second-biggest economy? Because of the genius of pre-Obama, pre-Trump diplomacy: Achieve your own ends not by going mano-a-mano, but by serving the interests of others in the process, like safeguarding security and the liberal trading order.

"Too expensive!" trumpets No. 45. Let's consult No. 33, President Truman: "Which is better for the country," he asked with a view to Europe, "to spend 20 or 30 billion dollars to keep the peace, or to do as we did in 1920 and then have to spend 100 billion dollars for four years to fight a war?"

In World War II, U.S. defense outlays peaked at 41% of gross domestic product. Today, the cost of empire has come down to 3.6%—a steal. So the Europeans spend only 1.5% on average. Global powers always pay more for defense; that's part of what makes them great.

The U.S. isn't doing the European Union a favor by adding its own weight to an Atlantic order that doubles as the world's largest trade and investment relationship. The insurance premium is worth it, especially given Vladimir Putin's strategic ambitions.

Do good for yourself by doing good for others—that has been the secret of America's realpolitik and exalted position. While Mr. Obama wielded hammer and chisel against the nation's perch, Mr. Trump is waving a chain saw. As friends retract, rivals rejoice: What a windfall! But take solace from Bismarck, who supposedly quipped: "God protects children, drunks and the United States."

*Mr. Joffe serves on the editorial board of Die Zeit in Hamburg and is a fellow of the Hoover Institution in Stanford, where he also teaches U.S. foreign policy. His latest book is "The Myth of America's Decline."*

## Making U.S. Tax Cuts That Last

By Grover Norquist  
And David McIntosh

Americans know what kind of tax reform they want: a bill that cuts rates across the board, kills the death tax and the alternative minimum tax, expands the personal and family exemptions, and eliminates politically directed loopholes. If lawmakers passed such a plan, it would supercharge the economy and create millions of jobs.

The challenge is how to get from here to there, given the rules of Congress.

Tax reform can be enacted with a simple majority in the Senate under the process known as budget reconciliation—but only if various complicated procedures are followed. One of these, called the Byrd rule after Sen. Robert Byrd, says that bills passed under reconciliation cannot increase the deficit outside of the budget window—traditionally 10 years.

**The 'budget window' has traditionally been a decade. But the Senate could make it 25 years.**

The practical result? Tax cuts passed under reconciliation magically disappear in year 11, like Cinderella's carriage turning into a pumpkin at midnight. That is why the Bush tax cuts, passed in 2001, would have ceased to exist in 2011 had they not been temporarily extended for two years. Some parts were then made permanent in 2013.

But any tax reform meant to spur economic growth should be permanent so that corporations and entrepreneurs can plan ahead. If they don't know what the rules will be a few years down the road, it's tougher to build factories, hire new workers, invest in equipment or spend on research and development.

Conventional wisdom says that the only way to pass lasting tax cuts is to offset them with corresponding tax increases, base broadening or, best of all, permanent spending cuts.

There's another option: Extend the budget window to 25 years—or longer. The 10-year window isn't set in stone. The Budget Act of 1974 simply says that the window has to be at least five years in duration.

The idea of modifying the time frame isn't new, and it certainly isn't radical. The budget window was expanded in fiscal year 1995 to seven years from five. Congress used the 10-year window for the first time in 2000, but then went back to five years again as recently as 2007.

We say extend the budget window to 25 years. Why? Because the people creating jobs and investing in new products think long-term. Depreciation schedules for new plant and equipment often run to 25 years or more.

Lawmakers simply should write this year's budget to say that all tax cuts can last 25 years, which would allow rate reductions to go into effect now and be offset later with revenue from higher growth or spending restraint.

If Congress is serious about boosting the economy, it should pass a net tax cut within the extended 25-year budget window. As President Trump says, "prime the pump" now and the economy will start to flow, creating millions of jobs and more tax money for Washington.

Fortunately for taxpayers, Sen. Pat Toomey (R., Pa.) has taken the lead in promoting this pathway to recovery. "Nothing in the law prevents us from using a 20- or even 30-year timeframe," Mr. Toomey wrote in an op-ed last month. "A 20- or 30-year tax reform would be as close to permanent as we can get since Congress would be likely to overhaul the tax code within that period anyway."

This brings to mind the classical story of the Gordian knot. It was a knot so complicated that legend said the man who could untie it would go on to rule all of Asia. That man was Alexander the Great, who didn't wrestle with the knot as all the others had but picked up his sword and cut it in two, causing it to unravel.

That's what Mr. Toomey wants to do. Extending the budget window to 25 years would cut the Gordian knot, unravel the Byrd rule and allow serious tax reform to create millions of jobs in the years to come.

*Mr. Norquist is the president of Americans for Tax Reform. Mr. McIntosh is the president of the Club for Growth.*

## Can America Afford Modern Nukes?

By Matthew R. Costlow

**W**hen President Obama left the White House, he punted on a tough choice: how to modernize America's nuclear force. In the coming weeks, the U.S. Congressional Budget Office is expected to release a report that estimates modernization as currently proposed would cost \$1.2 trillion over 30 years, or about \$40 billion a year. Congress and the Trump administration shouldn't be intimidated by the ostensibly big number.

The plan analyzed by the CBO would replace the nuclear delivery systems of bombers, missiles and submarines with new ones that incorporate the latest safety and survival features. These changes would enable some systems to perform well into the 2080s. It's ambitious, but this program isn't the budget buster nuclear-disarmament supporters describe.

Under the plan, spending on the

nuclear arsenal would peak in the late 2020s at about 6.5% of the Defense Department budget, up from 3.2% today. Recall that military spending consumes only about 15% of the federal budget.

But determining whether modernization is affordable involves more than cost considerations. The Pentagon simultaneously has to consider its priorities and the costs of weapons systems when determining the best way to protect U.S. interests.

According to the Defense Department, the two highest priorities of U.S. strategy are "the survival of the nation" and "the prevention of a catastrophic attack against U.S. territory." The Pentagon's Quadrennial Defense Review lists "a secure and effective nuclear deterrent" at the top of a list describing how to achieve such priorities.

Given that the U.S. nuclear arsenal helps to deter the only existential threat to the U.S.—major nuclear

war—it's value can't be measured by traditional dollar metrics alone. Budgets are about trade-offs and priorities. As the vice chairman of the Joint Chiefs of Staff, Gen. Paul Selva, testified earlier this year, "We are

### Forty billion dollars a year isn't much for the country's survival.

emphasizing the nuclear mission over other modernization programs when faced with that choice."

Critics will cry that every dollar spent on nuclear weapons, which haven't been set off in anger since World War II, is a dollar taken from those who are fighting wars right now. But as then-Defense Secretary Ash Carter explained in a speech last year, U.S. nuclear forces are the "bedrock" of American security and the "highest priority mission" of

the Defense Department. They enable current war fighters to achieve their missions.

Even those in the military who could stand to miss out on spending increases because of nuclear modernization efforts, like U.S. Army Chief of Staff Gen. Mark A. Milley, support modernization: "It's not even an Army system and it needs to be overhauled and brought back up to the level of readiness."

The federal government can afford to spend less than 1% of its multitrillion-dollar budget on nuclear modernization. And with China, North Korea and Russia all upgrading their nuclear weapons capabilities, just about the only thing the U.S. can't afford is to end its modernization efforts before they begin.

*Mr. Costlow, a doctoral student at George Mason University, is a policy analyst at the National Institute for Public Policy.*

## Attack of the Killer Petunias

By Henry I. Miller

Sometimes government regulators do things that aren't merely misguided but gratuitously stupid. A classic example came last month, when the U.S. Agriculture Department called for the destruction of at least 13 varieties of petunias with striking hues. These plants don't pose any danger to health or the natural environment. But because they were crafted with modern genetic-engineering techniques, technically they're in violation of 30-year-old government regulations.

These petunias, first developed in the 1980s, have been sold around the globe for years without incident. Then in 2015 a Finnish plant scientist noticed bright-orange petunias at a train station in Helsinki. He recalled that

such a variety was genetically engineered three decades prior but never commercialized. The scientist took a stem and later confirmed that it contained foreign DNA—a corn gene that confers the vivid color and a tiny sequence of DNA from a virus that turns on the newly inserted gene.

He tipped off Finnish regulators, who notified their counterparts in Europe and North America. Since no government had issued permits to sell these varieties, the result was a petunia purge. Untold numbers of beautiful and completely harmless flowers and seeds were destroyed. The USDA said the flowers could be burned and the seeds ground up.

The USDA's Animal and Plant Health Inspection Service has long regulated the importation and interstate movement of "plant pests,"

which can include plants, bacteria, fungi, viruses and more. If someone wants to introduce a plant or other organism included on the USDA's pest list into the field, a permit is required. If the organism isn't on the list, it can be introduced without government approval.

But for a quarter-century, this process has had an evil twin: a regime focused exclusively on plants altered or produced with the most precise genetic-engineering techniques if they contain even a snippet of DNA from a plant pest.

The original concept of a plant pest, something known to be harmful, has been tortured into a new category: a "regulated article." For decades the definition of this category has required virtually every genetically engineered plant to undergo a lengthy case-by-case review, regardless of potential risk. An edible plant can take longer.

If a researcher wants to perform a field trial with a regulated article such as the forbidden petunias, he must submit extensive paperwork to the Agriculture Department. After conducting tests for years at many sites, the developer can then submit a large dossier of data and request "deregulation" by the USDA for cultivation and sale.

These requirements make genetically engineered plants extraordinarily expensive to develop and test. On average, each costs about \$136 million, according to Wendelyn Jones of DuPont Crop Protection.

This is probably why the developers of the genetically engineered petunias never commercialized them legally. At around \$5 for 5,000 seeds, there is no way to recover the regulatory costs.

The USDA's discriminatory treatment of genetically engineered plants ignores science. Plants always have

been selected by nature and bred by humans or mutated to create new varieties with enhanced resistance to insects, disease, weeds, herbicides and environmental stresses.

Grain yields in particular have increased dramatically over the past 50 years. Like the contraband petunias, plants have also been modified for qualities attractive to consumers, such as seedless watermelons.

Government should regulate similar products or activities in a similar way, and the degree of oversight should be proportionate to risk. For new varieties of plants, risk is a function of such characteristics as toxicity or weedlike qualities.

It doesn't matter how a new gene is introduced. What's important is whether that gene's expression confers risk on other organisms or natural ecosystems. The only new gene expressed in the Helsinki petunias imparts a unique orange hue—harming no one—but the Agriculture Department subjects such plants to extensive and burdensome regulation.

Since it's illegal to sell the genetically engineered petunias without a permit, regulators have told vendors to destroy them.

I have a better idea. Agriculture Secretary Sonny Perdue should instruct his subordinates to invoke "enforcement discretion" and not take action against the sellers. Or he can ask growers to donate the flowers to cancer wards in pediatric hospitals. There's a difference between petunias and plutonium.

*Dr. Miller, a physician and molecular biologist, is a fellow at Stanford University's Hoover Institution. He was founding director of the Food and Drug Administration's Office of Biotechnology.*

## THE WALL STREET JOURNAL.

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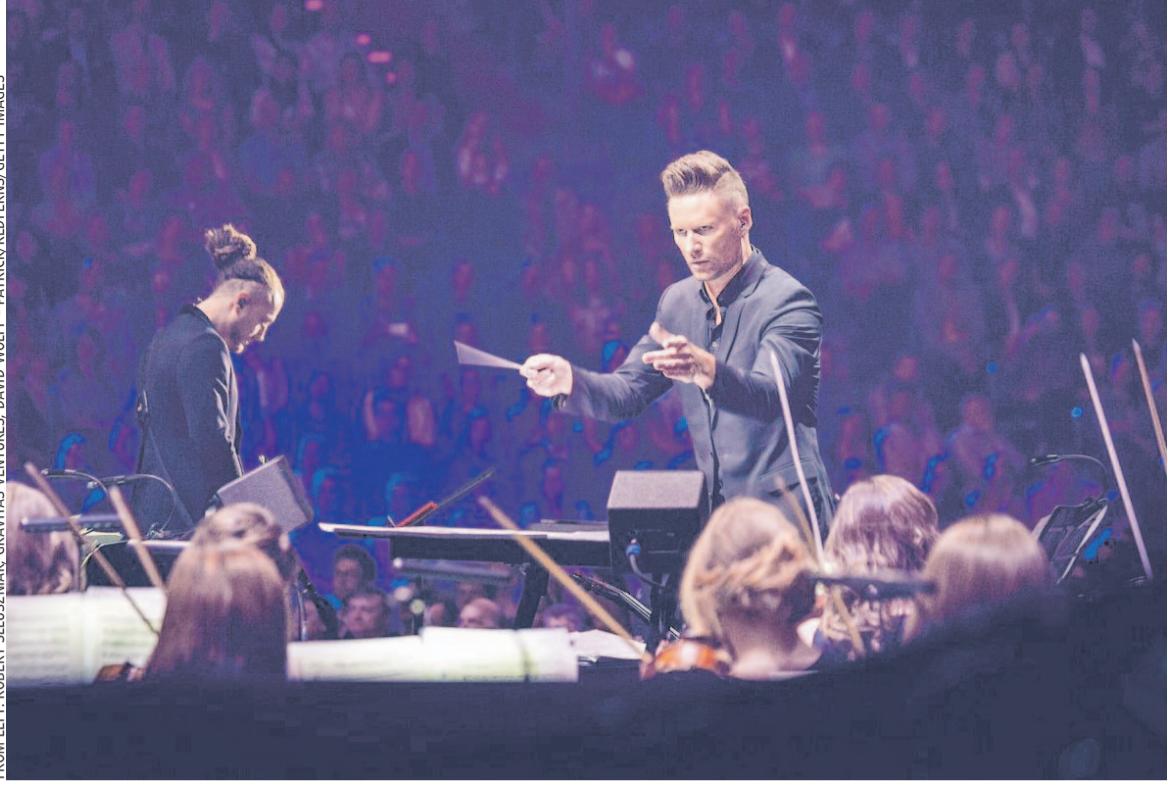
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## LIFE & ARTS



### MOVIE MUSIC

# For Film Composers, A Whole New Score

BY DON STEINBERG

**WHEN "THE MUMMY"** opened Friday, Brian Tyler, who composed the movie's music, performed his usual ritual. He headed to cinemas around Los Angeles to observe audiences. When screenings of the Tom Cruise action film let out, he lingered in the multiplex, taking extra time on the escalator and in the rest room to hear whether anyone was unconsciously humming his music.

"I'll wash my hands for a long time," says Mr. Tyler, who has composed music for four Hollywood films coming out this year. "I was happy to hear some people leaving the theater humming the theme."

It's getting harder for Mr. Tyler and some of his colleagues to stay under the radar. Film composers are stepping into the spotlight in a new documentary, "Score," which opens June 16. The movie celebrates the storytelling ability and emotional power of a film's score—the original music composed to complement scenes in a non-musical film, rather than pop-music tracks a director might insert.

Composers such as Mr. Tyler, who is featured in "Score," also are taking rock-star turns in concerts. In May, he conducted a 75-piece orchestra and 60-person choir, performing music from "The Mummy" and his other films for an arena audience of 15,000 in Krakow, Poland. He also performed some of

his original electronic music, under his alter-ego name Madsonik, at a dance club in San Diego.

Another movie maestro in the documentary is Hans Zimmer, who has scored more than a hundred films from "Driving Miss Daisy" in 1989 to the coming "Dunkirk." Mr. Zimmer rocked the Coachella music festival in April, playing electric guitar with a backing orchestra and kicking off a global tour that this month has him filling arenas across Europe. He returns to the U.S. in July for his first North American concert series. "People are realizing that film music can stand on its own two feet," Mr. Zimmer says. "There's a sense of storytelling in the music."

The documentary reveals the film-music creation process, practi-



Film composers from left, Brian Tyler, Hans Zimmer and Trent Reznor are stepping into the spotlight in part thanks to a new documentary 'Score.'

tions, and history. It explores the impact of Bernard Herrmann's screeching violins in Alfred Hitchcock's "Psycho," John Barry's "James Bond" theme, Ennio Morricone's spaghetti western sound, and Thomas Newman's ethereal score for "American Beauty." There is footage of John Williams and Steven Spielberg working on music for "E.T." as well as Mr. Spielberg's reaction to Mr. Williams's two-note motif for the "Jaws" shark. Initially, the director thought it was a joke.

Movie music is all about manipulating the audience. "The whole purpose of your job as a film composer is to be the emotional voice of what the director wants in the scene," Mr. Tyler says. "It's the wordless narrative, so you try to jump into their head as much as possible." Director James Cameron ("Titanic" and "Avatar") says in the documentary that a composer "has to act almost like a therapist" to extract a director's feelings.

Live movie-score performances, sometimes accompanied by films, have become a summertime staple. The Harry Potter Film Concert series hits cities across North America this summer. "Titanic Live" continues its world tour, and the New York Philharmonic plays a "Star Wars" Film Concert Series in September. Orchestras regularly perform John Williams's music (including "Star Wars," "Raiders of the Lost Ark" and "Jurassic Park").

For composers, moving between films and other work keeps ideas cross-pollinating. Mason Bates is composer-in-residence at Washington's John F. Kennedy Center for the Performing Arts. His classical symphonies tend to tell stories. For the 100th anniversary of John F. Kennedy's birth in May, he composed a piece that integrated JFK's

moon-shot speech into a symphonic work about American exploration. His first opera, "The (R)evolution of Steve Jobs," premieres in Santa Fe this summer. Director Gus Van Sant heard a recording Mr. Bates did with the San Francisco Symphony and asked him to try his hand at scoring the film "The Sea of Trees," which premiered at Cannes in 2015. Working on movie music that's tied so closely to dramatic narrative "allows one to think more theatrically" about other music, Mr. Bates says.

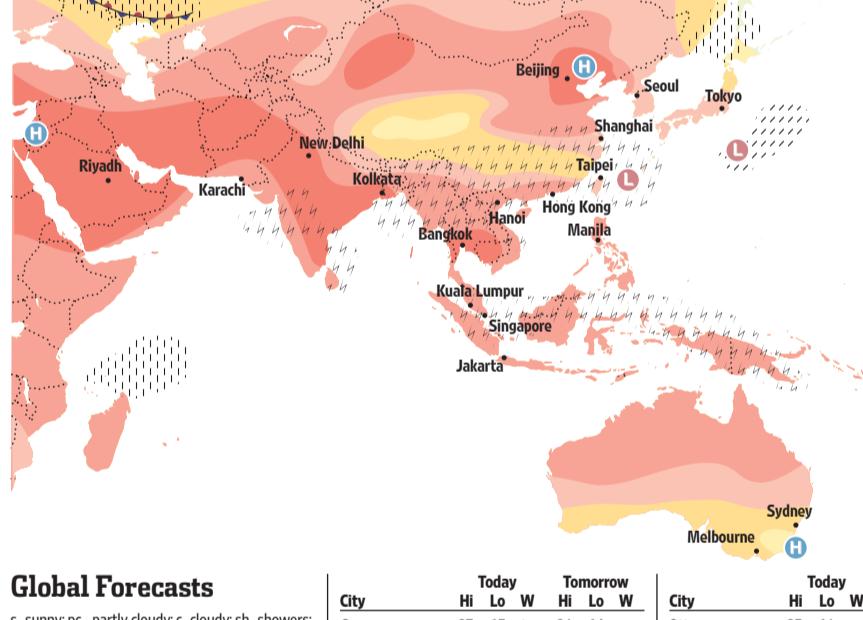
Today's arena performances might not surprise film composers who started out in the rock world. Danny Elfman graduated from the band Oingo Boingo to score films including "Good Will Hunting" and "Silver Linings Playbook." Trent Reznor of Nine Inch Nails won an Oscar for composing the score of "The Social Network" with Atticus Ross. But the arena-size crowds still astonish some composers.

"Outside of John Williams doing his big concerts—and he's kind of always the exception to the rule—I don't think any of us thought that this was possible," Mr. Tyler says.

Mr. Zimmer has some rock roots. He played synthesizer and appeared in the video of the 1979 Buggles song "Video Killed the Radio Star," which launched MTV. This month he and Buggles frontman Trevor Horn, with a 60-piece orchestra, performed the song live for the first time in decades in Frankfurt. Mr. Zimmer has been joined on tour by Nile Marr, son of The Smiths guitarist Johnny Marr. His light show is done by Marc Brickman, lighting designer for Pink Floyd.

"I'm so not the rock-star type," Mr. Zimmer says. "I've surrounded myself with people who really know how to do it."

### Weather

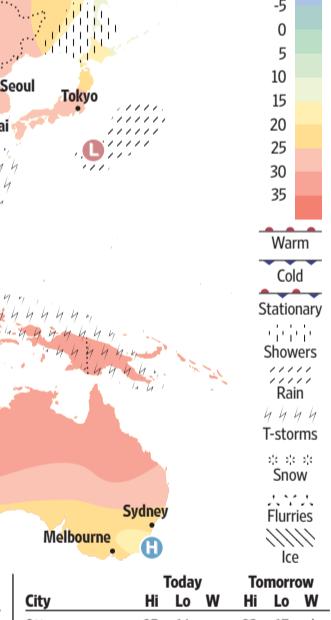


### Global Forecasts

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	25	15	t	18	15	c
Anchorage	16	9	pc	19	11	s
Athens	31	22	s	29	20	t
Atlanta	32	22	t	30	22	t
Bahrain	41	25	s	42	25	s
Baltimore	28	18	pc	27	19	c
Bangkok	36	25	pc	35	26	pc
Beijing	39	19	c	37	22	pc
Berlin	26	16	pc	20	12	sh
Bogota	19	9	c	19	9	c
Boise	26	15	c	23	11	c
Boston	22	14	s	20	16	c
Brussels	27	13	t	20	14	pc
Buenos Aires	20	18	sh	24	19	c
Cairo	35	22	s	36	23	s
Calgary	19	10	pc	20	7	c
Caracas	31	26	pc	30	26	pc
Charlotte	33	22	t	30	21	t
Chicago	33	21	pc	30	21	t
Dallas	35	26	s	36	26	s
Denver	31	13	pc	33	15	pc
Detroit	29	19	t	32	21	t
Dubai	44	32	s	43	32	s
Dublin	18	11	sh	21	13	pc
Edinburgh	18	11	sh	18	14	sh
Frankfurt	30	14	pc	23	11	c

### AccuWeather.com



City	Today			Tomorrow		
	Hi	Lo	W	Hi	Lo	W
Geneva	27	15	t	26	14	s
Hanoi	35	27	t	32	25	c
Havana	31	23	pc	31	23	pc
Hong Kong	32	28	t	32	27	t
Honolulu	30	23	t	30	24	pc
Houston	35	24	pc	35	24	pc
Istanbul	26	19	c	26	18	s
Jakarta	32	25	t	31	25	t
Johannesburg	21	4	s	20	5	s
Kansas City	35	21	t	34	23	pc
Kuala Lumpur	35	21	t	34	23	pc
Kolkata	41	26	pc	42	25	s
Karachi	28	18	pc	27	19	c
Manila	36	25	pc	35	26	pc
Mumbai	39	19	c	37	22	pc
Madrid	23	12	pc	24	15	pc
Manila	39	21	t	39	23	s
Melbourne	33	26	t	33	26	s
Mexico City	16	7	c	16	5	pc
Milan	31	25	t	31	25	t
Montreal	24	15	pc	21	16	r
Moscow	11	8	r	17	10	sh
Nashville	32	27	r	33	27	r
New Delhi	41	27	s	39	28	t
New Orleans	31	24	t	31	24	pc
New York City	22	15	s	20	18	s
Osaka	30	22	t	30	21	t
Paris	28	12	t	23	13	pc
Philadelphia	27	16	pc	25	20	sh
Phoenix	42	25	s	43	26	s
Pittsburgh	27	20	t	29	19	t
Port-au-Prince	34	24	pc	33	24	pc
Portland, Ore.	18	15	r	19	12	c
Rio de Janeiro	24	19	sh	24	18	s
Riyadh	45	27	s	45	28	s
Rome	29	19	s	30	19	s
Salt Lake City	31	17	pc	31	19	s
San Diego	25	17	pc	27	17	s
San Francisco	22	14	s	23	15	s
San Juan	31	26	pc	31	26	pc
Santiago	17	7	pc	14	4	r
Santo Domingo	32	23	pc	31	23	pc
Sao Paulo	20	13	c	22	13	s
Seattle	17	13	r	19	10	sh
Seoul	27	18	s	31	17	pc
Shanghai	27	19	pc	27	20	pc
Singapore	32	26	t	31	26	t
Stockholm	23	13	pc	21	12	r
Sydney	20	13	pc	18	13	c
Taipei	25	24	r	31	24	r
Tehran	38	24	s	36	22	s
Tel Aviv	28	20	s	29	21	s
Tokyo	26	19	pc	27	19	s
Toronto	23	19	t	29	19	pc
Vancouver	17	12	r	19	10	p
Washington, D.C.	28	21	c	28	22	c
Zurich	28	16	t	25	10	p

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



IF AT FIRST YOU DON'T SUCCEED... | By Morton J. Mendelson

Across	Down

</tbl\_r

# BUSINESS & FINANCE

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THE WALL STREET JOURNAL.

Thursday, June 15, 2017 | B1

**Yen vs. Dollar** 109.1360 ▼ 0.85%

**Hang Seng** 25875.90 ▲ 0.09%

**Gold** 1276.20 ▲ 0.82%

**WTI crude** 44.71 ▼ 3.77%

**10-Year JGB yield** 0.064%

**10-Year Treasury yield** 2.113%

## Shhh...BOJ Is Buying Fewer Bonds

May's debt purchases were smallest since 2014, but bank says no retreat from easing

BY SAUMYA VAISHAMPAYAN  
AND MEGUMI FUJIKAWA

Don't look now, but Japan's central bank is slowing its vast bond-buying exercise.

The Bank of Japan bought just ¥7.89 trillion (\$71.6 billion) of Japanese government debt last month, according to J.P. Morgan. While that sounds like a lot, it is the least outright buying—not accounting for maturing bonds—since October 2014, when the central bank surprised markets by saying it would increase its asset purchases.

The latest figure raises a question: Is the BOJ trying to rein in its ultraloose policies by stealth?

Certainly, the decrease highlights the contradictions in the central bank's current approach. The main reason it is buying fewer bonds is its "yield curve control" policy, which aims to keep the yield on 10-year government bonds at zero. This implies it can buy fewer bonds when the yield is close to that target. On Wednesday, the yield was at 0.06%. Bond yields fall when their prices rise.

The central bank has kept in place its target of increasing bondholdings each year by "about" ¥80 trillion—a net figure, meaning taking into account maturing bonds. At the current rate of buying, though,

the holdings are set to rise this year by only about ¥55 trillion, based on the J.P. Morgan data.

The central bank is "technically tapering," said Hiroshi Shiraishi, senior economist at BNP Paribas in Tokyo.

BOJ Gov. Haruhiko Kuroda has acknowledged the slowdown, but has been quick to declare this doesn't signal a retreat from easy-money policies.

"At this stage, we are not exiting," Mr. Kuroda said at The Wall Street Journal's CEO Council meeting in Tokyo on May 16.

The BOJ wariness at heralding an exit is understandable, given the country's still-fragile economic position. Central banks buy government bonds to pump money into the economy, which should in turn fuel

inflation. But while Japan's economy is on its longest run of growth since 2006, core inflation is rising at a rate of just 0.3%, with wage growth proving stubbornly low.

Central bankers around the world have been cautious about discussing an end to easy-money policies, for fear of a disorderly market reaction.

When the Federal Reserve indicated in 2013 that it was get-

Please see BONDS page B2



BOJ chief Haruhiko Kuroda: 'At this stage, we are not exiting.'

## Oil Glut To Hold Through The Year, IEA Says

BY SUMMER SAID

The global oil glut will continue through 2017 as OPEC's efforts to restrain petroleum production have hit a wall in the U.S., the International Energy Agency said Wednesday.

In its closely watched monthly oil-market report, the IEA said the world's stored oil grew by 18.6 million barrels in April in industrialized nations. The supply was 292 million barrels higher than the five-year average, said the IEA, which advises governments on energy trends.

Also on Wednesday, data from the U.S. Energy Information Administration showed that domestic crude supplies fell by 1.7 million barrels for the week ended June 9, a smaller decline than analysts were expecting.

Oil prices approached a seven-month low in the wake of the reports. In midday trading, Brent, the global oil benchmark, fell \$1.62, or 3.3%, to \$47.10 a barrel, while U.S. crude slid \$1.57, or 3.4%, to \$44.89 on the New York Mercantile Exchange.

The high storage levels—an indicator of global oversupply—are helping depress crude prices at levels lower than desired by oil producers in the Organization of the Petroleum Exporting Countries, the 14-nation cartel that controls about 40% of global crude output.

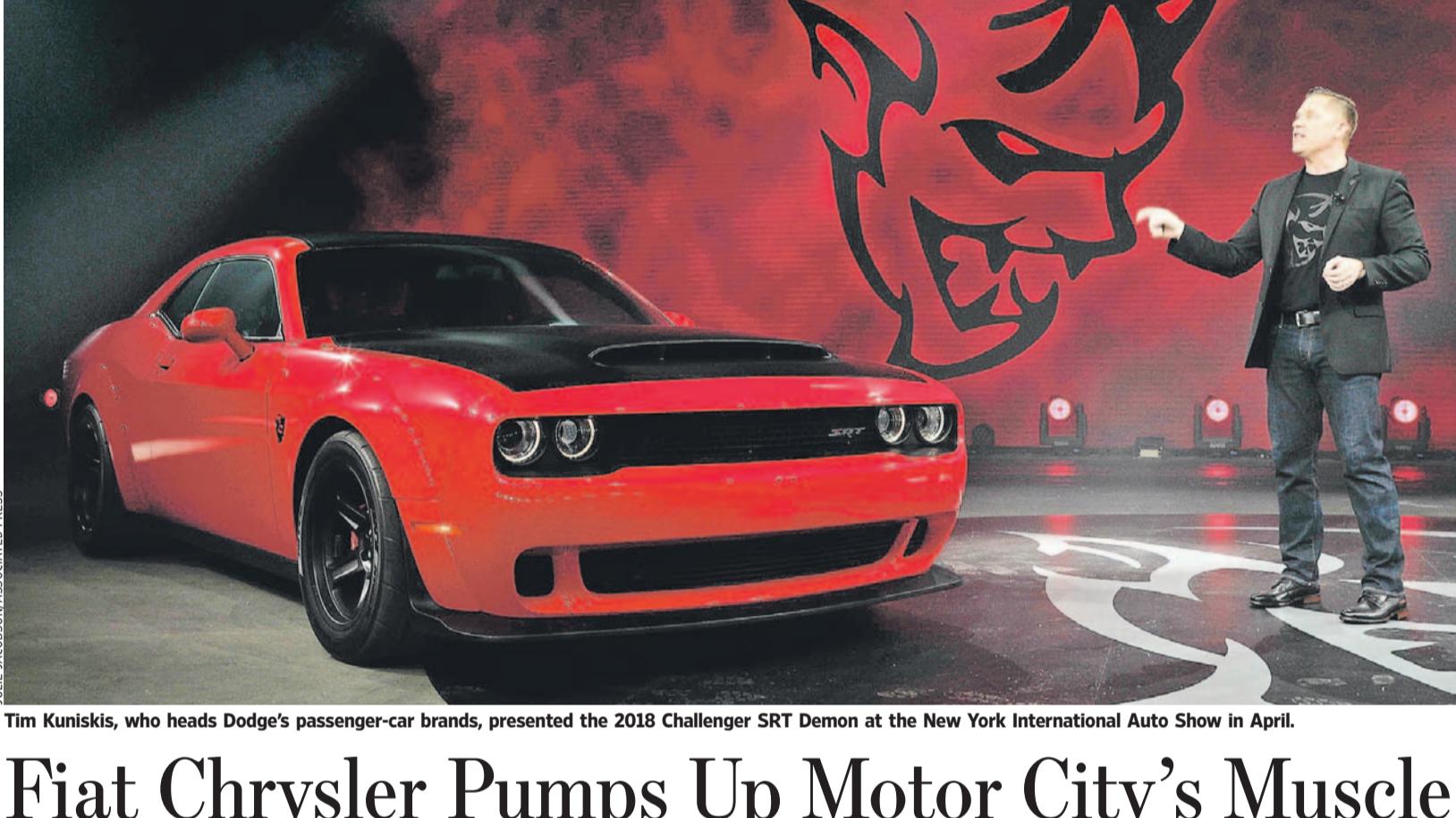
OPEC teamed up with 10 other big producers outside the cartel to cap their daily production through March 2018 at roughly 1.8 million barrels lower than levels in October 2016. But the IEA said the effort is taking longer than expected, in part because U.S. oil producers have come roaring back this year. The IEA said it expects U.S. crude supply to grow by 430,000 barrels a day this year, and by 780,000 barrels a day in 2018.

"Such is the dynamism of this extraordinary, very diverse industry it is possible that growth will be faster," the IEA said.

If current trends hold, stored oil will begin dropping this year but it won't fall to the five-year average—a key goal of OPEC—until March 2018, when the output deal ends.

Saudi Arabia's energy minister, Khalid al-Falih, has said the producer coalition is determined to do "whatever it takes" to achieve the goal of bringing stock levels back to the five-year average.

"Whatever it takes" might be the mantra, but the current form of 'whatever' is not having as quick an impact as expected," the IEA said.



Tim Kuniskis, who heads Dodge's passenger-car brands, presented the 2018 Challenger SRT Demon at the New York International Auto Show in April.

## Fiat Chrysler Pumps Up Motor City's Muscle

BY CHESTER DAWSON

With crosstown rivals focusing on a future of electric cars and self-driving vehicles, Detroit's smallest auto maker has created a product line that is largely fixated on the rearview mirror.

**Fiat Chrysler Automobiles** NV's highest-profile launches for the new model year are the Dodge Challenger SRT Demon and Jeep Grand Cherokee Trackhawk. Both come loaded with the horsepower and sex appeal that put Motor City on the map decades ago.

Small cars, bread-and-butter family sedans and a long-range electric car are either hard to find at Fiat Chrysler dealerships or completely absent from its showrooms. Passenger cars, which help boost auto makers' average miles-per-gallon ratings, have fallen

out of favor with buyers who prefer crossovers, sport-utility vehicles and trucks. Chief Executive Sergio Marchionne has said compact cars no longer make financial sense.

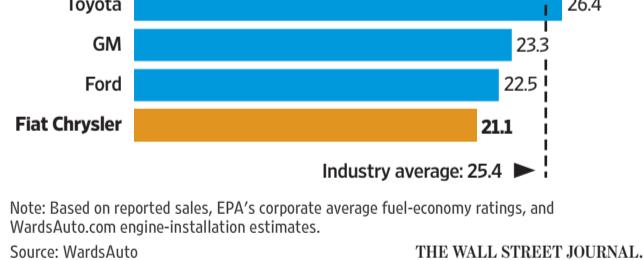
Last year, the company killed off its Chrysler 200 and Dodge Dart sedans, as well as the Patriot small SUV. Instead, the auto maker has doubled down on V-8 engine-powered SUVs and pickup trucks.

"The one thing not everyone has is performance, and people are willing to pay for it," Tim Kuniskis, a top Marchionne lieutenant in charge of passenger cars, said in a recent interview. "It's a quantifiable, easy-to-identify differentiator."

But it comes at a cost: Fiat Chrysler has the worst fuel-economy performance of any mainstream car company. As of May, its vehicles averaged 21 miles per gallon, the lowest

### Running on Fumes

Fiat Chrysler trails among the Big 6 major manufacturers in estimated fuel-economy performance of 2017 model-year sales.



Note: Based on reported sales, EPA's corporate average fuel-economy ratings, and WardsAuto.com engine-installation estimates.

Source: WardsAuto

of any major automotive brand after sports-car specialist Porsche AG, according to WardsAuto.com, an industry data provider and trade publication.

higher than the projected industry average. That reflects incremental costs to meet current standards through 2021 and a prospective target through 2025 contested by the auto industry.

Fiat Chrysler says its fuel-efficiency ratings are comparable to rivals within segments it competes in, adding that the proposed 2025 light-vehicle fuel-economy standards are unrealistic. The Trump administration has said it would reconsider the targets, which were approved late in President Barack Obama's tenure.

Mr. Marchionne, who says he plans to step down as CEO in early 2019, has taken a more cautious approach to introducing electric-vehicle and self-driving technology than General Motors Co. and Ford Motor Co. He says the debt

Please see AUTOS page B2

Regulators say the auto maker might need to spend \$2,613 per vehicle to meet proposed government fuel-economy standards planned over the next decade—44%

## Mattel CEO Faces Big Test Over Dividend

BY PAUL ZIOBRO

Margo Georgiadis inherited a long list of problems when she took over as chief executive of Mattel Inc. earlier this year, including a stalled turnaround, angry investors and dispirited staff.

But one of the first decisions the former Google executive will face is whether the company can afford to maintain its generous shareholder dividend and make the investments needed to fix the home of Barbie, Fisher-Price and Hot Wheels. The toy industry newcomer was expected to share her strategy at a meeting with analysts in New York on Wednesday.

With an annual payout of more than \$500 million, Mattel has failed to earn enough income to cover its dividend in each of its past three years. Last fiscal year, its



Margo Georgiadis, shown in 2015, was expected to share her strategy for Mattel at a meeting with analysts on Wednesday.

profit was \$318 million. Mattel's stock, down more than 28% in the past year, puts its dividend yield at 6.8%, the

second-highest among all S&P 500 companies.

Cutting the dividend this week would remove an over-

hang that has kept some investors on the sidelines, and it would free Ms. Georgiadis to invest in marketing and product development, some analysts said.

Others believe that Mattel, with hopes for a sales surge from toys tied to the coming "Cars 3" film and with Christmas still too far out, has time to make a call.

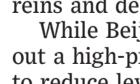
"While we would welcome such a move, we are still not convinced a cut will occur owing to the board's dogged support of the dividend in the past," BMO Capital Markets analyst Gerrick Johnson wrote this week. "We'll call it a coin flip at this point."

Ms. Georgiadis has said the board will review the dividend payment periodically. Through a spokesman, Mattel executives declined to comment.

Please see MATTEL page B2

HEARD ON THE STREET | By Anjani Trivedi

## Beijing Gives the OK for Another Lending Binge



China's banking regulator should know better by now:

loosen the

reins and debt soon piles up.

While Beijing is carrying out a high-profile campaign to reduce leverage in its financial markets with one hand, with the other it is encouraging more potentially reckless borrowing. This week, the regulator put pressure on the country's big banks to lend more to small companies and farmers, while the government announced tax breaks for financial institutions that lend to rural households. That fol-

lows recent guidance that banks should set up "inclusive finance" units.

If the goal of lending to poorer customers sounds noble, the concern is that the execution will only worsen Chinese banks' existing problems, namely high levels of bad loans and swaths of mispriced credit. Bank lending to small companies is already growing pretty rapidly: It jumped 17% in the year through March to 27.8 trillion yuan (\$4.084 trillion). That compares with the 7% rise in loans to large- and medium-size companies over the same period.

But lending standards are

Please see HEARD page B2

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## BONDS

Continued from the prior page  
ting ready to wind down its bond-buying program, U.S. stocks, Treasurys and emerging-market assets swung wildly in an episode now called the "taper tantrum."

Analysts expect the BOJ to reiterate its ¥80 trillion target in its next monetary-policy decision, due Friday. Sticking to guidance can help limit market shocks by making it clear the central bank is prepared to buy government bonds heavily if there is an economic meltdown, said BOJ policy board member Yutaka Harada, an advocate of reflationary policies, at a recent news conference.

The Bank of Japan faces some practical limits, notably

that it already owns 43% of all Japanese government bonds, Capital Economics estimates, and could run out of bonds to buy eventually.

The inflation outlook is the crucial factor in determining the central bank's pace. The yen's strength this year—up about 6% against the dollar—and a drop in oil prices make it less likely the BOJ's bond purchases will continue to slow near-term. When Japanese consumer prices rose for the first time in more than a year in January, costlier oil was a major reason.

"The dollar-yen outlook and oil price both suggest the BOJ should stop tapering," said Tadashi Matsukawa, head of fixed income at Pinebridge Investments in Tokyo, adding that he is buying long-dated Japanese government bonds.

years ago, has headed some of the company's biggest initiatives in recent years, including a sell-off of dozens of brands and an overhaul of the company's supply-chain operation.

The executive won't serve on the board and he will continue to serve as CFO.

BY SHARON TERLEP

**Procter & Gamble** Co. said its finance chief, Jon Moeller, will get the new title of vice chairman as part of the company's turnaround.

Mr. Moeller, a 29-year P&G veteran who became CFO eight

years ago, has headed some of the company's biggest initiatives in recent years, including a sell-off of dozens of brands and an overhaul of the company's supply-chain operation.

The executive won't serve on the board and he will continue to serve as CFO.

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## The Mart

### BUSINESS OPPORTUNITY

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The tender details/documents including EMD requirement etc. can be viewed and downloaded from 12.06.2017 onwards from our websites <https://etender.hpcl.co.in> and [www.hindustanpetroleum.com](http://www.hindustanpetroleum.com) (under tender section: link "Tenders & Contracts")

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THE WALL STREET JOURNAL.

## BUSINESS & FINANCE

# Activist Targets BHP Board

BY ROBB M. STEWART

MELBOURNE, Australia—Activist investor Elliott Management Corp. accused long-standing **BHP Billiton** Ltd. board members of standing by while billions of dollars in market value were erased in recent years.

With the mining company's board meeting this week in Chile and a decision on a successor to Chairman Jac Nasser looming, the New York hedge fund urged BHP to appoint an experienced replacement with a mandate to shake up the board.

A call for a "significant upgrade in directors" builds on Elliott's recent push for a sweeping BHP restructuring aimed at releasing shareholder value.

Another shareholder, Sydney hedge fund **Tribeca Investment Partners**, recently said it was holding private talks with potential candidates for BHP's board.

In addition, wealth-manage-

ment firm Escala Partners has questioned the credentials of BHP board members who previously served at companies where shareholder value was lost. Escala is an adviser to some of Australia's richest families who also are BHP shareholders.

Elliott stopped short of supporting a specific chairman candidate and a spokesman declined to comment on whether the hedge fund would push for board seats. BHP declined to comment on Elliott's statement or the search for a successor to Mr. Nasser, who plans to retire in 2018 after eight years in the role.

Elliott said board members didn't prevent BHP from wasting billions of dollars by expanding into U.S. shale oil and gas as well as repurchasing shares at inflated prices.

It also wants an independent review of the company's petroleum division and would like BHP to explore spinning off its U.S. energy operations.

**A decision is looming on a successor for BHP's Jac Nasser.**

The hedge fund said the naming of a new chairman was an opportunity to unlock about \$10 billion in tax credits in Australia by unifying BHP's dual-listed structure.

Elliott, which first contacted BHP management last year, has a reputation for running dogged campaigns against its target companies.

Last month, it secured three more seats on the board of Arconic Inc., a maker of aluminum products, after a five-month campaign that cited the need for accelerated cost cutting. Also in May, Elliott lost a legal battle to remove the chairman of **Akzo Nobel** NV, which it tried to push into a merger with a rival.

Elliott went public with its BHP spat in April. Executives say BHP regularly reviews its strategy and assets.

Last month, Chief Executive Andrew Mackenzie said the company was considering the sale of some shale assets and had recently shifted focus toward more conventional oil and gas. He also said BHP's current strategy could increase the company's value by up to 50% and nearly double its return on capital.

BHP has 11 people on its board. Shareholders overwhelmingly supported each of the board members in last year's vote on directors.

## MATTEL

Continued from the prior page ahead of the investor meeting.

Ms. Georgiadis, 53 years old, is getting acclimated to an industry with multiyear development cycles and long holiday buildup. That is different than the technology world of Alphabet Inc.'s Google, where for the past six years she led commercial operations and advertising sales in the U.S., Canada and Latin America.

What she does bring to Mattel is a better understanding of e-commerce—a dire need for Mattel as the store-based way of selling toys quickly shifts online.

"She's smarter than anyone at Mattel in terms of the digital world," said Jim Silver, editor of **TPPM.com**, a toy review website.

Ms. Georgiadis has already made some changes to address a corporate culture that current and former employees say is still stuffy, slow and without accountability.

In March, she reached outside the toy industry to find a new leader for Fisher-Price, hiring Julie Masino, former CEO of the Beverly Hills bakery chain Sprinkles Cupcakes. In late May, Ms. Georgiadis dismissed Mattel's head of human resources, Richard Gros, and is searching for a replacement. Mr. Gros didn't respond to a request for comment.

Mattel cruised through



A Barbie RC Hoverboard. Last fiscal year, Mattel posted a profit that totaled \$318 million.

most of 2016 under the leadership of Chris Sinclair, who was in the second year of a turnaround effort. But the company's fortunes reversed in the fourth quarter as retailers had far more Barbie dolls and other Mattel toys than they needed. Mattel had to pump extra money into retailers to clear merchandise. The fourth-quarter wiped out annual bonuses for top executives.

Mattel hired Ms. Georgiadis for the job in January, passing over Chief Operating Officer Richard Dickson, who was

given a \$1 million retention bonus and \$5 million in grants to stay on. Mr. Sinclair, meanwhile, moved into the executive chairman role, where he will collect a \$1 million salary and remain eligible for bonuses.

In securities filings, Mattel said it wanted to keep Mr. Sinclair on for continuity and institutional knowledge of Mattel, and Mr. Dickson for his marketing skills and oversight of brands. Still, current and former executives said they

were frustrated by the lack of accountability regarding senior leaders who oversaw last year's holiday slide.

Ms. Georgiadis is aware of the frustration, a person familiar with the matter said. But in a sign that the top two executives are working closely together, she shares the CEO office at the company's El Segundo, Calif., headquarters with Mr. Dickson. The space has two desks, a conference table and a Barbie-themed foosball table.



The Jeep Grand Cherokee Trackhawk is loaded with horsepower.

on Tesla Inc. But Ford's share price continued to slip amid uncertainty about the payoff for those moonshot ventures.

His successor, Jim Hackett, is charged with accelerating innovation.

GM CEO Mary Barra also has laid several technology bets, including investing more than \$1 billion last year in startups specializing in autonomous cars and ride sharing. The Chevrolet Bolt long-range electric car, which the company hopes will further its technological bona fides, went

on sale in January.

Fiat Chrysler, meanwhile, has outsourced its autonomous-technology research to Alphabet Inc.'s Waymo unit. Mr. Marchionne routinely points out that the company loses money on each Fiat 500e, the only pure electric car it sells in the U.S.—to the tune of about \$20,000 a car.

The auto maker said it would rely instead on hybrid technology, first popularized by Toyota Motor Corp.'s Prius nearly two decades ago, to catch up. The company in April

started selling a plug-in hybrid version of its Pacifica minivan. A so-called mild-hybrid Ram pickup truck has been promised, and Mr. Marchionne says a bulk of the eight-vehicle Jeep lineup will get a hybrid engine option during the next three years.

At the same time, Fiat Chrysler is hard at work on a cross between a Jeep and a Ram, a throwback to the short-lived sports-utility trucks popular a decade ago.

One of the auto maker's primary strategies to improve fuel efficiency—a line of EcoDiesel engines—has run into roadblocks. Fiat Chrysler has been sued by the U.S. Justice Department following allegations that Jeep and Ram trucks with those engines used software designed to cheat emissions tests.

Adding pressure, **West Virginia University** researchers found significant emissions discrepancies between on-road performance and lab tests, and the U.S. Environmental Protection Agency has delayed certification of the company's 2017 model-year vehicles with EcoDiesel engines.

Fiat Chrysler has denied wrongdoing.

—Christina Rogers contributed to

## BUSINESS NEWS



General Motors will idle its Chevrolet Malibu plant in Kansas for five weeks. Passenger-car sales in the U.S. are especially weak.

# GM Cuts Back as Sales Ebb

Auto maker extends summer shutdowns at plants amid signs U.S. market has turned

By MIKE COLIAS

General Motors Co. will extend the typical summer shutdown at certain U.S. factories to deal with slumping sales and bloated inventory, a sign the industry's hot streak is grinding to a halt.

The No. 1 U.S. auto maker in terms of sales will idle its Chevrolet Malibu factory near Kansas City, Kan., for five weeks starting in late June, Vicki Hale, president of the United Auto Workers Local 31, said. Job cuts will be needed if GM is forced to slow production after the summer shutdown.

Additional downtime is also slated for a small-car factory in Lordstown, Ohio, that has already experienced deep layoffs amid a pullback in demand for passenger cars. A GM spokesman declined to comment on specific plans.

Auto makers traditionally schedule two-week factory breaks in midsummer, often to prepare for model change-

overs. Car sales, however, are decelerating after a seven-year run, and most major car companies have responded by curtailing output ahead of summer months that usually are the busiest for the industry.

Ford Motor Co. has announced production slowdowns at certain plants. While Ford's trucks are selling at a brisk pace, its sedans are accumulating at dealers as gasoline prices remain low.

GM enters the summer with a glut of unsold inventory after running production lines at relatively high rates to prepare for factory downtime related to plant upgrades. Wards-Auto.com estimates GM's production increased 2.9% over the first four months of 2017, even as the broader industry pulled back.

As a result, GM's inventory at the end of May was almost 44% higher than a year earlier. It has nearly 1 million vehicles sitting on dealer lots, Wards-Auto.com estimates, representing 101 days' worth of supply, or 23.4% of total industry stock.

GM's holds about 17% market share. It is emerging from a tough May when Ford—traditionally the No. 2 seller—

took a rare lead in the overall market due to its strong truck sales and a jump in fleet sales.

Workers at GM's car plants, including the 2,850 employees at the Malibu plant near Kansas City, are feeling the brunt of the pain. GM earlier this year cut thousands of jobs to counter falling sales of family sedans and smaller cars.

The Lordstown plant, which cut a work shift earlier this year, will close for three weeks in July to curb Chevy Cruze production, said Robert Morales, president of a United Auto Workers local that represents some Lordstown factory workers.

A preference for trucks is only part of the industry's passenger-car problem.

People are now returning increasing numbers of sedans to dealerships as leases expire. That has created ample supply of cheap, late-model used cars, making new cars even tougher to sell.

Tommy Brasher, a Chevy dealer in Weimar, Texas, said his Malibu inventory is "a little heavy" and business has slowed across the board in recent months.

"We just haven't been seeing much foot traffic or inter-

net traffic," he said. "April was slow, May was worse and June started the same."

Wall Street analysts say concerns about the market have weighed on GM's stock price, as investors study how the auto maker weathers the next downturn. RBC Capital estimates GM could slash up to \$1 billion in annual labor costs if U.S. sales were to slip 20%.

GM executives expect an uptick in the second half of 2017, and as recently as April said industry sales in the U.S. will match the record 17.5 million light vehicles sold in 2016.

The auto maker, however, has said more flexible union contracts signed over the last decade give it more wiggle room. Nearly one-third of GM's U.S. hourly workforce, for instance, can be let go at relatively little cost.

In the past, "the manufacturing cost was very sticky," GM Chief Financial Officer Chuck Stevens told analysts in April. "That's not the case now."

Factory downtime will dent third-quarter results. Weak sedan sales could add further pressure, especially as an incentive war has forced price reductions in the segment.

# China Approves The Import of New GMO Crops

By BRIAN SPEGELE

BEIJING—China has approved imports of two new varieties of genetically modified crops, drawing praise from U.S. industry representatives who have sought to pry open more access to China's vast agricultural market.

The decision, announced Wednesday, will allow U.S. giants Dow Chemical Co. and Monsanto Co. to export genetically altered corn and soybean varieties to China, and comes after Beijing agreed to speed up reviews of biotechnology applications as part of a trade deal with the Trump administration last month.

China's Ministry of Agriculture said imports of the new products could begin this week. Specifically, the ministry approved imports of Dow AgroSciences' Enlist corn variety and Monsanto's Vistive Gold soybeans. In addition, 14 other genetically modified crop varieties were renewed for importing into China.

The decision "is a positive step," said Zhang Xiaoping, China representative for the U.S. Soybean Export Council.

China's decision to allow new imports of genetically modified crops comes as the government struggles to balance a desire to boost farms' productivity with a mistrust of such crops by its citizens.

There is a general scientific consensus in the U.S. that GMO crops are safe. But in

China, doubts remain. While the government has said genetically modified crops are safe in principle, it has been cautious about approving new varieties for imports, fearing a public backlash.

Unlike in the U.S., China doesn't permit planting of genetically modified seeds for staple grains such as corn and soybeans. Loosening those restrictions is one measure that would help boost yields at Chinese farms, say industry executives, an important goal for China's government as it strives to feed its growing middle class.

State-owned China National Chemical Corp.'s recent deal to buy Switzerland's Syngenta AG—a significant developer of genetically modified seeds—brought such issues to the forefront of a public dialogue about genetically altered crops in China. Many foreign executives hope such a deal by a large Chinese state-owned enterprise could help open the market for more genetically modified crops over time.

The U.S. Commerce Department said in May that eight U.S. biotechnology applications were pending in China. DuPont Co. says while it has yet to receive approval for an insect-control trait for corn it is seeking in China, it was "encouraged by the fast progress" of China's government in the latest approvals.

—Yang Jie contributed to this article.



Monsanto's headquarters campus in St. Louis. China cleared imports of Monsanto's genetically altered Vistive Gold soybeans.

## BUSINESS WATCH

### INDITEX

#### Zara Owner Posts Strong Sales Growth

Zara owner Inditex SA said strong sales boosted first-quarter profit, distancing it further from its struggling retail rivals.

The world's largest fashion retailer by revenue said first-quarter net profit rose 18% to €654 million (\$733.3 million) from a year earlier. Sales climbed 14% to €5.57 billion.

The figure was roughly in line with estimates by analysts, who expected the Spanish company to report a first-quarter net profit of €655 million and sales of €5.54 billion, according to data provider FactSet.

By comparison, Hennes & Mauritz AB of Sweden in March reported a 3% decline in first-quarter net profit on lower-than-expected sales growth and increased markdowns.

Inditex, whose full name is Industria de Diseno Textil SA, said sales in stores and online in constant currency terms rose 12% in the first quarter and through the first five weeks of the second quarter.

The retailer said it launched Zara online in Singapore, Malaysia, Thailand and Vietnam during the first quarter. Zara will launch online in India in the fall.

—Jeannette Neumann

company to consider a deal, the people said: an insider-trading case against its chief executive, and the ill health of its largest shareholder. In March, Hexagon Chief Executive Ola Rollén was indicted on insider-trading charges related to an outside investment.

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—Dana Mattioli and Dana Cimilluca

### FIREFLY

#### Alphabet Retires Self-Driving Model

Google parent Alphabet Inc.

retired its self-driving prototype dubbed the "Firefly"—a tiny test car with no steering wheel or

pedals—to focus on building its

self-driving technology into

mass-produced vehicles.

The vehicle, built in collaboration with Detroit-based auto supplier Roush Industries,

started hitting roads in a testing capacity in 2014, with a capped speed of 25 miles an hour. It became iconic as autonomous-car development heated up, and was a symbol of Silicon Valley's assault on the auto industry.

The move confirms that Alphabet's driverless-car unit Waymo has come to terms with the high regulatory and societal hurdles of selling vehicles without traditional controls.

Firefly vehicles have helped Waymo amass more than three million miles in autonomous testing over the past three years, including a blind man's ride around an Austin, Texas, neighborhood in October 2015 that Waymo says was the first time a car drove itself on U.S. roads without controls or a human backup.

—Jack Nicas



Antitrust regulator is investigating Nike, Sanrio and Universal Studios, licensor of 'Minions' rights.

# EU Probes Brand Licensers

By NATALIA DROZDIAK

BRUSSELS—The European Union's antitrust regulator on Wednesday opened three separate formal investigations into licensing and distribution practices by Nike Inc., Sanrio Co. and Universal Studios in Europe, the latest salvo by the watchdog in its bid to tear down barriers for consumers shopping online in the bloc.

The European Commission said it would investigate whether the three companies restrict traders from selling licensed merchandise online and across borders in Europe.

The companies license the

rights for well-known brands. Nike licenses the rights for Fútbol Club Barcelona's merchandise, while Sanrio is the licensor of rights for Hello Kitty. Universal Studios, a unit of Comcast Corp.'s NBCUniversal, is the licensor of rights for the movies "Minions" and "Despicable Me," the EU said.

The probe comes after the commission's competition directorate in May published the findings of its two-year long probe into the e-commerce sector.

The EU then reiterated previous warnings that consumer-product makers and digital-content owners could face

antitrust probes for restricting the way retailers sell the companies' goods online.

Earlier in June, the commission launched an investigation into Guess Inc. to see whether the company's distribution agreements restrict authorized retailers from selling online to consumers or to retailers in other member states.

Nike said in a statement that it was "aware of the European Commission's investigation and will continue to cooperate with the authorities."

Sanrio and Universal Studios didn't immediately respond to a request for comment.

# Power Producer Seeks Chapter 11

BY ANDREW SCURRIA  
AND PATRICK FITZGERALD

GenOn Energy Inc. filed for chapter 11 bankruptcy Wednesday to slash \$1.8 billion in debt and settle accusations that parent company NRG Energy Inc. improperly extracted more than \$520 million from the subsidiary.

GenOn, based in Princeton, N.J., along with other power-generation companies, has struggled with a capacity glut and competition from cheaper

power sources.

NRG proposed last month to place GenOn under chapter 11 bankruptcy protection.

NRG purchased GenOn in 2012 for \$1.7 billion in stock.

Creditors of GenOn have lobbed allegations over the past year that NRG has treated the unit like a piggy bank, siphoning cash away from creditors under a services agreement for the benefit of shareholders.

A noteholder group sued

NRG in December, accusing the

parent of plundering GenOn's assets since 2013.

Owners of two Maryland power-generation plants that lease the facilities to another GenOn unit sued NRG last week, saying the sponsor had raided restricted sources of cash to finance a favorable bankruptcy settlement.

GenOn's proposed chapter 11 plan would release NRG from liability in exchange for a \$261.3 million cash payment while placing control of GenOn in the hands of its creditors.

Hexagon AB has held talks on a possible sale to a U.S. or European rival that could value the industrial-technology company at some \$20 billion, according to people familiar with the matter.

The talks between Hexagon and potential buyers are at an early stage and the company, one of Sweden's biggest, might decide not to pursue a sale.

Two factors are pushing the

# Watson To Help Firms' Financial Oversight

BY GABRIEL T. RUBIN

**International Business Machines** Corp. formally launched a Watson product for financial regulation, rolling out artificial-intelligence tools to help financial institutions comply with rules and detect possible financial crimes.

The technology company's entry into the regulatory-compliance sector, in which a number of firms already use AI to manage immense amounts of data, comes after it purchased financial consulting firm Promontory Financial Group in September.

IBM is looking to build on the "Jeopardy"-winning Watson's presence in the health-care sector, in which the company has used partnerships with and acquisitions of health-care providers to improve care, particularly for cancer patients.

"We were very convinced after our experience in health care that it wasn't a technology-alone solution," Alistair Rennie, general manager of Watson Financial Services, said. "You need to partner with experts who know the process, who have the expertise."

**The new tools help in regulatory compliance and detection of possible crimes.**

Watson's move comes as financial firms continue to shift to AI and "machine learning" to manage data that must be analyzed for regulatory compliance and crime prevention.

IBM rolled out three Watson tools on Wednesday. One analyzes regulatory text to identify obligations that companies might face and help assess whether the company's compliance programs are sufficient to comply with the rules.

Another assists banks in detecting suspicious customers or transactions, and a third seeks to make "big data" at financial firms more accessible to decision makers when developing new business strategies.

Other technology firms already provide similar services. **Digital Reasoning Systems** Inc., an artificial-intelligence firm based outside Nashville, Tenn., has contracts with Nasdaq Inc. for monitoring global trading and works with Goldman Sachs Group Inc. to prevent financial misconduct by traders. The firm counts Goldman Sachs and Credit Suisse Group AG as investors, among others.

The role of these companies, said Digital Reasoning founder and President Tim Estes, is to take the huge amounts of unstructured data from client firms and make it usable for compliance and surveillance purposes. "All the data is there; it's a bunch of crude oil in the ground. We're the refiners above ground," Mr. Estes said.

Unlike IBM, Digital Reasoning has less of a focus on anti-money-laundering compliance, at least for now, he said.

Eugene Ludwig, the chief executive of Promontory and a former U.S. comptroller of the currency under President Bill Clinton, said the new technology would benefit regulators, too.

"Regulators should be quite cheered by this," he said, pointing to anti-money-laundering compliance as an area in which both firms and regulators would mutually benefit.

To be sure, Watson and other machine-learning technologies have a long learning process as they encounter more data and unfamiliar information.

Some previous Watson projects in the health sector have struggled to meet their ambitious goal of transforming cancer care.

**PERSONAL TECHNOLOGY** | By Geoffrey A. Fowler

# Microsoft Laptop, Smudges and All



Microsoft's first full-fledged laptop isn't a reinvention of the portable computer. It's more of a reupholstering.

I mean that both literally and figuratively. The interior of the Surface Laptop, which arrives in stores later this week, is covered in soft fabric. Snack lovers, be warned: This laptop isn't compatible with Doritos fingers.

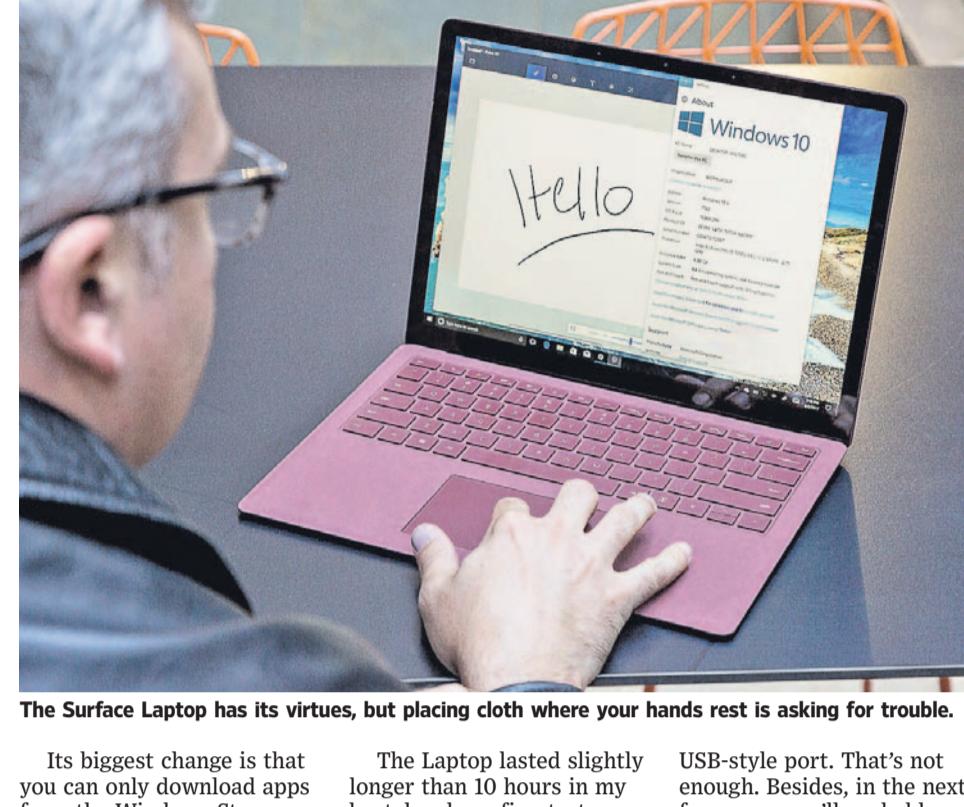
The rest of the \$1,000-and-up machine is surprisingly traditional. It's a handsome new dressing on the slim, lightweight workhorse design **Apple** popularized with the MacBook Air nine years ago. After using the Surface Laptop for a week, I found it to be a dependable road warrior—but I'm still not sure why Microsoft made it.

I love Microsoft's other Surface hardware for evolving the idea of a PC. The Surface Pro made the world realize a finger-operated tablet could be a real computer. The Surface Book pioneered a new form of laptop that detaches from its keyboard. The Surface Studio reinvented the desktop as a giant swiveling touch screen.

But the Surface Laptop is...just another under-3-pound aluminum laptop. Making a touch-friendly Windows 10 rival to the MacBook is a good idea—but it's already been done.

One of my favorites, Dell's XPS 13, is just as powerful and nearly as slim as Microsoft's, and its base price is \$200 less.

Microsoft says it made the Laptop with students in mind. It's the first computer to run a special version of its operating system called Windows 10 S, designed to make computers safer and easier to run.



The Surface Laptop has its virtues, but placing cloth where your hands rest is asking for trouble.

Its biggest change is that you can only download apps from the Windows Store, which vets them.

That's a good idea, in theory. But right now, some pretty important apps are missing from the store, like Google's Chrome and Adobe's Photoshop Lightroom.

Anyone with software needs as basic as those would need to upgrade to regular Windows 10—free now, but \$49 starting in 2018.

That's not to say the Laptop is a bad laptop. Here's what's good:

## Power

Microsoft didn't skimp on Intel's latest chipset. I could even stream three videos at once without triggering the annoying whir of a fan to keep it from overheating.

## Battery

Along with a Mini Display-Port for an external monitor, there's just one old-fashioned

The Laptop lasted slightly longer than 10 hours in my brutal web-surfing test—a half-hour longer than the 13-inch MacBook Pro and 15 minutes longer than a similarly equipped Dell XPS 13.

## Screen

The screen is a stunner, packing in more pixels than even the latest MacBook Pro. You can touch it and even write on it with a stylus (sold separately). Unlike touch PCs such as **HP**'s Spectre x360, though, you can't swing the screen all the way around to make it lie flat.

If you're considering getting one, particularly for business use, there are a few caveats to keep in mind. Here's what's bad:

## Ports

The speakers, nestled in an unusual spot behind the keys, are anemic and can't hold a candle to the MacBook Pro.

And that takes us to the most controversial element of all: fashion. You're going to either love or hate the

USB-style port. That's not enough. Besides, in the next few years you'll probably need the newer USB-C plugs. The Dell XPS 13 has both the old and new—and an SD-card reader.

## Memory

The \$1,000 base model comes with just four gigabytes of RAM, half what you get for that price from Apple or Dell. I recommend eight for a computer you plan to hold on to for a few years, which immediately hikes up the price to \$1,300.

## Sound

The speakers, nestled in an unusual spot behind the keys, are anemic and can't hold a candle to the MacBook Pro.

At \$1,300—the cheapest configuration worth considering—you've hit the same price as the MacBook Pro that Apple updated last week.

# IBM Will Help BMW Ride on the Cloud

BY CHESTER DAWSON

**International Business Machines** Corp. said Wednesday it is pairing with **BMW** to provide cloud-based data management for the German auto maker's recently launched connected-car initiative, a move by the centenarian tech giant to deepen its move into passenger vehicles.

IBM is working to sign up auto makers for its cloud-computing platform and stake a claim in the burgeoning market for connecting passenger cars with customized services based on real-time vehicle performance. Last year, it announced a similar deal with **General Motors** Co.

Connected-vehicle data rep-

resent a rapidly emerging market for auto makers, which are cautiously moving to embrace the potential for revenue streams from service companies that are eager to tap into their large captive client base. For drivers, it opens the door to services tailored to their driving profiles.

The project with BMW, which is expected to start up this fall in Europe, lays the foundation for what IBM envisions as a global data hub that gathers information from many auto makers and matches vehicle owners with outside service providers such as auto insurers, repair shops and gas stations.

"We are the broker and the enabler for the third parties" beyond auto makers, said Dirk

Wollschlaeger, IBM's general manager for global automotive, aerospace and defense.

A representative for BMW in the U.S. confirmed the company's plans to form a partnership with IBM, but didn't provide details.

BMW officially launched its CarData program last month. The program is designed to link approximately 8.5 million vehicles equipped to transfer data—and whose owners opt in—with third parties marketing customized and discounted products such as oil changes or insurance policies.

IBM's agreement with BMW isn't exclusive but provides an opportunity to showcase its Bluemix cloud platform.

Mr. Wollschlaeger said another European auto maker,



The deal will provide BMW with cloud-based data management.

which he declined to name, also plans to use Bluemix and that his company is in talks with several others.

The Armonk, N.Y., company

plans to earn revenue from the spread between what it pays auto makers such as BMW and what it charges others for access to the data, he said.

# Sexist Remark Prompts Exit

BY GREG BENINGER

David Bonderman, the co-founder of private-equity firm TPG, resigned from the board of **Uber Technologies** Inc. hours after he made a sexist remark during a companywide meeting to address problems with the ride-hailing company's workplace culture, according to the TPG and Uber.

His exit from Uber's board was a stunning turn of events at the end of a day in which the company sought to move past a grueling four-month investigation into allegations of sexism and sexual harassment.

Mr. Bonderman, who has served on the board for four years, was at Uber's San Francisco headquarters addressing employees about the results of the investigation, carried out by former U.S. Attorney General Eric Holder.

The probe is leading to a series of changes in management practices, and it has contributed to the departure of a top executive, Emil Michael, and to Chief Executive Travis Kalanick's decision to take a leave of absence.

Mr. Bonderman's disparaging remark ironically came in the opening minutes of an all-hands meeting about sexual

harassment, sexism and inclusion. The private-equity billionnaire appeared to try to offer light humor when he interrupted fellow Uber director and media magnate Arianna Huffington, who in her remarks announced to applaud the recent appointment of a second female board member, Wan Ling Martello.

"There's a lot of data," Ms. Huffington said, "that shows when there's one woman on the board it's much more likely that there will be a second woman on the board." "Actually," Mr. Bonderman said, "what it shows is that it's much more likely to be more talking." The comment drew a

rebuke from Ms. Huffington, who said, "Oh, come on, David."

"I directed a comment to my colleague and friend Arianna Huffington that was careless, inappropriate, and inexcusable," Mr. Bonderman said in a statement about his resignation from Uber's board.

"The comment came across in a way that was the opposite of what I intended, but I understand the destructive effect it had, and I take full responsibility for that."

Mr. Bonderman, 74 years old, had apologized earlier in an email to all Uber staff, saying the comment was "disrespectful" and "inappropriate."

# Uber Curbs Alcohol, Office Romances

BY YOREE KOH

Alcohol-soaked parties, controlled substances, office romances and free dinners: Those are the hallmarks of Uber Technologies Inc.'s rambunctious workplace—and many other startups.

A report Uber commissioned from the law firm of former U.S. Attorney General Eric Holder, released Tuesday, called out such details as part of what's wrong with Uber's culture. Uber's board of directors unanimously adopted Mr. Holder's recommendations, such as limiting company spending on alcohol.

A freewheeling culture of marathon late-night work sessions and frat-boy behavior often goes hand-in-hand with a startup's fast-paced growth, experts say. But it can become detrimental as a company matures—in Uber's case, to a \$68 billion valuation and 12,000 employees.

"What worked for 200 people doesn't work for a couple thousand and can spin out of control," said Ranjay Gulati, an organizational-growth expert and professor at Harvard Business School.

The report from the law firm, Covington & Burling LLP recommended that Uber prohibit alcohol consumption during "core work hours," limit budgets for alcohol during after-work events and come up with work retreats that don't require drinking. It also addressed "prohibiting consumption of non-prescription controlled substances." The report didn't include details of what led to the recommendations.

Other suggestions include serving the catered dinner earlier to indicate the workday is ending so people with families can go home. The report also recommended that the company prohibit office romances between employees in a reporting relationship.

The demanding hours—and the behavior that ensues—often is a sign of an ambitious startup, some experts say.



David Bonderman, co-founder of TPG, is leaving Uber's board.

rebuttal from Ms. Huffington, who said, "Oh, come on, David."

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## FINANCE & MARKETS

# Investors Aren't Hedging Europe Bets

Surge into equities isn't offset by moves to contain euro risk; returns magnified

By MIKE BIRD

International investors have rediscovered a love for Europe after a year's hiatus—but this time, they love the euro too.

Once, investors who wanted to bet on Europe's stocks and bonds often did so while hedging against sharp changes in the euro—a sign they weren't confident about the currency. But this year so far, \$13 billion has flowed into American exchange-traded funds focused on European equities without any such safeguards. For their hedged peers, inflows have run to a mere \$275.4 million.

In the first half of 2015, when investing in Europe was last popular in the U.S., \$32.7 billion entered the same group of Europe-focused ETFs domiciled in North America. Of that, 63% was hedged against currency risk.

"It looks like North American investors in particular have regained their appetite for European investments," said Simon Colvin, research analyst at IHS Markit. "In Europe we're now seeing a lot more political clarity, and there's been an overwhelming preference for unhedged products."

### Back in Vogue

International equity investors are heading back into Europe. This time, they aren't hedging against the risk of a fall in the currency.

#### Net flows into European equity funds



#### Flows into North-American-listed European-exposed ETFs\*

Unhedged \$13.0 billion

Hedged \$0.3 billion

\*Year-to-date

Sources: EPFR Global (equity); IHS Markit (ETFs)

THE WALL STREET JOURNAL.

The risk that anti-euro nationalist Marine Le Pen would triumph in France's presidential election has now been removed, lifting a political obstacle to buyers.

Unlike the last time European equities became popular with U.S. buyers, the euro has appreciated recently, magnifying returns for American investors who haven't hedged their exposure to shifts in currency markets.

The Euro Stoxx index, which is priced in euros, has returned 12% since the start of 2017. But because of the rise in the European currency's

value, for U.S. investors exchanging their euro returns into dollars, it has returned 19%.

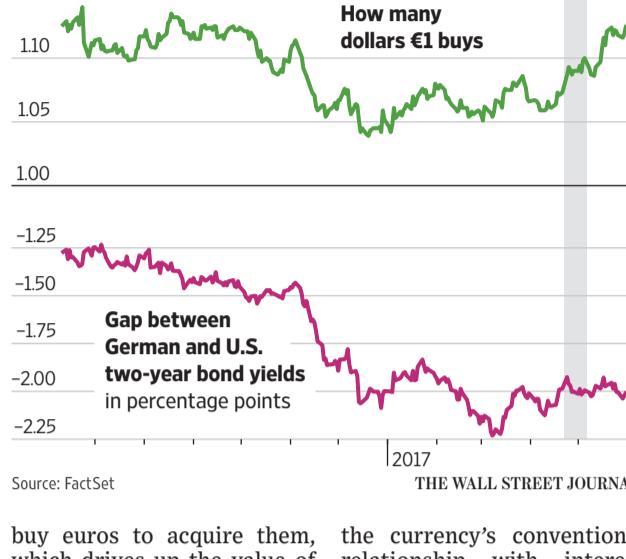
By comparison, in the first six months of 2015, the Euro Stoxx index returned 13% to European investors. But in dollar terms, the euro's fall meant that a buyer would have only made 4%.

The decision not to hedge is now fueling the recent rise in the euro, and helps explain why the currency has broken a traditional relationship with interest rates and bond yields.

When U.S. investors buy European assets, they need to

### Disconnect

The euro-dollar exchange rate usually moves closely with spreads in bond yields. In the last two months, it has broken away.



Source: FactSet

THE WALL STREET JOURNAL.

buy euros to acquire them, which drives up the value of the currency.

But if they hedge their foreign-exchange risk in the forward market, they agree to sell euros at a specified dollar price in the future—effectively canceling out the original purchase, and muting the impact on the exchange rate.

So despite massive inflows to European stocks during the first months of 2015, the euro actually fell, to as low as \$1.05 in March 2015 from around \$1.216 at the end of 2014.

This time around, the euro has rallied with inflows, and

the currency's conventional relationship with interest rates and bond yields has weakened.

The gap between U.S. and German 10-year government bond yields has barely changed since the week before the first round of the French presidential election, when U.S. two-year yields were 2.07 percentage points above their German peers.

On Monday, the yields were 2.06 percentage points apart. But during that time the euro has risen by more than 5% against the dollar, climbing above \$1.12.

Currencies tend to track

differences in bond yields because the yields work as a proxy for expected interest rates. Investors tend to move money to areas where interest rates are higher, driving the domestic currency higher.

One reason why interest-rate expectations have barely budged despite investors having piled into European stocks is that growth seems to be firming more quickly than inflation in the eurozone. Without a pickup in inflation, the European Central Bank may feel in no rush to raise interest rates to meet its target for near-but-below 2% inflation.

"It drives capital inflows into equities if you see an economy doing well, but you have this divergence between growth and inflation," said Goldman Sachs strategist Christian Mueller-Glissmann. "It depends how much the ECB cares about growth, relative to how much they look at core inflation, which is still muted."

The ECB expects growth of 1.9% this year and 1.8% next year, but for inflation to reach just 1.2% and 1.4%. In June, it raised its growth forecasts, but cut its outlook for inflation.

The Commodity Futures Trading Commission says investors have the most bullish position against the euro in over six years, with 74,009 more long than short contracts on the euro registered in the week to June 9.

## Fed May Ease Rule On Swaps Market

By ANDREW ACKERMAN

WASHINGTON—An esoteric requirement that bankers and some U.S. officials have long said discourages firms from participating in the derivatives market—and makes the financial system less safe—is on the regulatory chopping block.

At a private meeting in Washington this spring, senior bankers from **J.P. Morgan Chase & Co.**, **Goldman Sachs Group Inc.** and other large U.S. financial firms pressed policy makers for changes to the rule. Their concerns were highlighted in a blueprint for a broad regulatory overhaul released by the Trump administration late Monday. The report from the Treasury Department recommends "significant adjustments" to the capital requirement in question, among other changes to capital rules.

The Federal Reserve, amid pressure from banks and some U.S. officials, has already begun laying the groundwork to ease the rule, according to people familiar with the central bank's thinking. The Fed, which helped craft the rule, has yet to reach a decision on how exactly to refashion it, but is taking a fresh look at the measure, holding staff-level discussions with other regulators and teeing up a potential rollback late this year, as the Trump administration continues to fill regulatory posts with officials amenable to easing Obama-era rules. No decision is imminent, these people said.

The rule calls for banks to hold additional capital against collateral, known as margin, that they collect from clients on certain swaps transactions. Banks and some U.S. officials say the rule makes it uneconomical for banks to participate in such transactions.

Swaps are derivatives contracts in which two parties agree to exchange payments based on fluctuations in certain benchmarks. Companies use these contracts to hedge risks or make bets in such areas as fuel prices or interest rates.

The swaps at issue are routed through so-called clearinghouses—entities that take fees to guarantee swaps transactions should one side of a trade go belly up. Banks, which pay to be members of clearinghouses, post margin to a clearinghouse on behalf of their customers. Banks manage the margin for the duration of the swap, which can be

### Swapping Out Leverage

Regulators are laying the groundwork to ease a rule affecting a central plank of postcrisis regulation—clearing for most swaps transactions.

#### 1 Customers

Pension funds, insurance companies and other businesses enter into swaps contracts to hedge business risks.

#### 3 Margin

Banks transact with a clearinghouse, sending collateral as needed. The clearinghouses effectively guarantee the transactions should one party go belly up.

several years.

The Commodity Futures Trading Commission, which oversees the multitrillion-dollar swaps market, hosted the April meeting where the bank officials and regulators raised concerns about the capital rule's effects on the swaps market. CFTC officials have warned for years that the existing requirements are driving banks away from the low-margin business of managing customers' cleared swaps.

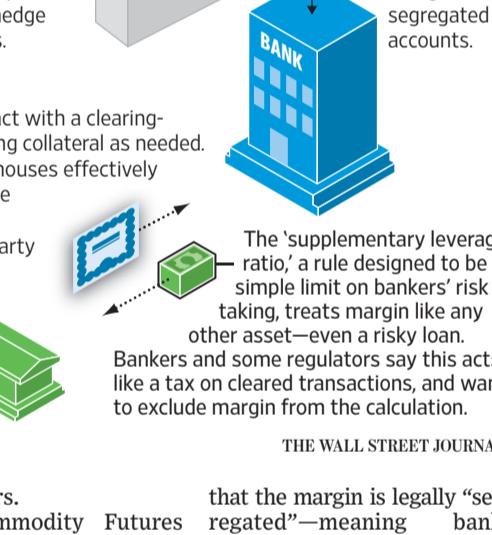
As fewer banks offer such services, that could increase prices for businesses that enter into these contracts to hedge business risks, CFTC officials say. As banks stop serving smaller clients because it doesn't make sense for them financially, the officials say, that undermines a key plank of the 2010 Dodd-Frank financial-overhaul law requiring that most swaps be cleared.

The rule the Fed is now thinking of relaxing is called the "supplementary leverage ratio," which the central bank and two other banking regulators completed in 2014. The leverage ratio is one way of curbing bankers' risk-taking. It measures capital—funds that banks raise from investors, earn through profits and use to absorb losses—as a percentage of assets. By holding banks to a minimum ratio, regulators effectively restrict banks from making too many loans without adding new capital.

"We're kind of undermining that clearing mandate and the ability of smaller customers to get their products centrally cleared or to have access at all to hedging," Mr. Powell said at an April industry conference in Washington.

The Treasury Department agrees. In its report Monday, the administration recommended a series of possible changes to the capital requirements, from excluding customer margin from the leverage ratio to "recalibrating" the ratio so that it imposes less of an overall burden on banks.

The leverage ratio itself has broad support, but many U.S. officials and industry executives have come to believe that the U.S. version is too strict when it comes to swaps margin. U.S. firms point out



## Who Receives €1 for Popular?

By BEN DUMMETT

**Banco Santander** SA's plan

to sell €7 billion (\$7.84 billion) in stock to pay for its acquisition of **Banco Popular Español** SA highlights the real costs of rescuing its smaller, failing Spanish banking rival.

Winning the auction for Banco Popular was considerably cheaper: It required Santander to pay just €1 for the bank's equity.

Such a symbolic sum isn't unique for the acquisition of a distressed bank.

In 2012, **Banco Bilbao Vizcaya Argentaria** SA, which was invited but decided against bidding for Banco Popular, acquired troubled Spanish lender Unnim for €1 after the government nationalized it.

When rogue trader Nick Leeson took down **Barings Bank** in 1995, Dutch Bank ING stepped in to buy its liabilities for €1.

So who gets that notional amount of €1 that Santander is paying?

Theory suggests it would be

holders of Banco Popular's

Tier 2 subordinated bonds.

In fact, it was the Spanish regulator that ended up with it, getting an electronic bank transfer of the money from Santander.

As overseer of the auction, the regulator has first rights to any proceeds to help cover its costs. Not surprisingly, they quickly exceeded €1.

*Winning the auction for Banco Popular required Santander to pay a single euro.*

The process started last week after the European Central Bank decided that Banco Popular risked failure under the excessive burden of €37 billion in foreclosures and other nonperforming assets. Once that happened, Europe's Single Resolution Board, the group charged with protecting taxpayers from bailing out failing banks, stepped in and mandated the Spanish regula-

tor, or FROB, to oversee an overnight auction of Banco Popular.

As in most cases when a company faces a possible default, holders of the senior debt have the greatest chance of recouping their investment. Equity holders, meanwhile, are most likely to end up empty-handed.

That scenario played out in the case of Banco Popular. The bank's senior debtholders didn't suffer any losses, while investors with lower ranked securities virtually were all wiped out.

Santander offered zero to holders of Banco Popular's common shares, which the day before the auction had a total value of €1.33 billion. It offered nothing to holders of the contingent convertible bonds, a hybrid debt security with equity characteristics.

That, in theory at least, left holders of Banco Popular's more senior-ranked Tier 2 subordinated bonds to share the €1 after conversion of the securities into equity if the regulator didn't have first dibs.

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CAM-GTF Limited OT MUS 06/19 USD 307493.56 1.8 10.5 -3.0

NAV YTD 12-MO 2-YR

GF AT LB DATE CR NAV

NAV YTD 12-MO 2-YR

—RETURN—

AS EQ HKG 06/13 USD 141.21 23.3 34.6 -2.7

AS EQ HKG 06/13 USD 17.89 23.2 34.0 -3.1

AS EQ HKG 06/13 AUD 14.66 22.8 34.0 -2.9

AS EQ HKG 06/13 CAD 14.14 22.1 32.8 -3.9

AS EQ HKG 06/13 HKD 12.01 21.9 32.7 NS

AS EQ HKG 06/13 NZD 14.68 21.7 33.6 -2.8

AS EQ HKG 06/13 USD 11.89 14.1 31.4 NS

VP Classic-C-Units RMB H AS EQ HKG 06/13 CNY 12.04 25.3 37.6 NS

VP Multi-Asset Fund C USD AS OT OT HKG 06/13 HKD 10.38 7.9 NS NS

VP Multi-Asset Fund C USD AS OT OT HKG 06/13 USD 10.48 7.3 9.5 NS

VP Taiwan Fund AS EQ CYM 06/13 USD 19.29 15.2 26.0 10.6

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GC Hi Yield Inc-C1 MDLS AUD H OT CYM 06/13 HKD 13.28 13.3 21.3 -7.6

GC Hi Yield Inc-C1 MDLS AUD H OT CYM 06/13 CAD 12.26 13.2 22.2 -8.7

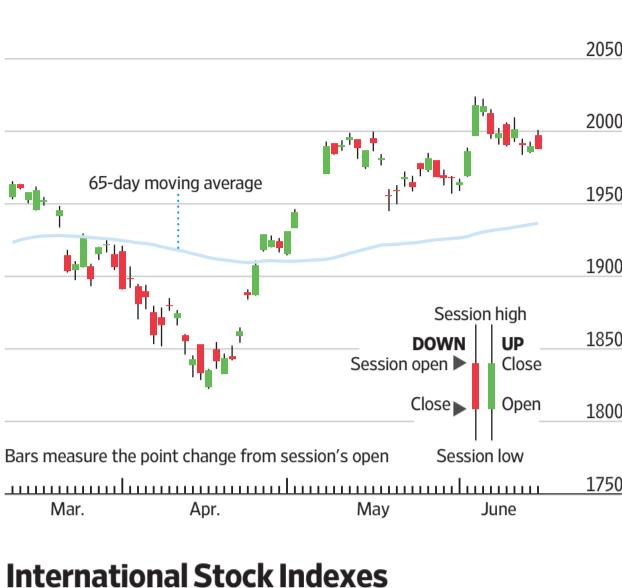
GC Hi Yield Inc-C1 MDLS AUD H OT CYM 06/13 EUR 12.86 11.9 21.1 -

## MARKETS DIGEST

### Nikkei 225 Index

**19883.52** ▼15.23, or 0.08%

High, low, open and close for each trading day of the past three months.



Bars measure the point change from session's open

### STOXX 600 Index

**387.58** ▼1.17, or 0.30%

High, low, open and close for each trading day of the past three months.



Bars measure the point change from session's open

### S&P 500 Index

**2438.76** ▼1.59, or 0.07%

High, low, open and close for each trading day of the past three months.



Data as of 12 p.m. New York time

Last Year ago

Trailing P/E ratio 24.15 24.29

P/E estimate \* 18.97 17.92

Dividend yield 1.95 2.16

All-time high: 2440.35, 06/13/17

Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.

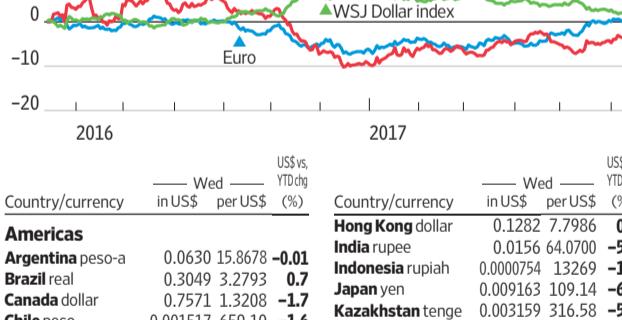
### International Stock Indexes

Region/Country	Index	Data as of 12 p.m. New York time					
		Close	NetChg	% chg	52-Week Range	Close	YTD % chg
<b>World</b>	<b>The Global Dow</b>	2783.81	1.34	▲0.05	2193.75	2793.87	10.1
	<b>MSCI EAFE</b>	1905.78	10.01	▲0.53	1471.88	1956.39	11.0
	<b>MSCI EM USD</b>	1016.61	6.83	▲0.68	691.21	1044.05	28.0
<b>Americas</b>	<b>DJ Americas</b>	585.51	-0.63	-0.11	480.90	587.15	8.4
Brazil	<b>Sao Paulo Bovespa</b>	62071.33	242.34	▲0.39	48066.67	69487.58	3.1
Canada	<b>S&amp;P/TSX Comp</b>	15241.89	-137.86	-0.90	13609.58	15943.09	-0.3
Mexico	<b>IPC All-Share</b>	49281.92	255.09	▲0.52	43902.25	50154.33	8.0
Chile	<b>Santiago IPSA</b>	3706.09	-3.16	-0.09	3061.18	3786.05	15.0
<b>U.S.</b>	<b>DJIA</b>	21340.60	12.13	▲0.06	17063.08	21354.56	8.0
	<b>Nasdaq Composite</b>	6230.05	9.68	▲0.16	4574.25	6341.70	15.7
	<b>S&amp;P 500</b>	2438.76	-1.59	-0.07	1991.68	2446.20	8.9
	<b>CBOE Volatility</b>	10.73	0.31	▲2.98	9.37	26.72	-23.6
<b>EMEA</b>	<b>Stoxx Europe 600</b>	387.58	-1.17	-0.30	308.75	396.45	7.2
	<b>Stoxx Europe 50</b>	3172.67	-19.47	-0.61	2626.52	3279.71	5.4
France	<b>CAC 40</b>	5243.29	-18.45	-0.35	3955.98	5442.10	7.8
Germany	<b>DAX</b>	12805.95	40.97	▲0.32	9214.10	12921.17	11.5
Israel	<b>Tel Aviv</b>	1428.98	3.66	▲0.26	1372.23	1490.23	-2.8
Italy	<b>FTSE MIB</b>	20960.55	-128.23	-0.61	15017.42	21828.77	9.0
Netherlands	<b>AEX</b>	521.71	-1.68	-0.32	409.23	537.84	8.0
Russia	<b>RTS Index</b>	1013.78	-17.21	-1.67	884.83	1196.99	-12.0
Spain	<b>IBEX 35</b>	10775.80	-106.30	-0.98	7579.80	11184.40	15.2
Switzerland	<b>Swiss Market</b>	8849.40	-17.67	-0.20	7475.54	9136.95	7.7
South Africa	<b>Johannesburg All Share</b>	51489.16	-135.91	-0.26	48935.90	54716.53	1.6
Turkey	<b>BIST 100</b>	99636.27	336.60	▲0.34	70426.16	100000.7	27.5
<b>U.K.</b>	<b>FTSE 100</b>	7474.40	-26.04	-0.35	5788.74	7598.99	4.6
<b>Asia-Pacific</b>	<b>DJ Asia-Pacific TSM</b>	1641.77	11.16	▲0.68	1308.52	1642.76	15.4
Australia	<b>S&amp;P/ASX 200</b>	5833.90	61.10	▲1.06	5103.30	5956.50	3.0
China	<b>Shanghai Composite</b>	3130.67	-23.07	-0.73	2854.29	3288.97	0.9
Hong Kong	<b>Hang Seng</b>	25875.90	23.80	▲0.09	20038.42	26063.06	17.6
India	<b>S&amp;P BSE Sensex</b>	31155.91	52.42	▲0.17	25765.14	31309.49	17.0
Indonesia	<b>Jakarta Composite</b>	5792.90	85.25	▲1.49	4814.39	5792.90	9.4
Japan	<b>Nikkei Stock Avg</b>	19883.52	-15.23	-0.08	14952.02	20177.28	4.0
Malaysia	<b>Kuala Lumpur Composite</b>	1792.35	7.91	▲0.44	1614.90	1792.35	9.2
New Zealand	<b>S&amp;P/NZX 50</b>	7483.99	43.91	▲0.59	6664.21	7571.11	8.8
Pakistan	<b>KSE100</b>	47608.64	-462.40	-0.96	37039.57	52876.46	-0.4
Philippines	<b>PSEI</b>	7966.01	48.12	▲0.61	6563.67	8102.30	16.5
Singapore	<b>Straits Times</b>	3253.43	-4.09	-0.13	2729.85	3271.11	12.9
South Korea	<b>Kospi</b>	2372.64	-2.06	-0.09	1925.24	2381.69	17.1
Taiwan	<b>Weighted</b>	10072.46	-55.69	-0.55	8458.87	10226.84	8.9
Thailand	<b>SET</b>	1577.00	4.64	▲0.30	1406.18	1591.00	2.2

Source: SIX Financial Information; WSJ Market Data Group

### Currencies

Yen, euro vs. dollar; dollar vs. major U.S. trading partners



Source: Tullett Prebon; WSJ Market Data Group

London close on June 14

US\$ vs. Country/currency Wed YTD%  
in US\$ per US\$ (%)

Country/currency	Wed	YTD%
Europe		
Bulgaria leva	0.5766	1.7342
Croatia kuna	0.1524	6.563
Euro zone euro	1.1278	0.8867
Czech Rep. koruna-b	0.0431	23.184
Denmark krone	0.1517	6.5938
Hungary forint	0.03690	271.00
Iceland krona	0.010006	99.94
Norway krone	0.1195	8.3673
Poland zloty	0.2690	3.7171
Russia ruble-d	0.01749	57.181
Sweden krona	0.1157	8.6416
Switzerland franc	1.0347	0.9665
Turkey lira	0.2870	3.4839
Ukraine hryvnia	0.0385	25.9985
U.K. pound	1.2805	0.7809
Americas		
Bolivia boliviano	0.05766	1.7342
Colombia peso	0.000349	2925.20
Ecuador US dollar-f	1	1 unch
Mexico peso-a	0.0558	17.9255
Peru so	0.3057	3.2707
Uruguay peso-e	0.0353	28.300
Venezuela bolivar	0.100150	9.99
Asia-Pacific		
Australia dollar	0.7619	1.3125
China yuan	0.1472	6.7917

Source: Tullett Prebon; WSJ Market Data Group

London close on Jun 14

US\$ vs. Country/currency Wed YTD%  
in US\$ per US\$ (%)

Country/currency	Wed	YTD%
Europe		
Bahrain dinar	2.6511	0.3772
Egypt pound-a	0.0556	17.9997
Israel shekel	0.2846	3.5141
Kuwait dinar	3.2975	0.3033
Oman rial	2.5973	0.3850
Qatar rial	1.0347	1.2771
Saudi Arabia riyal	0.2667	3.7501
South Africa rand	0.0795	12.5863

## FINANCE & MARKETS

### Dimon Gets Much Of What He Wants In Treasury Report

The Trump administration's proposal to rethink many of the rules governing the U.S. financial sector sounded a lot like bankers' wish lists.

In particular, **J.P. Morgan Chase & Co.** Chief Executive James Dimon's vocal suggestions over the past several months had much overlap with the 147-page report released by the Treasury Department this week. Here are some of the similarities and areas of overlap between Mr. Dimon's annual shareholder letter released in April and the new report overseen by Treasury Secretary Steven Mnuchin.

Mr. Dimon doesn't have the power to change these rules. But he does sit on President Donald Trump's business council of roughly a dozen top executives and knows some of Mr. Trump's finance advisers.

#### Capital planning via stress tests:

**Dimon:** "While we firmly believe banks should have a proper assessment of their qualitative abilities, this should not be part of a once-year stress test."

**Treasury:** The "process should be adjusted to a two-year cycle, which will not compromise quality in that stress-testing results are forecast over a nine-quarter cycle."

#### Living wills forcing banks to plan for their own demise:

**Dimon:** "While they have some positive elements, they have become unnecessarily complex and costly, and they need to be simplified."

**Treasury:** "The agencies should be held accountable to develop specific, clear, and accountable guidance for living-will submissions."

#### Supplementary leverage ratio:

**Dimon:** Rules here "need to be modified." These rules, which limit the amount of borrowed money a bank can use in relation to its overall assets, often penalize "fairly risk-free activity" and should instead



J.P. Morgan Chase & Co. Chief Executive James Dimon

promote lending and liquid capital markets.

**Treasury:** "Consideration of adjustments to the Supplementary Leverage Ratio (SLR) and enhanced Supplementary Leverage Ratio (eSLR) is important to address unfavorable impacts these requirements may have on market liquidity and low-risk assets."

#### Operational risk capital:

**Dimon:** This should be "significantly modified, if not eliminated" because it isn't always calculated fairly or in coordination with other capital rules.

**Treasury:** "Also, a more transparent, rules-based approach should be used in the calculation of operational risk capital."

#### Mortgage-market reforms:

**Dimon:** Though some reforms to the mortgage market since the housing meltdown have been helpful, the market has been "unusually slow to recover." The regulatory changes resulted in "a complex, highly risky and unpredictable operating environment that exposes lenders and servicers to disproportionate legal liability and materially increases operational risks and costs." That includes "an inhibition of the return of private capital to the housing industry."

**Treasury:** "Beyond small business lending, the growth of mortgage loans on bank balance sheets has also been slow (even after considering the effects of the liquidation of legacy mortgage portfolios). More broadly, credit availability in the residential mortgage market is constrained...The objective of the reforms is to increase the viability of private-sector lending so the share of government-sponsored lending can decrease."

# New Era for Bank Oversight

BY RYAN TRACY

WASHINGTON—The Trump administration's new plan for bank oversight is raising industry expectations that a postcrisis era of heightened regulation is over.

A report from the Treasury Department, released Monday, contains dozens of specific recommendations that can be executed by financial regulators.

Bankers and analysts said they expect the proposal will be a catalyst for changes to the Wall Street rule book once President Donald Trump's banking-oversight nominees are confirmed.

The report shows a desire by officials to take a lighter touch after years of new restrictions adopted in response to the 2008 financial crisis and the severe recession that followed.

It fleshes out statements in recent months by Mr. Trump and Treasury Secretary Steven Mnuchin, a former banker who has said the administration won't throw out bank rules wholesale but that many aspects of the current regulatory regime are too restrictive.

"The greatest impact would be it would allow management and our board to go back to running and planning for the future of the company, as opposed to spending lots of mandated, repetitive hours reviewing and updating regulatory matters," William Demchak, chief executive of **PNC Financial Services Group Inc.**, said in an interview.

He added that some changes, such as narrowing the scope of so-called liquidity rules, could free up the Pittsburgh-based firm to do more lending.

Many of the Treasury's proposed changes dovetail with bankers' previous recommendations, for instance in **J.P. Morgan Chase & Co.** Chief Executive James Dimon's shareholder letter earlier this year.

"The road ahead remains



Senate banking panel Chairman Mike Crapo said he expects some proposals to get bipartisan support.

long given the sluggish pace of personnel shifts, but these recommendations should be viewed as an undeniably positive policy signal for banks," said Isaac Boltansky, an analyst with Compass Point Research & Trading LLC, in a note to clients.

Craig Phillips, the counselor to the U.S. Treasury secretary who played a central role in drafting the report, presented the recommendations to a conference hosted by two bank trade groups Tuesday.

"This is not a plan to help banks," but rather ideas meant to boost economic growth, he said. "There is a lot to do with regulatory overlap, fragmentation and duplication. This is one of the biggest issues."

Mr. Phillips told the assembled crowd to expect additional reports on other topics including unwinding failed firms, designating companies systemically important, non-bank financial services and markets oversight.

Liberal lawmakers and advocacy groups said the recommendations would undermine protections against fraud and excessive risk-taking. Sen.

Sherrod Brown of Ohio, the top Democrat on the Senate Banking Committee, said that of roughly 300 entities that the Treasury Department said it consulted for the report, 244 came from the banking industry. The report says officials met with the banks of all sizes as well as consumer groups and others.

"Too many hardworking Americans still haven't fully recovered from the financial crisis, and Washington should be focused on protecting them by holding Wall Street accountable, not doing its bidding," Mr. Brown said in a news release Monday.

Senate Banking Committee Chairman Mike Crapo (R., Idaho) in a statement Tuesday welcomed "reasonable and meaningful recommendations to the existing, and all too often, one-size-fits-all regulatory landscape."

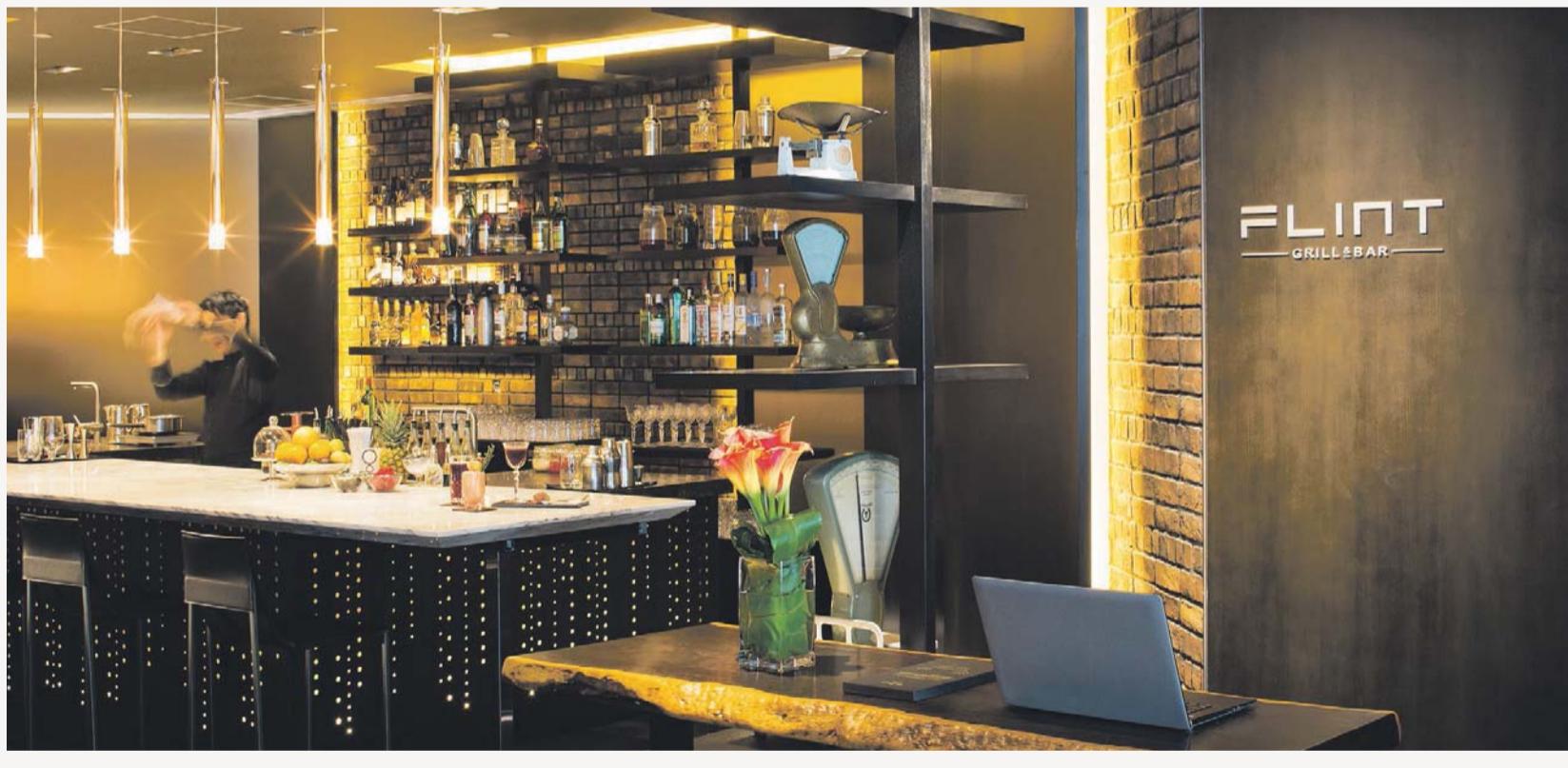
Mr. Crapo appeared at the banking conference and said he believed some of the report's recommendations requiring congressional approval could win bipartisan support, especially those affecting small and medium-size banks.

Mr. Crapo also said he was open to a new idea raised in the Treasury's report: granting more power to the Financial Stability Oversight Council. The council was created by the 2010 Dodd-Frank financial overhaul and empowered to watch over the stability of the financial system.

The council includes the most powerful U.S. economic officials: the Treasury secretary, the head of the Federal Reserve, and other top regulators.

Republicans for years have talked about hamstringing or abolishing the council. The Treasury report said Congress should grant it the power to assign a "lead regulator" to make decisions about policy matters involving multiple federal agencies.

Mr. Mnuchin has already used his position as chairman of the council to push regulators to begin a review of the Volcker rule, a Dodd-Frank provision banning banks from certain types of trading, according to people familiar with the matter. That rule is enforced by five regulatory agencies, all of which have seats on the council.



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# MARKETS

## U.S. Firms Borrow Overseas

More companies are issuing debt in other currencies; ECB and lower costs are a lure

By BEN EISEN

Move over Benjamin Franklin. It's all about the euros.

American companies have sold \$108.5 billion of bonds in other currencies this year to date, the most for any comparable period in a decade, according to data provider Dealogic. U.S. companies have done hefty issuance of euro-denominated debt but have also sold bonds in Canadian dollars and British pounds in 2017, Bank of America Merrill Lynch data show.

The issuers are some of the best-known firms. General Electric Co. issued \$8.7 billion of euro bonds last month, one of the largest sales in the market's history. And AT&T Inc. sold \$7.9 billion of euro bonds last week, according to Dealogic.

This debt, known as reverse Yankee bonds, has become popular in recent years as companies look to diversify their bond portfolios, particularly if they have a lot of it or plan to take on a lot to do a deal.

Issuance was especially strong in May.

"Most companies should be interested in diversifying their funding bases, especially in situations where you have large M&A transactions," said Hans Mikkelsen, a credit strategist at Merrill Lynch. "You can do a little bit here and there instead of doing the entire deal in one currency."

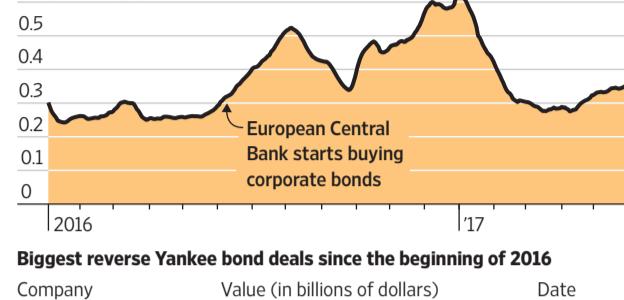
At the moment, companies are benefiting from a favorable set of market conditions, analysts say.

One thing that has lubricated the euro-denominated debt market recently: The European Central Bank has continued to buy corporate bonds

### Looking Abroad

A decline this year in the cost to borrow in euros and swap back to dollars is helping to fuel the issuance of bonds by U.S. companies in other currencies, or 'reverse Yankee bonds.'

#### Premium on three-month cross-currency basis swaps



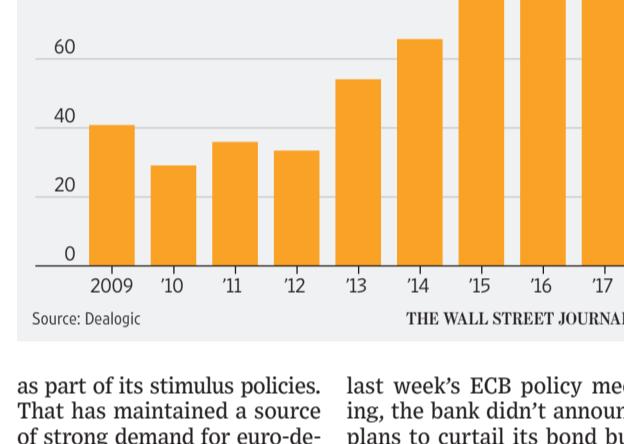
#### Biggest reverse Yankee bond deals since the beginning of 2016

Company	Value (in billions of dollars)	Date
General Electric	8.7	May 10, 2017
AT&T	7.9	June 7, 2017
Bank of America	4.8	Jan. 31, 2017
Johnson & Johnson	4.6	May 11, 2016
Honeywell International	4.5	Feb. 15, 2016
Goldman Sachs Group	4.4	July 20, 2016
Pfizer	4.2	Feb. 28, 2017
Verizon Communications*	4.1	Oct. 26, 2016
Bank of America*	4.0	July 25, 2016
Wells Fargo	3.9	April 18, 2016

\*Issued in euros and British pounds. All other deals issued exclusively in euros.

Sources: Dealogic (debt); Thomson Reuters (premium) THE WALL STREET JOURNAL.

#### Issuance of bonds by U.S. companies in other currencies, through June 13 of each year



Source: Dealogic THE WALL STREET JOURNAL.

as part of its stimulus policies. That has maintained a source of strong demand for euro-denominated corporate debt. At

last week's ECB policy meeting, the bank didn't announce plans to curtail its bond buying.

## Alexion Cleans Up Its House

A beleaguered drugmaker is showing signs of getting its act together. Alexion Pharmaceuticals said Tuesday that Paul Clancy will join as chief financial officer next month. Mr. Clancy served as finance chief at Biogen for 10 years. Alexion shares rose 7% on Wednesday morning.

There is good reason for that rally: The rare-disease specialist has struggled with a late securities filing, a slew of executive departures, disclosures of aggressive marketing practices for its main drug, Soliris, and a high-priced acquisition that turned sour.

Investors shouldn't expect the bad news to stop entirely, though. For example, it is likely that the company will have to write down its 2015 purchase of Synageva for \$8.4 billion, a deal that has resulted in almost no incremental revenue.

That doesn't mean the rally has to stop here, though. For starters, there is no clear competitor for Soliris coming to market soon. The stock trades at roughly 20 times forward earnings. That is hardly dirt cheap but not unreasonable if long-term growth turns out to be, say, 5% instead of 10%.

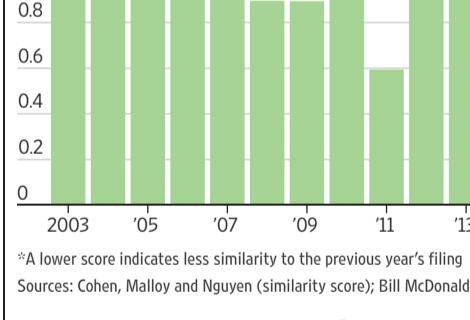
The company also has a clean balance sheet. Alexion carries less than \$1 billion in net debt on its books and generates significant cash flow. Despite that, share repurchases were just \$68 million in the first quarter. Alexion could likely buy back stock at a much more aggressive pace if it wanted.

That means Mr. Clancy and the rest of the new management team have options to deal with hiccups down the road.

—Charley Grant

### Paper Chase

Similarity score for NetApp's 10-K from year to year\*



\*A lower score indicates less similarity to the previous year's filing

Sources: Cohen, Malloy and Nguyen (similarity score); Bill McDonald (number of words) THE WALL STREET JOURNAL.

## Tips Hide in Plain Sight

Companies are a little lazy about what they put into regulatory filings. Investors are profoundly lazy about reading them.

Compare a company's most recent annual report with its previous one, and you will quickly notice the language doesn't change much. Hot-dog seller Nathan's Famous has talked about the damage done to its flagship Coney Island location in 2012 in the same language three years in a row.

Do investors still care? Nathan's isn't taking any chances, nor are other companies. There is, says Harvard Business School economist Lauren Cohen, an incredible amount of inertia in the language companies use in quarterly and annual regulatory filings, known as 10-Qs and 10-Ks, respectively.

That is partly because corporate lawyers push back against alterations, worried they might expose a company to legal risks.

When the language in filings does change, investors should sit up and notice. Not that they do.

Mr. Cohen and economists Christopher Malloy and Quoc Nguyen downloaded all the 10-K and 10-Q filings with the Securities and Exchange Commission from 1994

through 2014 and used textual-analysis software to create a similarity score showing how the language in corporate filings differed from one period to the next.

They then looked at stock performance following filings. The finding: Shares of companies that had significant changes did much worse than those of companies that didn't. This was particularly true when it came to changes in the risk factors section of 10-Ks.

Indeed, a strategy of buying shares of companies with no significant risk-factor changes and betting against companies with major changes would have returned more than 22 percentage points more than the overall market annually.

The similarity score for data-storage company NetApp, for example, fell sharply when it released its 10-K in June 2011. The company's shares had more than quadrupled from their financial-crisis low, but that run ended. Over the next year, its stock fell 41% while the S&P 500 rose 4%.

Tracking risk-factor changes is something investors can do for themselves. Professionals can use services such as FactSet, which has a function called black-

line to highlight differences in filings. Individual investors can accomplish as much by pasting text from two 10-Ks into separate Microsoft Word documents and using the compare function, or by using text comparison sites such as textdiff.com.

The stock underperformance of companies that make big changes to their risk factors suggest that as a group, they aren't merely updating their filings to reflect risks that investors have already learned about, but providing information about emerging ones.

What is really striking, however, is that the stock-market reactions to these risk-factor changes occur gradually. Companies are providing investors with material information, and investors aren't noticing it.

Some of that probably has to do with the form in which the information is getting provided. Annual reports are big, and getting bigger. University of Notre Dame economist Bill McDonald finds that the average 10-K filed last year weighed in at over 26,000 words, nearly three times as many as 20 years ago.

That is the equivalent to around 10 pages in The Wall Street Journal, but about 100 times duller. —Justin Lahart

## Stocks Inch Up, Bonds Rally; Dollar Is Lower

By RIVA GOLD

The ECB waded into the corporate-bond market last year.

But the environment wasn't as friendly for U.S. companies selling debt abroad because, in many cases, they had to pay high costs to swap that funding back to dollars. That's important for companies with mostly U.S. operations. AT&T gets the vast majority of its revenue in the U.S.

Last year, the added cost of swapping euros for dollars rose sharply as investors contended with a crunch in that market. Cross-currency swap costs have turned lower this year, making it cheaper to issue in euros and end up with dollars, according to Wells Fargo & Co.'s securities unit.

"This is the first time where you have a combination" of both falling swap costs and strong demand for corporate bonds from the ECB, both of which are supporting issuance, said Nathaniel Rosenbaum, a director of credit strategy at Wells Fargo.

To be sure, the added hedging costs can still complicate issuance of bonds denominated in other currencies. Merrill Lynch estimates that it likely cost AT&T about 0.1 percentage point more to issue in euros than in dollars if the company were to send the money back to the U.S. and hedge the currency risk. But for a big issuer like AT&T, unlocking new buyers in other currencies may be worth it, strategists say.

Possible changes to the U.S. tax code could help keep the momentum going for these bonds, if they come to fruition.

The idea of removing the tax deductibility of interest has been discussed, but was not included in a White House plan unveiled in April. If that happened, some U.S. companies might be pushed to issue more debt abroad to lessen that additional tax burden, Morningstar has said.

Inflation chips away investors' purchasing power from their government-bond investments over time and is a big threat to long-term Treasurys.

Demand for long-term bonds rises when investors expect inflation to ease.

The Fed had been widely expected to raise its benchmark short-term interest rate by a quarter percentage point later Wednesday and release new projections for the economy and interest rates. Fed officials have also said they were discussing how to reduce the balance sheet, and could announce the adoption of the plan as soon as Wednesday.

Many investors were skeptical that the central bank would act aggressively following a recent patch of softer U.S. eco-

nomic data, particularly around inflation, as well as signs that fiscal stimulus may be less likely than initially anticipated.

"I'm becoming a bit more concerned about where the U.S. economy is heading," said Ed Keon, multiasset portfolio manager at QMA, which manages \$120.5 billion in assets.

"We are not going to see tremendous [stock] gains from here absent good growth of earnings, and in the long run earnings growth is driven by economic growth," he said.

The Stoxx Europe 600 fell 0.3%.

U.S. crude slid 3.8% to \$44.71 a barrel by midday amid signs of rising oil and gas stockpiles.

—Aaron Kurilloff contributed to this article.

WSJ.com/Heard

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FINANCIAL ANALYSIS & COMMENTARY

WSJ.com/Heard

## Yield Hunt Drives Loan Buyers Crazy

Investors are desperate for decent income, and riskier companies are taking full advantage. The upshot is that the world of leveraged loans appears to be going slightly mad.

Loan sales are running ahead of the pace of the past three years, fueled by a rush of money into the sector. Retail investors have piled back into U.S. funds that specialize in loans, with more than \$25 billion of inflows over the past year after two years of outflows, according to Lipper.

Total assets in retail U.S. loan funds have risen to \$95 billion, although that is below 2014's peak of \$112 billion. Big managers in the sector include well-known names such as BlackRock, Fidelity and Pimco.

The return of investors has helped companies such as Dell International, which last September raised a \$20.6 billion leveraged loan to help fund its takeover of EMC, the biggest in 2016, according to Thomson Reuters.

Deals this year include financing for Lone Star's \$2.3 billion purchase of German materials company, Xella, from PAI Partners and Goldman Sachs.

Leveraged loans are popular because they pay higher yields than investment-grade bonds, are secured against borrower assets and give investors protection from changes in underlying interest rates. But they are also relatively risky because borrowers are usually heavily indebted.

Lenders used to get extra protection by attaching conditions to the loan, known as covenants, which allow them to take action if a borrower's earnings deteriorate, for example. These days, most

loans are "covenant lite," meaning lenders get less influence over a borrower's actions.

This was a big concern before the financial crisis, during the last credit boom. In 2007, almost 30% of U.S. loans and not quite 8% of European loans were covenant lite, according to S&P Global Market Intelligence's LCD research unit. Last year, almost 60% of European deals and 75% of U.S. deals were covenant lite.

Huge competition to invest in loans is the culprit. In addition to retail loan funds, specialist debt funds for institutional investors have also grown strongly. Such funds globally are sitting on more than \$200 billion of cash they are yet to invest, according to Prequin, a research firm. That dry powder has grown by 56% since 2012 as funds have kept raising new money faster than they can put it to work.

For indebted companies, this is great: They can refinance with cheaper or more aggressive terms while so much money is sloshing around. But investors ought to be careful: It looks very much like they might be storing up trouble for the future.

—Paul J. Davies



Dell raised a big leveraged loan.

# TECH COMPANIES TO WATCH

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THE WALL STREET JOURNAL.

Thursday, June 15, 2017 | R1

## 25 Companies That Are Young, Growing—and the Talk of Technology

A new Wall Street Journal ranking identifies today's startups that may be leaders of tomorrow

BY DAVE PETTIT

**AN ONLINE DOLLAR STORE.** Two services that link doctors and patients by video chat. A cybersecurity company that keeps hackers out of cars.

These startups are part of the eclectic mix that makes up The Wall Street Journal's ranking of 25 technology companies to watch—companies that show signs of becoming emerging leaders in some of the most dynamic parts of the tech industry.

The Journal 25 have all attracted the attention of the tech community, as well as cash from venture-capital investors. They have had growing workforces and, in some cases, have founders with prior success launching a company. They are also young—all founded in the past six years—and far from billion-dollar valuations.

### Preview of coming disruptions

Looking at emerging companies provides insight into technologies that may have influence more broadly on business and markets, says Venky Ganesan, managing director at Menlo Ventures, a venture-capital firm. "You get insights into the big trends. You see the disruptions that are going to happen," Mr. Ganesan says. For investors, he says, "sometimes it's equally important to know who is going to lose and who is going to win."

The starting point of the ranking was a survey of technology-industry watchers and experts. Nominations were taken from prior attendees of technology conferences run by The Wall Street Journal and Founders Forum, a London firm that organizes events for a network of tech entrepreneurs and investors. (The Journal and Founders Forum have a business relationship.) Survey participants were asked to identify young companies that are innovative, growing fast and expected to continue to grow fast.

A data analysis was conducted on the nominated firms to assess their founders' experience, the investments the companies have attracted, the prior success of their biggest investors, the growth of their workforces, and the buzz they have begun to generate. Equal weight was assigned to these five criteria to calculate overall scores for the companies.

No. 1 on the list was **Hollar Inc.**, a Commerce, Calif., company that runs a website that sells low-price household goods. It was the idea of Brian Lee, who co-founded Honest Co. with actress Jessica Alba, and David Yeom, another Honest Co. veteran. Mr. Lee, who stepped down as Honest's CEO earlier this year, is executive chairman of Hollar. Mr. Yeom is its chief executive officer. The ranking methodology rewards companies founded by people who have founded other companies, particularly if those other companies went on to go public or be acquired.

David Singer, managing partner of Maverick Ventures in San Francisco, says the founders' background is the most important factor he considers when deciding whether to make an investment. "That is where we spend most of our thinking," he says. "You are really dependent on this person."

The ranking methodology also gives founders credit if they have had high-level experience at other venture-backed companies. Mr. Singer says prior experience makes the transition from an idea to an operating company more effective, in terms of building an executive team and making decisions.

Maverick Ventures is an investor in the No. 2 company in the ranking, **Collective Health Inc.**, San Francisco, which allows companies and employees to manage health-care information. It is one of four health-care companies in the ranking, including two that allow patients to see a doctor over a video app: **Doctor on Demand Inc.**, based in San Francisco, and **Babylon Healthcare Services Ltd.**, based in London.

The expertise of the venture-capital firms that sit on a startup's board is factored in the scores companies received in the ranking. Credit is given to companies for having on their boards VC firms that have made sizable investments and that have invested in companies that have later gone public or been sold. The analysis used data from Dow Jones VentureSource.

**Clever Inc.**, the No. 4 company on the list, benefited from having on its board representatives from Sequoia Capital and Lightspeed Venture Partners, two large VC firms. Clever is a San Francisco company that developed a way for schools to organize the many software applications that are used by teachers and students.

Lightspeed also is on the board of two other ranked companies: Hollar and **Zola Inc.**, a New York company that operates an online wedding registry. Zola has traditional registry functions plus other features such as a way to manage when gifts are delivered, and a way for couples to collect monetary gifts for things like a honeymoon or down payment on a house.

### Board impact

Board members offer advice to startup executives and assist in recruiting and fundraising, says Mr. Ganesan of Menlo Ventures. The names on a company's board also assist in making sales to business customers. "If you are at J.P. Morgan and are looking at a cybersecurity startup, you want to know who invested in it," he says.

Four cybersecurity companies are in the ranking, including two with headquarters in Tel Aviv: **Argus Cyber Security**, which makes products to counter attacks on systems in cars

and commercial vehicles, and **Illusive Networks**, which creates cyberdefenses by tricking intruders with fake data.

Consumer hardware and gadgets are well-represented on the list, including two companies that create connected devices to manage home security, **August Home Inc.** and **Ring**, which formerly used the name Bot Home Automation.

Also in the ranking is **Eero Inc.**, which makes a system to improve home Wi-Fi signals; **Tile Inc.**, which makes a device to help keep track of everyday things such as keys and the TV remote; and **Jibo Inc.**, which is developing a robot.

Jibo's robot, whose release has been delayed, will become available before the end of 2017, says a company spokesman. The device will perform tasks similar to those done by Amazon.com

Inc.'s Alexa and Apple Inc.'s Siri. It will recognize faces and voices and be more interactive than the others, the spokesman says. A price hasn't been announced.

The staying power of new consumer-device startups can be uncertain. "These are either home runs or strikeouts," says Mr. Ganesan. "There aren't a lot of singles and doubles."

Whether a disruptive startup continues to grow or fades away often comes down to whether it continues to evolve, says Dharmesh Thakker, a general partner at Battery Ventures. Many startups "think the IPO is the end goal and they stop innovating. Companies that don't innovate tend to end up getting disrupted themselves by another startup."

*Mr. Pettit is a Wall Street Journal editor in New York. Email dave.pettit@wsj.com.*

## WSJ Tech Companies to Watch 2017

# The Dollar-Store Concept Goes Online

At Hollar Inc., the median price of items is \$5, and nothing costs more than \$10

BY YULIYA CHERNOVA

**DAVID YEOM WAS RAISED** by a single mom in East Los Angeles, and trips to the local dollar store were both a necessity and a "treasure hunt," he says.

Now Mr. Yeom runs **Hollar Inc.**, which he says is an online version of a dollar store. Many items sell for \$1, the median price is \$5, and nothing costs more than \$10.

Mr. Yeom, who used to run marketing at Honest Co., an e-commerce startup for baby and other consumer products, says he and Brian Lee, the former CEO at Honest, got the idea for Hollar at a Carl's Jr. restaurant in Santa Monica, Calif.

Hollar has hit on two trends—the large market for low-price goods and the consumer shift to online shopping. Companies like Dollar General and Dollar Tree have held up much better than other brick-and-mortar retailers amid the e-commerce onslaught. The dollar stores, however, have little presence online. That is a void Hollar is trying to fill.

"Nobody is going after this [market segment] in online retail, and I think it's wide open," says Greg Girard, an analyst at IDC Retail Insights, part of the Framingham, Mass., research firm IDC. Other e-commerce companies pursue the more well-off segments of society, Mr. Girard says.

The median household income of a Hollar customer is \$50,000, according to Mr. Yeom. And 80% of Hollar's orders are from outside California and New York.

It is easier and cheaper to acquire customers for Hollar than it used to be for Honest Co., Mr. Yeom says, because while at Honest, most products were more expensive than alternatives, at Hollar they are all a deal.

### Hollar has two million active monthly users.



Most of the co-founders of Hollar come from humble backgrounds, and several immigrated to the U.S. as children, Mr. Yeom says. The other co-founders are Jonathan Um, formerly a director of strategy at 99 Cents Only Stores and a former captain in the U.S. Marine Corps; Thanh Khuu, former chief technology officer at startup ShoeDazzle; and Eddie Rhyu, a former creative director at ShoeDazzle. Mr. Lee is executive chairman of the company.

Hollar shipped its first order in November 2015. It hit \$1 million in revenue in less than six months. Mr. Yeom declines to disclose current revenue. Hollar is currently gross-margin positive, he says. The company has raised some \$47.5 million so far and has about 220 employees.

It offers tens of thousands of different items on its website. They are stocked at a facility in Commerce, Calif., which was formerly used by 99 Cents Only.

Besides daily household items like toothpaste, the company's biggest seller has been Glow Pets, pillows shaped like an animal, such as a unicorn, with LED lights. The pillows sold for \$2 each.

The company has about two million active monthly users, and more than a million have downloaded its app.

"It is a significant opportunity, but they've got a big challenge, which is the logistics," says Mr. Girard of IDC. "Whether something costs \$1 or \$100, it could cost the same to ship."

Mr. Yeom says the company is using several strategies to improve margins. Even though each item is inexpensive, order carts average \$30, and the minimum order is \$10.

"When you create an environment where everything is a great deal, and nothing breaks the bank, it's interesting the psychology that takes over people, and they just load up," Mr. Yeom says.

Hollar also doesn't stock large or heavy items, which keeps packaging small and affordable. The average package it ships weighs 5 pounds, Mr. Yeom says. It often sources from third-party vendors who specialize in closeout deals, and being close to the Port of Long Beach helps, Mr. Yeom says.

The company next plans to start a marketplace where other merchants can sell their products through Hollar. The company also hopes to expand internationally.

*Ms. Chernova is a special writer for The Wall Street Journal in New York. She can be reached at yuliya.chernova@wsj.com.*

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As classroom apps proliferate, Clever Inc. aims to help students and teachers access them all in one easy step

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Eero is banking on its mesh-network router technology—as well as its independence

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## JOURNAL REPORT | TECH COMPANIES TO WATCH

# Technology Companies to Watch

The Wall Street Journal ranks 25 emerging leaders in hot corners of the tech industry

Rankings Methodology | See a summary of the methodology on page R6. For more detail, go to [wsj.com/techlist](http://wsj.com/techlist).

<b>1. HOLLAR INC.</b> <b>WEBSITE:</b> hollar.com <b>LOCATION:</b> Commerce, Calif. <b>SCORE:</b> 72.0 <b>FOUNDED:</b> 2015 <b>FOUNDERS:</b> Thanh Khuu, Brian Lee, Eddie Rhyu, Jonathan Um, David Yeom <b>DESCRIPTION:</b> E-commerce retailer selling wide variety of consumer household goods and personal products. In many ways, it is akin to an online dollar store. Minimum order size is \$10. <b>INVESTORS:</b> Bain Ventures, Comcast Ventures, Forerunner Ventures LLC, Greycroft Partners, Index Ventures, Kleiner Perkins Caufield & Byers, Lightspeed Venture Partners, Pritzker Group Venture Capital <b>TOTAL FUNDING:</b> \$47.5 million <b>EMPLOYEES:</b> 220	<b>2. COLLECTIVE HEALTH INC.</b> <b>WEBSITE:</b> collectivehealth.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 70.1 <b>FOUNDED:</b> 2013 <b>FOUNDERS:</b> Rajaei Batniji, Ali Diab, Kent Keirsey <b>DESCRIPTION:</b> Provides online system that allows employers and their employees to manage information about health, vision and dental plans. <b>INVESTORS:</b> Citizen.VC, Formation8 Partners LLC, Founders Fund LLC, Great Oaks Venture Capital LLC, GV, Maverick Ventures, New Enterprise Associates Inc., Redpoint Ventures, Rock Health, RRE Ventures LLC, Signatures Capital LLC, Social Capital LP, Subtraction Capital Management LLC <b>TOTAL FUNDING:</b> \$150 million <b>EMPLOYEES:</b> 259	<b>3. AUGUST HOME INC. &gt;</b> <b>WEBSITE:</b> august.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 69.4 <b>FOUNDED:</b> 2012 <b>FOUNDERS:</b> Yves Behar, Jason Johnson <b>DESCRIPTION:</b> Makes a "smart lock" for doors that works with a smartphone, and a doorbell camera that lets you see and speak to visitors remotely. <b>INVESTORS:</b> Bessemer Venture Partners, CAA Ventures, Center Electric LLC, Comcast Ventures, Cowboy Ventures, Dolby Family Ventures, Global Brain Corp., Industry Ventures LLC, KDDI Corp., Liberty Mutual Strategic Ventures, Maveron LLC, Qualcomm Ventures, Rho Ventures, SanDisk Ventures, SingTel Innov8 Pte. Ltd., SoftTech VC <b>TOTAL FUNDING:</b> \$65.71 million <b>EMPLOYEES:</b> 85	<b>4. CLEVER INC.</b> <b>WEBSITE:</b> clever.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 67.4 <b>FOUNDED:</b> 2012 <b>FOUNDERS:</b> Tyler Bosmeny, Dan Carroll, Rafael Garcia <b>DESCRIPTION:</b> Corrals educational-technology apps used by students, teachers and administrators in one centralized location. Schools assign access to apps, and users need just one password. <b>INVESTORS:</b> Bessemer Venture Partners, Floodgate, GSV Capital Corp., GV, Kapoor Capital, Lightspeed Venture Partners, Sequoia Capital, SoftTech VC, Start Fund, Streamlined Ventures, SV Angel, Ulu Ventures, Y Combinator <b>TOTAL FUNDING:</b> \$43.3 million <b>EMPLOYEES:</b> 111						
<b>5. EERO INC. &gt;</b> <b>WEBSITE:</b> eero.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 67.0 <b>FOUNDED:</b> 2014 <b>FOUNDERS:</b> Nate Hardison, Amos Schallich, Nick Weaver <b>DESCRIPTION:</b> Sells a Wi-Fi system that delivers a signal all around your home by placing units in multiple places, rather than using a single router. Three-component pack is \$399. <b>INVESTORS:</b> AME Cloud Ventures, First Round Capital, Great Oaks Venture Capital LLC, Homebrew Ventures, Index Ventures, Initialized Capital, Menlo Ventures, Playground Global LLC, Redpoint Ventures, Shasta Ventures Management LLC <b>TOTAL FUNDING:</b> \$90 million <b>EMPLOYEES:</b> 150		<b>6. JIBO INC.</b> <b>WEBSITE:</b> jibo.com <b>LOCATION:</b> Boston <b>SCORE:</b> 65.8 <b>FOUNDED:</b> 2012 <b>FOUNDERS:</b> Jerilyn Asher, Cynthia Breazeal <b>DESCRIPTION:</b> Developing an interactive robot, with voice and face recognition; launch has been delayed. <b>INVESTORS:</b> Acer Group, CRV, Dentsu Ventures, Fairhaven Capital Partners, Fenox Venture Capital, Flybridge Capital Partners, Formation8 Partners LLC, Haitong Capital, KDDI Corp., LG Uplus Corp., NetPosa Technologies Ltd., Ningbo GQY, Osage University Partners, Pags Group, Riverside Partners LLC, Roundview Partners LLC, RRE Ventures LLC, Samsung Venture Investment Corporation, Two Sigma Investments LP <b>TOTAL FUNDING:</b> \$84.08 million <b>EMPLOYEES:</b> 95	<b>7. RING</b> <b>WEBSITE:</b> ring.com <b>LOCATION:</b> Santa Monica, Calif. <b>SCORE:</b> 62.5 <b>FOUNDED:</b> 2013 <b>FOUNDER:</b> James Siminoff <b>DESCRIPTION:</b> Makes video-connected home security camera and doorbell systems that let users remotely see and communicate with people visiting their property. <b>INVESTORS:</b> American Family Ventures, CRV, DFJ, First Round Capital, Goldman Sachs Group Inc., Grishin Robotics, Kleiner Perkins Caufield & Byers, Qualcomm Ventures, QueensBridge Venture Partners, Shea Ventures, True Ventures, Upfront Ventures <b>TOTAL FUNDING:</b> \$209 million <b>EMPLOYEES:</b> 1,000	<b>8. (Tie) TILE INC. &gt;</b> <b>WEBSITE:</b> thetileapp.com <b>LOCATION:</b> San Mateo, Calif. <b>SCORE:</b> 62.2 <b>FOUNDED:</b> 2012 <b>FOUNDER:</b> Nick Evans, Michael Farley <b>DESCRIPTION:</b> Sells gadgets to keep track of keys, TV remotes, etc. Sounds an alarm to find a phone lost in the couch cushions, and helps locate a dropped wallet or stolen bike. <b>INVESTORS:</b> AME Cloud Ventures, Bessemer Venture Partners, GGV Capital, Khosla Ventures, Lead Edge Capital Management, Maveron LLC, Rothenberg Ventures, Slow Ventures, Tandem Management Services LLC, Tencent Collaboration Fund <b>TOTAL FUNDING:</b> \$59.2 million <b>EMPLOYEES:</b> 125		<b>9. LEMONADE INC.</b> <b>WEBSITE:</b> lemonade.com <b>LOCATION:</b> New York <b>SCORE:</b> 59.1 <b>FOUNDED:</b> 2015 <b>FOUNDERS:</b> Daniel Schreiber, Shai Wininger <b>DESCRIPTION:</b> Sells renters' and homeowners' insurance and pays claims through an app and website, rather than brokers. Money that is left over after paying claims and covering costs goes to charities. <b>INVESTORS:</b> Aleph LP, Allianz SE, General Catalyst Partners, GV, Sequoia Capital, Thrive Capital, Tusk Ventures, XL Innovate <b>TOTAL FUNDING:</b> \$60 million <b>EMPLOYEES:</b> 30	<b>10. ILLUSIVE NETWORKS LTD.</b> <b>WEBSITE:</b> illusivenetworks.com <b>LOCATION:</b> Tel Aviv and New York <b>SCORE:</b> 55.0 <b>FOUNDED:</b> 2014 <b>FOUNDER:</b> Ofer Israeli <b>DESCRIPTION:</b> Defends against cybersecurity threats, creating a fake version of a company's data. The alternate reality is a decoy, making it difficult for attackers to distinguish dummy data from real data. <b>INVESTORS:</b> Bessemer Venture Partners, Cisco Investments, Citi Ventures, Innovation Endeavors, Marker Financial Advisors LLC, Microsoft Ventures, New Enterprise Associates Inc., Team8 <b>TOTAL FUNDING:</b> \$30 million <b>EMPLOYEES:</b> Confidential (figure provided for data analysis)	<b>11. DOCTOR ON DEMAND INC.</b> <b>WEBSITE:</b> doctorondemand.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 54.4 <b>FOUNDED:</b> 2012 <b>FOUNDERS:</b> Adam Jackson, Jay McGraw, Phil McGraw <b>DESCRIPTION:</b> Company provides virtual house calls via an app, connecting patients with physicians, psychologists or psychiatrists. A video-connected visit with a medical doctor costs \$75. <b>INVESTORS:</b> Andreessen Horowitz, Dignity Health, GV, Jump Capital, Lerer Hippeau Ventures, Qualcomm Ventures, Rock Health, Rosemark Capital Group, Shasta Ventures Management LLC, Sherpa Capital, Tenaya Capital Inc., Venrock <b>TOTAL FUNDING:</b> \$86.75 million <b>EMPLOYEES:</b> 116	
<b>12. ALTSCHOOL</b> <b>WEBSITE:</b> altschool.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 54.2 <b>FOUNDED:</b> 2013 <b>FOUNDER:</b> Max Ventilla <b>DESCRIPTION:</b> Runs small, pre-K to 8th grade tuition-funded private schools in New York City and the San Francisco Bay Area. Also, creates partnerships with other schools that use its technology. <b>INVESTORS:</b> Andreessen Horowitz, Baseline Ventures, Collaborative Fund, Emerson Collective, First Round Capital, Founders Fund LLC, Harrison Metal Capital, Learn Capital Venture Partners, Omidyar Network Commons LLC, Silicon Valley Community Foundation <b>TOTAL FUNDING:</b> \$173 million <b>EMPLOYEES:</b> 150	<b>13. CYBEREASON INC.</b> <b>WEBSITE:</b> cybereason.com <b>LOCATION:</b> Boston <b>SCORE:</b> 54.0 <b>FOUNDED:</b> 2012 <b>FOUNDERS:</b> Lior Div, Yossi Naar, Yonatan Striem-Amit <b>DESCRIPTION:</b> Cybersecurity firm that tracks a company's network to find malicious activity. Using machine learning, it aims to find threats as they enter a network, so they can be addressed quickly. <b>INVESTORS:</b> CRV, Lockheed Martin Corp., Softbank Corp., Spark Capital <b>TOTAL FUNDING:</b> \$88.6 million <b>EMPLOYEES:</b> 275	<b>14. ANDELA INC.</b> <b>WEBSITE:</b> andela.com <b>LOCATION:</b> New York <b>SCORE:</b> 53.6 <b>FOUNDED:</b> 2014 <b>FOUNDERS:</b> Iyinoluwa Aboyeji, Ian Carnavale, Jeremy Johnson, Christina Sass <b>DESCRIPTION:</b> Recruits software developers in Africa to work for mostly U.S.-based technology companies. The developers, on four-year contracts, work full time from Uganda, Kenya and Nigeria. <b>INVESTORS:</b> Chan Zuckerberg Initiative, CRE Venture Capital, Founder Collective, GV, Learn Capital Venture Partners, Melo7 Tech Partners LLC, Omidyar Network Commons LLC, Peak Venture Partners LLC, Rothenberg Ventures, SparkLabs Global Ventures, Susa Ventures <b>TOTAL FUNDING:</b> \$38 million <b>EMPLOYEES:</b> 530	<b>15. COLOR GENOMICS INC. &gt;</b> <b>WEBSITE:</b> color.com <b>LOCATION:</b> Burlingame, Calif. <b>SCORE:</b> 51.0 <b>FOUNDED:</b> 2013 <b>FOUNDERS:</b> Nish Bhat, Elad Gil, Othman Laraki, Taylor Sittler <b>DESCRIPTION:</b> Tests saliva samples collected with a home kit to analyze your genetics and assess risk for common hereditary cancers. A test and genetic counseling costs \$249. <b>INVESTORS:</b> 8VC, Emerson Collective LLC, Formation8 Partners LLC, General Catalyst Partners, Innovation Endeavors, Khosla Ventures <b>TOTAL FUNDING:</b> \$60 million <b>EMPLOYEES:</b> 100		<b>16. ERNEST INC.</b> <b>WEBSITE:</b> ernest.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 50.1 <b>FOUNDED:</b> 2013 <b>FOUNDERS:</b> Louis Beryl, Benjamin Hutchinson <b>DESCRIPTION:</b> Makes personal loans for things such as home improvements or vacations and refinances student loans. Uses data on things such as savings habits and education to help evaluate applications. <b>INVESTORS:</b> Accomplice, Adams Street Partners LLC, Andreessen Horowitz, Atlas Venture, Battery Ventures, Collaborative Fund, First Round Capital, Maveron LLC, Wildcat Venture Partners LP <b>TOTAL FUNDING:</b> \$96 million <b>EMPLOYEES:</b> 170	<b>17. ZOLA INC.</b> <b>WEBSITE:</b> zola.com <b>LOCATION:</b> New York <b>SCORE:</b> 50.0 <b>FOUNDED:</b> 2013 <b>FOUNDERS:</b> Shan-Lyn Ma, Nobu Nakaguchi, Kevin Ryan <b>DESCRIPTION:</b> Wedding registry that allows couples to specify gifts they'd like, as well as do things such as manage gift deliveries and raise money for a honeymoon vacation or a house. <b>INVESTORS:</b> Female Founders Fund, BBG Ventures LLC, Canvas Venture Fund, Forerunner Ventures LLC, Thrive Capital, Lightspeed Venture Partners, Comcast Ventures <b>TOTAL FUNDING:</b> \$46.52 million <b>EMPLOYEES:</b> 52	<b>18. FLEXPORT INC.</b> <b>WEBSITE:</b> flexport.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 46.8 <b>FOUNDED:</b> 2013 <b>FOUNDERS:</b> Ryan Petersen, Trae Stephens <b>DESCRIPTION:</b> Provides services for companies to import and export goods. <b>INVESTORS:</b> 7percent Ventures, Acequia Capital Management LLC, A-Grade Investments LLC, Bloomberg Beta, Box Group LLC, Cherubic Ventures, Felicis Ventures, Fenway Summer Ventures, First Round Capital, FJ Labs, Founders Fund LLC, Fuel Capital, FundersClub Inc., GV, Initialized Capital, Lianchuang Ceyuan Investment Consulting, Lunch Van Fund, Susa Ventures, TYLT Ventures, Winklevoss Capital, Y Combinator <b>TOTAL FUNDING:</b> \$94 million <b>EMPLOYEES:</b> 350	<b>19. BRANCH METRICS INC.</b> <b>WEBSITE:</b> branchi.com <b>LOCATION:</b> Palo Alto, Calif. <b>SCORE:</b> 44.3 <b>FOUNDED:</b> 2014 <b>FOUNDERS:</b> Alex Austin, Dmitri Gaskin, Mike Molinet, Mada Seghete <b>DESCRIPTION:</b> Provides services to improve and measure how mobile apps are used. The technology makes it easier to link from things like websites and email to content deep inside an app. <b>INVESTORS:</b> Cowboy Ventures, Danhua Capital, Founders Fund LLC, Greylock Partners, Lightspeed Venture Partners, Madrona Venture Group Inc., New Enterprise Associates Inc., Peer Ventures, PlayGround Global LLC, Redpoint Ventures, Samsung Ventures America, TriplePoint Capital <b>TOTAL FUNDING:</b> \$113 million <b>EMPLOYEES:</b> 95	<b>20. VIA TRANSPORTATION INC.</b> <b>WEBSITE:</b> ridewithvia.com <b>LOCATION:</b> New York <b>SCORE:</b> 43.9 <b>FOUNDED:</b> 2012 <b>FOUNDERS:</b> Daniel Ramot, Oren Shoval <b>DESCRIPTION:</b> Ride-hailing app that groups passengers heading to the same destination. Available in Chicago, New York City and Washington, D.C. In Washington, rides cost \$2.95. A monthly pass there is \$85. <b>INVESTORS:</b> 83North Ltd., C4 Ventures, Ervington Investments Ltd., Expansion Venture Capital LLC, Hearst Ventures, Kapoor Capital, Keolis, Pitango Venture Capital, Poalim Capital Markets Ltd., RiverPark Ventures <b>TOTAL FUNDING:</b> \$137.1 million <b>EMPLOYEES:</b> 150
<b>21. ACORNS GROW INC.</b> <b>WEBSITE:</b> acorns.com <b>LOCATION:</b> Irvine, Calif. <b>SCORE:</b> 43.6 <b>FOUNDED:</b> 2012 <b>FOUNDERS:</b> Jeffrey Cruttenden, Walter Cruttenden <b>DESCRIPTION:</b> App lets users deposit small amounts that are automatically invested in exchange-traded funds. <b>INVESTORS:</b> Capital Group, Cruttenden Partners, eVentures, Garland Capital Group, Great Oaks Venture Capital LLC, Greycroft Partners, Groundswell Investments, JAM Equity Partners LLC, Math Venture Partners LLC, PayPal Inc., Point72 Ventures, Rakuten FinTech Fund, Sound Ventures, Steelpoint Capital Partners LP <b>TOTAL FUNDING:</b> \$63.3 million <b>EMPLOYEES:</b> Confidential (figure provided for data analysis)	<b>22. LIFE ON AIR INC. &gt;</b> <b>WEBSITE:</b> lifeonair.com <b>LOCATION:</b> San Francisco <b>SCORE:</b> 42.9 <b>FOUNDED:</b> 2013 <b>FOUNDERS:</b> Ben Rubin, Itai Danino, Sima Sistani, Roi Tirosh <b>DESCRIPTION:</b> Creator of Houseparty, a social app that connects groups through live video chat. Used as a virtual hangout. <b>INVESTORS:</b> Aleph LP, Broadway Video Ventures, CAA Ventures, Comcast Ventures, Entree Capital, Graph Ventures LLP, Greylock Partners, Sequoia Capital, Sherpa Capital, Slow Ventures, Universal Music Group, WME Venture Capital <b>TOTAL FUNDING:</b> \$68.2 million <b>EMPLOYEES:</b> Confidential (figure provided for data analysis)		<b>23. ARGUS CYBER SECURITY LTD.</b> <b>WEBSITE:</b> argus-sec.com <b>LOCATION:</b> Tel Aviv <b>SCORE:</b> 42.8 <b>FOUNDED:</b> 2013 <b>FOUNDERS:</b> Yaron Galula, Oron Lavi, Ofer Ben-Noon <b>DESCRIPTION:</b> Makes products to protect cars and commercial vehicles from cybersecurity threats associated with onboard electronics and communications systems. Its customers include car companies and suppliers. <b>INVESTORS:</b> Allianz SE, Magma Venture Partners, Magna International Inc., SBI Group, Vertex Venture Capital <b>TOTAL FUNDING:</b> \$30 million <b>EMPLOYEES:</b> 50	<b>24. BABYLON HEALTHCARE SERVICES LTD.</b> <b>WEBSITE:</b> babylonhealth.com <b>LOCATION:</b> London <b>SCORE:</b> 42.3 <b>FOUNDED:</b> 2013 <b>FOUNDER:</b> Ali Parsa <b>DESCRIPTION:</b> Provides health-care service that connects patients with doctors via text or video, using an app. Patients also can order prescriptions and tests, and can receive automated health information. <b>INVESTORS:</b> BXR Global Investment Group, Hoxton Ventures, Kinnevik AB, NNS Holdings, Vostok New Ventures Ltd. <b>TOTAL FUNDING:</b> \$85 million <b>EMPLOYEES:</b> 170					

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JON HILSENRATH ECONOMICS EDITOR

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## JOURNAL REPORT | TECH COMPANIES TO WATCH

# Medical Benefits That Work

Collective Health says insurance can be less costly for employers and less frustrating for workers

BY BRIAN GORMLEY

**2** AS COSTS FOR health care keep rising, Collective Health Inc. is counting on companies turning to it for better ways to spend their medical dollars.

Collective Health administers health benefits for businesses that self-insure, meaning they cover their employees' medical claims themselves instead of paying premiums to an insurer. Most large and many small and mid-size companies self-insure because it lets them customize their benefits and save money in the long term.

Collective Health uses enterprise software that boasts strong analytics that can help its customers yield insights from their own data and so better manage costs. It says its system also helps clients connect their employees with resources to manage budding health concerns before they worsen, and its call-center staff have incentives to not just answer questions but to guide plan members to the right care.

Since securing its first customer in 2015, Collective Health has grown to handle health benefits for 77,000 employees and their dependents across 15 clients, including eBay Inc., Ac-

tivision Blizzard Inc. and Palantir Technologies Inc.

Chief Executive Ali Diab has raised \$150 million in venture capital for the San Francisco company, whose self-proclaimed ambition is to make people love their health-insurance plan.

"What Ali's really done well is he's built a mission-driven company," says Mohamad Makhzoumi, a general partner with New Enterprise Associates, which invested in Collective Health.

Mr. Diab co-founded the company in October 2013 after experiencing a personal health crisis earlier that year. On a March afternoon he was sitting at his desk in San Francisco when he felt a sharp pain in his abdomen that would land him in the hospital for emergency surgery to treat an intestinal illness.

When he returned home, his insurer denied most of his hospital claims, saying the surgical procedure was experimental and resulted in a longer-than-normal hospital stay.



Ali Diab, left, and Rajaie Batniji co-founded Collective Health with a mission to make people love their health-insurance plan.

**Explanations of benefits are written to be easy to grasp.**

lieve their execution and tech infrastructure will help them stand out.

For instance, Collective Health says its bene-

fits statements are written at a third-grade reading level to reduce frustration for patients trying to understand what their insurer is telling them. Collective Health's platform, meanwhile, was built with data and analytics in mind, so that employers can look at claims data to predict costs more quickly, says Mr. Diab, who previously led product management and business operations for mobile-advertising startup AdMob Inc.

Mr. Diab's tech savvy and the medical expertise of physician and co-founder Rajaie Batniji are what sold Collective Health investor Blake Byers, a general partner with GV, the venture-capital arm of Google parent Alphabet Inc.

Dr. Byers says he was impressed with Mr. Diab's frankness about the difficulties their startup would face. Measured in his words and projections, Mr. Diab doesn't fit the archetype of the fast-talking Silicon Valley entrepreneur, Dr. Byers says.

"I had an immediate high degree of trust in the statements he was making," Dr. Byers says.

*Mr. Gormley is a reporter for The Wall Street Journal in Boston. He can be reached at [brian.gormley@wsj.com](mailto:brian.gormley@wsj.com).*

# A House Key? That's So Yesterday

August Home hopes it has the key to success with its smart locks

BY PATIENCE HAGGIN

**3** OVER A LUNCH in 2012, friends and serial entrepreneurs Jason Johnson and Yves Behar swapped stories about changing their housecleaning services but never getting their house keys back.

"We both said, 'There's got to be a better way to give people access to your home, and then revoke it,'" Mr. Johnson says. On the spot, they dreamed up a smart lock, and **August Home** Inc. was born.

Their solution goes beyond keypad-based home-security systems by allowing homeowners to grant access to specific people only during agreed-upon periods. After homeowners install August's \$229 smart lock on the inside of their door, they can lock and unlock the door using the app on their smartphone. They can allow their housecleaners access for a specific day and time, or set a regular schedule, like every day from 8 a.m. to noon. The house-cleaner must have an August account and the smartphone app to unlock the door. If the owner stops using that cleaner, he or she can stop the cleaner's access to the house.

August also sells an accessory keypad for owners who prefer to give guests access codes. And the homeowner still has the option to lock and unlock the door with a key.

The San Francisco startup has raised more than \$65 million. Its latest round of investment valued the company at about \$150 million, according to an estimate by PitchBook Data. It sold about 44,000 smart locks in 2016, the tech-market-research firm Parks Associates estimates, and has about 85 employees.

For Mr. Johnson, who is chief executive, August is his fifth startup, but it could be his first hit. Mr. Behar, the chief creative officer, is a career designer who also co-founded consumer-electronics startup Jawbone in 2003, last valued at \$1.5 billion.

August hopes to unlock what analysts say is a promising market for smart-home devices. Some 8.7 million U.S. households have a smart-home device, according to data from Forrester Research, which forecasts that number will top 20 million by 2021.

August's main competition is traditional lock makers that have their own connected versions. According to NPD Group, **Schlage**, an Allegion PLC company, captured 51% of the retail revenue of smart-lock sales from May 2016 to April 2017. August was second with 37%. Kwikset, owned by **Spectrum Brands Holdings** Inc., had 8%. August is fighting to differentiate itself from its competitors by emphasizing sleek app design and ease of use.

"August plays in a portion of the smart-lock



August Home co-founders Yves Behar, above at left, and Jason Johnson. Above right, August's Smart Lock, Smart Keypad and Doorbell Cam. Below, an August Smart Lock installed in a home.

market that's more in the retail and online-retail segment," says Tom Kerber, a director of Internet of Things strategy at Parks Associates. A partnership August announced last year with Comcast Corp.'s home-security business, Xfinity Home, may help it boost sales, because most smart locks are sold as part of home-security packages, Mr. Kerber says.

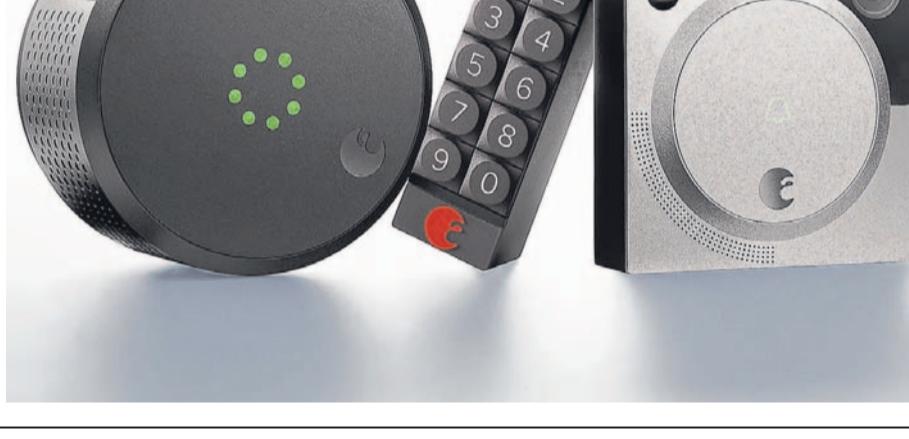
Last year August started selling another home-security product, a doorbell video camera, to compete with a similar product from **Ring**, formerly Bot Home Automation Inc. The doorbell camera, which allows users to see and hear visitors on their doorstep through an app, may help August get over the threshold into more homes, as consumers are more likely to buy a connected camera than a lock as their first smart-home device, says NPD analyst Benjamin Arnold.

As the largest tech companies battle to own the smart home, August is determined to stay competitive, in part by being operational with different platforms. August products can work with Apple HomeKit, Google Home and Amazon Alexa. The company also has partnerships with Airbnb and HomeAway, offering special features for home-sharing, such as giving the Airbnb guest the ability to grant other guests access during their stay.

Security is paramount for August, Mr. Johnson says. The company hires an independent team to do constant penetration testing, and has never seen its systems compromised, the chief executive says. Among its security features, the company uses "rolling" cryptographic codes. With this kind of system, "the cryptographic element is never the same. It's always changing," says Mr. Johnson.

In a rolling-codes system, a series of codes is needed for the lock to open, Mr. Kerber says, so it is very good at frustrating hackers. If one of the codes is broken, he says, it's only "a very small piece of the system."

*Ms. Haggin is a reporter for The Wall Street Journal in San Francisco. She can be reached at [patience.haggin@wsj.com](mailto:patience.haggin@wsj.com).*



AUGUST HOME (3)

# INSPIRING PEOPLE WHO CAN CHANGE THE WORLD.

We're built on the belief that nurturing entrepreneurial spirit can help make the world a better place. We've created the most inspiring community and eco-system in tech to help that spirit flourish through Founders Forum, Founders of the Future, accelerateHER, Founders Intelligence, Founders Keepers, Founders Pledge and Founders Factory.

Engage with our community at [www.ff.co](http://www.ff.co)



## JOURNAL REPORT | TECH COMPANIES TO WATCH

# Making Logins as Easy as ABC

Clever Inc. aims to help students and teachers access multiple apps through one easy step

BY OLGA RAZUMOVSKAYA

**4** WHEN TYLER BOSMENY was a high school student in Tucson, Ariz., he gained a reputation as a savvy businessman by importing Bubbaloo bubble gum from Mexico and selling it to his fellow students.

Now he's pitchman No. 1—and chief executive—at Clever Inc., an education-software startup that had the bright idea to make it easier for students and teachers to access all the apps they need with one login and one password.

Mr. Bosmeny co-founded Clever with close friends and fellow Harvard graduates Dan Carroll and Rafael Garcia, who all reunited after Mr. Carroll finished a volunteer stint with Teach for America. At the school where Mr. Carroll worked, he had noticed how frustrating it was for students and teachers to access the multiple learning apps that were being used in class.

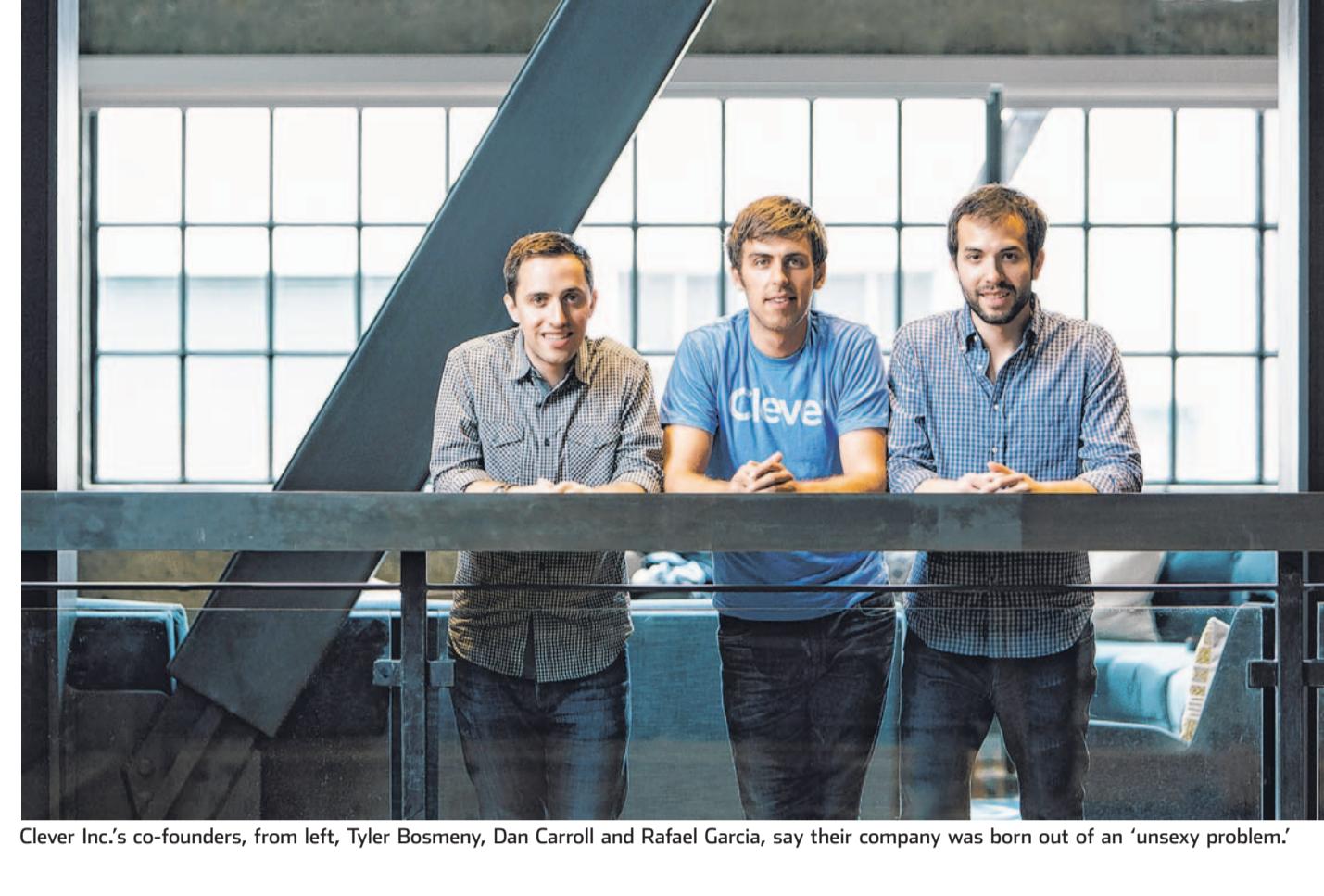
Schools across the U.S., from kindergarten to 12th grade, are using an increasing number of apps to help students in areas such as reading, math and Spanish. But with a growing number of apps and a constant flux of students, schools often must rely on a cluttered array of Post-it Notes or Excel spreadsheets to keep a record of the multiple accounts, logins and passwords for the dozens of applications being used.

Clever was born out of this "unsexy problem," its founders say.

The company was formally founded in 2012. Mr. Garcia is chief technology officer, and Mr. Carroll chief product officer.

The San Francisco-based startup now helps students and teachers access multiple applications through one easy step. It creates one account for each user, who then has access to all of the apps offered at his or her school.

Another advantage the company offers is for the learning-app developers themselves, who find it easier designing products for a widely used platform than having to negotiate the system requirements of many different customers. With this in mind, Clever's software is free for the schools that use it, but the company charges the app developers for the service it provides. Developers pay \$10 to \$20 a month to Clever for each school where stu-



Clever Inc.'s co-founders, from left, Tyler Bosmeny, Dan Carroll and Rafael Garcia, say their company was born out of an 'unsexy problem.'

dents connect to their apps through Clever's platform.

Clever at this point has no direct competitor. Its software is used in about 70,000 public and private schools across the U.S., according to the company, which is roughly half of the schools in the U.S. Its introduction of single-login technology to education in a way parallels what Okta Inc. has done for businesses. Okta, based in San Francisco, recently went public and has a market capitalization of roughly \$2.3 billion.

Comparisons are sometimes made in the news media between Clever and LearnSprout Inc., an education-technology startup, because both tackle the issue of improving access to online educational resources. But LearnSprout, acquired by Apple Inc. last year, is a platform for apps that help educators track students' performance, while Clever tries to solve more logistical issues.

Spending on education software for the K-12 market is expected to grow 23.3% to \$7.26 billion in 2020 from \$5.89 billion this year, says research firm Gartner Inc., though

Clever's addressable market is only a portion of that.

"The education-technology industry has evolved from a niche market to a multibillion-dollar endeavor attracting serious investment," says Bridget Foster, managing director of the Education Technology Network of the Software & Information Industry Association.

Given recent activity in the sector, investors seem to like its prospects. Coursera Inc., a leading provider of massive online open courses, just raised \$64 million to reach a \$800 million valuation. AltSchool Inc., a personalized learning provider, has attracted investors such as Andreessen Horowitz, First Round Capital and Learn Capital. Learn Capital is an investor in Coursera.

While Clever's focus is on improving the classroom experience, the company says its platform could one day be used to help school districts determine which apps are the most

effective, or which work best for different learning styles. To do that, Clever will need to build new products and features and work with its app partners, Mr. Bosmeny says.

Meanwhile, Clever measures

its growth in the number of connections it makes between a school and a particular educational app. It has reached more than 200,000 connections in 2017, up 50% from last year, according to the company. A school district uses on average 10 apps, says Mr. Bosmeny, adding that he expects

that number to grow to 40 and 50 apps in years to come.

Clever has raised \$43.3 million in funding in total and has a valuation of more than \$250 million. Investors include Ashton Kutcher and Peter Thiel. The company has 111 employees.

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