

# THE WALL STREET JOURNAL.

DOW JONES | News Corp

TUESDAY, MAY 16, 2017 ~ VOL. XLI NO. 179

WSJ.com

ASIA EDITION

## What's News

Business & Finance

Russia and Saudi Arabia agreed that petroleum-output cuts should be extended into March 2018, the strongest signal yet that OPEC and other producers will continue to influence oil prices. A1

◆ Western Digital filed a request for binding arbitration in its contract dispute with Toshiba. B1

◆ Goldman is splitting its investment bankers who focus on health care and consumer and retail companies into two groups. B5

◆ Atlantia launched a cash-and-share offer for Abertis, in a transaction valuing the Spanish company at \$17.8 billion. B1

◆ AIG named Brian Duperreault—a onetime lieutenant to former CEO Greenberg—as the firm's new chief executive. B5

◆ Trade groups called on China to delay a cybersecurity law set to go into force June 1, saying it could discriminate against foreign businesses. B4

◆ Lyft and Waymo, the driverless car division of Alphabet, said they would work together on self-driving auto technology. B4

◆ Media firms are racing to be included in new "skinny" streaming bundles as consumers ditch pay-TV at a record pace. B3

◆ Nintendo plans to bring "The Legend of Zelda" to smartphones, the latest step to expand its mobile-games lineup. B4

### World-Wide

◆ Government investigators and private cybersecurity firms are trying to find out how a virus managed to spread around the globe over the weekend. A1

◆ North Korea's 10th missile launch of the year was its most sophisticated yet, and a sign of the seriousness of its nuclear ambitions. A1

◆ The White House is racing to pick an FBI director, but Democrats threaten to block a vote until a Russia investigator is named. A7

◆ Conservative Republicans in the Senate are weighing faster and steeper cuts to Medicaid that could drop millions from coverage. A7

◆ Germany may pull forces involved in fighting Islamic State from a Turkish air base after Turkey banned lawmakers from visiting German troops. A1

◆ The U.S. and Saudi Arabia are working on arms deals and financial investments aimed at boosting ties. A4

◆ Health workers are rushing to contain an Ebola outbreak in Congo, ordering house-to-house searches for potential patients. A4

◆ Rebel authorities have declared a state of emergency in the Yemeni capital over an outbreak of cholera that has left 129 dead. A4

◆ China's economic activity weakened more than expected last month on flagging factory demand. A3

**CONTENTS**  
Business News... B3  
Capital Journal... A2  
Crossword... A12  
Heard on Street... B8  
Life & Arts... A9,12  
Markets... B8  
Opinion... A10-11  
Technology... B4  
U.S. News... A7-8  
World News... A2-4  
  
China: RMB28.00; Hong Kong: HK\$23.00;  
Indonesia: Rp25,000 (incl PPN);  
Japan: Yen620 (incl JCT); Korea: Won4,000;  
Malaysia: RM750; Singapore: S\$5.00 (incl GST)  
KDN PP 9315/10/2012 (032725); MCI (P)  
NO. 066/01/2017; SK MENPEN RJ. NO. 01/  
SK/MENPEN/SCJ/1998 TGL 4 SEPT 1998

ISSN 03779920 4.11.79  
9 770377992000  
Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

Copyright 2017 Dow Jones & Company. All Rights Reserved

</div

## WORLD NEWS

# Stakes Rise as Trump Embraces Controversy



### CAPITAL JOURNAL

By Gerald F. Seib

**M**ost people prefer to avoid controversy. Donald Trump seeks it out.

Indeed, it sometimes seems that if a controversy isn't roiling, he works to create one and then stoke it. Sometimes this is to change the subject to one he prefers, sometimes to distract attention from the latest controversy he wants to move beyond.

It's an approach mostly foreign to the worlds of politics and governance, which is exactly what his support-



ers like about it. Somehow it worked for Mr. Trump as a presidential candidate. We are watching a live experiment in whether it can work as president. Chances are it will always be thus.

Never was this more clear than in Mr. Trump's bombshell decision to fire James Comey as head of the Federal Bureau of Investigation. Mr. Trump had to know that, despite the initial White House explanation that the firing grew from Mr. Comey's handling of the inquiry into Hillary Clinton's emails, it inevitably would be seen as an effort to get rid of the man handling the most sensitive investigation of Mr. Trump himself, over whether Russia interfered in last year's election.

He did it anyway. Then he doubled down by saying that, contrary to his White House's initial explanation, he was going to fire Mr. Comey regardless of what his Justice Department recommended. Then he tripled down by saying that Mr.

Comey had better be careful about what he says about his conversations with the president because those conversations might have been taped.

Mr. Trump will get what he wanted. He now will pick his own FBI director. The system isn't supposed to work this way; FBI directors are given 10-year terms, so presidents generally have to live with the one they inherit. Not now—and maybe never again; has Mr. Trump shattered the idea that FBI directors are independent?

**T**hat's one question. A second one: At what cost will Mr. Trump get what he wanted? Last week could have been spent talking about Republicans' high-stakes bid to get a health-care replacement for Obamacare through the Senate, an effort in which the Trump White House is increasingly invested. Instead, it was spent talking about L'Affaire Comey.

This week should be spent talking about Mr. Trump's

first foreign trip, which will be a big one. He goes to Saudi Arabia, Israel and the Vatican before meeting the heads of other industrialized nations at a G-7 summit. Mr. Trump has a chance to forge a new relationship with both the Saudis and the Israelis, and to build that into a broader regional security alliance to counter the threats from Iran and Islamic State.

*The Comey episode could distract attention from the broader agenda.*

The Journal's Carol Lee has reported that, as a down-payment on that effort, the Trump administration is preparing a new arms deal and a package of economic-cooperation initiatives with the Saudis. This is big stuff; will it be overshadowed by the lingering effects

of the Comey business?

Thus, the controversies carry the risk of distracting attention from the broader Trump agenda. That certainly will continue to be the case, at least sporadically, as Mr. Trump goes through the process of picking and then trying to get confirmed a new FBI director.

Such controversies also drive down even further the chances that Mr. Trump will get significant Democratic cooperation on his initiatives. In fact, Senate Democrats are promising to block other agenda items until they get assurances on the course of the Russia investigation. Mr. Trump's low job-approval ratings leave Democrats believing they aren't obliged to cooperate.

On the other hand, there is compelling evidence that the Comey business hasn't resonated outside of Washington the way it has inside. A weekend Wall Street Journal/NBC News poll found that, while 38% of those surveyed disapproved of the

Comey firing, and 29% approved, about one-third said they didn't have an opinion.

Views were shaped by party affiliation; Democrats tended to disapprove, while Mr. Trump has won the support of Republicans. Only 3% of Trump voters disapproved. Meanwhile, Mr. Trump's job-approval rating is 39%. That's low but essentially unchanged by the Comey episode.

**A** troubling undercurrent for Mr. Trump: The survey found a strong desire, cutting across political affiliations, for an independent commission or a special prosecutor to get to the bottom of Russia's role in the 2016 election.

That suggests the Comey matter may yet come back to haunt Mr. Trump. Still, there is little reason to think there will be a change in the Trump operating style, which seems predicated on the idea that controversy is a sign he is shaking things up, just as promised.

## Experts Try to Limit Damage From Attack



YONHAP/EUROPEAN PRESSPHOTO AGENCY

**The cyberattack monitoring team at the Korea Internet and Security Agency in Seoul on Monday.**

Governments and companies reported Monday more infected computers stemming from a global cyberattack that wreaked havoc through the weekend, as IT departments around the world kicked off a fourth day trying to determine the scope of damage and recover from it.

By Stu Woo in London,  
Nick Kostov in Paris  
and Liza Lin in  
Shanghai

The cyberattack hit businesses, hospitals and government agencies in at least 150 countries. Early Monday, governments and companies in Asia, including Japanese conglomerate **Hitachi** Ltd. and a chain of movie-theaters in South Korea, disclosed new infections.

Chinese state media reported nearly 40,000 public and private institutions had been hit in the country. The official **Cyberspace Adminis-**

**tration of China** said victims included government agencies and private corporations, hitting sectors including education, banking and informa-

tion technology.

French auto maker **Renault** SA, which closed plants across Europe over the weekend after being hit, said it

**Microsoft** Corp. said that the software used in the global cyber assault that began Friday came from code stolen from the **U.S. National Security Agency**, adding that the attack should serve as a wake-up call for governments over the risks of hoarding such digital weapons for use against their enemies.

The software giant's statement is the most authoritative confirmation so far of the connection between the attack and the code that appeared to be for cyberattacks and was disclosed in April by an anonymous

group called Shadow Brokers, which said it had obtained it from the NSA. The U.S. spying agency has declined to comment on the matter.

In a blog post Sunday, Brad Smith, Microsoft president and chief legal officer, said that the espionage agency authored the software that was eventually stolen and made its way into the hands of hackers who drew from it in the assault that has disrupted computers in at least 150 countries. He compared it to disclosure of hacking tools in March by the **WikiLeaks** organization, which said it had obtained them from the Central Intelligence Agency.

"Repeatedly, exploits in the hands of governments have leaked into the public domain and caused widespread damage," Mr. Smith wrote. "An

equivalent scenario with conventional weapons would be the U.S. military having some of its Tomahawk missiles stolen."

Mr. Smith's statement is among the strongest complaints from the tech industry yet about government activity that has increasingly put the industry at odds with federal law enforcement and spying agencies.

Critics argue Microsoft also bears responsibility for the recent attack. Gartner Inc. security analyst Avivah Litan said the NSA is only able to exploit the vulnerabilities in Windows because security in the operating system has historically been weak.

Windows 10 is far more secure than previous versions. But for many companies, the cost of upgrading, both financially and in terms of time, remains a hurdle.

—Jay Greene

mine whether port 445's wall has a hole that WannaCry wiggled through.

"Most researchers tend to believe at the moment that it spreads initially through vulnerable computers exposing

port 445 on the internet," the updated EU agency report said.

There is another theory. Ms. Pinkard said an employee could have taken an office-issued laptop to a coffee shop or

hotel and logged onto the venue's unsecure internet network. If that laptop doesn't have the antivirus protection that networks at big organizations typically have, a hacker could've slipped WannaCry

onto the device. When the employee brings the laptop back to the office and connects it to the network, bam: WannaCry spreads itself via port 445.

Companies can protect laptops from this with commercially available protection software, Ms. Pinkard said.

If researchers can find the original WannaCry victim, they might be able to trace the signature of the attacker who delivered the virus via an internet-protocol address, or IP address. "If I were law enforcement, I would be working to find who was the very first company impacted," Ms. Pinkard said. "I would knock at the door and be asking, 'Can I look at your logs?'"

The problem is that the IP address could lead to another IP address, which would lead to another IP address, and so on. "It's a very slow and painful process," Ms. Pinkard said.

Cybersecurity experts said that, even though some of the world's smartest minds are on the case, it could take months or years to find the mastermind—if they find the attacker at all.

A parallel hunt would be following the money. WannaCry asked for ransom to be delivered via a digital currency called bitcoin.

About 124 payments totaling about \$34,000, or a little less than \$300 each, went to the attacker as of Sunday afternoon, said bitcoin-analytics firm Chainalysis. Every bitcoin transaction is recorded on an online ledger. But finding out the individual behind each transaction is difficult because users' identities are well encrypted.

"There's going to be a paper trail," said Brian Knight, a George Mason University specialist in financial technology. "Whether it can be deciphered is a separate question."

—Natalia Drozdak, Paul Vigna and Peter Rudegeair contributed to this article.

## Hackers'

## Take: \$51,000 in Untouched Bitcoin

BY PAUL VIGNA  
AND PETER RUDEGEAIR

This weekend's wave of cyberattacks held up for ransom the computer files of more than 200,000 victims worldwide. The hackers' apparent take: \$51,000—in bitcoin accounts that they may hesitate to tap.

Networks at companies, hospitals and government agencies were among those hit by a cyberattack that scrambled the files of infected computers, then promised to restore the files after ransom payments of as little as \$300 each in bitcoin.

Attackers have been using three specific bitcoin wallets, or addresses, according to several people tracking the attack, with about 202 transactions totaling \$51,417 as of Monday morning, according to bitcoin analytics firm Chainalysis Inc.

None of the funds have been moved out of the wallets. While identifying bitcoin wallet owners is difficult, tracking money moving out of such wallets is potentially easier.

The incident is focusing attention once again on bitcoin's role in hacking and illegal money movements. For many investors and regulators, it emphasized that the currency has a role in nefarious activities.

On the other hand, this attack hasn't yet resulted in the same backlash as other jolts to the often volatile market. Bitcoin's price of around \$1,770 remains near a record high.

THE WALL STREET JOURNAL.  
Dow Jones Publishing Company (Asia)  
25/F, Central Plaza, 18 Harbour Road,  
Hong Kong  
Tel: 852 2573 7121 Fax: 852 2834 5291

Andrew Dowell, Asia Editor  
Troy McCullough, Senior News Editor, Asia  
Daren Emerson, International Editions Editor

Hugo Restall, Editorial Page Editor

Mark Rogers, Advertising Sales  
Jacky Lo, Circulation Sales

Jacquelyn Drozdoff, Communications  
Simon Wan, Technology

Jonathan Wright,  
Managing Director Asia & Publisher

Advertising through Dow Jones Advertising  
Sales: Hong Kong: 852-2831 2504; Singapore: 65-6415 4300; Tokyo: 81-3 6269-2701;  
Frankfurt: 49 69 29725390; London: 44 207 842 9600; Paris: 33 1 40 17 17 01; New York:  
1-212 659 2176.  
Or email: [MarkRogers@wsj.com](mailto:MarkRogers@wsj.com)

Printers: Hong Kong: Euro Limited, 2/F, Block 1, Tai Ping Industrial Centre, 57 Ting Kok Road, Tai Po, Hong Kong; Indonesia: PT Gramedia Printing Group; Japan: Mainichi Newspapers Co., Ltd, 1-1 Hitotsubashi, Chiyoda-ku, Tokyo, 100-8051; Korea: JoongAng Ilbo, 100 Seomsom-ro, Jung-gu, Seoul, 100-814; Publisher: Song, Pil-Ho; Malaysia: Basar Cetak (M) Sdn Bhd, Lot 2, Jalan Sepana 15/3, Off Persiaran Selangor, Seksyen 15, 40200 Shah Alam, Selangor, Malaysia; ROC: No. 0488856; Singapore: Singapore Post Holdings Limited, 82 Genting Lane Media Centre Singapore 34957

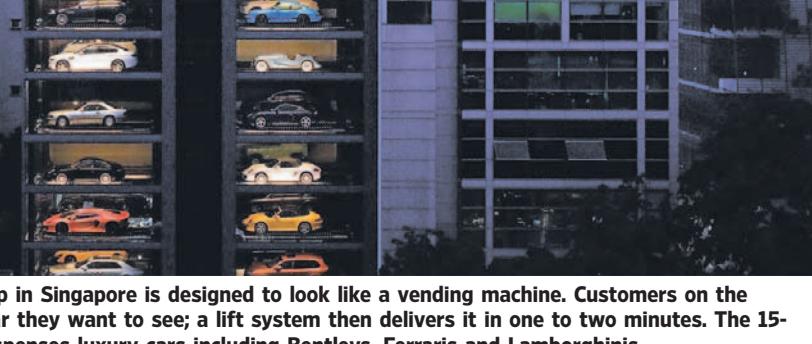
Trademarks appearing herein are used under license from Dow Jones & Co.  
©2017 Dow Jones & Company, All rights reserved.  
USPS 337-350; ISSN 0377-9290

NEED ASSISTANCE WITH YOUR SUBSCRIPTION?  
By web: <http://wsj-asia.com>  
By email: [service@wsj-asia.com](mailto:service@wsj-asia.com)

By phone: Hong Kong: 800 901 216; Australia: 0011 800 322 8482; China: 400 991 1174;

India: 000 800 440 1938; Indonesia: +62 21 2970 2702; Japan: 0120 779 868; Korea: 0030 844 0063; Malaysia: 1800 804 612; New Zealand: 0800 442 443; Philippines: 1800 1441 0033; Singapore: 1800 823 2042; Taiwan: 00801 444 141; Thailand: 001800 441 8323

THOMAS WHITE/REUTERS  
**DREAM MACHINE:** An exotic used-car dealership in Singapore is designed to look like a vending machine. Customers on the ground floor use a touchscreen to pick which car they want to see; a lift system then delivers it in one to two minutes. The 15-story showroom, which opened in December, dispenses luxury cars including Bentleys, Ferraris and Lamborghinis.



DREAM MACHINE: An exotic used-car dealership in Singapore is designed to look like a vending machine. Customers on the ground floor use a touchscreen to pick which car they want to see; a lift system then delivers it in one to two minutes. The 15-story showroom, which opened in December, dispenses luxury cars including Bentleys, Ferraris and Lamborghinis.

## CORRECTIONS & AMPLIFICATIONS

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

# WORLD NEWS

## Europe Balks At China's Trade Plan

BY MARK MAGNIER  
AND CHUN HAN WONG

BEIJING—China's bid to mobilize dozens of countries and billions of dollars for its ambitious Silk Road infrastructure plan bumped into European dissent at a high-profile Beijing forum, underscoring difficulties in marshaling consensus over President Xi Jinping's globalization blueprint.

China received support for most of its proposals over the two-day meeting, but failed to secure European endorsement of a planned statement on trade, diplomats said.

The discord marred an outwardly convivial conclave designed to promote Mr. Xi's signature economic-diplomacy initiative—known as “One Belt, One Road”—a rebooting of ancient Silk Road routes with ports, railways and pipelines backed by Chinese money and industry.

European officials at the forum said the proposed trade statement omitted clauses on transparency and standards in tendering contracts, even though China had endorsed similar clean-governance language at past Group of 20 and Asia-Europe summits.

“We felt this language was going backwards” from what China had previously agreed to, said one European official, who suggested Beijing had drafted the statement to benefit Chinese companies. “It’s about selling their stuff,” the official said.

China's foreign and commerce ministries didn't respond to requests for comment. The trade statement wasn't issued at the forum's conclusion on Monday.

In Brussels, the European Union's spokesman on trade issues, Daniel Rosario, said the EU and its member states “could not support this specific paper since it was not possible to confirm our joint commitment to international trade rules and to a level playing field for all companies.” Beijing had presented the proposed trade statement late in the talks, he said, “and the process to elaborate this paper did not allow for an inclusive solution to be found.”

The top U.S. representative at the forum, a National Security Council director, gave brief remarks Sunday echoing European attention to fair procurement practices, saying ensuring transparency would benefit Silk Road projects.

### An Industrial Powerhouse Takes a Breather



THOMAS PETER/REUTERS

China's economic activity weakened more than expected in April on flagging factory demand, part of an anticipated gradual slowdown in the world's second-largest economy for the rest of 2017.

Value-added industrial output, a rough proxy for economic growth, rose by 6.5% in April from a year earlier, the National Bureau of Statistics said on Monday. The number was more than a percentage point below March's rise and well below what many economists had predicted.

Fixed-asset investment, money used to buy and build

machinery, buildings and other fixed facilities, grew 8.9% in the first four months of 2017 from a year earlier. That was slower than expected and a bit less than the January-March period. Retail sales grew 10.7% in April from the year-earlier month, a slight slowdown from March's increase.

The weaker April data dovetail with other signs that China's massive economic engine is losing steam after achieving 6.9% growth in the first quarter. Industrial metal prices have fallen in recent weeks; auto sales declined in April after rising in March. Official purchasing man-

agers' indexes weakened last month; and inventory restocking has slowed.

Property sales also decelerated sharply in April from April 2016, increasing at their slowest pace in more than two years, and construction starts weakened. (Above, workers sit at a construction site in Beijing.)

Most economists believe China can achieve its growth target of 6.5% this year as momentum from the year's strong start prop up the economy.

But some companies are feeling an economic slowdown, at least in some sectors.

Taihao Stainless Steel Manufacturing Co., a maker of locks and door handles based in the eastern city of Zhejiang, said it hasn't been able to raise prices to compensate for higher wage and commodity costs, given stiff competition.

“Business isn't going well, we've been losing money since last year and I'm quite worried,” said Wang Zhenzhou, the company's general manager. “The global economy doesn't look great and global politics aren't stable. Who knows what will happen in coming months?”

—Mark Magnier

### WORLD WATCH

#### FRANCE

##### Macron Names Moderate as Premier

President Emmanuel Macron named Le Havre Mayor Édouard Philippe as his prime minister, handing a top position in his government to a moderate from the conservative Les Républicains party.

The move shows how Mr. Macron is trying to woo members of Les Républicains to join his new party, La République En Marche, ahead of June's legislative elections.

Some French socialists have agreed to run under the banner of the new party, but members of Les Républicains have refused thus far.

Mr. Philippe is a close ally of Alain Juppé, the mayor of Bordeaux who ran for president as a moderate in last year's center-right primary. François Fillon, a more traditional conservative, defeated Mr. Juppé by a wide margin.

—Matthew Dalton

#### IRAN

##### Tehran Mayor Quits Presidential Race

Tehran's mayor dropped out of the presidential race, throwing his support behind hard-line cleric Ebrahim Raisi in a boost to a candidate expected to adopt a tougher stance on U.S. relations.

The exit of Mayor Mohammad Ghalibaf, 55 years old, who has twice before run for president, leaves Iranians to choose between two front-runners in the May 19 election, Mr. Raisi and more moderate incumbent Hassan Rouhani.

Mr. Ghalibaf called for unity among fellow hard-liners to combat what he and his allies have called “the 4%,” referring to Mr. Rouhani and the wealthy elite they say dominate Iran's current administration.

Supreme Leader Ayatollah Ali Khamenei has final say in most state matters, but presidents shape how policy is implemented and how Iran presents itself to the world.

—Asa Fitch

#### IVORY COAST

##### Soldiers' Mutiny Over Pay Escalates

Gunfire flared and rebel soldiers erected makeshift checkpoints in several of Ivory Coast's largest cities as a four-day-old

mutiny over pay spread across Africa's fastest-growing economy.

Residents in several cities, including the commercial capital Abidjan, reported hearing gunfire through the night and after day-break, local media reported. Some rebel soldiers blocked the main highway.

Banks, cocoa-processing plants and other companies across the country were closed, as government forces deployed to surround some mutinous bases, while political leaders sought a negotiated settlement with rebel leaders.

The revolt, which includes



some 8,000 members of the 22,000-strong army, began in the city of Bouake last week after the government delayed bonus payments it had pledged during a mutiny in January. Ivory Coast is the world's biggest cocoa exporter and payments weren't made in full after global prices collapsed.

—Joe Parkinson

#### GERMANY

##### IMF Urges Tax Cuts, More Spending

The International Monetary Fund said Germany should loosen its purse strings, cut income tax and increase spending on infrastructure to avoid long-term low inflation. The Washington-based fund also called on Germany to boost wages and help the European Central Bank end its ultralow interest-rate policy. The IMF renewed its call for Chancellor Angela Merkel's government to do more to boost domestic demand. The finance ministry didn't immediately comment on the report.

—Andrea Thomas

**AVIENGER**  
**HURRICANE**

The superlative-charged chronograph. 50 mm case in Breitlight®. Exclusive Manufacture  
Breitling Caliber B12 with 24-hour military-style display. Officially chronometer-certified.

**BREITLING**  
INSTRUMENTS FOR PROFESSIONALS™

**AVIENGER**  
**HURRICANE**

Thomas Peter/REUTERS

## WORLD NEWS

# U.S. Nears Arms Deal Coveted by Saudis

Riyadh would receive gear Obama denied it; Trump seeks a leader for regional security

BY CAROL E. LEE  
AND MARGHERITA STANCATI

WASHINGTON—The U.S. and Saudi Arabia are working on a package of arms deals and financial investments aimed at elevating economic and security cooperation between Washington and Riyadh after several years of strained relations over the U.S. diplomatic outreach to Iran.

The potential agreements, coupled with Mr. Trump's scheduled arrival in Saudi Arabia this week or his first stop outside the U.S. since taking office, include a missile-defense system and heavy arms the Obama administration either refused to sell Saudi Arabia or pulled back from amid concerns about Riyadh's role in the conflict in Yemen, according to U.S. and Saudi officials.

While Mr. Trump has come under criticism for seeking warm, personal rapport with some world leaders and for bringing family members into the White House as advisers, these approaches have been welcomed by Saudi Arabia's royal family.

The proposed arms deal is taking shape as the White House tries to encourage a longtime Middle Eastern ally to take the lead on regional security but without alienating



President Donald Trump with Saudi Defense Minister and Deputy Crown Prince Mohammed bin Salman at the White House in March.

Israel, another critical friend in the region.

Part of Mr. Trump's goal is to get the Gulf states, principally Saudi Arabia, to help him achieve a peace agreement between the Israelis and Palestinians. Mr. Trump is scheduled to visit Israel after his stop in Riyadh.

A senior U.S. official said "every system that we're talking about" with the Saudis maintains Israel's military advantage over its neighbors,

known formally as its Qualitative Military Edge.

Israel isn't objecting to the U.S. selling an advanced anti-missile system, known as Thaad, to Saudi Arabia, U.S. officials said.

The president is also seeking new cooperation with Saudi Arabia on the fight against Islamic State and countering Iran's influence in the region, White House officials have said.

"You're going to see on this trip some steps toward beefing

up, and maybe even down the road formalizing, a security arrangement with Gulf states, Arab States and the United States," one official said.

Discussions over arms sales have been assigned higher priority over economic initiatives as the two governments aim to complete agreements ahead of Mr. Trump's visit to Riyadh on Friday. "That's the easy part," a senior U.S. official said of economic talks. "The security stuff is harder."

Driving the outreach between the two countries are the Saudi king's 31-year old son, Deputy Crown Prince Mohammad bin Salman, and the president's 36-year-old son-in-law and senior White House adviser, Jared Kushner, according to officials in Washington and Riyadh.

Mr. Kushner coordinates on the policy with the National Security Council, the State Department and the Pentagon, administration officials said.

"The Saudis know that the person who is trying to get Trump on our side is Kushner," said Ahmed al-Ibrahim, a Saudi businessman and political commentator. "He is the guy who has the Middle East portfolio."

Mr. Trump's premium on developing personal relationships with his counterparts is an approach the Saudis felt was missing with former President Barack Obama's administration. In turn, King Salman last month named another son, Prince Khaled bin Salman, as the new Saudi ambassador to Washington.

The monarchy in Saudi Arabia saw the election of Mr. Trump as an opportunity to reset ties with its most important strategic ally after relations soured during Mr. Obama's two terms in the White House largely because of differences over policy in the Middle East.

The monarchy felt betrayed by the Obama administration's conciliatory approach toward Riyadh's No. 1 foe, Iran, which culminated in the 2015 deal with Tehran to restrain its nuclear program in exchange for lifting economic sanctions.

"The narrative of the Obama administration was that Saudi Arabia and Iran must share the region," said Mohammed Alyahya, a Saudi political analyst and nonresident fellow at the Atlantic Council. "The Trump administration is very clear that it will put allies first."

—Jay Solomon  
contributed to this article

## FROM PAGE ONE

## TURKEY

Continued from Page One

Recep Tayyip Erdogan is meeting Tuesday with President Donald Trump in Washington, where discussion is expected to focus on deepening intelligence-sharing efforts with Turkey to fight Kurdish terrorists at home and Iraq while the Pentagon implements a plan to arm Kurdish forces in Syria.

In recent months, German officials have studied eight possible alternatives to the Turkish air base in Jordan, Kuwait and Cyprus. But until Monday, officials had publicly stressed that the goal was to stay in Turkey.

That language changed as officials expressed exasperation with Turkey's actions.

Germany has about 250 soldiers, six Tornado reconnaissance planes and a refueling aircraft in Incirlik, where other countries that are part of an international coalition targeting Islamic State in Syria are also represented, including the U.S., Saudi Arabia, Denmark and Qatar.

Last June, Ankara barred German lawmakers from visiting the base after the German parliament voted to label the Ottoman-era massacre of Armenians a genocide.

Turkey relented and authorized a visit in early October, but several lawmakers had been waiting for months to be allowed to visit.

"The ban of lawmakers' visits and the reasons for it pro-



A technician works on a German Tornado jet at the Incirlik air base in Turkey. Germany may withdraw its forces from the base.

vided by Turkey are a slap in the face for all those who despite everything continue to search for a dialogue with Turkey," said Christine Lambrecht, a lawmaker with the Social Democrats.

The defense ministry said it would look more closely at alternatives but added that any move could take months. Jordan is one possibility, but security conditions are less ideal than in Incirlik, said a spokesman for the defense ministry.

According to the German foreign ministry, Turkey told Germany that the visit, which was due to begin Tuesday and had been known to Ankara for weeks, wasn't possible given the current state of German-Turkish relations.

Ministry spokesman Martin Schäfer said Turkey appeared to be angered by Germany's granting asylum

to some Turkish military personnel amid a post-coup-attempt crackdown by Ankara.

Mr. Schäfer said Germany had expressed its frustration with the ban via different channels. He also said Foreign Minister Sigmar Gabriel would raise the issue with other members of the anti-Islamic State coalition and NATO, including the U.S., in Washington later this week.

"We think this is a stumbling block in our joint efforts to defeat ISIS," Mr. Schäfer said.

Mr. Schäfer said the ban was especially disappointing as it came just days after the German foreign minister told Turkey's prime minister that Germany wanted to improve relations with Turkey, after the two clashed over the detention of a German journalist in Turkey.

thing to do," he added.

Brent, the international oil benchmark, climbed by around 2.5% in London.

Last week, OPEC said crude stockpiles in the most industrialized nations increased from the fourth quarter of 2016 by 31 million barrels to just over 3 billion—276 million barrels above the five-year average.

"The agreement needs to be extended, as we will not reach the desired inventory level by end of June," Mr. Falih said. "Therefore we came to the conclusion that ending will probably be better by the end of first quarter 2018."

Major producers are willing to extend the cut and are working to bring in new non-OPEC participants including Turkmenistan and Egypt, according to people familiar with the matter.

This follows lobbying by Saudi Arabia, which, as OPEC's biggest producer, has borne the brunt of output cuts and has indicated it wants other producers to do more.

Stronger oil prices have helped Russia's economy to

emerge from a two-year recession, but its recovery is expected to be weak. Russia's federal budget depends on oil and gas for more than one-third of its revenues.

"Preliminary consultations show that everybody is committed...I don't see reasons for any country to quit," said Alexander Novak, Russia's energy minister.

An OPEC representative said officials from Saudi Arabia, other Persian Gulf countries and Russia discussed an extension to the cuts over the phone on May 5. The Saudi and Russian oil ministers also discussed the matter on April 27, another OPEC official said.

Saudi Arabia had consulted broadly outside its core Persian Gulf group of allies, another OPEC official said. He said a consensus was emerging to extend the deal to March, but that it was too early to predict the outcome.

Last year's oil-production deal exempted Iran, Libya and Nigeria from obligations to cut. OPEC officials said those exemptions would likely be kept if the cuts are extended.

Stronger oil prices have helped Russia's economy to

## Ebola's Return to Congo Spurs Rush to Stem Virus

BY NICHOLAS BARIYO

only ended last year, the World Health Organization said.

Health workers in the Democratic Republic of Congo were rushing to contain an outbreak of Ebola virus, scrambling military helicopters to deliver medical aid and ordering house-to-house searches for potential patients in a remote northeastern region.

The hemorrhagic fever has killed three people and infected more than a dozen others, health officials said on Monday. This latest outbreak will test Congo's ailing healthcare system, which ranks among most poorly equipped in the world, as well as international response mechanisms set up after an Ebola epidemic swept West Africa in 2014.

That outbreak, which claimed more than 11,000 lives,

Health experts said the resurfacing of the virus in Congo was serious, partly because it took officials almost three weeks to identify the disease. That means it may have spread widely and makes it harder to trace people who have come in contact with identified or suspected patients.

Some aid officials said the remoteness and isolation of the affected region could offer a natural barrier and limit the spread of the virus across Africa's top copper-producing nation. But that also makes it harder to deliver emergency supplies.

"It takes around three days to reach the area," said Dr. François Nguesan, the WHO's regional adviser in charge of

emergency operations. "Access by road is impossible."

The WHO has secured assistance from the United Nations peacekeeping mission in Congo for helicopters to deliver more supplies, Dr. Nguesan said. Medical agency Doctors Without Borders and Congo's health ministry started setting up an Ebola treatment center in the forested Bas-Uele province, some 800 miles northeast of Kinshasa, near the border with the Central African Republic.

The first victim this year was a 45-year-old male, who died on April 22 on arrival at a hospital in the area of Likati.

Congo's health minister, Oly Kalenga, said the government needs more international assistance to better deal with the outbreak.



A boy receives treatment for cholera at a hospital in Yemen's Red Sea port city of Hodeidah.

## War Exposes Yemen to New Blight

BY MOHAMMED AL-KIBSI  
AND ASA FITCH

pacity of any country's health system to handle, let alone one operating in the midst of war, now in its third year.

More than 10,000 civilians have been killed since the beginning of the conflict in 2015, a United Nations official said this year, in what has become a test of Saudi resolve and an arena in its contest for regional influence with Iran, which supports the Houthis.

Many provinces are on the brink of famine and about 60% of Yemenis are struggling for enough food to eat, according to the U.N.'s World Food Program. If detected and treated quickly, cholera has a mortality rate of below 1%, according to the World Health Organization. But the infection can kill

quickly if left untreated, making it far deadlier in places such as war-ravaged Yemen.

Since April 27, there have been 11,034 suspected cholera cases and 129 confirmed cholera deaths in Yemen, said Abdulhakim al-Kuhlani, a spokesman for the Houthi-run health ministry.

The Houthis seized San'a in 2014. The following year, the Saudi-led coalition began airstrikes, soon followed by ground operations, to force the Houthis from power.

Human-rights groups have accused the coalition of targeting hospitals and clinics, allegations Riyadh denies.

—Carol E. Lee and Margherita Stancati contributed to this article



# Export Food, Not Jobs

**Main points from our Midwest job creation roundtable last week:**



- The Midwest is the world's low-cost producer of safe, high-quality meat, dairy and other foods. So the Midwest is perfectly positioned to export these products to the 2.5 billion people entering Asia's booming middle class.
- We support President Trump's great focus on trade and jobs for America because \$1 billion of exports generates 8,000 new American jobs.
- Our goal is to continue the national conversation about doubling America's food production industry to \$1.8 trillion and creating millions of new high-paying American jobs.

Sincerely,

**Anthony Pratt**  
*Executive Chairman, Pratt Industries*



Pratt Industries, one of the largest corrugated box manufacturers in the United States, proudly supports the American food industry!

**[www.prattindustries.com](http://www.prattindustries.com)**

## FROM PAGE ONE

# BELT

Continued from Page One

Road Initiative, B&R—none of which trip easily off the tongue.

That is in addition to state-sponsored rollouts, like the China Mobile OBOR mobile-roaming plan, several theme parks and belt-and-road-themed calligraphy and arts exhibitions. Also, a sand-sculpting competition and sundry B&R classical-music shows.

China's leaders see "One Belt, One Road" as a way to help domestic companies find new markets and for Beijing to expand its influence via roads, ports, trains and pipelines. For recipient nations, it is a source of much-needed investment: China has plowed more than \$50 billion into belt-and-road countries, according to state media; unofficial spending projections have reached trillions of dollars.

President Xi Jinping, who launched the plan in 2013, has likened it to a "symphony" of economic cooperation, and

there was certainly a sense of crescendo as Mr. Xi hosted leaders from around 30 countries for the nation's two-day OBOR summit, which started Sunday. Across Beijing, shrubbery was trimmed into camel motifs and other Silk Road shapes.

To mark the event, an Air China crew quizzed passengers on a May 5 Beijing-to-Frankfurt flight on their knowledge of Mr. Xi's grand plan (prizes, including a model airplane, were offered). They cut into belt-and-road cake and held an onboard poetry reading, including a work titled "Forever Friends."

Building on the music theme, state media calls it a "sonata" to unite countries. Numerous OBOR songs include one in Lao-tian (a high-speed train is slated to link southern China to Vientiane), another in Cantonese and an upbeat English-language composition, paired with a video of children singing, "The future's coming now, the Belt and Road is how."

Beijing entrepreneur Yang Yanjun last month organized a belt-and-road-themed fighting

tournament, featuring mixed martial arts and wrestlers from countries along the trade routes, including Russia and Georgia. The competition was aired by state broadcaster China Central Television.

Rhetoric from Beijing reliably comes with blanket media coverage, and companies take their cues accordingly. After Mr. Xi introduced the concept of a "China Dream," for example, entrepreneurs rushed to cash in, producing everything from China Dream alcohol to China Dream plastic bags.

Another recent slogan, "The New Normal"—used by leaders to describe China's slowing economy—was appended to the names of hundreds of companies from car dealers to textile firms. While in the U.S., such names might sound bizarre, in China, the business culture is heavily government-driven, and especially in the absence of robust domestic brands, imitation is a common strategy.

Yu Xiaoxian, an entrepreneur in southern China who has registered half a dozen companies



THOMAS PETER/REUTERS

Art installations are supporting the One Belt, One Road campaign.

invoking the OBOR theme, says the plan will help the country become more powerful, which will benefit ordinary Chinese entrepreneurs. "When big rivers have water," he says, "small streams are also full."

Others say they found the name of Mr. Xi's initiative evocative. They included Liu Hongchun, whose Shanghai-based company last year began selling "Road & Belt" coffee along with

a filter-equipped travel mug. "We call it 'Road and Belt' because wherever you go, you can take it with you," he said. "It's very convenient that way."

"The wider notion of a harmonious China reaching out and connecting to the world lends itself to appropriation and adaptation," says James Sidaway, political geography professor at the National University of Singapore. "There's

this proliferation of places trying to get involved in it and buying into it," including many local Chinese governments.

For many businesses, though, tapping into the hype hasn't been particularly helpful. "Actually I don't do any exports and my company doesn't have anything to do with 'One Belt, One Road,'" says Zhao Yuancheng, who runs an online belt-and-road jewelry shop in Shenzhen. "In fact, the name hasn't really benefited me at all."

Mr. Hu of the OBOR-themed toothbrushes sees the branding as an act of patriotism, saying he hopes his firm can educate more people about the plan. So far, the company has sold some 600,000 sets of the toothbrushes. The low price point, he says, makes it especially attractive to rural or migrant workers, who may not be so educated about Mr. Xi's trade vision.

"Even a small thing like a toothbrush can help you support the nation's strategy," he said.

—Kersten Zhang  
contributed to this article.

# MISSILE

Continued from Page One

believed to be 33 years old.

The dictator has shown no interest in negotiating with the U.S. about the missile program, and North Korea's nuclear ambition and skill are advancing much more quickly.

The country is conducting missile tests with the frequency needed to ensure the weapons can be reliably used in conflict. A range of recent breakthroughs has forced the U.S. and its allies to review their missile defenses.

"Kim Jong Un very much wants to reach out and touch the homeland," Gen. Lori Robinson, head of the U.S. Northern Command, the part of the military responsible for defending the U.S. mainland, told the Senate Armed Services Committee in April.

Tackling the threat could become an early point of tension between President Donald Trump, who is trying to pressure Pyongyang into changing course, and new South Korean President Moon Jae-in, who favors diplomacy and economic engagement with North Korea.

In a factory about 60 miles north of Pyongyang, the capital city, dozens of computer-controlled machines, similar to those used by Samsung Electronics Co. to make smartphones, churn out intricate parts that can be used in missiles and nuclear centrifuges, according to photographs released by state media.

## Machine songs

In a visit to the same factory in 2013, Mr. Kim angrily demanded that engineers replace old devices for making parts with robots and computer numerical control, a process for high-precision machine tools, according to a state media report at the time. The government has composed songs about CNC machines and put them on postage stamps.

Photos from a return visit by Mr. Kim last August showed CNC machines with bright orange, robotic arms bearing the logo of Swiss engineering company ABB Ltd.

Weapons experts who study satellite images and photos released by North Korea say the newer machines have become ubiquitous in North Korean missile plants. The machines allow faster, more precise manufacturing of parts around the clock, reducing the need to skirt sanctions by importing similar parts. The United Nations bans any imports that could be used in weapons programs.

Weaponry in an April Pyongyang parade to mark the 105th anniversary of the birth of state founder Kim Il Sung, the grandfather of Mr. Kim, included rocket casings that might have been made by the new CNC machines, missile experts say. North Korea also showed off what appeared to be at least one new long-range missile.

"Basically, they can now produce anything [for missiles] that's made of metal," says Jeffrey Lewis, a missile specialist at the Middlebury Institute for International Studies in Monterey, Calif.

A U.N. panel that monitors sanctions on North Korea identified Tengzhou Keyongda CNC Machine Tools Co. of China as a supplier of the new CNC machines.

A sales manager at the company who declined to give his

name said it sent machines worth about \$40,000 to North Korea through an intermediary firm "two or three years ago." The person said North Korea tried to buy more machines this year, but the company declined "since relations between the two countries are tense."

An ABB spokesman says the Zurich company doesn't sell equipment to North Korea but couldn't rule out the possibility some products were resold there.

North Korea has said through state media that it had no choice but to advance its nuclear and missile development to defend itself from attack. It has said its weapons program was impervious to sanctions and was already capable of hitting the U.S. with a nuclear-tipped missile.

The missile program was born in the 1960s when state founder Kim Il Sung created a military academy that was told to develop missiles that could reach as far as U.S. military bases in Japan.

Progress was slow until North Korea imported Soviet-made ballistic missiles from Egypt around 1980. North Korea copied them to make short-range Scud-type missiles. They became an important revenue source and were exchanged for oil, nuclear technology and other items from countries such as Iran, Syria and Pakistan.

North Korea successfully tested a medium-range missile in 1993, the year before Kim Il Sung died. In 1998, it launched a multistage rocket widely viewed as North Korea's first long-range missile test.

Successor and son Kim Jong Il was rarely shown in state media reports attending missile tests. During his 17-year reign, he seemed more interested in using missiles to extract concessions. In 2000, Kim Jong Il demanded \$1 billion from the U.S. to halt missile exports.

"So it's clear, since we export [missiles] to get money, if you guarantee compensation, it will be suspended," he told Secretary of State Madeleine Albright in 2000, she wrote in her 2003 memoir. Negotiations fell apart, and North Korea resumed missile testing and exports.

Its next major missile launch didn't come until 2006. Mr. Kim was wary of alienating South Korea and China, key sources of financial and diplomatic support, says Kim Kwang-jin, a former North Korean government official who defected in 2003 and now lives in Seoul.

"In contrast, Kim Jong Un owes nobody," says Mr. Kim, who isn't related.

Since taking power five years ago, the young dictator has met no other world leaders or traveled outside North Korea. That isolation likely motivates him to seek respect with military achievements, the former North Korean government official adds.

One of the first signs Kim Jong Un was serious about accelerating the missile program came with the elevation of North Korea's Strategic Rocket Force Command in March 2012, three months into his reign.

The move put missile development on par with the army and air force—and a direct reporting line to Mr. Kim, according to state media.

In 2013, Mr. Kim introduced his "byungjin" policy, which emphasized that North Korea can simultaneously pursue economic progress and nuclear weapons. "When one is firmly equipped with the capability to make precision strikes with nuclear

weapons...no aggressor can dare to attack recklessly," he said.

The leader began assigning

more people with technical skills to the missile program, rather than political appointees made by his predecessors, says Joseph Bermudez, an American expert on North Korea's military. Some of the newcomers might have picked up expertise while studying in India and other countries, according to recent U.N. reports.

Kim Jong Sik, an engineer promoted in 2015 to become a major general in the rocket command, previously worked on North Korea's space program and at the Second Academy of Natural Sciences, a major research center for North Korea's missile and nuclear efforts, say U.S. officials.

"Take care of them like their real parents would do so that

they may not have any slightest inconvenience in their living," Mr. Kim said, according to a 2015 report by state media.

Advances in the missile program have accelerated since 2014. Among the most crucial: the introduction of solid-fuel missiles. For decades, North Korea used liquid-fueled missiles, which are powerful but dangerous to handle and slow to prepare for launch. The U.S. stopped using liquid-fueled missiles in the late 1980s after a series of ground explosions.

Solid-fuel missiles can be readied to fire within a few minutes because they are stored with fuel inside. They are also easier to move around on transporters because they are safer and don't require support vehicles for fueling.

"The motive may also be threat demonstration, but they are making real progress," says John Schilling, a rocket and missile specialist at the Aerospace Corp., which runs a research center for the U.S. Air Force.

In March 2016, North Korea tested a large solid-fuel engine for the first time, according to state media, which described it as a success. In February of this year, North Korea successfully tested a medium-range, solid-fuel missile that likely used the same engine, according to missile experts.

The new missile was carried and fired from a transporter, which allows North Korea to deploy the weapons in remote areas that are harder for adversaries to spot. It also could help North Korea strike back if its main missile sites are destroyed early in a conflict.

## Solid-fuel science

Markus Schiller, a rocket scientist at ST Analytics, a research and consulting firm in Munich, says making a solid-fuel missile is a "black art" that requires the presence of a sophisticated chemical-engineering industry to produce the fuel. Small mistakes can be catastrophic, like the 1986 Challenger space-shuttle explosion, caused by failure of a part in a solid-fuel rocket booster.

Iran's first test flight of a solid-fuel missile was in 2008, more than three years after its first ground test of a large, solid-fuel engine. Some experts speculate North Korea got help from other countries to develop its solid-fuel missiles or sent its own engineers abroad to learn needed skills.

Last year, the U.S. alleged cooperation between Iran and North Korea on missile development, which Tehran denies.

In another breakthrough, North Korea successfully launched last year a missile from a submarine. Only seven other countries have demonstrated the ability to fire missiles from submarines, including Pakistan earlier this year.

The technology is hard to master because the missile must be forced out of the water by high pressure—and then the engine must quickly ignite to initiate the missile's flight.

North Korea has held about a dozen tests of submarine-launched missiles since 2014, starting with land-based trials of the first part of the process.

Many experts say North Korea last August had its first successful launch from a submarine of a missile with an estimated operational range of about 620 miles. North Korea has just one old submarine capable of firing such missiles; satellite images show it is developing more.

On April 16, a ballistic missile believed by U.S. intelligence officials to be the first test of new type of antiship missile exploded shortly after launch.

The launch spurred expectations among analysts that North Korea would successfully launch a similar missile, possibly within months. On April 28, North Korea fired its ninth missile so far this year. Sunday's launch was immediately seen as another sign of progress.

Some analysts say North Korea's record of exaggeration makes them cautious about its claim of being able to mount a nuclear warhead on a missile that could reach the U.S. North Korea hasn't tested its KN-08 missile, the gravest potential threat in the country's arsenal.

"The motive may also be threat demonstration, but they are making real progress," says John Schilling, a rocket and missile specialist at the Aerospace Corp., which runs a research center for the U.S. Air Force.

—Kersten Zhang  
contributed to this article.

## U.S. NEWS

# Officials Move Fast to Fill FBI Job

Schumer suggests Democrats may slow process unless special prosecutor is named

The Trump administration is pressing to pick the next FBI director quickly, but congressional Democrats are threatening to withhold support for any nominee unless an independent investigator is appointed to look into possible ties between Russia and associates of the president.

By Aruna Viswanatha,  
Del Quentin Wilber  
and Louise Radnofsky

Justice Department officials held over the weekend what they described as substantive discussions with at least eight candidates to lead the bureau. The broad list of contenders includes a top Republican senator, two senior officials at the Federal Bureau of Investigation and a federal judge.

But President Donald Trump's firing last week of FBI Director James Comey as the bureau is conducting its Russia probe has spurred Democratic resistance. Chuck Schumer of New York, the chamber's Democratic leader, said Sunday he supported the idea of refusing to vote on a new FBI director nominee until a special prosecutor is named.

"I think there are a lot of Democrats who feel that way," he said on CNN.

Top administration officials defended on Sunday the president's decision to fire Mr. Comey.

"The president is the CEO of the country," U.S. Ambassador to the United Nations Nikki Haley said on ABC. "He can hire and fire whoever he wants."

Mr. Trump, a Republican, signaled over the weekend that he could nominate a new director as soon as this week. Deputy Attorney General Rod Rosenstein, whose recommendation was originally cited by



Andrew McCabe, acting director of the Federal Bureau of Investigation, testified on Capitol Hill last week.

the White House as the reason Mr. Comey was fired, prepared to brief the Senate this week on the Russia probe. Lawmakers are widely expected to question him about Mr. Comey's departure.

Attorney General Jeff Sessions spent part of the weekend at the Justice Department interviewing FBI director candidates.

The FBI is part of the Justice Department, but the White House would ultimately make the call and choose the nominee, who would also need to secure a majority in the Senate to be confirmed.

The candidates include:

- Two current FBI officials: Andrew McCabe, the acting director, and Adam Lee, the top agent in Richmond, Va. Messrs. McCabe and Lee are considered the leading candidates to be tapped as interim director until a permanent successor can be named and

confirmed by the Senate, according to people familiar with the process. The agency is expected to name an interim director, which wouldn't need Senate approval, this week.

- Sen. John Cornyn (R., Texas). The senior lawmaker has never worked at the Justice Department, though he served as attorney general in Texas and as a state judge. He sits on the Senate Judiciary and Intelligence committees, which have primary oversight roles over the FBI, and he is close to Mr. Sessions.

- Former Rep. Mike Rogers, a Michigan Republican. He previously served as chairman of the House Intelligence Committee and now works as a CNN contributor. He received the endorsement Saturday from the FBI Agents Association, which represents more than 13,000 current and retired agents.

- Alice Fisher, a lawyer who served as a top Justice De-

partment official in the administration of former President George W. Bush, a Republican.

- U.S. District Judge Henry Hudson, a former federal and state prosecutor who, as a federal judge in 2010, ruled that a key provision of the Affordable Care Act was unconstitutional.

- Frances Townsend, a top national-security adviser to Mr. Bush who held senior Justice Department positions in the administration of former President Bill Clinton, a Democrat.

- Michael Garcia, a New York state appeals court judge who was the U.S. attorney in Manhattan in Mr. Bush's administration.

- Also over the weekend, a former adviser to Senate Majority Leader Mitch McConnell (R., Ky.) told Fox that Mr. McConnell thought Merrick Garland, the federal appeals court judge whom former President Barack Obama had nominated to the Supreme Court,

would be a "fantastic" choice. Mr. Garland wasn't among the candidates brought in for an interview on Saturday, and it is unclear whether the administration would consider him.

Justice Department officials declined to provide details of the interview process, or who might have emerged as serious contenders for one of the most coveted, prestigious and difficult jobs in law enforcement.

The FBI has about 13,000 agents and 35,000 employees scattered across the country and globe.

Mr. Trump, speaking aboard Air Force One en route to deliver a commencement address Saturday, said he could name a new director before he departs Friday on his first foreign trip.

"I think the process is going to go quickly," he said. "Almost all of them are very well known. They've been vetted over their lifetime, essentially."

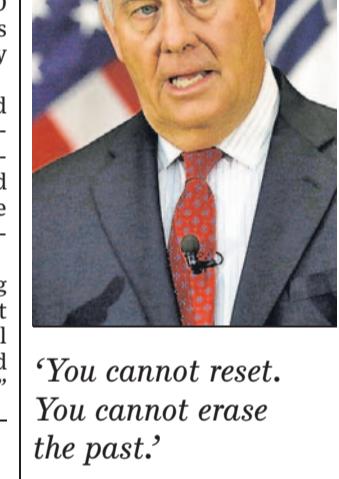
# Tillerson Pledges To Push Forward On Russia

By DION NISSENBAUM  
AND LOUISE RADNOFSKY

/WASHINGTON—Secretary of State Rex Tillerson expressed confidence that he can navigate the delicate task of improving relations with Russia amid fallout over President Donald Trump's firing last week of the top official probing possible ties between the president's associates and Moscow.

In an interview Sunday on NBC, Mr. Tillerson said he was "not at all" concerned that the president's decision to fire James Comey as director of the Federal Bureau of Investigation would affect his independence.

"I understand I have to earn his confidence every day with how I go about those affairs and how I go about conducting the State Department's activities consistent with the direction he wants to take the country," Mr. Tillerson said.



*'You cannot reset.  
You cannot erase  
the past.'*

Secretary of State Rex Tillerson

Mr. Tillerson, a former Exxon chief executive tapped by the GOP president to be his top diplomat, said: "I have a great relationship with the president."

Fourteen million fewer people would be covered by Medicaid at the end of that time, compared with the number expected under the current law, according to the Congressional Budget Office.

Some conservative Senate Republicans want to immediately start phasing back federal money for expansion enrollees, a process that would take 10 years. "Its reforms to Medicaid fail to either incentivize state innovation or place the program on a financially sustainable path," Mr. Lee said about the House bill.

Mr. Trump has denounced the accusations as a "hoax" perpetrated by Democrats looking for an excuse for Democratic presidential nominee Hillary Clinton's loss in November. Russian officials have denied meddling in the election.

At the same time, Mr. Trump also has said he was thinking of "this Russia thing" when he fired Mr. Comey, fueling accusations of obstruction of justice.

On NBC, Mr. Tillerson responded to a question about where he drew the line between serving the president and the country.

"I will never compromise my own values," Mr. Tillerson said. "That's my only line. And my values are those of the country."

Mr. Tillerson said he had no doubt that Russia was "playing around" in the November presidential election, but said it wasn't clear if that played any role in Mr. Trump's victory.

"We're not trying to start with a clean slate," Mr. Tillerson said of the Russia relationship. "I think terms like having a reset are overused. You cannot reset. You cannot erase the past."

"There are a large number of issues that we have to get around to addressing in order to put this relationship back together," he said. "If that is indeed possible."

# Senate Conservatives Weigh Cuts to Medicaid

BY STEPHANIE ARMOUR  
AND KRISTINA PETERSON

Conservative Senate Republicans are weighing faster and steeper cuts to Medicaid that could drop millions of people from coverage and mark the biggest changes to the program in its 52-year history.

The plan being pushed by lawmakers such as Mike Lee (R., Utah) is likely to face resistance from centrist GOP senators who are already concerned a health-overhaul bill passed by House Republicans would leave too many people uninsured. But the push for more-aggressive Medicaid cutbacks indicates that if a bill ultimately passes both chambers, it could significantly scale back the federal-state insurance program that covers 73 million low-income or disabled Americans.

Other measures in the GOP health initiative have drawn big headlines, but the Medicaid plan could affect many more people and shift significant costs to hospitals and states.

"Much of the focus so far has been on pre-existing conditions, because it's easier to understand than a program for the low income," said Diane Rowland, executive vice president at the Kaiser Family Foundation. "But if you phase back expansion, you'll see a large number of low-income adults without access to care."

Conservatives say they want to encourage states to spend Medicaid funds more prudently and give them more flexibility in how they use the federal funds.

Changes are already afoot at the state level. Wisconsin and Maine are pursuing provisions



Sen. Mike Lee of Utah and his conservative colleagues want to encourage states to spend Medicaid funds more prudently.

that include work requirements, drug testing and time limits on coverage, which would reduce enrollment and impose the first restrictions on beneficiaries.

The House bill that passed

earlier this month would let people in the 31 states and the District of Columbia that expanded Medicaid under the Affordable Care Act remain on the program with enhanced

federal funding, as long as they signed up before 2020. But it would halt any federal money for new beneficiaries after that time. It would also implement wholesale changes to funding Medicaid that would cut money for the program in all states.

Fourteen million fewer people would be covered by Medicaid at the end of that time, compared with the number expected under the current law, according to the Congressional Budget Office.

Some conservative Senate Republicans want to immediately start phasing back federal money for expansion enrollees, a process that would take 10 years. "Its reforms to Medicaid fail to either incentivize state innovation or place the program on a financially sustainable path," Mr. Lee said about the House bill.

# High Court Won't Review Voting-Law Appeal

BY BRENT KENDALL

WASHINGTON—The Supreme Court declined to consider an appeal that sought to revive North Carolina's Republican-backed tighter rules for voting, a move that came after the state's new Democratic administration sought to drop the case.

North Carolina, with Republicans in control, passed the voting changes in 2013. The measure disallowed same-day voter registration and voting out-of-precinct, while also reducing the days available for voters to cast a ballot early. The state also imposed a requirement that most voters show photo identification such as a driver's license, passport, or military or veteran's identification card.

Voters, civil-rights groups and the Obama-era Justice Department challenged the North Carolina law. Litigation over the state's restrictions was among the most closely watched election-law battles leading up to last No-

vember's vote.

A federal appeals court invalidated the restrictions last July, finding that state lawmakers had enacted the rules with an intent to discriminate against black voters.

North Carolina's then-governor, Republican Pat McCrory, sought emergency intervention from the Supreme Court, asking the justices to restore some measures before election day 2016. That failed when a short-handed high court divided 4-4 along ideological lines, a split that highlighted the absence of Justice Antonin Scalia, who died last year.

North Carolina's underlying appeal to the Supreme Court has been pending in the months since, but the state sought to withdraw it after Roy Cooper, a Democrat, became governor.

The Republican-led state legislature objected to Mr. Cooper's move and urged the high court to still hear the case, with the legislature as an added party.

In a two-page statement,

Chief Justice John Roberts noted the "blizzard of filings over who is and who is not authorized to seek review in this court under North Carolina law," suggesting that was a reason the court chose not to hear the case.

The chief justice emphasized that the court's action was "no expression of opinion upon the merits of the case."



North Carolina had passed legislation requiring most voters to show photo ID at polling places.

The high court declined the invitation Monday, leaving in place the appeals court ruling that blocked the voting restrictions.

Chief Justice John Roberts noted the "blizzard of filings over who is and who is not authorized to seek review in this court under North Carolina law," suggesting that was a reason the court chose not to hear the case.

The chief justice emphasized that the court's action was "no expression of opinion upon the merits of the case."

## U.S. NEWS

# New Tactics to Fight Distracted Driving

Police officers pose as construction workers, panhandlers to catch motorists who text

BY ADRIENNE ROBERTS

SHELBY TOWNSHIP, Mich.—It used to be that when drivers saw a cop car nearby, their initial impulse was to slow down. Nowadays, people rush to hide their smartphones.

To curtail texting while driving, officers are getting creative in many parts of the U.S.—with some even going undercover. Near Atlanta, for instance, officers dressed as construction workers operated a sting on cars driving by their site. Authorities in Albany, Ga., have gone as far as posing as panhandlers at street corners to spy inside cars for violators.

Distracted driving is blamed as a culprit behind rising U.S. traffic fatalities, but authorities have struggled to enact or enforce laws that effectively curb activities that take drivers' hands off the wheel. Unlike moving violations such as running a red light, proving a driver was texting while driving can be difficult and citations can be contested in court.

One example of an undercover effort is Operation Ghostrider, a Michigan program that since April has had



SPENCER PLATT/GETTY IMAGES

**Distracted driving, such as operating a vehicle while texting, is blamed for rising traffic fatalities.**

police using unmarked vehicles to stem dangerous driving behavior. Michigan is a state where holding a phone while driving is allowed but texting is illegal, and the accused often argue they were looking for directions, dialing a phone number or doing some other legal task when confronted.

On a recent stormy afternoon in Macomb County, Michigan State Police Lt. Mike Shaw sat in the passenger seat of a nondescript black GMC Yukon that tra-

versed M-59, a busy highway spanning the northern Detroit suburbs. Lt. Shaw was watching for texting drivers; when one was spotted, he would radio ahead to a police car waiting to nab offenders. In the driver's seat was Jim Santilli, chief executive of the nonprofit Transportation Improvement Association of Michigan, which teamed up with the Michigan State Police on the operation.

Ghostrider efforts have been fruitful. Since the program's start, more than 140

drivers have been pulled over and more than 100 citations have been issued.

In two four-hour stretches, Shelby Township Police pulled over 93 drivers, and all 93 stops resulted in citations. If the driver is caught texting and driving, the ticket comes with a \$100 fine for first offenders and a \$200 fine for subsequent infractions.

"When we pull people over, we're trying to change driver behavior," Lt. Shaw said. Since Mr. Santilli also was observing the road, Lt. Shaw had an ad-

ditional witness to any violations.

More than a dozen states—including California, Illinois and New York—prohibit using a hand-held device while driving for any reason. Like Michigan, most other states prohibit texting and driving, but texting at a stoplight, plugging in an address on a maps app while driving or dialing a number are all legal.

There were an estimated 40,200 motor-vehicle deaths last year in the U.S., a 6% rise from 2015 and a 14% increase from 2014, according to National Safety Council data. That was the sharpest two-year escalation in more than a half-century.

Nearly 3,500 people were killed and nearly 400,000 people were injured in accidents caused by distracted driving in 2015, according to the National Highway Traffic Safety Administration.

Auto makers have attempted to mitigate the problem by installing technology that allows drivers to use several smartphone features via a Bluetooth connection and voice commands. About 95% of vehicles built for the 2016 model year had features enabling at least some form of hands-free phone use, according to WardsAuto.com, but drivers routinely complain about glitchy performance.

Alphabet Inc., Google's parent, and Apple Inc.—two tech

giants supplying the operating systems on most smartphones bought in the U.S.—have introduced programs that allow drivers to plug their phones into the car and operate functions on the dash. Many auto makers are offering the systems in new cars.

Lt. Shaw said the systems are better than texting by hand, "but anytime you take your mind off driving you're still distracted."

In Michigan, Lt. Shaw and Mr. Santilli saw drivers start texting at a red light and then continue texting as the light turned green, driving through the intersection blindly.

One middle-aged woman was spotted at a red light by Lt. Shaw with one hand texting on her phone and the other on the steering wheel. When the light turned green, she didn't look up from her phone and drove through the intersection while texting. The motorist was pulled over.

"Everyone is doing it at all times of the day," disputing the notion that only young people text and drive.

And drivers aren't just texting while driving. In a period of about two hours, Mr. Santilli and Lt. Shaw saw drivers do their makeup, read a newspaper and smoke a cigarette in one hand while texting in the other.

They also spotted a driver spreading cream cheese on a bagel with a knife.

# Private Colleges Count on Big Tuition Discounts

BY MELISSA KORN

Private colleges are offering deeper tuition discounts than ever before, hoping to lure students and boost overall revenue—and it appears the strategy isn't working.

Tuition-discount rates for first-time, full-time freshmen hit a record 49.1% in the current school year, according to preliminary results from a National Association of College and University Business Officers, or NACUBO, survey of 411 schools. That 2016-2017 figure compares with 48% in the prior year.

At schools with fewer than 4,000 students—those for whom just a small shift in enrollment can have a big impact—the freshman discount rate was 50.9%.

The hefty discounts on sticker prices signal how pricing power is shifting from schools to students as some grow skeptical about the value of a costly college degree.

At the same time, the number of college students overall has been on the decline, with undergraduate enrollment sliding 1.9% last fall to 16.3 million, leaving schools to battle to lock in each admitted applicant. About half of survey respondents this year said their full-time freshman enrollments declined or were flat.

As a result of the increased

discounts and flagging enrollment, net tuition revenue barely budged at the smallest schools, up just 0.2% this year, well below the 2.6% gains for doctoral research universities and the estimated 1.8% inflation rate for institutions of higher education.

"The path they're on may not be sustainable for very much longer," said Ken Redd, director of research and policy analysis at NACUBO. Calling the increasing discount rate a "troubling trend," he added that he isn't sure how schools can rein in the strategy.

About one in five respondents said they have implemented new pricing strategies, such as cutting sticker prices or freezing rates, to help boost revenue. Three times as many said they were focusing on strategic financial aid—like discounts.

Slashing these prices, with the expectation that schools would need to extend less financial aid, has had mixed results. Some administrators worry about risking their reputations, since many families equate price with quality.

Juniata College in Huntingdon, Pa., said some families that already made deposits for next fall are reporting that they got additional aid offers elsewhere, after the May 1 deposit deadline, and are asking Juniata to match the grants.



**Tuition-discount rates for first-time, full-time freshmen hit a record 49.1% in the current school year.**

"It's behavior that we haven't seen before," he said, noting his own daughter was pitched more money from a peer school where she already was offered discounted tuition.

Mr. Troha, who said Juniata will likely end up 20 to 25

students below its average freshman class size of 393, said the school looks at such requests on a "case by case" basis but can't afford to bump everyone's scholarships. Juniata's discount rate is around 60%.

Another concerning trend

in the latest tuition-discount report is that schools often have no dedicated revenue source to foot the financial-aid bill. Last year, schools with endowments over \$1 billion funded just over one-third of institutional grant aid from their endowments, while

those with endowments of less than \$25 million used that pool to cover 5.8% of aid.

Any funds they pull from the general operating budget for financial aid are dollars not going to things like academic investments and infrastructure upgrades.

BY SCOTT CALVERT

WEST GROVE, Pa.—Nine-plus hours into his shift, Marcos Pantoja was still plucking mushrooms off peat-moss beds, trimming stems with the flick of a knife. He had another hour of work left in the cool, windowless growing house.

The 39-year-old is toiling longer these days amid a labor crunch that is straining the more than 50 growers in Chester County, Pennsylvania's mushroom heartland, where almost half of America's mushrooms are produced.

"This is the worst it's ever been," said Tim Hihn, Mr. Pantoja's boss and co-owner of C.P. Yeatman & Sons Inc., which supplies Whole Foods Market stores under the Mother Earth brand. Mr. Hihn said he has 20% fewer workers than he needs.

To try to solve the labor shortage, growers have been increasing wages. Yeatman & Sons in January raised piece rates at one farm to \$1 for every five-pound box from 82 cents for large mushrooms and 80 cents for medium.

Phillips Mushroom Farms

recently raised the bonus harvesters get after picking 55 pounds in an hour from 11 cents a pound to 16 cents, said general manager Jim Angelucci. Good pickers, who start at \$8.75 an hour, can collect 100 pounds an hour, he said, so the extra nickel can yield a \$2.25 bump to \$15.95 an hour.

*The industry is advocating for the creation of a new guest-worker program.*

Still, Mr. Angelucci worries it may not be enough to stop workers from peeling off for summer landscaping or construction jobs. "It's one of the things that keeps you awake at night," he said.

Labor is an issue across the agricultural industry, where seasonal work often dissuades employees from looking for a steady job in one place. Mushroom production is somewhat different: It is year-round and indoors. Some growers offer employees health and retirement benefits as well as paid

vacation.

Even so, the pool of workers is tight. Growers attribute this partly to the strong economy in Chester County, where unemployment fell to 3.5% in March. The labor woes are dragging on production, which dropped 9% to 395 million pounds between the 2013-14 and 2015-16 growing seasons. Chester County's share of the U.S. market for Agaricus mushrooms, which include white button and Portobello varieties, fell to 43% from 49% over the same period, according to U.S. Department of Agriculture figures.

The industry has long relied on immigrant labor. But the Trump administration's more aggressive stance on illegal immigration has raised concerns even among documented workers. The industry is advocating for the creation of a new guest-worker program, as well as a legal pathway for undocumented employees.

Most mushroom growers have failed in efforts to recruit locals for harvesting jobs, which can bring in as much as \$50,000 a year but often require workers to start by 5 a.m. and put in six days a

## Fungal Falloff

After peaking in 2014, mushroom production in Chester Co., Pa., has declined in recent years.

### Production, millions of pounds

2014: 435M → 395M ↓

400 million  
300  
200  
100  
0

2007 '10 '11 '12 '13 '14 '15 '16

As a share of U.S. production

2014: 49.3% → 42.8%

50%  
48  
46  
44  
42

2007 '10 '11 '12 '13 '14 '15 '16

Source: Department of Agriculture

THE WALL STREET JOURNAL

40

48  
46  
44  
42

2007 '10 '11 '12 '13 '14 '15 '16

week. "We'd love to get people who live in this area," said Meghan Klotzbach, Mr. Hihn's daughter and regulatory manager for Mother Earth. "They graduate from high school, they just go to Wal-Mart to work. Why can't you come here and pick mushrooms?"

## U.S. WATCH

PUERTO RICO

### Development Bank Strikes Creditor Deal

Puerto Rico's insolvent industrial development bank announced a deal with creditors on how to distribute proceeds from its 10-year liquidation plan.

Gov. Ricardo Rosselló said Monday the Government Development Bank for Puerto Rico had reached an agreement with hedge fund bondholders and municipal depositors surrounding the terms of its wind-down.

It marks the second consensual settlement between Puerto Rico and its creditors. The public electricity monopoly has also struck a voluntary restructuring agreement that remains pending.

The federal oversight board managing Puerto Rico's finances last month ordered the bank, which for decades acted as the U.S. territory's fiscal agent, to liquidate over the next decade and seek a consensual deal with creditors owed \$4 billion.

The oversight board and a federal judge must give their approval for the deal to become effective. Under its terms, the bank's municipal loans, real estate and cash on hand would be used to back three series of new bonds.

—Andrew Scurria

ECONOMY

### Home Sales Jumped 1.4% in Quarter

Home sales in the first quarter hit their fastest pace in a decade, a sign that rising prices and slightly higher mortgage rates haven't deterred home buyers from rushing into the market.

Total existing home sales climbed 1.4% in the quarter to a seasonally adjusted annual rate of 5.62 million, the highest since the first quarter of 2007, according to the National Association of Realtors.

The national median home price, meanwhile, jumped 6.9% from the same quarter a year earlier to \$232,100, the sharpest price gain in nearly two years.

Demand remains strong as millennials begin to enter the housing market in force. But that could change as higher prices weigh on affordability, economists said, particularly if interest rates rise.

When accounting for population growth, the pace of sales today reflects what economists consider a normal market like that of the early 2000s, when the pace of sales was just under 5 million homes a year.

—Laura Kusisto

# LIFE & ARTS

**YOUR HEALTH** | By Sumathi Reddy

## It's School, No Sunscreen Allowed

Teaching about sun protection runs into roadblocks in the U.S. because sunscreen is considered medicine

**THE SUNBEATABLES** curriculum, designed by specialists at MD Anderson Cancer Center, features a cast of superheroes who teach children the basics of sun protection including the obvious: how and when to apply sunscreen.

There's just one wrinkle. Many of the about 1,000 schools where the curriculum is taught are in states that don't allow students to bring sunscreen to school or apply it without a note from a doctor or parent and trip to the nurse's office.

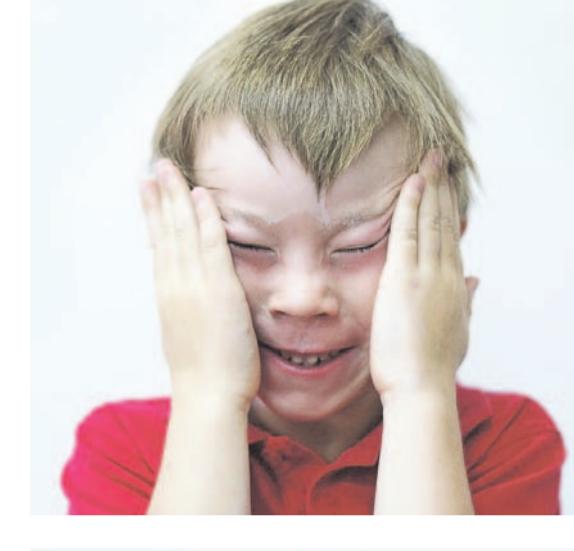
Schools have restrictions because the U.S. Food and Drug Administration labels sunscreen as an over-the-counter medication. To override that, at least seven states including California, New York, Oregon and Texas, have passed laws that require that schools allow students to bring in and put on sunscreen, says Doug Farquhar, program director of environmental health for the **National Conference of State Legislatures**. This year there has been a flurry of legislation. Arizona, Washington and Utah passed bills, and legislation is pending in Rhode Island, Louisiana, Georgia, Massachusetts, Mississippi, Alabama and Pennsylvania, to allow sunscreen.

"It has been a challenge," says Mary Tripp, an instructor in behavioral science at MD Anderson in Houston who developed the curriculum. "It's important that the school have policies in place that permit sunscreen application."

A spokeswoman for the FDA declined to discuss the agency's rules for sunscreen beyond noting that it regulates sunscreen as an over-the-counter drug. The legislation hasn't faced much opposition. In Rhode Island, the School Nurse Teacher Association opposes the proposed legislation due to concerns about students with allergies to sunscreen and the practicality of applying sunscreen to so many young children.

"This is common-sense legislation," says Elizabeth Tanzi, a Washington, D.C.-based dermatologist and member of the **American Academy of Dermatology**. The Academy, she says, "supports the fact that kids should be able to carry their own sunscreen, apply their own sunscreen, and it should be widely available in school and applied liberally."

Melanoma accounts for the majority of skin cancer-related deaths and is among the most common types of invasive cancers. One blistering sunburn in childhood or adolescence can double the risk of developing melanoma, says Dr.



CAROLYN VAN HOUTEN FOR THE WALL STREET JOURNAL

Tanzi. And sun damage is cumulative. **The Skin Cancer Foundation** notes that 23% of lifetime sun exposure occurs by age 18. Regular sunscreen application is a widespread recommendation among medical experts though some

groups have raised concerns about the chemicals in certain sunscreens.

Specialists at MD Anderson developed and launched "Ray and the Sunbeatables" curriculum in 2015, on their own and without the

sunscreen industry involvement. It is designed for children in preschool, kindergarten and first-grade and includes superheroes Ray and Serena. The lesson plan includes science experiments, art activities and songs that children

**Kindergartners in San Antonio put on sunscreen, part of a new curriculum.**

sing while applying sunscreen. Students and teachers are taught to apply sunscreen at least 30 minutes before going outside and to reapply it every one to two hours.

Holly Thaggard is chief executive and founder of Supergoop, a sunscreen brand which includes several products designed especially for children. She recently approached MD Anderson and is donating 64-ounce bottles of her sunscreen to some schools participating in the Sunbeatables program, as well as other schools that have learned about the promotion through social media. In the past month, Supergoop shipped sunscreen to 15 schools in five states.

Supergoop designed a pump to make it easy for children to use, and doesn't include controversial chemicals, such as parabens and oxybenzone. Ms. Thaggard came up with a jingle to the tune of "You Are My Sunshine," that helps children with the steps of sunscreen application. "It's meant to take the burden off the teachers and to teach the child in the classroom how to apply sunscreen," she says.

Howard Early Childhood Center in San Antonio, a prekindergarten and kindergarten school of more than 400 students, recently got Supergoop and is expected to implement the Sunbeatables curriculum next school year.

Marianne DiSabato, a kindergarten teacher at the school, taught her students about sunscreen the same way she has taught them about other important behavioral health habits, such as washing their hands before lunch. "I told them that we are going to develop a new habit," Mrs. DiSabato says.

In just a few weeks, she has created a classroom ritual before both the morning and afternoon recess. The big pump is placed on a work table in the front of the classroom. When the children assemble on the carpet before going outside they get a pump of sunscreen and apply it to themselves while waiting for instructions. They are welcome to get another pump on the way outside if they need more.

She instructs the children to do their faces first including their noses, cheeks and forehead and then the shoulders, arms and legs. The students sometimes sing one line from the jingle, "This is our sunscreen, our special sunscreen," they sing. "It keeps our skin safe when we go play."

(BELOW) FROM LEFT: LIZ HOLLIDAY, COLUMBIA NURSING; NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES, NATIONAL INSTITUTES OF HEALTH

### HEALTH

## NURSING HOMES GRAPPLE WITH 'SUPERBUGS'

BY LUCETTE LAGNADO

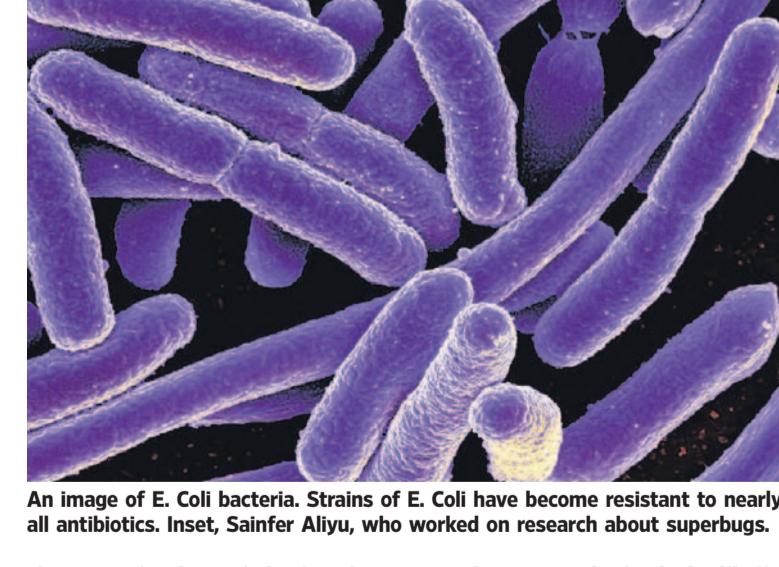
**THERE'S A BUG PROBLEM** in some nursing homes, and it's not what you think.

Residents of long-term care facilities are vulnerable to drug-resistant infections known as superbugs and can easily spread the deadly germs to others.

Between 11% and 59% of nursing-home residents have been "colonized" with certain types of superbugs, putting them at more risk of developing a full-blown infection, according to researchers at Columbia University School of Nursing. A person is colonized when a germ is on the skin or in the body—for example, in the nose. Although not yet infected, the person can spread the bug.

While government regulators and the public have focused on the dangers of superbugs in hospitals, how nursing homes cope with such hard-to-treat germs has received less attention.

Yet nursing-home residents are "especially susceptible" to these infections because of their age, tenuous immune systems and many ailments, according to the Columbia analysis, published this month in the *American Journal of*



An image of E. coli bacteria. Strains of E. coli have become resistant to nearly all antibiotics. Inset, Sainfer Aliyu, who worked on research about superbugs.

Infection Control. Merely living in a nursing home is a risk factor, the paper says.

Studying nursing-home exposure to superbugs was the brainchild of Sainfer Aliyu, an emergency-room-nurse-turned-Columbia Ph.D. candidate. Ms. Aliyu, a 38-year-old immigrant from Jamaica, was struck by how many nursing-home residents arrived at the ER extremely ill with bloodstream infections. Curious about where and how they had developed the infections, she began researching dangerous superbugs known as gram-negative multidrug-resistant organisms. These include a group of bacteria known as CRE—Carbapenem-resistant enterobacteriaceae—that can cause infections with up to a 50% mortality rate. An example of a CRE superbug is E. coli, which is found in the stool; strains of E. coli have become resistant to nearly all antibiotics.

"They are so deadly—and I wanted to know more," Ms. Aliyu said. "Some researchers will argue that nursing-home residents get the infections from the hospital, but I think it is very hard to tell where the infections came from."

Working with senior faculty, Ms. Aliyu pored over 327 articles

about nursing-home infections before settling on eight that formed the basis of the team's statistical analysis. Their conclusion: 27% of nursing-home residents were "colonized" with certain superbugs, said Arlene Smaldone, an assistant dean at Columbia who crunched the numbers and is a co-author.

"You have a fragile group of individuals. They are older, they are sick and they are living in these nursing homes," Dr. Smaldone said, noting that bacteria can enter through a break in the skin and develop into a full-blown infection.

"If you are colonized, the likelihood you will get a drug-resistant infection will be much higher," says Dr. Theresa Madaline, a clinical director of Infectious Disease Services at Montefiore Health System in Bronx, N.Y.

Cheryl Phillips, an official at LeadingAge, a trade association whose members include nonprofit nursing homes, said, "The vast majority of people colonized are never infected" with superbugs. While one-quarter of nursing-home residents may be carrying certain germs, "we are not seeing

25% of people infected" with drug-resistant organisms, she said.

Overuse of antibiotics—in nursing homes and society overall—is at the heart of the problem, Dr. Phillips, a geriatrician, said. She supports new policies by the Centers for Medicare and Medicaid Services that require nursing homes to have stronger antibiotics controls.

Infections have been a problem in nursing homes, says Robyn Grant, public policy director at Consumer Voice, an advocacy group for nursing-home residents, citing inadequate staffing, a concern also flagged in the Columbia paper. Among residents of long-term care facilities, there are between 1.6 million and 3.8 million cases of infection annually, resulting in 388,000 deaths, according to comments published in October by the Centers for Medicare and Medicaid Services in the Federal Register. How many of those infections involved drug-resistant organisms isn't clear.

The Columbia paper said controlling infections in nursing homes is challenging due to "understaffing, fewer resources, insufficient training, and inadequate surveillance." Communal living also is a factor. Nursing-home workers "roll patients into the dining rooms" when they may be carrying superbugs, says Betsy McCaughey, head of the Committee to Reduce Infection Deaths, a nonprofit.

## OPINION

### REVIEW & OUTLOOK

## Obstruction of the Executive

Progressives have been lamenting the erosion of "democratic norms" in the Trump era, but they'd have more credibility if they didn't trample constitutional norms in their own rush to run President Trump out of town.

Start with Democratic Senator Mark Warner's assertion on Fox News Sunday that Attorney General Jeff Sessions should play no role in vetting the next director of the Federal Bureau of Investigation.

"I think it's inappropriate that the attorney general, who was supposed to recuse himself for anything dealing with the Russian investigation, and clearly the Russian investigation is tied into who the next FBI director is going to be because the President fired [FBI director James] Comey because of his ties to the Russian investigation," Mr. Warner said Sunday.

Fox's Chris Wallace: "You don't believe he [Mr. Sessions] could be part of this?"

Senator Warner: "I don't believe he should be part of this review process if he can have a true recusal."

Mr. Wallace didn't follow-up, so we will. Mr. Sessions has recused himself from the Russia probe, but the FBI director reports to the Attorney General on hundreds of other matters beyond that one investigation. The AG hasn't recused himself from those matters. Mr. Warner seems to be saying that Mr. Sessions's narrow recusal disqualifies him from supervising the FBI director at all.

Yet Mr. Comey's usurpation of the power of the AG and Deputy AG last year in the Hillary Clinton email probe is one reason Mr. Comey deserved to be fired. The FBI is part of the Justice Department, not an independent actor who reports on his own to Congress and the public. Mr. Warner is essentially saying that the executive branch must disable the normal rules of constitutional accountability at the Justice Department because of the Russia probe. (Richard Epstein and Ken Starr ably elaborate on this point nearby.)

## The Methane Rule Canary

Republicans in Congress have repealed 13 Obama Administration regulations thanks to a potent tool known as the Congressional Review Act. But last week the Senate failed to kill a costly energy rule, and the defeat is a warning about the Trump Administration's ebbing political capital.

The U.S. Bureau of Land Management's \$1.8 billion rule is ostensibly about reducing methane on federal lands, not that the government needed to intervene: Methane emissions from venting and flaring have dropped 77% since 2011, while oil and gas exploration has boomed. BLM has no legal authority to issue the rule, one reason the rejection passed the House with relative ease.

But a procedural motion on Wednesday failed on the Senate floor, where the bill would have never arrived unless GOP leaders thought they had the votes. Three Republicans voted no: Susan Collins of Maine, Lindsey Graham of South Carolina and John McCain of Arizona.

Ms. Collins is a moderate from a swing state, and the climate-change lobby worked on Mr. Graham. Some sources say Mr. McCain was a surprise defector and voted no to register his unhappiness that Senate leaders stuck a waiver for U.S. Trade Representative Robert

### A U.S. Senate defeat shows the cost of eroding Trump approval.

"similar" rules.

All 48 Democrats voted no, and apparently maintaining a 100% rating on the Trump Resistance Scorecard is more important than serving your constituents. North Dakota's Heidi Heitkamp felt liberated to endorse a rule that will substantially raise costs for energy producers in her state. Great fodder for 2018 ads against Ms. Heitkamp and other energy-state Democrats like Joe Manchin of West Virginia.

The larger point is that all of these Senators felt they could oppose the measure without paying a political price. This is what happens when a President's approval rating is close to 40%. Senators look out for themselves and governing becomes much harder.

The Interior Department, which oversees BLM, can withdraw or revise the methane rule, and Interior Secretary Ryan Zinke should make that a priority. The GOP cannot afford similar failures on tax reform or health care.

## Insurance Heist in America

Rhabilating drug users—and one of the lowest gubernatorial approval ratings in the country—doesn't come cheap. New Jersey Governor Chris Christie is trying to do both with pricey new anti-addiction programs, but he'd teach more respect for the rule of law if he wasn't also raiding a private state health insurer to pay for it.

Opioid abuse has devastated the Garden State, with heroin overdose rates in 2015 more than double the national average. In January Mr. Christie introduced a slate of antidrug programs, as well as reforms to limit the supply of opioids and increase access to treatment. The mystery is why he's turning these admirable goals into an Elizabeth Warren-style antibusiness shakedown.

Mr. Christie's target is Horizon Blue Cross Blue Shield of New Jersey, the state's largest insurer and a nonprofit. Earlier this year, Mr. Christie demanded the private company hand over \$300 million from its more than \$2 billion capital reserve fund. Horizon offered \$135 million, but the Governor rejected the offer.

"It is obscene that an insurance company in this state that calls themselves a nonprofit sits on nearly \$3 billion of your money, in surplus," Mr. Christie told union members in March. A former registered lobbyist in Trenton for banking and health care, the Governor assailed the company for refusing to help drug addicts while paying its "lobbyists millions and millions of dollars."

Last month Mr. Christie gave a speech proposing a coercive bill that would require Ho-

rizon to post executive salaries and bonuses online, in addition to adding four government-appointed seats to its board. The bill would empower the government to assess Horizon's reserves and put any "excess surplus" into a "New Jersey Quality Health and Wellness Fund."

This echoes language from state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

### Chris Christie wants to grab a company's 'excess' profits.

state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

This echoes language from state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

This echoes language from state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

This echoes language from state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

This echoes language from state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

This echoes language from state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

This echoes language from state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

This echoes language from state Assembly leaders in 2005 when they tried to take \$300 million from Horizon's reserves. The state treasurer warned at the time that the proposal "was illegal and would be mired in the courts for years." Mr. Christie must have missed that warning because he recently mused, "I don't know who could be opposed to something like this."

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

Reversing the wasted human potential that is heroin use is commendable, but even the Democrats who control the state legislature appear skeptical of Mr. Christie's extortion. One Elizabeth Warren is more than enough.

Horizon's 3.8 million members might not be hot on the idea, especially when shrinking reserves lead to higher insurance premiums. The company estimates that a \$300 million heist would raise premiums for a family of four by an average \$1,744 a year, though some could face an even higher bill.

Horizon isn't some corporate scofflaw. It paid more than \$200 million in state taxes for 2016, and randomly vilifying companies helps explain why New Jersey ranked 50<sup>th</sup> out of 50 on the Tax Foundation's 2017 state business-climate index. A spokesman for Mr. Christie declined to comment.

## OPINION

# Rosenstein's Compelling Case Against Comey

By Kenneth W. Starr

The long knives are out. The ultimate doomsday scenario for a constitutional republic in peace-time—calls for impeachment of the president—has now been augmented by a growing chorus of voices demanding a far less dramatic but nonetheless profoundly serious step: appointment of a special prosecutor. Even for this less drastic move, the calls are way off base. At a minimum, the suggestion is premature.

**Demands for a special prosecutor are way off base. The guardrails of our republic are secure.**

The developing narrative, trumpeted on the weekend talk shows, is that Deputy Attorney General Rod Rosenstein must appoint a special prosecutor to restore his long-established reputation for integrity and professionalism. Attorney General Jeff Sessions has recused himself from the entire matter.

The basic complaint is that the newly appointed second-in-command at the Justice Department lost public confidence by crafting a three-page memorandum to the attorney general that severely criticized then-FBI Director James Comey, whom President Trump quickly fired. At least one senator has already mocked Mr. Rosenstein's May 9 memorandum as "laughable." They are wrong.

Let's see what the Rosenstein memorandum actually says. It is ti-

tled "Restoring Public Confidence in the FBI." Mr. Rosenstein rightly praises the bureau as "our nation's premier investigative agency." Mr. Rosenstein singles out Mr. Comey for high praise as "an articulate and persuasive speaker about leadership and the immutable principles of the Department of Justice." The memorandum goes on to praise the FBI chief for his long and distinguished public service.

Mr. Rosenstein then turns to the director's profound failures during his stewardship of the FBI. Above all, the new deputy attorney general states: "I cannot defend the Director's handling of the conclusion of the investigation of Secretary [Hillary] Clinton's emails."

In this Mr. Rosenstein echoes the vehement complaints by Democrats during the 2016 campaign, and indeed comments only last week by Mrs. Clinton herself. Even Republicans had raised an arched eyebrow at what the director did and when he chose to do it. The deputy attorney general goes on to express bewilderment that Mr. Comey still refuses "to accept the nearly universal judgment that he was mistaken."

The memorandum then identifies the fatal offense of any FBI leader—the usurpation of the authority of the Justice Department itself. In a power grab, Mr. Comey had announced the ultimate prosecutorial decision, namely that Mrs. Clinton wouldn't be prosecuted. The FBI director had no authority to do that.

That was not all. Mr. Comey, the memo went on, "compounded the error" by holding a press conference releasing "derogatory information about the subject of a declined criminal investigation." This was all way



Deputy Attorney General Rod Rosenstein testifies on Capitol Hill on March 7.

outside the foul lines of Justice Department professionalism.

Succinctly, but with devastating effectiveness, the Rosenstein memorandum demonstrates Mr. Comey's egregious violations of long-settled Justice Department practice and policy. Mr. Rosenstein draws from the director's testimony before Congress and his unprecedented letter to Congress days before the election. He addresses Mr. Comey's argument that had he failed to insert himself once again into the presidential campaign—as voting was already underway in many states—it would have constituted "concealment."

Balderdash, the deputy attorney general concludes, albeit in more polite language. Prosecutors, to say nothing of FBI directors, are not to set out a confidence-shattering bill of particulars with re-

spect to any potential defendant's conduct, and certainly not a presidential candidate in the heat of a national campaign.

Finally, the Rosenstein memorandum sets forth paragraph after paragraph recounting the scathing criticism of the director's woefully timed election interference. The deputy attorney general demonstrates that his own conclusions are shared by a wide range of respected former officials of the Justice Department in both Democratic and Republican administrations.

One example: President Clinton's deputy attorney general, Jamie Gorelick, is quoted as condemning Mr. Comey for having "chosen personally to restrike the balance between transparency and fairness, departing from the department's traditions."

There's nothing "laughable" about what the Rosenstein memorandum says. In setting forth undisputed and fireable offenses, the memorandum bespeaks professionalism, integrity and fidelity to Justice Department policy and practice, as befits the Harvard-trained lawyer and career prosecutor who was overwhelmingly confirmed by the Senate only weeks ago.

Rod Rosenstein is universally respected, a broad-based admiration founded on his long service and distinguished record in the Justice Department. Unless stepping aside represents the deputy attorney general's considered judgment as the right thing to do, calling in a special prosecutor now would simply cause further delay, add greater cost and disrupt the continuing work of the FBI.

The bureau's investigation into Russia's involvement in the 2016 election is continuing, under the leadership of Acting Director Andrew McCabe. In addition, the work of the bipartisan Senate Intelligence Committee is well under way. Regardless of the unhappy fate of one public servant, the guardrails of constitutional republic are in place. And with its 10,000-plus special agents, the world's most respected law-enforcement agency, the Federal Bureau of Investigation, should be encouraged to get on with the job, and a respected deputy attorney general permitted—with accountability to Congress—to come to his considered judgment. That's precisely the kind of structural protection that the Founders had in mind more than two centuries ago.

*Mr. Starr served as a federal judge, solicitor general and White-water independent counsel.*

## Time for a Nuclear Intervention With Japan

By James M. Acton

In international friendships as in personal ones, interventions are sometimes necessary to prevent self-destructive behavior. Japan's nuclear policy, which calls for the U.S. to help Tokyo help itself before it's too late, is a case in point.

Japan already has enough plutonium to build at least 1,300 nuclear warheads. Officially, this material is to be used to fuel nuclear reactors, but almost all of Japan's reactors have been offline since the 2011 Fukushima accident, and efforts to restart them are moving at a glacial pace. As a result, Japan has almost no capacity to consume plutonium.

Yet the country's stockpile is poised to grow further still. Japanese leaders are under intense domestic pressure to restart the Rokkasho Nuclear Fuel Reprocessing Facility, which extracts plutonium from spent fuel. If the plant isn't reopened soon, Rokkasho village, in the far north of Japan's main island

of Honshu, could demand the removal of the thousands of tons of spent nuclear fuel already there waiting to be processed.

A plutonium build-up contravenes Japan's nonproliferation policies. Prime Minister Shinzo Abe recognizes that such a stockpile risks being stolen by terrorists. It also stirs tensions with China and sets a bad precedent for less trustworthy states seeking to accumulate weaponsusable nuclear material of their own.

Fortunately, the U.S. has the means to head off this challenge. But the Trump administration has only a fleeting opportunity to act.

Because Japan originally acquired most of its nuclear technology from the U.S., Tokyo agreed not to extract plutonium from spent fuel (a process known as reprocessing) without Washington's consent. After years of negotiation, the U.S. finally granted Japan blanket permission to reprocess under a nuclear cooperation agreement that entered into force in July 1988.

This agreement stipulated that by July 2018 the U.S. and Japan must have a new agreement in place or allow the existing one to remain in force. Given how favorable the 1988 agreement was to Japan, Tokyo is desperate to avoid a renegotiation.

**The Trump administration should use its leverage to address Japan's growing piles of unused plutonium.**

This means the U.S. has real leverage that Washington can use to push a concrete, three-step plan for preventing the build-up of more plutonium.

First, Japan should agree not to operate its reprocessing plant until a separate facility to make reactor fuel from plutonium is operational. Without this fuel fabrication plant (which is already far behind sched-

ule), Japan has no way of peacefully using any of the plutonium it produces.

Second, Japan should agree to operate its reprocessing plant in ways that ensure the supply of plutonium doesn't outpace demand. The plant is designed to produce far more plutonium than Japan can plausibly use—about eight metric tons a year, almost as much as the 11 metric tons already in Japan's stockpile. Tokyo should therefore commit to operating the plant below its design capacity to prevent any further build-up.

Third, Japan should agree to a time limit, perhaps of five years, between the extraction of new plutonium and its use. Japan already has a policy against producing excess plutonium. This policy needs strengthening because Tokyo doesn't regard plutonium to be in excess if there is any plan to use it, no matter how far in the future.

There is a serious risk that bureaucratic neglect could deprive the

U.S. of its leverage. July 2018 is far beyond Washington's political horizon, yet in diplomatic terms the issue is already urgent.

Negotiations over nuclear cooperation are extremely complex and generally take years. U.S. State Department officials who would be essential to making and executing policy—including the undersecretary for arms control and international security, and the assistant secretary for international security and non-proliferation—have yet to be nominated, let alone confirmed.

If the Trump administration doesn't act quickly, there will be little choice but to acquiesce to the unconditional extension of the existing agreement. That would mean the loss of a once-in-a-generation opportunity to improve Japan's nuclear policies.

*Mr. Acton is co-director of the Nuclear Policy Program and a senior fellow at the Carnegie Endowment for International Peace.*

## The Trump Trade Team's Vocabulary Problem

By Chad P. Bown  
And Alan O. Sykes

President Trump finished his 100th day in office much as he started his first—with a rally denouncing trade agreements that echoed his inaugural-address reference to American "carnage." He also announced a new executive order targeting the World Trade Organization.

Mr. Trump's trade policy thus far features clear disdain for the multilateral, rules-based WTO. He has indicated that any trade deals negotiated by his administration will be country-by-country. Both history and economics suggest this strategy is doomed to fail.

In April, U.S. Commerce Secretary Wilbur Ross put forward the clearest articulation to date of the administration's anti-WTO sentiment: "If there's a country that has relatively few barriers against us, we should have relatively few

against them. The only problem is, the World Trade Organization has what's called a 'most-favored-nation clause,' meaning that of all the countries with whom we do not have a free-trade agreement, we must charge the same tariff on the same item to each of those countries as we charge to the others. So, that's a significant impediment toward getting to anything like a reciprocal agreement."

This statement reflects a misunderstanding of the MFN clause. American negotiators adopted MFN with the Reciprocal Trade Agreements Act of 1934, as they sought a way out of the Great Depression. Historically, attempts by European countries to negotiate and sustain trade deals without MFN had largely failed.

To illustrate why, consider a simple hypothetical. Suppose that before any trade agreements the U.S., Japan and China each apply import tariffs of 25%. Then the

U.S. sits down with Japan and negotiates a deal to cut tariffs to 10%, but only with each other. In other words, there is no MFN clause requiring U.S. or Japanese negotiators to give that same 10% rate to China.

Now suppose Japan negotiates a second deal, with China. They reach an agreement lowering tariffs to 5%, again only with each other. Clearly the U.S. loses. American companies will be unable to compete with Chinese exporters in Japan's market. The U.S. therefore gains little in exchange for reducing tariffs on Japanese goods.

Without MFN, policy makers can't prevent trading partners from going out and striking better deals with competitors. With MFN, if Japan and China agree to a subsequent deal that gives China better terms, Japan has to give those same terms to the U.S.

But what is to prevent Mr.

Trump—after he strikes the 10% deal with Japan—from subsequently offering a better deal to China? Japan would anticipate this "America First" move from the beginning. Without MFN to protect its exports, Japan wouldn't sign the first U.S. deal.

**It's not clear that officials understand the meaning of 'reciprocity' and 'most favored nation.'**

In short, the most-favored-nation clause provides an incentive for countries to sign long-term deals. It protects a country's exporters from losing out when trading partners subsequently negotiate deals with other countries. Before MFN was introduced in 1934, some trade negotiations went nowhere. Others

concluded with deals that ultimately unraveled.

Trump administration officials have made frequent appeals to the necessity of "reciprocal agreements." Mr. Trump himself said recently that trade deals "have to be fair, and somewhat reciprocal, if not fully reciprocal."

But the principle of reciprocity doesn't mandate that countries must respond to a 10% U.S. import tariff on cars with 10% auto tariffs of their own. That would be what some have called "full reciprocity." What really matters to economists, according to Columbia University's Jagdish Bhagwati, is "first-difference reciprocity," or matching concessions from initial conditions.

Think of it as reciprocity at the margins. If the U.S. wants China to reduce its auto tariff to 10%, negotiators must offer something of value, such as a reduction to the current 37.5% U.S. tariff on footwear. The deal is attractive and sustainable if both sides can expand exports commensurately.

As a historical note, not everyone in President Franklin Roosevelt's administration was sold on MFN and reciprocity. The 1930s also featured a boisterous White House debate, with significant resistance to the idea coming from presidential adviser George N. Peek and Agriculture Secretary H.A. Wallace. Luckily, Secretary of State Cordell Hull managed to win Roosevelt over.

The result of U.S. commitment to MFN and reciprocity has been an open, nondiscriminatory and rules-based trading system that has served the American and global economy well for decades.

*Mr. Bown is a senior fellow at the Peterson Institute for International Economics. Mr. Sykes is a professor at Stanford Law School.*

## THE WALL STREET JOURNAL.

PUBLISHED SINCE 1889 BY DOW JONES & COMPANY

Rupert Murdoch  
Executive Chairman, News Corp  
Gerard Baker  
Editor in Chief

Matthew J. Murray  
Deputy Editor in Chief

DEPUTY MANAGING EDITORS:

Michael W. Miller, Senior Deputy;

Thorold Barker, Europe; Paul Beckett,

Washington; Andrew Dowell, Asia;

Christine Glancey, Operations;

Jennifer J. Hicks, Digital;

Neal Lipschutz, Standards; Alex Martin, News;

Shazna Nessa, Visuals; Ann Podd, Initiatives;

Matthew Rose, Enterprise;

Stephen Wisniewski, Professional News

Paul A. Gigot, Editor of the Editorial Page;

Daniel Henninger, Deputy Editor, Editorial Page

WALL STREET JOURNAL MANAGEMENT:

Suzi Watford, Marketing and Circulation;

Joseph B. Vincent, Operations;

Larry L. Hoffman, Production

EDITORIAL AND CORPORATE HEADQUARTERS:

1211 Avenue of the Americas, New York, N.Y. 10036

Telephone 1-800-DOWJONES

Robert Thomson  
Chief Executive Officer, News Corp

William Lewis  
Chief Executive Officer and Publisher

DOW JONES MANAGEMENT:

Mark Musgrave, Chief People Officer;

Edward Roussel, Innovation & Communications;

Anna Sedgley, Chief Operating Officer & CFO;

Katie Vannec-Smidt, President

OPERATING EXECUTIVES:

Ramin Beheshti, Product & Technology;

Jason P. Conti, General Counsel;

Frank Filippo, Print Products & Services;

Steve Grycu, Customer Service;

Kristin Heitman, Transformation;

Nancy McNeill, Advertising & Corporate Sales;

Jonathan Wright, International

DJ Media Group;

Almar Latour, Publisher;

Kenneth Breen, Commercial

Professional Information Business;

Christopher Lloyd, Head;

Ingrid Verschuren, Deputy Head

DOW JONES

News Corp

## Notable & Quotable: Comey

*From "Attention, liberals: Comey deserved to be fired, and the Constitution is just fine" by Richard Epstein, Vox.com, May 11:*

The common response to this line of attack is that criticisms of Comey's conduct in the Clinton investigation had nothing to do with the president's decision.... But it is also the case that Comey has made no effort to distance himself from this earlier conduct, and indeed affirmed in his Senate testimony of May 3, 2017, that with respect to his October 28 letter on Clinton, even though the episode had made him "mildly nauseous," he would do it all over again.

The past events thus are linked closely to the future events. If the

mistakes Comey made could have justified his firing in either 2015 or 2016, the passage of time does not cure those improper decisions.

It requires contortions to convert an action that has independent justification into one that prompts talk of obstruction of justice and impeachment. In effect, one difficulty with that extravagant assertion is that it makes Comey de facto immovable from office so long as he continues to conduct this investigation. That cannot be the proper analysis because Comey has many other administrative responsibilities, including maintaining morale inside the office. No one should be able to guarantee his term in office by conducting a nonstop investigation of the president.

## LIFE & ARTS

HEALTH | By Rachel Bachman and Ben Cohen

# The Riddle of Steve Kerr's Back

The Golden State Warriors coach's herniated disk highlights question of whether to get surgery or try rehab

BY RACHEL BACHMAN AND BEN COHEN

**STEVE KERR WAS A FIT** 49-year-old former professional athlete who regularly golfed and surfed. Then his back started bothering him.

The Golden State Warriors had recently won the 2015 NBA championship when their coach found himself in excruciating pain. It became so bad that Mr. Kerr struggled to walk. He decided to undergo surgery to repair a ruptured disk. Now he regrets it.

Mr. Kerr's procedure, the most routine surgery for back patients, led to a rare complication: a spinal fluid leak that continues to affect him nearly two years later and has sidelined him during the NBA playoffs. It remains possible the coach of the best team in basketball won't return this season.

"If you have a back problem, stay away from surgery," Mr. Kerr, now 51, said to reporters in April. "I can say that from the bottom of my heart. Rehab, rehab, rehab."

His comments warning against surgery quickly became the talk of operating rooms, where the procedure has helped countless patients. "It's like a knife to my heart," said Hyun Bae, a professor of orthopedic surgery at Cedars-Sinai Medical Center in Los Angeles. "When you look at the data, it clearly shows the patients who had surgery had a faster and more reliable recovery."

As Mr. Kerr struggles to recover, millions of others face the same question he did: When is the right time for elective back surgery?

Nearly 30% of all U.S. adults each year suffer from back pain, according to data from the **Centers for Disease Control and Prevention**. Mr. Kerr's case has puzzled the medical community. Doctors say his initial surgery—microdiscectomy, in which herniated-disk material that is pressing on a nerve or



**Golden State coach Steve Kerr is out indefinitely from the NBA playoffs after his symptoms from a complication during his 2015 back surgery worsened in recent months. Many with back pain face the question of whether to get surgery.**

the spinal cord is removed—is the safest and most effective operative procedure for patients with back problems. Research has shown the procedure is more successful than nonsurgical treatment for patients whose pain has persisted for several months.

There may soon be a better way to prescribe treatments. A predictive calculator for outcomes based on an array of patient data is in the testing stages, according to leaders of the NeuroPoint Alliance, a nonprofit data-gathering association created by the **American Association of Neurological Surgeons**. NeuroPoint's goal is to bring the calculator into wider use to better help patients decide whether and when to have surgery.

Back pain is among the most

common—and miserable—types of pain because it can make the most basic tasks, like sitting down, uncomfortable and often has no clear cause. Back surgeries typically are performed in response to chronic pain, defined as persisting for more than 12 weeks, after conservative measures have failed. Subacute pain lasting fewer than 12 weeks is best treated with natural and psychological therapies, according to new guidelines.

Most ruptured disks heal on their own eventually, but meanwhile can cause debilitating pain in the legs lasting months or years. Many doctors recommend surgery to end the pain.

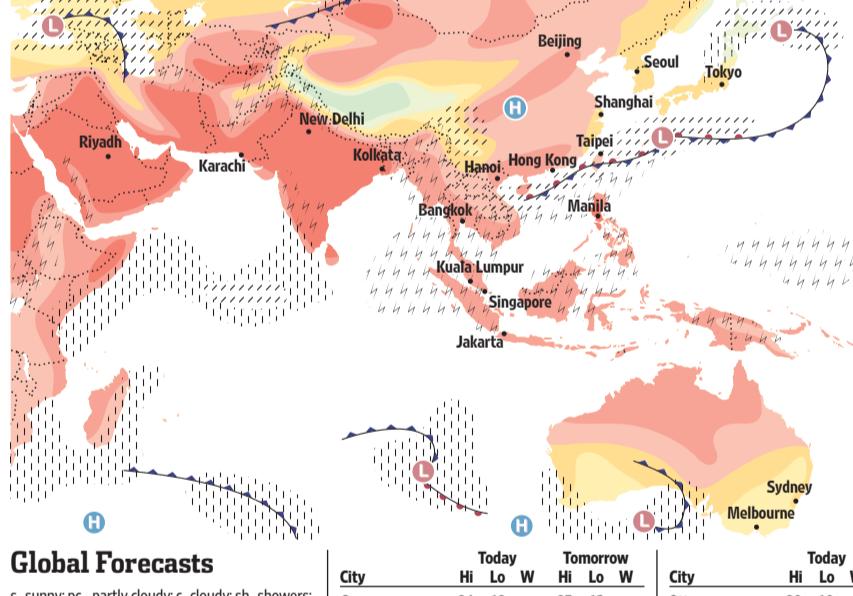
The Spine Patient Outcomes Research Trial (SPORT) study compared surgical and nonsurgical

treatments for disk herniation among roughly 500 patients across 11 states and tracked their results through a randomized trial. It sorted good candidates for back surgery into two groups: one that was assigned operative treatment and one that rehabbed with physical therapy, anti-inflammatory drugs and other methods.

Patients who underwent microdisectomy got better faster. The research also found that rehabbing first didn't close the window for successful surgery. Almost half of the patients assigned to the nonoperative group still opted for surgery within eight years.

"It made everybody step back and try everything before routinely offering disectomy," said Heidi Prather, a professor of physi-

## Weather

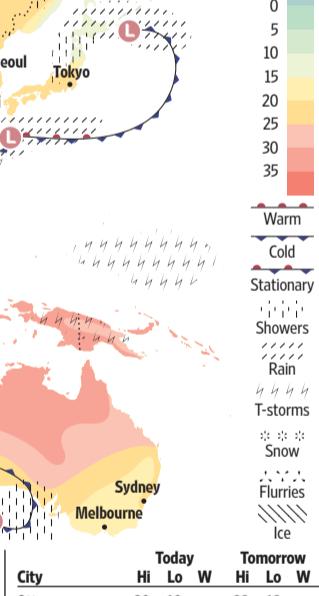


## Global Forecasts

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

City	Today			Tomorrow		
	Hi	Lo	W	Hi	Lo	W
Amsterdam	23	15	pc	24	15	pc
Anchorage	16	7	c	14	6	c
Athens	25	18	pc	22	17	pc
Atlanta	32	19	s	32	20	s
Bahrain	39	22	s	39	22	s
Baltimore	26	14	s	32	20	s
Bangkok	32	26	t	30	26	t
Beijing	32	16	s	34	17	s
Berlin	19	10	pc	23	13	pc
Bogota	19	10	pc	19	10	pc
Boise	12	3	r	12	5	r
Boston	23	14	s	27	19	pc
Brussels	23	15	pc	25	16	pc
Buenos Aires	19	8	s	18	13	s
Cairo	35	21	s	35	23	pc
Calgary	12	3	sh	9	2	sn
Caracas	32	26	pc	32	26	pc
Charlotte	31	18	s	32	19	s
Chicago	30	20	s	30	19	pc
Dallas	31	21	pc	34	23	pc
Denver	23	5	pc	19	1	pc
Detroit	29	19	pc	30	21	pc
Dubai	37	26	s	38	28	s
Dublin	17	7	t	16	5	sh
Edinburgh	18	7	sh	16	7	c
Frankfurt	24	12	pc	25	14	pc

## AccuWeather.com



City	Today			Tomorrow		
	Hi	Lo	W	Hi	Lo	W
Geneva	24	12	pc	25	13	pc
Hanoi	32	24	pc	31	23	c
Havana	30	20	sh	31	21	s
Hong Kong	28	25	sh	29	25	sh
Honolulu	29	23	sh	30	22	sh
Houston	30	22	pc	29	24	t
Istanbul	22	15	pc	21	13	c
Jakarta	34	25	t	33	25	t
Johannesburg	18	4	s	18	3	s
Kansas City	29	19	pc	27	14	t
Kuala Lumpur	26	16	pc	26	14	s
Kolkata	24	19	c	24	19	c
Kuala Lumpur	22	13	c	18	10	r
Kuala Lumpur	20	13	pc	21	13	pc
Madrid	30	15	pc	30	14	pc
Manila	26	18	t	25	27	t
Miami	31	25	t	31	26	sh
Milan	27	16	pc	27	15	pc
Minneapolis	30	17	t	22	11	r
Monterrey	37	19	pc	37	20	pc
Montreal	22	11	pc	27	16	t
Moscow	9	2	r	10	5	c
New Delhi	34	27	pc	33	27	pc
Nashville	32	20	s	32	21	pc
New Orleans	43	28	pc	42	29	pc
New York City	30	21	pc	30	22	pc
Ottawa	26	17	s	30	21	s
Paris	25	14	pc	30	14	pc
Philadelphia	26	16	s	32	21	s
Phoenix	26	17	pc	30	19	s
Pittsburgh	28	18	s	32	20	pc
Port-au-Prince	30	24	t	30	24	r
Portland, Ore.	13	8	sh	16	8	s
Rio de Janeiro	25	20	pc	25	19	r
Riyadh	41	25	s	41	27	pc
Rome	26	15	s	26	13	s
Salt Lake City	19	5	pc	9	3	sh
San Diego	18	15	pc	19	15	pc
San Francisco	18	11	c	19	9	s
San Juan	32	25	sh	31	26	c
Santiago	17	7	pc	14	7	s
Santo Domingo	30	23	t	31	24	t
Sao Paulo	20	14	pc	20	14	c
Seattle	12	8	sh	16	9	pc
Seoul	23	15	pc	25	16	s
Shanghai	24	15	pc	27	17	s
Singapore	31	27	c	31	27	c
Stockholm	14	5	c	14	9	r
Sydney	21	11	s	21	14	pc
Taipei	25	21	r	27	22	pc
Tehran	32	18	s	32	17	s
Tel Aviv	28	18	s	28	21	pc
Tokyo	22	15	c	21	16	pc
Toronto	18	11	pc	29	17	s
Vancouver	13	7	s	15	9	pc
Washington, D.C.	27	18	s	34	22	s
Zurich	22	10	pc	25	13	pc

## The WSJ Daily Crossword | Edited by Mike Shenk



### Down

- 1 Reception hire
- 2 Chisholm Trail's Kansas terminus
- 3 Heavyweight legend Jack
- 4 Black Sea port
- 5 Start for space or dynamic
- 6 Penn of "Designated Survivor"
- 7 One more than bi-
- 8 Virgil work
- 9 Duane Allman's brother
- 10 "Doctor Who" airer
- 11 Large wardrobe
- 12 She has her pride
- 13 Doesn't acknowledge
- 18 Item used at home
- 22 Full range
- 25 In need of cheering up
- 26 Unoriginal work
- 27 Character found in a 2016 sequel
- 30 Taverns
- 34 Sup in style
- 35 Lab assistant of film
- 36 Cake and ice cream, to a dieter
<

# BUSINESS & FINANCE

© 2017 Dow Jones & Company. All Rights Reserved.

THE WALL STREET JOURNAL.

Tuesday, May 16, 2017 | B1

Yen vs. Dollar 113.6020 ▲ 0.22% Hang Seng 25371.59 ▲ 0.86%

Gold 1232.70 ▲ 0.53%

WTI crude 49.17 ▲ 2.78%

10-Year JGB yield 0.041%

10-Year Treasury yield 2.340%

## A Toshiba Sale Hits Resistance

By TAKASHI MOCHIZUKI  
AND TED GREENWALD

**Toshiba Corp. and Western Digital Corp.** ratcheted up a clash over their chip-making joint venture, with the fate of the Japanese industrial conglomerate lying in the balance.

Toshiba's chief executive, Satoshi Tsunakawa, told a news conference in Tokyo on Monday that his company is entitled to sell its memory-chip business, including a stake in a joint venture with Western Digital, even if the U.S. company doesn't want that.

"Western Digital has no right to interfere in the process," Mr. Tsunakawa said. He was reacting hours after Western Digital said it was filing a request for binding arbitration to prevent the sale

from going forward.

For Toshiba, a smooth sale of the chip business is a must to remain alive. It has said it plans to use the proceeds of the sale, which analysts have said could be around \$15 billion to \$20 billion, to make up for huge losses at its U.S. nuclear affiliate, Westinghouse Electric Co., which filed for Chapter 11 bankruptcy protection in March.

Toshiba has threatened to block Western Digital employees from accessing the joint venture's computer systems, a step a spokeswoman said could happen as soon as Tuesday. "We must prevent the leakage of information as much as possible," Mr. Tsunakawa said.

Western Digital took over the stake in the Toshiba venture when it acquired SanDisk



CEO Satoshi Tsunakawa defended Toshiba's stance on Monday.

Corp. last year, and it accuses the Japanese company of riding roughshod over agreements governing the venture. Western Digital's chief executive, Steve Milligan, said:

Toshiba's attempt to spin out its joint-venture interests into an affiliate and then sell that affiliate is explicitly prohibited without SanDisk's consent."

A panel in San Francisco

will hear the arbitration under the rules of the International Chamber of Commerce, as required by the joint-venture agreements, Western Digital said. The arbitration would kick off a legal process that could take more than a year.

Mr. Tsunakawa, of Toshiba, expressed confidence that he could keep negotiating with interested parties over the chip-business sale. Toshiba is hoping to pick up a buyer by the end of June to strengthen its balance sheet as soon as possible.

On Monday, Toshiba said it expects to book a net loss of ¥950 billion (\$8.4 billion) for the fiscal year ended March 31 due to losses stemming from the Westinghouse Chapter 11 filing, similar to an earlier projection. Mr. Tsunakawa

Please see TOSHIBA page B2

## Roadway Operator In Bid For Rival

Italian infrastructure group **Atlantia SpA** said Monday it launched a cash-and-share offer for **Abertis Infraestructuras SA**, in a transaction valuing the Spanish company at €16.3 billion (\$17.8 billion) that could create the world's biggest toll-road operator.

By Giovanni Legorano  
in Rome  
and Jeannette Neumann  
in Madrid

Atlantia's bid represents the second attempt to combine the two companies after they came close to creating a group more than 10 years ago that would have had a market capitalization of €25 billion.

The deal ultimately collapsed, with the companies citing blocks imposed by the Italian government and transportation regulator as a reason for scrapping the merger.

One of the reasons behind Italy's political opposition to the previous deal, according to a person familiar with the new transaction, was that Abertis was larger than its Italian rival.

The balance of power has now reversed: Atlantia has a market capitalization of €20.5 billion, while Abertis is valued at €16.2 billion.

However, the deal isn't guaranteed to close this time, either. Barcelona-based Abertis said in a statement Monday that the company's board wouldn't weigh in on the deal until it was legally required to do so. A spokeswoman said that time frame was within six months.

Abertis's single largest investor is Spain's Criteria Caixa SAU, which owns 22.3% of the infrastructure company.

A spokesman for Criteria Caixa said on Monday that the company would evaluate "without haste" what it called "the friendly offer."

A Spanish banking foundation owns 100% of Criteria Caixa, which in turn holds stakes in industrial investments and a majority stake in CaixaBank SA, one of Spain's largest lenders.

Atlantia said the deal would create the largest global toll-road operator, managing a road network of 14,095 kilometers (8,758 miles) in 19 countries. The new group would have earnings before interest, taxes, depreciation and amortization of €6.6 billion and €2.4 billion of investments.

"Should the offer be successful, the combined group

Please see DEAL page B2



NOAH SHELDON

Architecture studio LOT-EK used containers at Qiyun Mountain Camp, a 60-acre extreme-sports park in Huangshan, China, scheduled to open later this year.

## Containers Find Out-of-the-Box Second Lives

Shipping containers—the workhorses of freight transportation—are popping up in restaurants, homes and pools

By COSTAS PARIS

**PLAINVIEW, N.Y.**—It looks more like a warehouse than a Long Island burger joint, but the Bareburger restaurant on a busy intersection here is attracting patrons for its food—and its architecture.

The restaurant, which opened last year, is made of 11 truck-size containers previously used by Japanese shipping company NYK Line. Bare-

burger Group LLC worked with **SG Blocks Inc.**, which specializes in container-based buildings and has designed similar structures for Starbucks Corp., Yum Brands Inc.'s Taco Bell restaurants and Lacoste stores.

"It came naturally," says John Simeonidis Jr., Bareburger's co-founder and chief design officer. "We use reclaimed wood for floors and tables, recycled vinyl for seats and so on. So we

said, 'let's think outside the box for the structure' and ended up building a metal box that looks really cool."

Shipping containers, typically 20 or 40 feet long, are the workhorses of freight transportation, used to move most of the world's manufactured goods. Shipping companies pay about \$2,000 to \$3,000 for each one, with an average container lasting 18 years before it is retired from sea.

More of these used containers are finding second lives as building materials, popping up in restaurant chains like Bareburger as well as private homes, theme parks, swimming pools and prison cells.

Although such structures are becoming more popular for their trendy looks, they aren't about to replace traditional buildings, construction executives say.

Containers must be cut

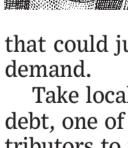
when stacked to widen the living space or to create windows and doors, and need to be insulated from the inside and reinforced with steel beams in multistory structures. And after they are put together, conversions or expansions are difficult and expensive.

About 1 million containers a year are sold or leased for inland use, shipping executives say. Maersk Line, a unit of

Please see USED page B2

HEARD ON THE STREET | By Anjani Trivedi

## China's Stubborn Debt Addiction



China is attempting to cure itself of an addiction to debt. The problem is, that could just stoke more demand.

Take local-government debt, one of the biggest contributors to the overall growth in debt in recent years: A major concern has been off-balance-sheet "local-government financing vehicles," whose debt now represents around 10% of China's \$8 trillion bond market.

The money raised is supposed to finance infrastructure projects and the like. But much of it—around half, according to Wind Info—has been put to unproductive uses such as paying down old debt and keeping moribund local companies alive. The debt is often issued in the guise of corporate bonds, and can be bought by banks.

Beijing is now trying to rein in the financing vehicles' voracious debt appetite. Though the debt isn't recorded on local governments' books, there is little doubt they will be on the hook if defaults start growing. As of 2016, local-government debt totaled 33 trillion yuan (\$4.782 trillion), of which UBS estimates one-third is implicit or hidden liabilities.

Earlier this month, authorities issued a directive restricting local governments from guaranteeing debt issued by these financing vehicles and other public-private partnerships. It also prohibits injecting public assets into these vehicles to improve their credit quality. The problem is the likely cost in overall economic growth, a point China's central bank acknowledged in its quarterly report this past weekend. While bursting this particular debt balloon could reduce the amount of money

## IPOs Like Amazon's Are Long Gone

By BEN EISEN

worth \$49,101.96 today.

Sure, it would have been difficult to actually capture those returns, but these days, there is even less of an opportunity to try. Startups are typically coming to market much later than they used to—if they come to market at all—and with richer valuations.

That deprives retail investors of the potential to get in at the beginning, ride a startup higher and score

huge returns. Today if investors want returns like that, they would likely need to get shares of startups in the private markets long before they consider going public. But private markets aren't readily available to most mom-and-pop investors.

"Investors who do not have access to venture capital are missing substantial gains," said Michael Mauboussin, head of global financial strategies at Credit Suisse Group AG, in a March report called "The Incredible Shrinking Universe of Stocks."

Mr. Mauboussin illustrates this point by comparing Amazon with two other tech giants, **Alphabet** and **Facebook**.

Alphabet went public in 2004, when it was still called **Google**. The company was six years old at the time, and it had a market capitalization of nearly \$20 billion when it began trading, which was larger than Amazon's. Investors who bought \$100 worth of the

Please see AMAZON page B4

Amazon.com Inc.

\$49,102



Outsize Return

Investors who bought \$100 worth of Amazon stock at the IPO would have made a lot of money relative to those who bought at the IPOs of Alphabet or Facebook.

How much \$100 becomes

Alphabet Inc.

\$1,902



Facebook Inc.

\$393



Source: FactSet

THE WALL STREET JOURNAL

## INDEX TO BUSINESSES

These indexes cite notable references to most parent companies and businesspeople in today's edition. Articles on regional page inserts aren't cited in these indexes.

A	Dish Network.....B3
ABB	.....A6
Abertis	Infraestructuras.....B1
Aerospace	.....A6
AirAsia	.....B2
Airbnb	.....B2,B4
Allergan	.....B5
Amazon.com	.....B1,B3
AMC Networks	.....B3
American Airlines	.....B2
American International Group	.....B5
Atlanta	.....B1
AT&T	.....B3
B	Bank of America.....B5
Blue Apron	.....B5
Boeing	.....B2
Broadcom	.....B2
C	CBL & Associates Properties.....B5
CBRE Global Investors	.....B5
CBS	.....B3
Chainalysis	.....A2
Charter Communications	.....B3
Christian Dior	.....B8
CJ CGV	.....A2
CME Group	.....B7
Coca-Cola	.....B5
Comcast	.....B3
C.P. Yeatman & Sons	.....A8
D	Discovery Communications.....B3
E	Hinman, Bill.....B5
F	Holmes, Rob.....A1
G	Iger, Bob.....B3
H	Lion Air.....B2
J	JGB.....B5
K	Johnson & Johnson.....B5
L	JPMorgan Chase.....B5
M	LVMH Moet Hennessy Louis Vuitton.....B8
N	Marsh & McLennan.....B5
O	Microsoft.....A2
P	Mercer.....B4
Q	Michaels.....B8
R	Newton Investment Management.....B7
S	Norwegian Air Shuttle.....B2
T	Target.....B3
U	Tengzhou Keyongda CNC Machine Tools.....A6
V	Time Warner.....B3
W	Toshiba.....B1
X	21st Century Fox.....B5
Y	Uber Technologies.....B4
Z	Viacom.....B3
AA	YouTube.....B2
BB	Office Depot.....B8
CC	YouTube.....B3

## INDEX TO PEOPLE

A - D	Hinman, Bill.....B5
Arnault, Bernard	.....B8
Bermudez, Joseph	.....A
Duperreault, Brian	.....B5
E - F	Elsesser, Kathy.....B5
Fernandes, Tony	.....B2
H - L	Harris, Ethan.....B8
Heinemann, Klaus	.....B2
M - P	Mauboussin, Michael.....B1
Q	Newton Investment Management.....B7
R	Polk, Michael.....B8
S	Sapan, Josh.....B3
T	Tinseth, Randy.....B2
U	Tsunakawa, Satoshi.....B1
V	Venkateshwar, Kannan.....B3
W	Zaslav, David.....B3

## Nissan Ranked Last In Supplier Relations

BY CHESTER DAWSON

**DETROIT**—Nissan Motor Co.'s relationships with its auto part suppliers have deteriorated to the point that it ranks last among six major auto makers in North America, according to a survey released Monday.

The poll of auto-parts suppliers by Detroit-based consultant Planning Perspectives Inc. showed Toyota Motor Corp. ranked highest in terms of overall perceptions of working relationships, maintaining its lead for a seventh year and followed closely by Honda Motor Co.

The results show suppliers' perceptions of General Motors Co. have improved steadily in the past two years and sur-

passed Ford Motor Co. this year.

**Fiat Chrysler Automobiles** NV stayed ahead of Nissan, which fell to its lowest ranking in the 17-year history of the study.

The Japanese auto maker contested that assessment. "These study results do not reflect our experience of the technical and commercial relationships that we have with our suppliers," Nissan said.

The study was based on a poll of 652 sales representatives at 108 automotive suppliers that account for nearly two-thirds of total annual parts purchased by the six top auto makers in North America. The ratings assess relations in six purchasing fields and 14 commodity parts areas.

## DEAL

*Continued from the prior page*

will result in a very strong cash-flow generation capacity and ability to invest which, together with our unique geographic presence, will allow us to be the most suitable partner to address the needs of the relevant institutions and customers in our countries of operation," said Atlantia Chief Executive Giovanni Castellucci.

The Italian company said it would offer €16.50 for each share in Abertis. Alternatively, it said that shareholders in the Spanish company can receive stock at a swap ratio of 0.697 Atlantia shares for each Abertis share.

On Monday, Abertis shares were down 0.7% to €16.34 in afternoon Madrid trading, while Atlantia shares were up 3.1% to €24.97 in Milan.

The deal, should it close, would diversify Atlantia's

geographical footprint. While the Italian company is now larger than Abertis, Atlantia's assets are concentrated in its domestic market. For Abertis, the deal would extend the average lifespan of its toll-road concessions, which has fallen in recent years, analysts at Olivetree Financial said in a research report.

The combined company

DANI POZO/AGENCE FRANCE PRESSE/GTY IMAGES

**TOSHIBA**

*Continued from the prior page*

said Toshiba is still working to win approval for the results from its auditor, which has refused to sign off on Toshiba's financial statements this year owing to disputes over Westinghouse's finances, among other issues.

Several companies are bidding for the Toshiba semiconductor unit, including Western Digital, as well as Foxconn Technology Group of Taiwan,

SK Hynix Inc. of South Korea, and U.S.-based Broadcom Ltd.

Asked whether Toshiba is considering filing for reorganization under Japan's version of Chapter 11, Mr. Tsunakawa said that because it expects a successful chip-unit sale, it isn't.

"The process will take place as we have planned, so there is no need for us to come up with a Plan B," he said.

## USED

*Continued from the prior page*

Danish conglomerate A.P. Moller Maersk A/S with 2.7 million containers in use world-wide, sold 70,000 of them for \$1,000 to \$1,300 apiece last year, said Rune Sorensen, the unit's head of container sales.

That was double the amount it sold in 2015, he said, and he expects the growth to continue in the coming years. The market, he added, "is still discovering itself."

In Brooklyn's Williamsburg neighborhood, architecture

studio LOT-EK stacked 21 containers, then cut the structure diagonally to create a three-story, 5,000-square-foot single-family home.

"It must be one of the most photographed houses in Brooklyn," says Simon Araya, who works at a nearby cafe.

"In the beginning it stood out like a sore thumb, but it does fit Williamsburg's hipster and artistic culture."

LOT-EK has used containers on other projects, including Qiyun Mountain Camp, a 60-acre extreme-sports park in Huangshan, China, scheduled to open later this year, and a seven-story apartment block in Johannesburg, South Africa, using 140 metal boxes. Slated

Australia's Department of Correctional Services uses them for prison cells. Containers also are used as temporary structures in seasonal or remote locations by retailers, medical clinics, energy workers and the military.

The United Nations uses containers in Haiti as a secure, weather-resistant way of storing food, water, medicine and other equipment.

"When Hurricane Matthew hit the island last October, it was tremendously useful to have hurricane-response gear stored and pre-positioned in shipping containers," said U.S. Air Force Maj. Andrew J. Schrag, who participated in the U.N. peacekeeping deployment. "Containers performed tremendously and enabled the 'Blue Helmets' to be much more effective in preventing a prolonged human catastrophe in the aftermath of the hurricane."

Industry executives say building with containers can be 40% faster and 20% cheaper than using traditional building materials, though Bareburger ultimately paid double what it budgeted for the Plainview restaurant. The project cost about \$2 million and took four years from conception to completion, with builders struggling to work with the dented metal and inspectors conducting extensive reviews before approving the construction.

"It was a massive learning curve," Mr. Simeonidis said. "It was a new way of building that builders on site had no feel for."



## BUSINESS & FINANCE

# Budget Airlines Are Spending

Plane makers Boeing and Airbus build up significant jet orders from discount carriers

BY DOUG CAMERON AND ROBERT WALL

When Boeing Co. was developing the latest iteration of its most popular jetliner, it devised a modified version with an extra emergency door that allowed it to add seven more seats.

The reason for the spinoff: to win an order from Ryanair Holdings PLC of Ireland.

The rollout of the 737 Max 8 jet, which Boeing aims to start delivering this month, shows how the aviation industry increasingly caters to the discount airlines that once relied heavily on secondhand planes.

The list of early buyers still includes stalwarts such as American Airlines Group Inc. and low-fares pioneer Southwest Airlines Co. But some less-familiar names such as Lion Air of Indonesia and Norwegian Air Shuttle ASA have placed huge orders for Boeing's 737 Max jet, a single-aisle plane that analysts expect to generate as much as half the aerospace company's profits over the next 25 years. The rival Airbus SE A320neo jet that started flying commercially last year is just as crucial to the European plane maker's profitability.

Boeing and Airbus have built up a record backlog of more than 11,000 orders for the workhorse short-haul jets over the past five years, and are sold out of most models through the end of the decade.



With growing demand from discounters and established airlines seeking more efficient jets, plane makers say they are raising annual output of single-aisle jets from about 1,000 in 2016 to almost 1,300 by the end of the decade.

The manufacturers were initially dismissive of low-cost carriers but now embrace them, said Tony Fernandes, chief executive of budget carrier AirAsia Bhd, which has more than 400 Airbus jets on order. "We have seen a big difference from the manufacturer," he said.

The biggest new jet orders are now coming from budget carriers as their growth continues to outpace that of legacy carriers such as American. Budget airlines' share of the global fleet reached 25% last year, rising from just 7% two decades ago.

The industry transformation started by Southwest in 1971 has changed airline strategy worldwide. Carriers used to buy multiple types of jets so they could tailor them to different routes. Now, they focus on one or two types to simplify their business, packing them with as many seats as possible to lower costs.

That has pushed aircraft makers to find a sweet spot for their new jets that satisfies airlines that are fixated on costs and less willing to split deals between more than one plane maker.

Building new jets requires billions of dollars in investment, and potential sales increasingly have become winner-take-all battles for Airbus and Boeing, said Klaus Heinemann, a veteran aviation financier who backed a number of discount carriers and recently stepped down as chairman of Finnair Oyj, Finland's flag carrier. "It's a bigger gamble," said Mr. Heinemann. "If you get it wrong, you really get it wrong."

The discount airlines, for instance, took a central role in the design of the 737 Max, as well as the Airbus A320neo family, both of which have new and more fuel-efficient engines and other features that make them cheaper to operate.

The discount carriers also are gravitating to the largest version of the jet they have selected as markets mature and passenger numbers increase. One-third of the Boeing jets sold are configured with the maximum number of seats permitted by regulators, said Randy Tinseth, vice president of marketing at Boeing Commercial Airplanes.

## ADVERTISEMENT

### The Mart

#### BUSINESS OPPORTUNITY

#### INTERNATIONAL TENDERS FOR THE SUPPLY OF LIQUEFIED PETROLEUM GAS TO LITRO GAS LANKA LIMITED

REF. NO: LGGL/LPG/082-IMP/2017

Litro Gas Lanka Limited wishes to call for International Tenders for the supply of 300,000 (+/- 10%) Metric Tons of Liquified Petroleum Gas (LPG). The LPG requirement is evenly spread over a period of One Year commencing July/August 2017.

LPG should be supplied in ocean tankers, which will be required to be discharged at the Litro Gas Terminal Lanka (Pvt) Limited Conventional Buoy Mooring, located off the coast of Kerawalapitiya (7 km North of Colombo), Sri Lanka or at the Port Discharge Facility of the Hambantota Port situated in the South of Sri Lanka.

All details pertaining to this Tender is clearly stated in the Tender Document. The said Tender document may be obtained at the under mentioned address on the payment of a non-refundable fee of SLRs 25,000/= (or US\$ 200) on any working day (Monday – Friday) between 9.00 am - 3:30 pm from 15th May 2017 to 29th May 2017 (both days inclusive).

The duly completed Tender Documents should be submitted with a Bid Bond of US\$ 1,000,000.00 to our Head Office on or before 3:00 pm on 7th June 2017.

You are invited to submit your sealed offer to The Chairman, Tender Board, Litro Gas Lanka Limited, 267, Union Place, Colombo 02, Sri Lanka.

For any clarification please contact - The Executive Chairman ( Mobile : +94 76 7956666 )

The Chairman  
Tender Board  
Litro Gas Lanka Limited  
267, Union Place  
Colombo 2  
Sri Lanka

Fax +94 112 327674

Email: chairman@litrogas.com

#### BUSINESS OPPORTUNITY

#### NOVEL ENERGY STORAGE START-UP

Seeking Seasoned CEO to lead

Company to Success.

Call Shawn 413-579-7108 or email

@shawn@activegridtech.com

#### TRAVEL

#### Save Up To 60%

#### First & Business INTERNATIONAL

Major Airlines, Corporate Travel

Never Fly Coach Again!

[www.cooktravel.net](http://www.cooktravel.net)

(800) 435-8776

Advertise in The Mart

Exclusively in The Wall Street Journal Asia

Call (852) 2831-2553

## BUSINESS NEWS

# Now More CEOs Get Ousted On Ethics

BY VANESSA FUHRMANS

Ethical breaches are causing more chief executives to lose their jobs. The upside? Researchers say the rising numbers don't point to more corporate misbehavior. It's that CEOs are being held to a higher level of accountability.

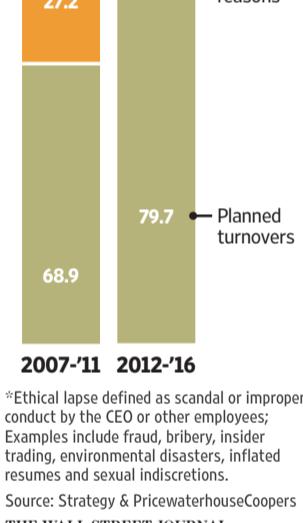
Among the myriad reasons corporate bosses leave their jobs, firings have been on the decline. In a study of CEO exits at the world's 2,500 largest public companies, researchers at PricewaterhouseCoopers LLP's strategy consulting arm, called Strategy&, found 20% of CEO exits in the past five years were forced, down from 31% of CEO exits in the previous five years.

But CEO ousters due to ethical lapses—either their own improper conduct or their employees—are climbing. Such forced exits rose to 5.3% of CEO departures in the 2012-to-2016 period, up from 3.9% during the previous five years.

### Exit Signs

Fewer CEOs were ousted in the past five years but the number fired for ethical reasons rose.

### Number of CEO departures



\*Ethical lapse defined as scandal or improper conduct by the CEO or other employees; Examples include fraud, bribery, insider trading, environmental disasters, inflated revenues and sexual indiscretions.

Source: Strategy & PricewaterhouseCoopers THE WALL STREET JOURNAL.

To confirm the reasons for CEO turnover, the Strategy& consultants cross-referenced company disclosures on CEO departures with news reports and their own interviews with sources inside or familiar with the companies. An announced resignation was counted as an ouster if it was established the CEO left under pressure.

Bosses of large companies appear more likely than their counterparts at smaller companies to be ousted due to scandal. Among the largest North American and European companies by market value, the share of corporate chieftains forced to leave because of ethics lapses rose to 7.8% of CEO departures between 2012 and 2016, compared with 4.6% the previous five years.

Per-Ola Karlsson, a Strategy& partner, said it is unlikely that companies are involved in more wrongdoing. The rise of social media, waning public trust since the 2008 financial crisis and more stringent regulation are making bosses more accountable.

Those forces are pushing besieged CEOs out of jobs sooner rather than later, said Patrick Quinlan, CEO of ethics and compliance software company Convercent. "Even a decade ago, [a board] might have slowly pushed the CEO out," he said. "You can't do that now because of the internet."

Embattled Wells Fargo & Co. CEO John Stumpf, for instance, announced his immediate retirement last fall, one month after regulators hit the bank with a fine for improper sales tactics and disclosed that 5,300 employees had been fired in recent years for the practices. In congressional hearings last fall, Mr. Stumpf apologized and took responsibility for the scandal.

In 2015, Volkswagen AG CEO Martin Winterkorn resigned days after the car maker's emission-cheating scandal broke. Mr. Winterkorn has said he wasn't aware the company had used software to cheat on diesel-emission levels.

# Target Rethinks Online Strategy

Profit warning leads retailer to take a more measured approach to web than its rivals

BY KHADEEJA SAFDAR

Target Corp. expects to get more with less. The Minneapolis-based retailer, under pressure after issuing a dismal profit warning for the year, has passed on potential acquisitions to focus on improving in-store sales and online margins.

The shift comes as competitors like Wal-Mart Stores Inc. are investing heavily in e-commerce operations, snapping up companies to help diversify their offerings. Target, meanwhile, has revamped some e-commerce projects, cut ties with digital partners and walked away from prospective deals, according to people familiar with the talks.

"We're not trying to be the catalog of everything," said digital chief Mike McNamara. "We aren't going to add products to our website and stores just because they exist."

The company has been squeezed in recent years by Amazon.com Inc. as shopping moves online, and by Wal-Mart, which has remodeled stores and lowered prices. Sales at Target stores open at least a year have fallen for three consecutive quarters. In February, the company said its 2017 profit could be as much as 25% lower than Wall Street estimates.

Target's stock has fallen about 20% this year, while Wal-Mart's has climbed 11%. Target is slated to report first-quarter results on Wednesday.



SCOTT OLSON/GETTY IMAGES

Target has walked away from possible deals to focus on improving store sales and online margins.

As those two companies have expanded into new product categories or bought businesses, Target has been more cautious. It remained on the sidelines when Wal-Mart paid \$3.3 billion for discount retailer Jet.com last fall.

Executives considered Jet overpriced and a poor fit with Target CEO Brian Cornell's strategy to focus on high-margin categories such as apparel and home décor, according to people familiar with internal discussions.

Instead, Target, which has struggled with declining sales in its food department, was in advanced talks last summer to buy Sprouts Farmers Market Inc., a Phoenix-based chain of about 250 grocery stores. But it eventually walked away, people familiar with the dis-

cussions say. Sprouts declined to comment.

More recently, Target looked into acquiring an e-commerce player, including Boxed.com, an online service offering household essentials in bulk, people familiar with the discussions say. Talks with Boxed didn't go anywhere, the people say. Boxed, which has raised more than \$130 million in funding, didn't respond to requests for comment.

"Thinking about possible mergers and acquisitions is something we do every day as a regular course of business," said Mr. McNamara, who joined Target in 2015 and took over digital operations last September.

Target has been a latecomer to some aspects of e-commerce. Its online business

generated about \$3 billion last year, accounting for 4.4% of total sales. Digital sales grew 27% in 2016, falling short of Target's goal of 40% growth.

The company outsourced nearly all of its online operations to Amazon in 2001 before ending the relationship in 2011. Last year, it built a new infrastructure for its website after experiencing technical problems during busy shopping times.

Target has begun to centralize decision-making for digital projects. Earlier this year, it eliminated an in-house startup that was developing a marketplace for third-party sellers. The platform, internally called Goldfish, was to feature products from outside sellers and function separately from Target.com, according to

# Television Networks Hustle to Join the Stream

By SHALINI RAMACHANDRAN

The surge in cord-cutting has set off a race among media companies to be included in new "skinny" streaming bundles that are reshaping the American television landscape.

Cord-cutting reached a record pace in the first quarter as consumers continued to ditch pricey pay-TV subscriptions and seek more online alternatives. Over the past five years, nearly 8 million U.S. households have abandoned traditional pay TV or eschewed signing up entirely, according to Wall Street research firm MoffettNathanson.

Earnings reports from Discovery Communications Inc. and Walt Disney Co. last week underscored the trend, stoking investor worries about the long-term sustainability of the cable subscription revenues that have long powered media companies' growth.

To drive new revenue, media companies have been hustling to get their flagship channels into new streaming bundles. But new entrants' preference for slimmer, cheaper packages is splintering the age-old cable bundle.

With Dish Network Corp.'s Sling TV, AT&T Inc.'s DirecTV Now and Sony PlayStation's Vue being joined by live TV services from Hulu and YouTube TV in the past couple of months, some clear network winners and losers are beginning to emerge in the new streaming pay-TV world.

Major channels such as TNT, Nickelodeon and Discovery Channel are finding themselves left out of some new services—

### Slimming Down

As consumers downgrade to cheaper cable packages, popular TV networks are losing subscribers. Nickelodeon and ESPN aren't in several of the slim cable bundles offered by big pay-TV providers.

TV NETWORK	LESS EXPENSIVE		MORE EXPENSIVE		
	Comcast \$30/mo.	Dish \$30	Verizon DirecTV Charter Fios*	\$50	\$65
TNT		✓	✓	✓	✓
CBS	✓		✓	✓	✓
Nickelodeon			✓		
AMC	✓	✓	✓	✓	✓
Discovery Channel	✓	✓	✓	✓	
USA Network	✓	✓	✓	✓	✓
Fox News	✓		✓	✓	✓
ESPN				✓	✓
A+E	✓	✓	✓	✓	
HGTV		✓	✓	✓	✓
ABC	✓		✓	✓	✓
NBC	✓		✓	✓	✓
FOX	✓		✓	✓	✓

\*Fios Custom TV "Sports & News" tier. Other Custom TV tiers do include Nickelodeon, Discovery and A+E. Note: Prices may vary by market. All operators also offer even slimmer, less-expensive packages with mainly local broadcast stations and virtually none of these cable channels. Source: cable providers' websites

ney CEO Bob Iger promised new streaming services focused on certain sports or teams. Given that ESPN's flagship programming won't be offered, those services are "likely to be a niche offering, which may limit the benefits," wrote Barclays analyst Kannan Venkateswar in a research note.

Over the past several decades, TV programmers and cable providers invested together to ride the growth of U.S. subscriptions. Pay-TV distributors asked media companies to create more channels, which helped distributors justify annual rate increases and handed more profits to media companies.

Fierce competition among cable, satellite and phone companies benefited TV networks because no distributor wanted to be stranded without a set of networks offered by a rival.

Now, new entrants like Hulu are prioritizing entry retail prices under \$40 a month, even if it means forgoing channels like Nickelodeon or AMC. Instead, they are touting technological differentiators such as personalization and vast digital video-recording storage.

During talks with cable programmers like A+E and Discovery, YouTube TV said it would only offer certain networks in a more expensive tier—a move that would have triggered contractual clauses with traditional distributors to allow them to do the same, some people familiar with the talks said.

"The downside risk was so enormous that all of us independently said 'no thank you,'" one media executive said.

mated earlier this month that Sling TV, DirecTV Now, YouTube TV and Sony have added between 2 million and 2.5 million customers so far, mitigating but not making up for defections.

Adding to pressure on networks, some consumers are cord-shaving, or downgrading to cheaper packages from traditional operators. Several traditional operators' slimmer bundles leave out some well-known networks such as ESPN

and Nickelodeon, for instance. ESPN said that if those bundles grew in popularity to become the operator's most or second most distributed packages, ESPN would have to be included contractually.

The confluence of events has left media companies scrambling to explain their plans for growth to Wall Street.

After Disney reported a slightly increased pace of subscriber declines at ESPN, Dis-

## BUSINESS WATCH

### VODACOM

#### Company to Buy Stake in Safaricom

Vodacom Group Ltd., South Africa's largest mobile operator by subscribers, is buying a \$2.59 billion stake in Kenya's Safaricom Ltd. in the hope of popularizing the highly touted East African mobile money service M-Pesa across the broader continent.

Vodacom said Monday it has agreed to acquire a 35% stake in Safaricom, Kenya's biggest mobile operator, from Vodafone International Holdings B.V. by issuing 226.8 million new ordinary shares. The deal is a reshuffling of the pack for Vodafone, which has big stakes in both compa-

nies, in Africa.

Vodacom, which is majority-owned by Vodafone Group Ltd., plans to acquire 87.5% of the issued share capital of Vodafone Kenya Ltd. which holds a 40% interest in Safaricom and is wholly owned by Vodafone.

Vodafone will retain a 12.5% interest in Vodafone Kenya, and about a 5% interest in Safaricom, after completion of the proposed transaction. Vodacom will subscribe for new Vodacom shares, and its interest in Vodacom will rise to 70% from 65%.

Vodacom, with 66.8 million customers on the continent, expects the interest in Safaricom to contribute about 15% of its earnings, based on Vodacom's net profit for the year ended March 31, which rose 3.9% from

a year earlier, reflecting strong customer additions in South Africa where the company added 3 million subscribers.

—Alexandra Wexler

### Thermo Fisher

#### Deal for Patheon Valued at \$5.2 Billion

Lab-equipment company Thermo Fisher Scientific Inc. said Monday it would buy drug-development technology company Patheon NV in a deal valued at about \$5.2 billion.

Thermo Fisher, which provides equipment, chemicals and other raw materials necessary to do pharmaceutical research, said the deal gives it a way into the high-growth end-to-end biotech

solutions market.

Patheon is a so-called contract development manufacturing organization, helping biopharmaceutical firms take on complex development and manufacturing needs.

The deal, expected to close by the end of the year, still requires regulatory and shareholder approval.

—Imani Moise

### BOEING

#### St. Louis Picked for Potential Jet Plant

Boeing Co. said Monday it would assemble new U.S. Air Force trainer jets at its main military aircraft facilities in Missouri if it wins a three-way con-

test for a program estimated by analysts to be worth around \$16 billion.

The move sets up the St. Louis plant in competition with facilities in Alabama and South Carolina run or planned by Boeing's rivals in bidding to build an initial 350 T-X jets.

The Boeing offering is the only "homegrown" entrant from prime defense contractors, with Lockheed Martin Corp. offering a version of a plane developed by Korea Aerospace Industries Ltd., while Italy's Leonardo SpA entered its own widely used trainer after dropping a planned joint bid with Raytheon Co.

The Pentagon requires the winner to assemble planes in the U.S.

—Doug Cameron

## TECHNOLOGY

# Firms Struggle To Fill Top Jobs In Cybersecurity

BY KIM S. NASH

Gail Evans, chief information officer at consulting firm **Mercer LLC**, has been looking for a cybersecurity chief since March. After interviewing five prospects by phone and meeting with two, she hasn't found anyone with the right mix of executive experience and technical skills.

"They need to be senior enough, confident enough, able to handle both the strategy and tactical nature of the role so I can get out of their way," she said. "I want someone who's been in an attack and won't freeze."

Demand for chief information security officers is rising as cybersecurity problems attract the attention of corporate boards. About 65% of large U.S. companies now have a CISO position, up from 50% in 2016, according to the **Information Systems Audit and Control Association**, a non-profit professional group.

Last weekend, a ransomware cyberattack hit more than 200,000 victims in at least 150 countries. Other re-

**65%**

Percentage of big firms with a chief information security officer

cent cyberattacks on leading law firms, international banks, and internet companies have compromised the personal data of millions. In December, Yahoo Inc. disclosed the theft of data related to more than one billion accounts.

Meanwhile, cybersecurity talent is in short supply. Unfilled jobs are expected to number 1.8 million by 2022, up 20% from 1.5 million in 2015, according to a global survey of 19,000 cybersecurity workers by the nonprofit Center for Cyber Safety and Education.

New to the top ranks, CISOs must plan strategy with chief executives, collaborate with senior managers during a crisis, direct teams of technical engineers, and flash their own technology skills to hunt attackers in the computer infrastructure.

A seasoned CISO in financial services can earn \$1.5 million, said Phil Schneidermeyer, a partner who specializes in CISO placement at search firm Heidrick & Struggles International Inc. In other industries, \$400,000 to \$500,000 is typical, he said.

Temperament also matters,

## Groups Urge Beijing To Delay Cyber Law

BY EVA DOU

BEIJING—Trade groups representing U.S., European and Asian companies called on China to delay a cybersecurity law set to go into force June 1, saying it could discriminate against foreign businesses.

The law, adopted late last year, sets up a committee to conduct security reviews of technology products supplied to the Chinese government and critical industries. Its requirements on matters such as technology disclosure and encryption could give Chinese companies a competitive edge, the groups said in a letter reviewed by The Wall Street Journal.

"Our concerns encompass enormously consequential issues for China's economy, its relations with economic and commercial partners, and the global economy," said the letter, dated Monday and signed by 54 trade groups including the U.S.-China Business Council, American Chamber of Commerce in China, Business-Europe, the Japan Chamber of Commerce and Industry, and the Korea-China Business Council.

China's internet regulator couldn't immediately be reached for comment. In the

said Tim McKnight, CISO of Thomson Reuters Corp. Chief information security officers often work for weeks or months under sometimes crushing stress, including in the aftermath of a breach, he said. "For some people, being that close to the sun is not the greatest job," he said. "The top of the house wants someone battle-tested, with a low heart rate and low blood pressure."

Mr. McKnight joined Thomson Reuters in October after leading information security at General Electric Co., Fidelity Investments, Northrop Grumman Corp., and BAE Systems.

Few CISOs can match Mr. McKnight's 17 years in corporate security, and recruiters know exactly who they are, Mr. Schneidermeyer said. "They are getting multiple calls a week. It's insane. It's just insane."

About 23% of CISOs, and those in similar executive security positions, say they receive five or more solicitations from recruiters weekly, according to a 2016 survey of 437 cybersecurity professionals by Enterprise Strategy Group consultancy and the Information Systems Security Association professional group.

Varian Medical Systems Inc. is five months into the search for a CISO, a newly created title there. Jessica Denecour, the company's chief information officer, said she doesn't lack for applicants. More health-care companies are seeking chief information security officers, she said, in response to challenges posed by the emergence of increasingly sophisticated cyberattacks, companies shifting more computing outside their own firewalls to the cloud, and even medical devices with embedded sensors that could be accessed to reprogram or to expose patients' personal information.

The world-wide shortage of cybersecurity professionals—not just at the CISO rank—can lead to weak succession planning in corporate IT positions, said Brad Maiorino, a former CISO at Target Corp., General Motors Co. and **General Electric Co.**

He was Target's first chief information security officer, hired in 2014, six months after the retailer discovered a data breach that compromised the personal information of up to 40 million customers. The well-publicized attack, which ultimately cost Target more than \$202 million, helped awaken corporate boards to cybersecurity issues.



A Waymo driverless car displayed in December. Both Waymo and the ride-hailing service Lyft are fierce rivals of Uber Technologies.

## Lyft and Waymo Team Up

BY GREG BENSINGER AND JACK NICAS

Ride-hailing startup Lyft Inc. and Waymo LLC, the driverless-car division of Google parent Alphabet Inc., said they would work together to develop autonomous-vehicle technology, dealing another potential blow to rival Uber Technologies Inc.'s ambitions.

The two companies said Sunday they will collaborate on developing products and technology for autonomous autos. In statements, they declined to elaborate more specifically on the terms of the deal or what the work would entail.

A person familiar with the deal said Lyft will help Waymo expand tests of its self-driving technology through an effective taxi service. The two companies have also discussed Lyft plugging Waymo's driverless cars into its pool of available taxis so any user could summon them, this person said. How this would work is still unclear. The New York Times earlier reported on the deal between Lyft and Waymo. A deal with Lyft may signal

Waymo is moving closer to commercializing its vehicles. Waymo has logged more than 3 million miles on city roads since it began working on the technology in 2009, but until this year it hadn't allowed the public to ride in its vehicles.

That changed in February when Waymo began allowing a select group of families and urban commuters in the Phoenix area to use a mobile app to summon self-driving minivans, similar to the ride-hailing services of Lyft and Uber, but at no cost—and with software steering the cars instead of humans.

Waymo and Lyft each bring assets to the agreement: Waymo's self-driving technology and Lyft's network of taxis operating in more than 300 cities across the U.S. The companies are also fierce rivals of Uber. Waymo is in the midst of a legal battle with Uber over driverless cars, alleging the ride-hailing company and a former Google executive stole trade secrets to be used in its development of self-driving technology. The judge in the case recently recommended to

federal prosecutors the allegations be investigated as a criminal matter and denied Uber's request it be settled in arbitration. Uber has denied wrongdoing and said it plans to defend itself in court.

On Monday a California judge banned the former Google executive, Anthony Levandowski, from working on some self-driving technology and ordered the return of the documents he allegedly took with him.

Lyft is Uber's chief ride-hailing rival in the U.S., though it is a distant second in market share and valuation. Lyft is working with General Motors Co. to develop self-driving taxis and has said it is planning tests of the vehicles as soon as this year. GM last year invested \$500 million in Lyft, now valued at about \$7.5 billion; Uber is valued by investors at nearly \$70 billion.

A General Motors spokesman said the Waymo-Lyft partnership doesn't affect its relationship with Lyft. "We continue to work with Lyft on various aspects of our business," the spokesman said.

The various partnerships highlight the urgency in Silicon Valley and the Motor City to quickly deploy self-driving vehicles, which many believe hold the potential to save lives by reducing human error and to cut the cost of transportation. Firms from Ford Motor Co. and Tesla Inc. to Amazon.com Inc. and Apple Inc. are jockeying to get autonomous-car technology on the roads with \$2 trillion in annual revenue tied to the automotive industry, Deloitte Consulting estimates.

Such technology is years from being fully autonomous, let alone approved by regulators in the U.S. and abroad. For Lyft and Uber, the technology could help them improve profits by eliminating one of their biggest expenses: paying drivers. As much as 80% of a fare goes to the driver.

Uber has tested self-driving vehicles with passengers in Pittsburgh, San Francisco and Tempe, Ariz., starting last summer.

—Mike Colias contributed to this article.

## Nintendo Plans Smartphone 'Zelda'

BY TAKASHI MOCHIZUKI

TOKYO—**Nintendo** Co. plans to bring its videogame franchise "The Legend of Zelda" to smartphones, people familiar with the matter said, the latest step by the Kyoto company to expand its mobile-games lineup.

Nintendo has been building its mobile presence over the past year after years of focusing on games for its own hardware. It has already released "Miitomo," "Fire Emblem Heroes" and "Super Mario Run" for smartphones and has announced plans for a mobile version of "Animal Crossing."

The people familiar with the matter said the "Animal Crossing" smartphone app is likely to be released in the latter half of 2017, and "The Legend of Zelda" would follow that, although they cautioned that the timing and order of the releases could be changed. Nintendo is developing the games with Tokyo-based **DeNA** Co. Representatives of Nintendo and DeNA declined to comment.

It isn't clear yet how Nintendo would charge for the mobile version of "The Legend of Zelda." Nintendo charges about \$10 for players to download the full version of the Mario smartphone game and offers in-app purchases for its other games.

The mobile games have yet to add significantly to the bottom line. Nintendo said that it



Nintendo wants to expand its mobile lineup. Above, a scene from 'The Legend of Zelda.'

earned less than ¥20 billion (\$176.4 million) from smartphone games in the fiscal year ended March 2017.

Nintendo's president, Tatsumi Kimishima, has said the company plans to expand its mobile lineup to boost revenue. The mobile games are also intended to attract casual game players and encourage them to buy Nintendo hardware.

Macquarie Capital Securities analyst David Gibson said he expected the company would earn more than ¥100 billion from smartphone games in the current fiscal

year.

The mobile game "Pokémon Go," which is produced by Nintendo affiliate Pokémon Co., enjoyed a breakout success last summer. Nintendo owns a 32% stake in Pokémon Co., and profit from "Pokémon Go" helped Nintendo earn ¥20 billion from its investments in the year ended March 2017.

Pokémon Co. is planning a new card-game app, two people familiar with the matter said. Pokémon Co. already makes physical cards that players collect and use in competitions. A company spokeswoman declined to comment.

On March 3, Nintendo introduced the Switch, a device designed for use both in the living room and on the go. Initial sales have been strong, pushing the company's shares up.

"The Legend of Zelda" is especially popular in the U.S., where more copies of the Switch version of the game have been sold than the Switch machine itself—apparently because fans who couldn't find the hardware bought the software by itself first.

—Sarah E. Needleman contributed to this article.

## AMAZON

Continued from page B1

Class A shares at the time would have \$1,902.06 now, a very respectable return, though not as good as getting in on the ground floor at Amazon.

Facebook had its IPO in 2012. It was already eight years old, and it had a market value of \$92 billion (for reference, Amazon's market value

at the time of Facebook's offering was \$96 billion). For those who got in at the beginning, \$100 would have turned into \$393.21. Amazon and Facebook are similarly sized these days, but their post-IPO returns have been quite different.

Facebook's returns, of course, could look like Amazon's in 15 years time, once it has been a public stock for a similar period of time. But its market cap would be so big it is hard to even conceptualize.

more, up from 61 three years earlier, according to a Wall Street Journal analysis.

That has had implications across the investing world. For example, mutual funds and other big investors have increasingly looked to get into late-stage venture funding to grab a share of these companies before they balloon in value.

For a good old-fashioned stock picker, though, Amazon's run might be tough to repeat.

# AIG Picks A Veteran Of Firm To Lead It

BY LESLIE SCISM AND JOANN S. LUBLIN

American International Group Inc. on Monday named Brian Duperreault—a one-time lieutenant to former CEO Maurice R. "Hank" Greenberg—as the firm's new chief executive.

Mr. Duperreault, 70 years old, is the founder and chief executive officer of Bermuda-based **Hamilton Insurance Group** Ltd. Mr. Duperreault spent just over two decades at AIG before leaving to run three other companies. His résumé includes a widely praised turnaround of consulting and insurance-brokerage firm **Marsh & McLennan Cos.**

News of Mr. Duperreault's planned hiring was first reported Wednesday by *The Wall Street Journal*.

Separately, AIG said Monday that it had agreed to acquire Hamilton's U.S. platform for an estimated price of \$110 million, a move seen as deepening AIG's push into big data and analytics. AIG and Hamilton also announced a reinsurance partnership, and AIG agreed to pay Hamilton \$20 million for the firm releasing Mr. Duperreault from covenants that could have restricted his hiring.

The past six months have been particularly tumultuous for AIG. Just a few weeks after the firm posted disappointing fourth-quarter results, CEO Peter Hancock in March said he would resign after less than three years at the helm. Many board members were unhappy about setbacks in the company's plan for boosting profitability, while several also feared a potential fight with AIG shareholder and activist investor Carl Icahn.

Mr. Hancock agreed to stay until a successor was found.

AIG executives are carrying out a two-year strategic plan unveiled in January 2016—in response to pressure from Mr. Icahn. Many goals are on track to be achieved, such as cutting costs and returning \$25 billion to investors through dividends and share buybacks, analysts have said.

**The insurance giant is deepening its push into big data and analytics.**

AIG board members don't expect their new leader to change the strategic direction at the insurer, people familiar with the matter said.

Mr. Duperreault left AIG in 1994 to run ACE Ltd., a then-Bermuda-based specialty insurer with large corporate clients.

Mr. Duperreault expanded the niche company into a diversified insurer with the 1999 acquisition of Cigna Corp.'s U.S. and international property-casualty operations. The company since has acquired Chubb and is known as Chubb Ltd.

Mr. Duperreault retired from ACE in 2004 but then was recruited in 2008 to become CEO of Marsh & McLennan.

He left Marsh in 2012, and in 2013, back in Bermuda, he established Hamilton with principals of the hedge fund Two Sigma Investments. Last year, Hamilton teamed up with AIG and Two Sigma on a joint venture to sell insurance online to small businesses, using advanced data analytics. Monday, the three firms announced an expansion of that partnership.

AIG also unveiled a plan to negotiate a contract with Two Sigma for "a next generation insurance platform for AIG's use," with the ultimate cost estimated to be about \$250 million over five years. AIG already is using algorithms to issue policies to midsize and some large policyholders. That move will deepen the role in the insurance industry of Two Sigma, one of the more successful hedge funds using computers to trawl data in the investment process.

—David Benoit contributed to this article.

## FINANCE & MARKETS

# SEC Draws From Silicon Valley

Bill Hinman worked on major tech deals before joining the agency to encourage more public offerings

BY DAVE MICHAELS

WASHINGTON—To spur more companies to go public, the new head of the **Securities and Exchange Commission** has turned to a veteran Silicon Valley lawyer whose career has involved some of the biggest deals in history.

Bill Hinman has worked on initial public offerings and other transactions that involved Apple Inc. founder Steve Jobs, **Google** Inc. founders Larry Page and Sergey Brin, and Facebook Inc. Chief Executive Mark Zuckerberg.

Mr. Hinman, 61 years old, a former partner at **Simpson Thacher & Bartlett** LLP in Palo Alto, Calif., is the first SEC director in years to come from Silicon Valley rather than New York, Boston or Washington.

He will direct the SEC's Corporation Finance division, which oversees IPOs and the voluminous disclosures that explain the businesses to investors. New commission Chairman Jay Clayton, at his Senate confirmation hearing in March, called for scaling back requirements on listed firms, saying the government should make it "more attractive" to go public.

Mr. Clayton's tenure could mark a shift for public companies, which have faced mounting regulations since the U.S. dot-com bust and Enron Corp. accounting scandal of the early 2000s along with the Dodd Frank financial-overhaul law of 2010.

The U.S. now has a deficit of more than 5,000 listed



Bill Hinman will direct the SEC's Corporation Finance division, which oversees IPOs and disclosures.

the deal.

Mr. Hinman grew up in upstate New York. His mother was a telephone operator for the Crouse-Hinds Company, a specialty manufacturer of electrical equipment, and his father was a billing clerk for the Oscar Mayer Company. Both of his grandfathers worked at an Alcoa plant in Massena, N.Y., across the St. Lawrence River from Canada.

After studying as an undergraduate at Michigan State University and graduating from Cornell University Law School, he joined the bank regulatory group at Shearman & Sterling LLP's New York office. In 1989, Mr. Hinman was involved in Mexico's debt restructuring, a deal that led to several more years of work in Brazil and Argentina.

Burned out from constant travel, he relocated to California in 1994 to focus on technology clients, partly because it would allow him to work with clients that were close to home. Mr. Hinman bought a house in Montana several years ago in anticipation of retirement and doing more fly-fishing and skiing.

"If you practice in Silicon Valley you don't have to travel as much because you have a lot of great companies in your backyard," he said. "The companies innovate in products and services and that carries over to how they raise capital and run themselves."

Mr. Hinman helped take public Chinese e-commerce company Alibaba Group Holding Ltd., whose 2014 listing was the biggest IPO ever.

companies, compared with the number predicted by its level of wealth and investor rights, according to research by economists Craig Doidge, Andrew Karolyi and René Stulz.

In an interview, Mr. Hinman said he didn't believe the decline in the number of public companies could be blamed entirely on regulation. But he said spurring more public offerings is a worthy goal of regulators, because investors benefit from the detailed public disclosures.

He also expressed interest in expanding the 2012 Jumpstart Our Business Startups Act. The law, passed with bipartisan support, was hailed as the first sign that Washington understood how the internet could be used to help smaller companies raise money without turning to

Wall Street.

"To the extent the SEC can make it more attractive and efficient to raise capital here, we are going to want to do that," he said. "That is our primary focus and challenge going forward."

Some of the companies Mr. Hinman has worked with or helped take public over the past two decades diverged from the traditional model of a public firm. He advised Apple in the 1990s on the deal that brought Mr. Jobs back to the company, which involved the purchase of Mr. Jobs' other company, NeXT Software Inc.

In 2004, he also worked on Google's IPO, which used a Dutch auction instead of the traditional process of using investment banks to sell its stock. The process was

designed to yield an opening price that more accurately reflected the firm's value.

That outcome could mean that investors who secured shares through the auction couldn't quickly unload them for a profit, because the stock was less likely to rocket higher during first-day trading. Mr. Hinman urged the company to disclose the risk in plain English, telling auction buyers they could be victims of a "winner's curse": On one hand they had secured shares of a hot IPO, and on the other they could lose money if they tried to sell them immediately.

"Bill turned a seeming bug into a feature," said Michael Grimes, head of technology banking at Morgan Stanley, which was the lead bank on

proceeds for such sales also help provide liquidity to improve other properties it owns.

Private real-estate firm **JBG Cos.** recently sold the King of Prussia Town Center, a 263,423-square-foot open-air shopping center in King of Prussia, Pa., to a fund run by **CBRE Global Investors**. The shopping center changed hands for \$183 million, according to a person familiar with the matter. It is adjacent to one of the largest shopping malls in the U.S., King of Prussia Mall, and is 87% leased.

The sale was a strategic disposition, said a spokeswoman from the Chevy Chase, Md.-based company, declining to provide more details.

Analysts are crunching numbers to determine the extent of brick-and-mortar store

closures ahead as online shopping continues to grow.

Wells Fargo equity research analysts estimate that among 14 retail companies they examined and a survey of 1,000 consumers on their shopping preferences, the retailers would need to close about 16% of their stores, or more than 2,650 stores in total.

"Whereas physical real estate was once considered a valuable asset during the decades-long retail growth spurt, it now appears to be an albatross for most specialty retailers," the report said.

CBRE Global Investors, the buyer of the King of Prussia Town Center, said it is in a good location that serves a wealthy population and that it also attracts foot traffic with a Wegmans grocery store nearby.

## Mall Owners See Strength in Smaller Numbers

BY ESTHER FUNG



The King of Prussia Mall in December 2014. The Pennsylvania mall is one of the largest in the U.S.

proceeds for such sales also help provide liquidity to improve other properties it owns.

Private real-estate firm **JBG Cos.** recently sold the King of Prussia Town Center, a 263,423-square-foot open-air shopping center in King of Prussia, Pa., to a fund run by **CBRE Global Investors**. The shopping center changed hands for \$183 million, according to a person familiar with the matter. It is adjacent to one of the largest shopping malls in the U.S., King of Prussia Mall, and is 87% leased.

The sale was a strategic disposition, said a spokeswoman from the Chevy Chase, Md.-based company, declining to provide more details.

Analysts are crunching numbers to determine the extent of brick-and-mortar store

## Goldman Sachs Shifts Investment-Bank Unit

By LIZ HOFFMAN

allow its bankers to "be deployed more widely across a broader client base" amid a "growing convergence between subsectors."

Today, though, regulation and big data are reshaping health care. And a new crop of tech-savvy, disruptive consumer companies such as food-delivery service **Blue Apron** and **Peloton**, the maker of web-connected spin bikes, look less like hulking pharmaceutical companies.

So Goldman will cover them separately. **J.P. Morgan Chase & Co.** and **Bank of America Corp.** already do so.

Bankers who advise drugmakers and medical-device companies will report to Marshall Smith, who led the health-care group solo before the 2014 combination, according to the memo, which was reviewed by *The Wall Street Journal*.

Those who focus on consumer-facing companies will report to Rob Sweeney, a banker to food, apparel and lifestyle firms.

The move was largely lost in the shuffle of a broader reorganization of Goldman's investment-banking division last week.

But as traditionally defined sectors become less cohesive and recognizable, many expect more changes to how Wall Street sells its services to companies.

Advertisement

### INTERNATIONAL INVESTMENT FUNDS

[ Search by company, category or country at [asia.wsj.com/funds](http://asia.wsj.com/funds) ]

# MORNINGSTAR®

Data as shown is for information purposes only. No offer is being made by Morningstar, Ltd. or this publication. Funds shown aren't registered with the U.S. Securities and Exchange Commission and aren't available for sale to United States citizens and/or residents except as noted. Prices are in local currencies. All performance figures are calculated using the most recent prices available.

FUND NAME GF AT LB DATE CR NAV YTD 2-YR %RETURN—

Chartered Asset Management Pte Ltd - Tel No: 65-6835-8866 Fax No: 65-6835-8865, Website: [www.cam.com.sg](http://www.cam.com.sg) CAM-CF Limited OT MUS 05/12 USD 30476.22 0.9 4.7 -5.7

Value Partners

Investing through discipline

Website: [www.valuepartners-group.com](http://www.valuepartners-group.com) Tel: 2143 0688

OT SGD 05/12 SGD 15.12 7.2 19.2

OT HKD 05/12 HKD 12.40 8.6 16.8

OT NZD 05/12 NZD 11.33 13.8 13.4

OT GBP 05/12 GBP 13.80 10.0 19.0

OT USD 05/12 USD 12.46 11.9 13.5

OT CAD 05/12 CAD 12.58 8.3 15.5

OT EUR 05/12 EUR 12.40 1.7 26.8

OT AUD 05/12 AUD 12.20 0.1 1.1

OT SGD 05/12 SGD 12.52 12.4 12.7

OT NZD 05/12 NZD 12.60 8.6 16.8

OT GBP 05/12 GBP 11.33 13.8 13.4

OT USD 05/12 USD 12.46 11.9 13.5

OT CAD 05/12 CAD 12.58 8.3 15.5

OT EUR 05/12 EUR 12.40 1.7 26.8

OT AUD 05/12 AUD 12.20 0.1 1.1

OT SGD 05/12 SGD 12.52 12.4 12.7

OT NZD 05/12 NZD 12.60 8.6 16.8

OT GBP 05/12 GBP 11.33 13.8 13.4

OT USD 05/12 USD 12.46 11.9 13.5

OT CAD 05/12 CAD 12.58 8.3 15.5

OT EUR 05/12 EUR 12.40 1.7 26.8

OT AUD 05/12 AUD 12.20 0.1 1.1

OT SGD 05/12 SGD 12.52 12.4 12.7

OT NZD 05/12 NZD 12.60 8.6 16.8

OT GBP 05/12 GBP 11.33 13.8 13.4

OT USD 05/12 USD 12.46 11.9 13.5

OT CAD 05/12 CAD 12.58 8.3 15.5

OT EUR 05/12 EUR 12.40 1.7 26.8

OT AUD 05/12 AUD 12.20 0.1 1.1

OT SGD 05/12 SGD 12.52 12.4 12.7

OT NZD 05/12 NZD 12.60 8.6 16.8

OT GBP 05/12 GBP 11.33 13.8 13.4

OT USD 05/12 USD 12.46 11.9 13.5

OT CAD 05/12 CAD 12.58 8.3 15.5

OT EUR 05/12 EUR 12.40 1.7 26.8

OT AUD 05/12 AUD 12.20 0.1

## MARKETS DIGEST

### Nikkei 225 Index

**19869.85** ▼14.05, or 0.07%

High, low, open and close for each trading day of the past three months.

Year-to-date  
52-wk high/low  
All-time high

19961.55  
14952.02  
38915.87 12/29/89

▲ 3.95%

Bars measure the point change from session's open

Session high  
Session open  
Close  
Session low  
Open

19500  
19000  
18500  
18000  
17500  
17000

Feb. Mar. Apr. May

### STOXX 600 Index

**395.97** ▲ 0.34, or 0.09%

High, low, open and close for each trading day of the past three months.

Year-to-date  
52-wk high/low  
All-time high

396.45  
308.75  
414.06 4/15/15

▲ 9.56%

20000  
19500  
19000  
18500  
18000  
17500  
17000

Feb. Mar. Apr. May

### International Stock Indexes

Data as of 12 p.m. New York time

Region/Country Index

Close NetChg % chg

52-Week Range

YTD % chg

World The Global Dow 2760.20 15.18

2193.75 2760.73 9.2

MSCI EAFE 1874.77 6.81

1471.88 1956.39 9.2

MSCI EM USD 1011.34 8.97

691.21 1044.05 27.3

Americas DJ Americas 578.23 3.37

480.90 578.67 7.0

Brazil Sao Paulo Bovespa 68316.01 94.07

48066.67 69487.58 13.4

Canada S&P/TSX Comp 15668.38 130.50

13609.58 15943.09 2.5

Mexico IPC All-Share 49706.68 280.60

43902.25 50154.33 8.9

Chile Santiago IPSA 3718.96 7.04

2998.64 3786.05 15.4

U.S. DJIA 20975.34 78.73

17063.08 21169.11 6.1

Nasdaq Composite 6143.59 22.36

4574.25 6153.04 14.1

S&P 500 2402.08 11.18

1991.68 2404.05 7.3

CBOE Volatility 10.57 0.17

9.56 26.72 -24.7

EMEA Stoxx Europe 600 395.97 0.34

308.75 396.45 9.6

Stoxx Europe 50 3271.56 0.67

2626.52 3278.74 8.7

France CAC 40 5417.40 11.98

3955.98 5442.10 11.4

Germany DAX 12807.04 36.63

9214.10 12823.29 11.5

Israel Tel Aviv 1432.49 0.72

1372.23 1490.23 -2.6

Italy FTSE MIB 21704.46 129.01

15017.42 21724.48 12.8

Netherlands AEX 535.41 0.70

409.23 537.84 10.8

Russia RTS Index 1119.98 20.23

873.58 1196.99 -2.8

Spain IBEX 35 10957.80 60.80

7579.80 11184.40 17.2

Switzerland Swiss Market 9108.25 -15.16

-0.17 7475.54 9134.36 10.8

South Africa Johannesburg All Share 54052.18 -11.16

-0.02 48935.90 54704.22 6.7

Turkey BIST 100 95587.75 591.40

70426.16 96491.03 22.3

U.K. FTSE 100 7454.37 18.98

5788.74 7460.20 4.4

Asia-Pacific DJ Asia-Pacific TSM 1590.33 4.25

1308.52 1592.26 11.8

Australia S&P/ASX 200 5838.40 1.50

5103.30 5956.50 3.0

China Shanghai Composite 3090.23 6.72

2806.91 3288.97 -0.4

Hong Kong Hang Seng 25371.59 215.25

19694.33 25371.59 15.3

India S&P BSE Sensex 30322.12 133.97

25230.36 30322.12 13.9

Indonesia Jakarta Composite 5688.87 13.65

4704.22 5726.53 7.4

Japan Nikkei Stock Avg 19869.85 -14.05

-0.07 14952.02 19961.55 4.0

Malaysia Kuala Lumpur Composite 1778.65 2.78

1614.90 1778.65 8.3

New Zealand S&P/NZX 50 7429.94 -22.44

-0.30 6664.21 7571.11 8.0

Pakistan KSE 100 52387.87 636.96

36061.56 52387.87 9.6

Philippines PSEI 7772.93 -42.60

-0.55 6563.67 8102.30 13.6

Singapore Straits Times 3264.21 8.92

2729.85 3271.11 13.3

South Korea Kospi 2290.65 4.63

1925.24 2296.37 13.0

Taiwan Weighted 10036.82 50.00

8067.60 10036.82 8.5

Thailand SET 1537.42 -6.52

-0.42 1381.69 1591.00 -0.4

Source: SIX Financial Information/WSJ Market Data Group

### Currencies

Yen, euro vs. dollar; dollar vs. major U.S. trading partners

20%  
10  
0  
-10  
-20

US\$ vs. Mon YTD chg

Country/currency

Mon in US\$ per US\$ (%)

Europe Bulgaria leva 0.5613 1.7817 -4.1

0.5613 1.7817 -4.1

Croatia kuna 0.1477 6.7699 -5.6

0.1477 6.7699 -5.6

Euro zone euro 1.0977 0.9110 -4.2

1.0977 0.9110 -4.2

Czech Rep. koruna-b 0.0415 24.125 -6.1

0.0415 24.125 -6.1

Denmark krone 0.1476 6.7768 -4.1

0.1476 6.7768 -4.1

Hungary forint 0.003552 281.50 -4.3

0.003552 281.50 -4.3

Iceland krona 0.009684 103.26 -8.6

0.009684 103.26 -8.6

Norway krone 0.1170 8.5439 -1.2

0.1170 8.5439 -1.2

Poland zloty 0.2616 3.8233 -8.7

0.2616 3.8233 -8.7

Russia ruble-d 0.01774 56.370 -8.0

0.01774 56.370 -8.0

Sweden krona 0.1133 8.8223 -3.1

0.1133 8.8223 -3.1

Switzerland franc 1.0035 23.54 -2.2

1.0035 23.54 -2.2

Turkey lira 0.2818 3.5481 0.7

0.2818 3.5481 0.7

Ukraine hryvnia 0.0378 26.4475 -2.3

0.0378 26.4475 -2.3

U.K. pound 1.2910 0.7746 -4.4

1.2910 0.7746 -4.4

Asia-Pacific Hong Kong dollar 0.1284 7.7886 0.4

0.1284 7.7886 0.4

India rupee 0.0156 64.0251 -5.8

0.0156 64.0251 -5.8

## FINANCE & MARKETS

# Ultralong U.S. Treasurys? Worthy Yields Required

By JOSH ZUMBRUN

For the Treasury Department to issue 40-year, 50-year or 100-year bonds, or for investors to consider buying them, it sure would help to know the price.

Such ultralong bonds are under active consideration at Treasury, and so this month The Wall Street Journal's survey of economists asked respondents to estimate what the yields on those bonds would be, and whether they would be worth it.

The results: They believe the yield on the 40-year Treasury would be about 0.3 percentage point higher than on the 30-year bond, or about 3.302% based on Monday's trading.

A 50-year bond would price at 3.5%, they estimate, while the 100-year bond would have a yield of 3.98%.

"Bond investors would likely demand higher yields on longer-maturity bonds to compensate for government debt and inflation risks," said Scott Anderson, the chief

economist of the Bank of the West.

Therein lies one of the key challenges of such bonds. In order for them to attract investors, they will likely need to have higher yields, perhaps considerably higher.

But as yields rise, it will be harder for the Treasury to reap any cost savings from the program.

That is one reason that the Treasury Borrowing Advisory Committee—made up of some of Wall Street's biggest investors and dealers—advised that such long bonds might not be worth pursuing.

Some economists share that assessment, such as John Silvia, chief economist of Wells Fargo, who said such bonds were "not a viable market" and would have "inconsistent issuance over business cycles." But just over 60% of survey respondents said strong and sustainable demand would develop for 40- and 50-year bonds.

More than 50% of respondents said such bonds would

be worth implementing.

"Endowments, pension funds and life insurers will love these options," said James Smith of Parsec Financial Management.

While a 3.5% yield is higher than most government debt now, such a yield certainly could prove to be a good deal over the course of the next half-century.

"Should have been doing this for the past eight years," said Joel Naroff, president of Naroff Economic Advisors. "It stabilizes the payments at a relatively low rate."

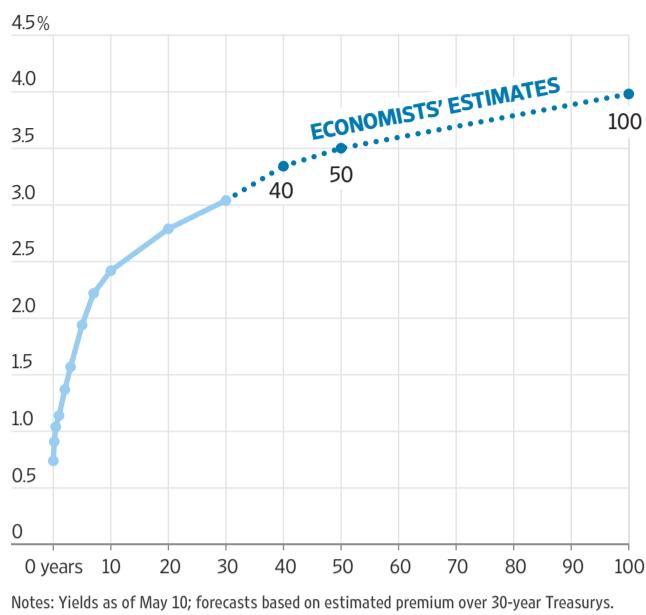
The 100-year bond, however, was far less popular in the survey. More than 60% said the bonds would lack demand and not be worth pursuing. Estimates of its yield were nearly a full percentage point higher than for the 30-year.

Pension funds and insurance companies do have some liabilities they can anticipate 50 years in the future and so might purchase 50-year bonds as a way to manage that.

### Century Yield Curve

Treasury securities with longer maturities currently have higher yields. Economists estimated what the yield would be on proposed 40-year, 50-year and 100-year bonds.

#### Treasury yield by maturity



Notes: Yields as of May 10; forecasts based on estimated premium over 30-year Treasurys.

Source: Treasury Department (yield); Wall Street Journal Survey of Economists (estimates)

THE WALL STREET JOURNAL.

## FINANCE WATCH

MOODY'S

### Ratings Firm Buys Dutch Data Provider

Moody's Corp. said it has struck a deal to buy Bureau van Dijk, a Dutch business-data provider, for €3 billion (\$3.27 billion) from the Swedish private-equity fund EQT.

Founded in 1991 and based in Amsterdam, Bureau van Dijk creates, standardizes and updates company data sets including more than 220 million companies. It helps financial institutions, professional-services firms and governments with credit analysis, investment research, tax analysis, compliance and third-party due-diligence needs.

Moody's said the deal could help extend its reach to new markets and add to its existing risk-management offerings. In 2016, Bureau van Dijk had revenue of \$281 million and earnings before interest, taxes, depreciation and amortization of \$144 million.

—Austen Hufford

SOCIAL FINANCE

### Online Lender's CFO Heads to Biotech

The No. 2 executive at online lender Social Finance Inc. is exiting from the company to take a senior job at a biotechnology startup.

Nino Fanlo, SoFi's president and chief financial officer, is leaving the firm at the end of the month to take over as finance chief at Human Longevity Inc., a four-year-old genomics company, the two companies said. Mr. Fanlo plans to remain a board observer and adviser to SoFi.

At SoFi, Mr. Fanlo served as the top lieutenant to Chief Executive Mike Cagney and oversaw the company's efforts to fund both its own operations as well as the loans that it pitched to borrowers.

On an interim basis, Mr. Fanlo's duties will be assumed by Steven Freiberg, a former top executive at E\*Trade Financial Corp. and Citigroup Inc. who joined SoFi's board earlier this year.

—Peter Rudegeair

## Energy Stocks Lead Gains in U.S.; Shanghai Climbs

By RIVA GOLD

U.S. stocks were higher Monday afternoon as a jump in commodity prices boosted shares of energy and mining companies.

**MONDAY'S MARKETS** The Dow Jones Industrial Average was up 80 points, or 0.4%, to 20,977 in midday trading. The S&P 500 rose 0.4%, and the Nasdaq Composite added 0.3%.

Earlier, in Asia, Chinese stocks and bonds rose amid signs Beijing will take a softer approach to reducing debt and preventing risks in the financial system.



Marathon Oil shares jumped on signs OPEC would extend cuts.

The Shanghai Composite Index gained 0.2% despite data showing China's economic activity weakened more than ex-

pected last month. Value-added industrial output, a rough proxy for growth, rose 6.5% in April from a year earlier, well

below economists' forecasts.

Hong Kong's Hang Seng Index rose 0.9% amid gains in mainland companies and after Friday's release of better-than-expected data on first-quarter economic growth.

U.S. crude oil was up 2.8% to \$49.17 a barrel after top energy officials in Saudi Arabia and Russia said they would back a nine-month extension to a production-cut deal led by the Organization of the Petroleum Exporting Countries.

Optimism about the extended cuts boosted U.S. energy companies. The sector in the S&P 500 was up 1.2%. Transocean gained 3.7%, Marathon Oil rose 3.5% and Halli-

burton jumped 4.1%.

The Stoxx Europe 600 rose less than 0.1%, helped by a 0.9% climb in the oil-and-gas sector—the only sector in negative territory for the year.

Shares of miners also advanced on gains in base-metals prices after Chinese President Xi Jinping pledged more than \$100 billion in new financing as part of a mega-infrastructure project.

Symantec, a maker of antivirus software, was up 3.7% after a cyberattack hit computers around the globe.

Moves in traditional haven assets, including government bonds, gold and the yen, were muted.

WSJ TALK / EXPERIENCE / OFFER / GETAWAY



# See the Stars of Tomorrow at the HKFC Citi Soccer Sevens

Enjoy a complimentary pair of member-reserved tickets to the Hong Kong Soccer Sevens, the world's best seven-a-side football tournament. With Japan's Kashima Antlers, South Korea's FC Seoul, Scotland's Rangers and many other teams, don't miss the most diverse lineup in the annual tournament's 19-year history.

EXCLUSIVE TO WSJ MEMBERS

REDEEM AT

[HTTP://WWW.WSJPLUS.COM/HKSOCCE7S17](http://WWW.WSJPLUS.COM/HKSOCCE7S17)

WSJ+  
INVITES + OFFERS + INSPIRATION

HKFC CITI  
S7

# MARKETS

THE DAILY SHOT | By Lev Borodovsky

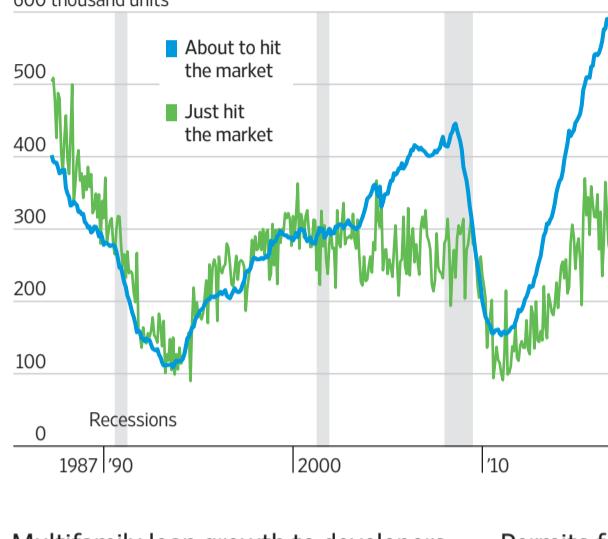
## Hard Times Hit High-End Housing

Rising demand for luxury apartments has spurred an epic building boom that now threatens the health of this sector of the U.S. housing market. While overbuilding so far seems limited to the priciest properties, analysts are watching this segment closely for any signs of spillover.

WSJ  
subscribers can get  
**The Daily Shot**—  
a chart-by-chart briefing  
on markets and economics—  
sent to their email  
each morning. Subscribe at  
[wsj.com/newsletters](http://wsj.com/newsletters)

A massive inventory of new apartments has or is about to hit the market.

### New privately owned housing units



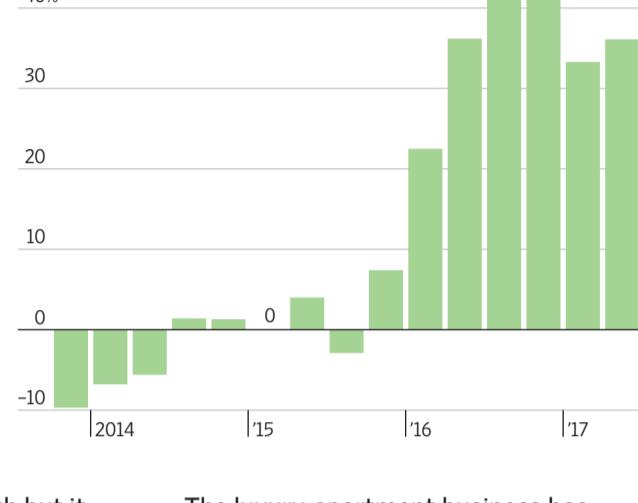
As a result, vacancy rates are no longer declining and could begin climbing.

### U.S. rental vacancy rate



With competition in the space heating up, banks are becoming more cautious in lending—on both new construction and existing apartment purchases.

### U.S. banks tightening real estate lending, quarterly net percentage



Multifamily loan growth to developers and landlords is slowing.

### Multifamily property loans, percentage change from a year earlier



Permits for new multifamily units have declined meaningfully from the postrecession highs.

### New privately owned housing units authorized



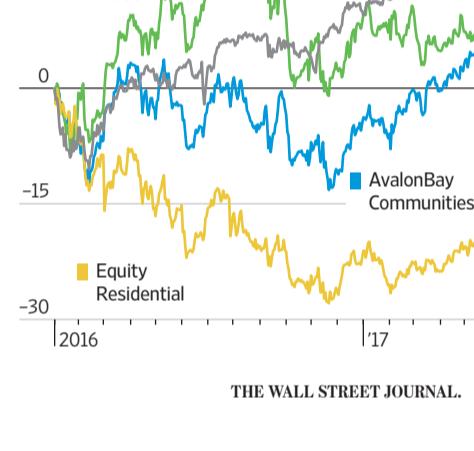
Rental inflation remains high but it could be peaking as renter competition heats up.

### Rental inflation



The luxury-apartment business has boomed in recent years, but rising supply is now weighing on shares of firms such as Equity Residential, a real estate investment trust.

### Percentage change since 2015



Sources: Federal Reserve Bank of St. Louis; U.S. Census Bureau (housing units, vacancy); Board of Governors of the Federal Reserve System (tightening; loan growth); U.S. Bureau of Labor Statistics (rental inflation); FactSet (stocks, S&P 500); National Bureau of Economic Research (recessions)

THE WALL STREET JOURNAL.

# HEARD ON THE STREET

Email: [heard@wsj.com](mailto:heard@wsj.com)

FINANCIAL ANALYSIS & COMMENTARY

[WSJ.com/Heard](http://WSJ.com/Heard)

## OVERHEARD

One word: slime. American children's recent penchant for the gooey stuff has spawned thousands of how-to videos, thrown kitchen tables across the country into disarray and created a cottage industry of slime producers. It has also been a bright spot for certain U.S. companies.

Elmer's glue is a key slime ingredient, and that has been good news for Elmer's parent, **Newell Brands**.

On its earnings call last week, Newell Chief Executive **Michael Polk** said the company is "driving new brand activity to markets around making slime with Elmer's to meet the incredible consumer-driven need to make slime."

**Office Depot** is seeing that firsthand.

On its earnings call, Chief Executive **Gerry Smith** said that the company's marketing teams "noticed the slime trend was building in February on social media," and the company responded by quickly increasing its glue inventory and partnering with Elmer's to make a child-friendly recipe.

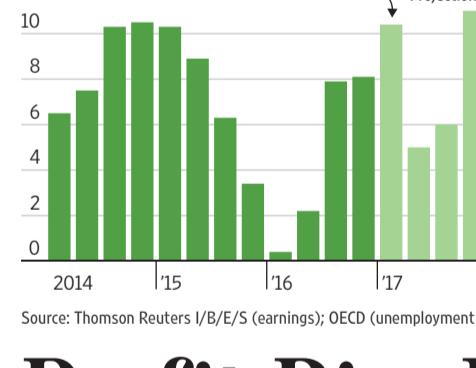
The result, according to Mr. Smith: "We sold more glue in the first quarter than we did in the entire year of 2016."

Craft chain **Michaels**, which has styled itself the "ultimate slime headquarters," is also catching the wave. Credit Suisse analysts said in a note last month that they were encouraged by the retailer's "trend-right product placement in the stores, namely prepackaged bundles that include ingredients for slime located near store entrances."

Alas, no fad can last forever. The marketing team might not have broken the news to management yet, but there are these things called fidget spinners...

## Offshore Opportunity

S&P 500 earnings, excluding the energy sector, change from a year earlier



Unemployment rates for the U.S. and euro area



Source: Thomson Reuters I/B/E/S (earnings); OECD (unemployment rate)

## Profit Rise Lies Abroad

This year is shaping up to be a very good one for American companies. Just not at home.

First-quarter earnings per share at companies in the S&P 500 are on track for a gain of 14.6% versus a year earlier, according to Thomson Reuters I/B/E/S. Analysts are saying the rest of the year looks good, too.

Those forecasts might prove accurate, but probably not because of what is happening in America. A range of factors will make doing business overseas much more profitable for U.S. companies. This situation could create a sharp divide between the stock market's haves and have-nots.

The U.S. economy remains stuck in the same slow-growth track, but with the unemployment rate at 4.4%, the job market has gone from tightening to tight. That has set the stage for wages to accelerate, putting earnings at risk.

Analysts at Goldman Sachs estimate that for every-point increase in labor-cost inflation, earnings for companies in the S&P will get shaved by 0.8 percentage point. Goldman's economists estimate wages are now up 3% on the year.

Throw in the likelihood of Federal Reserve interest-rate increases, and the greatly diminished odds of a corporate-tax cut this year, and it is hard to be all that upbeat about U.S. profit growth.

But the U.S. accounts for only about 56% of the sales at the companies that comprise the S&P 500, according to S&P Dow Jones Indices. The rest comes from overseas, and the profit outlook there is stronger.

Growth outside the U.S. appears to be picking up, there is still plenty of labor-market slack in many countries, and central banks are still a while off from raising rates.

Consider the euro area in particular, which according to the Commerce Department accounts for about 40% of the income generated by U.S. multinationals' overseas operations. Europe is growing more rapidly than the U.S., but its unemployment rate, at 9.5% in March, is much higher. Put simply, says Bank of America Merrill Lynch economist Ethan Harris, "the U.S. is running up against labor-supply constraints and Europe isn't."

That ought to translate into substantially stronger profit growth for U.S. multinationals' European opera-

tions. Workers aren't in a position to ask for raises, and companies, which aren't running close to capacity, don't need to add new workers quickly to meet rising demand. An added bonus: The euro has been strengthening in recent months, which translates into higher dollar profits.

Emerging markets, meanwhile, have largely recovered from the financial stresses that walloped them last year, and are benefiting from the improvement in Europe and other parts of the developed world, points out J.P. Morgan Chase & Co. economist Joseph Lupton. That should in particular benefit U.S. multinationals that sell into global supply chains.

The upshot is that the more business a company does overseas, the better its profit growth ought to be in the year ahead. So larger companies, which tend to have greater overseas exposure, might shine. The same is true of more globally exposed areas of the market, such as the technology sector. More U.S.-focused companies, such as retailers, and small companies could get left out.

For investors, it is time to get more worldly.

—Justin Lahart

## Billionaire's Bid for Dior Looks Dated

France's richest man may need to dig deeper into his pocket if he wants to straighten out his tangle of shareholdings in **LVMH** and Christian Dior.

Bernard Arnault announced last month that he wanted to buy out minority shareholders in **Christian Dior**, the listed entity through which he owns most of his stake in LVMH. He would pay what he said was Dior's book value of €260 (\$284.22) a share, in a mixture of cash and shares in a third luxury company whose shares he owns, **Hermès**.

But if the offer was ever pitched at book value, it no longer is. Mr. Arnault used different methodologies for valuing Dior's 41% stake in LVMH, which accounts for most of the company's book value, and his own stake in Hermès, which accounts for about a third of the offer package. The Dior stake in LVMH was valued using one-month and three-month average share prices, while the Hermès stake was valued using the last available price.

Since luxury shares have rebounded very strongly year-to-date, the inconsistency had the effect of understating Dior's book value by about €14 a share.

The other problem is that LVMH shares have risen about 8% since the deal was announced, while Hermès shares have fallen 4%. Plug the latest share prices into Mr. Arnault's model and Dior is worth €293 a share, while his offer is worth just €257—a 12% discount. The billionaire essentially wants to buy Christian Dior's fashion house, which is the company's only other asset, for free, only to sell it on to LVMH for €6.5 billion.

Some of the price moves

since Mr. Arnault's offer may be self-fulfilling. Dior shareholders, instead of waiting for the tender, have probably rotated into LVMH shares. They may have also sold Hermès shares, anticipating that they will receive fresh ones from Mr. Arnault.

Still, Dior's shareholders have little to gain from selling out at a 12% discount to book. In the month before the announcement, the Dior discount to book value as implied by LVMH's stock price averaged 15%, calculates brokerage Bernstein. If Mr. Arnault wants the Dior minorities, he will probably have to offer more for them.

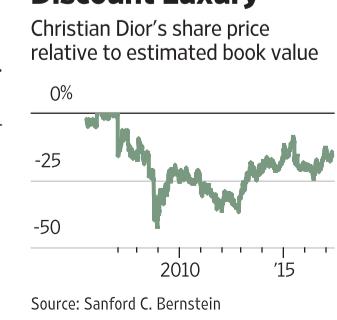
Of course, he might choose to walk away instead. Dior shares would then likely fall in rhythm with LVMH's, which have also been buoyed by the earnings-boosting prospect of integrating the Dior fashion house. But this risk can be covered by a short position in LVMH stock. A stake in Dior would then amount to a pure bet that the discount between the companies' valuations will close.

This seems a reasonable bet to make. Mr. Arnault has made clear he wants to simplify his empire, yet the discount remains almost as wide as it was before. That can't last.

—Stephen Wilmot

## Discount Luxury

Christian Dior's share price relative to estimated book value



Source: Sanford C. Bernstein

THE WALL STREET JOURNAL.