

# THE WALL STREET JOURNAL.

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## What's News

Business & Finance

Uber's new CEO said he would aim for an IPO as soon as 2019, setting the stage for what would be one of the most highly anticipated debuts in recent memory. **A1**

◆ The U.S. economy expanded at its most robust pace in more than two years in the spring and appears to have momentum going into the second half. **A7**

◆ The FDA approved Novartis's first-of-its kind cancer therapy aimed at bolstering a patient's own immune cells, while the drugmaker attempted to allay worry over the cost. **B1**

◆ Amazon introduced this week hundreds of Whole Foods products to its website, a new impetus for online grocery shopping. **B1**

◆ GOP plans to scale back tax deductions on firms' interest payments risk pushing more borrowing outside the U.S. **B1**

◆ One of the U.S.'s largest securities clearinghouses said it would no longer settle Venezuela bond trades. **B1**

◆ Hyundai was forced into a weeklong production halt in China amid a dispute between Beijing and Seoul. **B3**

◆ Toyota plans to dive deeper into the ride-hailing business by teaming up with Singapore startup Grab. **B3**

◆ 1MDB said it paid the second part of a missed installment to an Abu Dhabi state investment fund. **B7**

◆ Apple is allowing Chinese customers to use local mobile-payment system WeChat Pay for App Store purchases. **B4**

### World-Wide

◆ The U.S. carried out two airstrikes aimed at stopping Islamic State militants evacuated from the Lebanese-Syrian border from going to a stronghold in Syria. **A1**

◆ Harvey came ashore again, bringing heavy rains and whipping winds—but far less destruction—to southwestern Louisiana. **A1**

◆ The storm is upending petroleum flows worldwide, a consequence of the U.S.'s growing influence in the global energy sector. **A6**

◆ The U.N. Security Council condemned North Korea in the aftermath of its missile launch over Japan. **A3**

◆ Trump and his national security team gave mixed messages about the U.S. approach to North Korea, with the president suggesting the window for talks has closed. **A3**

◆ NATO said it would send three observers to Russia's Zapad military exercise but said Moscow's invitation fell short of obligations. **A5**

◆ Trump called on Congress to approve a steep cut in corporate tax rates and simplify the U.S. tax system. **A7**

◆ U.S. officials are worried that politics could threaten funding for a children's health-insurance program. **A7**

◆ American and Iraqi officials are concerned next month's referendum on Kurdistan's independence will lead to the breakup of Iraq. **A4**

◆ At least 18,000 Rohingya Muslims have fled violence in Myanmar and crossed into Bangladesh in recent days. **A5**

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## WORLD NEWS

# Uber Faces Probe Under Bribery Law

Justice looks at whether managers breached Foreign Corrupt Practices Act

BY DOUGLAS MACMILLAN  
AND ARUNA VISWANATHA

The Justice Department has taken preliminary steps to investigate whether managers at **Uber Technologies** Inc. violated a U.S. law against foreign bribery, according to people familiar with the matter.

The agency has begun to review allegations that Uber may have violated the Foreign Corrupt Practices Act, which bans the use of bribes to foreign officials to get or keep business, these people said. Based on what it finds, the Justice Department may or may not decide to open a full-fledged FCPA investigation into Uber.

It is unclear whether U.S. authorities are focused on one country or examining activities in multiple countries where the company operates.

An Uber spokesman confirmed the company is cooperating with the Justice Depart-

ment on the preliminary investigation.

"As a matter of policy, the department generally neither confirms nor denies the existence of an investigation," a Justice Department spokeswoman said.

Under former Chief Executive Travis Kalanick, the eight-year-old company spread rapidly to more than 70 countries in part by giving regional teams authority to adapt to local markets and expand as quickly as possible, sometimes flouting local laws.

In South Korea and France, for example, it was found to violate transportation laws. In Singapore, local managers bought more than 1,000 defective cars last year and rented them out to drivers, fixing the safety defect only after one of the cars caught on fire, a probe by The Wall Street Journal found this month. Uber said it has since added safety measures and fixed all of the defective cars in Singapore.

News of the preliminary bribery investigation comes as Uber plans to usher in a new chief executive, Expedia Inc. CEO Dara Khosrowshahi, to succeed Mr. Kalanick, who re-

signed in June after months of scandals, legal issues and an internal investigation into allegations of sexism.

Mr. Khosrowshahi said Tuesday he plans to accept the job once his employment contract is ironed out.

As Mr. Khosrowshahi steps in, Uber faces growing pressure from U.S. authorities. The Justice Department is sepa-

rately pursuing a criminal investigation into "Greyball," a software tool employees used to evade law-enforcement officials, people familiar with the matter said in May.

Uber hasn't commented on the probe.

And this month, Uber settled Federal Trade Commission charges that it didn't offer sufficient privacy

protections for its users. The company didn't admit nor deny the allegations as part of the settlement.

The FCPA, a 1977 law, has seen an increase in enforcement over the past decade. It bars companies from paying bribes to officials of foreign governments and requires firms to keep accurate books and records, including on for-

ign transactions.

Companies sometimes self-report infractions of the FCPA to the Justice Department and the Securities and Exchange Commission, which jointly enforce the law. Other times, the agencies pursue their own investigations.

—Newley Purnell  
and Greg Bensinger  
contributed to this article.

## UBER

*Continued from Page One*  
a chairman "to be my partner at the board level."

Uber's current chairman is co-founder Garrett Camp, who is expected to be replaced in that role but remain a director after the board mandated it hire an independent chairman.

One of Mr. Khosrowshahi's first duties is to fix the company's employee culture, which under Mr. Kalanick was guided by a list of 14 corporate values including "toe-stepping" and "principled confrontation." An internal investigation earlier this year into allegations the company ignored complaints of

sexism and sexual harassment led to the dismantling of those corporate values.

"If culture is pushed top down, then people don't believe in it," Mr. Khosrowshahi said, according to Uber. "Culture is written bottoms up."

Uber directors who have been battling for months over the future of the \$68 billion company took pains to demonstrate broad support for Mr. Khosrowshahi.

In an email to employees on Tuesday announcing his hire, the board emphasized the vote was unanimous. Benchmark Capital, which sued Mr. Kalanick to try to oust him from the board, said in a message on its Twitter account late Tuesday that "We've been admirers of

the work and character" of Mr. Khosrowshahi, "and are thrilled to have him leading @Uber 2.0." Media magnate and Uber director Arianna Huffington tweeted a "special selfie" photo of her, Mr. Kalanick and Mr. Khosrowshahi beaming arm-in-arm in front of employees.

And yet behind the scenes, the legal battle dividing the board and shareholders continued. A Delaware Chancery Court judge sent to arbitration a suit from Benchmark against Mr. Kalanick seeking the return to board control of three board seats he oversees, which would effectively push him out as a director. That marks a victory for Mr. Kalanick who had contested a public trial.

Benchmark, which owns about 13% of Uber, has argued Mr. Kalanick has reneged on a contractual agreement to turn the board seats over and defrauded the company by not disclosing questionable business practices, including a program to evade authorities through use of a phony app.

Mr. Kalanick in filings has called the lawsuit a personal attack and pledged to fight it.

Before the all-hands meeting, another investor who has aligned himself with Mr. Kalanick, Shervin Pishevar, released a letter in his defense that he said was meant to "defend what is right and to protect the interest of not only shareholders but most importantly the far more important stakeholders of employees, drivers and customers."

## IP

*Continued from Page One*

The study is causing a stir among economists, some of whom are skeptical of its conclusions. Yet its basic finding is eye-opening.

In the study, Jan De Loecker of Belgium's University of Leuven and Jan Eeckhout of **University College London**

**CAPITAL ACCOUNT** start from the economic assumption that in

a competitive market, a company can't charge much more for a product than the cost of making one more (what economists call the "marginal cost"). If it did, another company would swoop in and undercut it.

The authors analyze data on every publicly traded company in the U.S. back to 1950 to determine how much its revenue exceeded its variable costs, such as labor and commodities. That excess, what they call the markup of price over marginal cost, fluctuated between 16% and 32% until 1982 and has since climbed steadily, to 67%. The trend holds across industries, and is more pronounced in smaller rather than the biggest companies.

This, they say, is proof that companies are increasingly able to exert "market power," that is, charge higher prices so as to boost profits at the expense of consumers.

Other studies have come to similar conclusions. One by former President Barack Obama's Council of Economic Advisers found return on capital had become astronomical for the most profitable publicly traded companies, which shouldn't be possible if competitors could freely enter their market.

The latest study goes even further, arguing the prevalence of market power helps explain deeper economic maladies. A company with such power often restricts production to prop up prices and profits. Messrs. De Loecker and Eeckhout argue this reduces demand for labor and thus explains why wages for low-skilled workers have stagnated in recent decades. Lower wages also discourage people from working, which depresses labor-force participation.

They add that markups may be evidence of barriers to entry by new competitors, which is corroborated by slumping business startup rates. The especially sharp rise in markups since 2009, they say, may explain why

economic growth has been so tepid since.

The paper's novel approach and audacious claims have attracted widespread attention in the blogosphere. Dietrich Vollrath, an economist at the University of Houston, calls it "an intriguing (and very large) step forward."

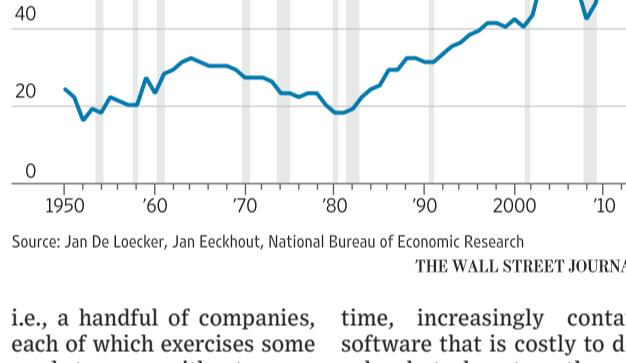
But some of its claims invite skepticism. Ample evidence already links depressed wages to globalization, weaker unions and the demand for skills. Growth has been weak globally since 2009 and seems due mostly to aging and repairing the damage of the financial crisis. The link to market power thus far appears mostly circumstantial.

By focusing on variable costs the authors may underestimate how companies' fixed costs have risen, to pay for things such as software, computers, research and development and marketing. One major fixed cost, depreciation, has risen from 12% of GDP in the 1960s to around 16% as companies spend more on tech equipment that quickly becomes obsolete.

Tyler Cowen, a blogger and economist at George Mason University, writes that this might lead to more "monopolistic competition,"

## More Power to Them

The 'markup' that companies can charge over their marginal cost has risen steadily, potentially a sign of declining competitive forces that keep prices in check.



Source: Jan De Loecker, Jan Eeckhout, National Bureau of Economic Research

THE WALL STREET JOURNAL.

i.e., a handful of companies, each of which exercises some market power, without generating excessive profits because these companies have to invest so much. The study's authors say profits have risen, but Mr. Cowen disputes their data.

One example of this is banks that now spend more on information technology to manage risks and to design and market products rather than on branches. This favors large banks that can spread those costs over many more customers. Cars, mean-

time, increasingly contain software that is costly to develop but almost costless to reproduce, such as Tesla Inc.'s self-driving software, an enhanced version of which the company sells as a \$5,000 option.

The question for trust busters is whether this move toward companies with higher fixed costs and more market power is benign or malign. The policy implications are either "We're being too lenient," which is what we heard in the corridors of Europe, or it could be, "Here's

the way business models are evolving," says Mr. De Loecker.

Last week, the **Federal Trade Commission**

blessed Amazon.com Inc.'s purchase of Whole Foods Market Inc., no surprise since the combined company would control only a small slice of the grocery market. And Amazon, whose profit margins are infamously thin anyway, immediately cut prices on dozens of items—a move sure to depress rather than raise markups.

Critics worry that once Amazon has eliminated its competitors, it will be free to jack up prices or squeeze suppliers. Yet the very thing that in theory makes that possible, Amazon's size, also justifies the investments in technology and real estate that make its offerings so irresistible to customers and difficult for competitors to match. For instance, Whole Foods doesn't just give Amazon a big footprint in groceries, but a network of physical pickup locations close to its most affluent customers.

The latest study doesn't resolve these tensions. But the questions it raises about how corporate size is reshaping the economy beg for further investigation.

## CAT

*Continued from Page One*

"You're in a place where everything is stripped from you, and you can't go to the bathroom without permission," said former inmate Sean Pica, who left Sing Sing in 2002, "and you find this animal who doesn't look at you differently."

Rikers Island, which holds New York City's jail complex, once had about 1,000 outdoor cats, said retired Capt. Gloria Murli.

In the early 2000s, volunteers neutered about 400, neatly clipping the tips of one ear to keep track. Once a jail kitty, always a jail kitty, Capt. Murli said. "You can't just take the cat and throw it into some other neighborhood."

She hopes to neuter at least 100 more.

At New Jersey's Bayside State Prison, inmates used to catch and raise cats, stashing them in lockers during counts and inspections. In 2014, after prison officials and the non-profit Alley Cat Allies clashed over a cat-feeding ban, the non-profit helped neuter and return nearly 150 cats to the grounds the next year, said Becky Robinson, its president.

As for Sing Sing, no one knows how the cats got there. Rumor has it tomcats were brought in to control ubiquitous rats at the aging prison, said Mr. Pica. The problem was they weren't all toms.

Others say feral cats, lured by mess hall scraps, simply showed up. In the 1970s, cats lived out in the open among officers and "really rough guys," said filmmaker David Hoffman, who taught a drama class at the prison. "The



ple, but you would see them caring for these cats, and nurturing and protecting them," Mr. Jimenez said.

Among inmates' favorites: A different Midnight, who took up residence in the school building and was later adopted by the librarian. "She finally got parole," the inmates joked of the cat, who died last year.

Among guards' Mama, the tortoiseshell kitty who lives outside the prison entrance. "She's my second officer," said one guard, referring to her pawed partner. "From the moment I come in she's by my side."

As for Tiger, Mr. Jimenez, 47 years old, was among the early inmates adopted by the orange tabby. Then, Tiger would catch mice, proudly sitting by his trophies at the cell block's entrance. The cat, trotting with his tail in the air, pounced on joggers in the yard.

The tabby slept in Mr. Jimenez's cell. At 6 a.m., Tiger would jump on his bed to get his attention, then leap to the window and wait for him to get up.

Tiger, Mr. Jimenez noted with disapproval, could once

**Labor Department** data were the source for a chart showing unadjusted U.S. jobless claims that accompanied a Heard on the Street column Wednesday about wage growth. The chart incorrectly said that the source was the Bureau for Labor Statistics.

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enter the prison through barred windows but has since gotten too fat to squeeze through.

Current inmates extolled Tiger's virtues: He obeys the officers. He scared off a groundhog that menaced lettuce in the garden. He beat up a possum. He lets a favorite inmate, Ace, play with his back paws. "Only Ace," an inmate said.

On a recent morning, the tabby sat on a prison staircase, cautiously eyeing a visitor. "Tiger's scared of women," another inmate explained, noting a previous female caller carted him off to the vet.

"It's kind of ironic you have violent criminals ready to defend him," said inmate Jerome Archer, 44. The cat, Mr. Archer said, was getting old, fat and slow. "But we love him."

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## CORRECTIONS & AMPLIFICATIONS

**Labor Department**

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# WORLD NEWS

## South Koreans Feel Sidelined in Crisis

'Korea passing' enters the lexicon to describe the view that the U.S. is bypassing Seoul

By JOHN LYONS

SEOUL—Like many in this gleaming South Korean capital, Kim Hyun-soo says he feels like a helpless bystander in the nuclear standoff between the U.S. and North Korea, even though his fate hangs in the balance.

South Koreans are watching from the sidelines as U.S. President Donald Trump threatens North Korea with "fire and fury" and North Korea's leader Kim Jong Un vows to reduce the U.S. to "huge heaps of ashes." It's an unnerving position, locals say, since this city of 10 million could be leveled in the first minutes of any conflict.

The South Korean feeling of being bypassed in a debate affecting their future even has a name: "Korea passing." The phrase, which gets increasing use these days, is pronounced in English with a South Korean inflection—and often with a healthy mix of frustration, resignation and irony.

"It doesn't feel good to be excluded. South Korea is the party with the most at stake," says Mr. Kim, a 38-year-old accountant from Seoul.

Many North Korea watchers in Seoul say the U.S. looks first to China and even puts Japan ahead of South Korea when it comes to dealing with the North. The Trump administration has yet to name an ambassador to Seoul, for example, while it has sent envoys to Beijing and Tokyo.

Following North Korea's launch Tuesday of a missile over Japan, Mr. Trump spent 40 minutes on the phone with Japanese Prime Minister Shinzo Abe. No such call happened with South Korean President Moon Jae-in, a left-leaning former human-rights lawyer.

Still, U.S. officials have repeatedly reiterated the U.S.'s commitment to protect South Korea. Mr. Moon met with Mr. Trump in June in Washington, while U.S. Vice President Mike Pence, Defense Secretary Jim Mattis and Secretary of State Rex Tillerson have each made visits to Seoul, in part to reassure South Korea that the Trump administration stands by its security alliance. The U.S. State Department didn't respond to a request to comment.

The administration of South Korea's Mr. Moon says it doesn't recognize the term "Korea passing." The phrase, initially used by experts in Asian policy-making circles to describe the state of U.S.-South Korean relations, has become more commonplace in recent months to describe how Seoul is seemingly ignored by other regional players as well, including North Korea.

South Korean officials say their government is being heard and they don't need to respond every time Mr. Trump fires off a



People prayed for peace on the Korean Peninsula during a religious service near the U.S. Embassy in Seoul on Tuesday, the day the North fired a missile over Japan.

tweet, or North Korea's Mr. Kim issues a threatening statement. South Korea's defense minister, Song Young-moo, met with U.S. Defense Secretary Mattis on Wednesday in Washington.

Mr. Moon is seeking to assert a stronger role for South Korea. In a recent speech, he said any military strikes against North Korea would require South Korea's approval, even though many analysts say the U.S. is unlikely to seek permission if its security is threatened.

On Monday, Mr. Moon vowed to upgrade South Korea's military capabilities, including developing greater offensive capabilities that would allow the country to forcefully respond to attacks from the North. Adding military muscle could give South Korean diplomacy more weight.

South Koreans' sense of being left out grew in April, when Mr. Trump met with Chinese President Xi Jinping as part of an effort to enlist China to pressure North Korea economically.

After the summit, Mr. Trump said Mr. Xi had explained to him that Korea was part of China dating back to antiquity. Mr. Trump's statement—disputed by many historians—was interpreted in Seoul as another sign of dwindling relevance.

Since then, Mr. Trump has issued Twitter messages calling on China to do more about

North Korea, but he rarely mentions South Korea. On Wednesday, he tweeted that talking with North Korea isn't the solution, taking a different approach from President Moon's emphasis on dialogue with Pyongyang.

Meantime, South Korea is ignored by North Korea, adding to the local perception of "Korea passing." After North Korea tested an intercontinental ballistic missile July 4, South Korean President Moon proposed a round of North-South talks at a border village. North Korea never responded.

Critics say Mr. Moon's campaign-trail opposition to the installation of a U.S.-made antimissile system risked pushing the U.S. away. The system, known as Terminal High-Altitude Area Defense, or Thaad, was partially installed before Mr. Moon took office in May.

Mr. Moon has warmed to the missile-defense system since taking office. But now members of his more-progressive voter base, including Buddhist monks, attack him for being a lackey of Washington.

"Thaad is now one of the main examples of 'Korea passing,' where the U.S. gets what it wants," said Kang Hyun-wook, a Moon supporter and Buddhist monk who is helping to organize protests against Thaad.

—Min Sun Lee contributed to this article.

### U.S. Missile Defense Gaining Acceptance

SOSEONG-RI, South Korea—Climbing to a high outcropping in this rural corner of South Korea, a hiker can spot a pair of U.S.-made antimissile launchers parked on a golf course in a forested valley, aimed high over jagged mountains toward North Korea.

The bucolic scene is at odds with the controversy around the launchers, part of a Terminal High-Altitude Area Defense, or Thaad, battery installed here in April amid mass protests and a presidential race in which the winning candidate, President Moon Jae-in, questioned the deployment.

For months, a mix of antiwar Buddhists, university activists and local villagers protesting the Thaad system from a roadside encampment seemed to be gaining the upper hand. After taking office in May, Mr. Moon halted the deployment of four additional launchers needed to complete the battery, pending environmental review.

Then, North Korea tested an intercontinental ballistic missile July 4. Public approval for deploying the system has surged to 72% from around 50% earlier in the year, a recent Gallup Korea poll showed. Mr. Moon gave the



U.S. military officers visit the Thaad site in South Korea.

go-ahead for the completion of the Thaad battery after the launch on July 28 of a second North Korean ICBM.

These days, only a handful of protesters remain camped in blue tents draped with "No Thaad, No War" along the country road leading to the now-closed golf course where the Thaad battery sits. They have vowed to block delivery of the remaining launchers.

South Korea is paying a price for Thaad, however. Rankled by Thaad's ability to peer into Chinese airspace with powerful X-band radar, the Chinese are making fewer tourist trips to South Korea and boycotting its car makers and other businesses,

such as the Lotte Group, a conglomerate that provided the golf course for the Thaad battery.

Anti-Thaad activists question whether Thaad, which doesn't even cover Seoul, is meant to protect South Korea. They suspect the system's true purpose is to pick off missiles aimed at U.S. bases in Korea, Japan and Guam, or even the U.S. mainland.

Protesters from the village of Soseong-ri, close by the Thaad site, complain about the installation. "Thaad means everyone in this valley will die in a war," said Do Geum-nyeon, an 81-year-old resident. "If President Moon likes Thaad so much, he should bring it to his house."

—John Lyons

BY FELICIA SCHWARTZ

WASHINGTON—President Donald Trump and his national security team issued mixed messages about the U.S. approach to North Korea on Wednesday, with Mr. Trump suggesting that the window for talks has closed.

"The U.S. has been talking to North Korea, and paying them extortion money, for 25 years. Talking is not the answer!" Mr. Trump said in an early morning Twitter message.

Defense Secretary Jim Mattis, appearing later at the Pentagon with his South Korean counterpart, said the U.S. is "never out of diplomatic options."

Last week, Secretary of State Rex Tillerson praised Pyongyang for exercising "restraint" by not conducting missile tests during joint annual exercises between the U.S. and South Korean militaries, which began on Aug. 21. However, Pyongyang then launched a battery of missiles last Friday, following them with an intermediate-range ballistic missile launch on Tuesday.

The government of South Korea, led by new President



South Korean soldiers took part in annual joint military exercises in Yongin Tuesday.

Moon Jae-in, also has said it wants to pursue a peaceful resolution to expanding hostilities.

It wasn't clear what Mr. Trump meant by "extortion money." Previous U.S. administrations have employed both carrots, such as humanitarian aid, and sticks, including sanctions, to try to confront North Korea's nuclear program.

The Trump administration has been ratcheting up sanctions and has sought the help of China and other countries to pressure Pyongyang, which has continued missile tests and other provocative actions.

The U.S. Navy and the Missile Defense Agency also conducted a previously scheduled missile defense test off the

coast of Hawaii, the Missile Defense Agency said Wednesday.

In the test, the U.S. guided-missile destroyer John Paul Jones successfully intercepted a medium-range missile target off the coast of Hawaii using Standard missile-6 guided missiles, the Missile Defense Agency said.

—Nancy A. Youssef contributed to this article.

## U.N. Condemns Missile Launch

BY FARNAZ FASSIHI

UNITED NATIONS—The United Nations Security Council adopted a statement condemning North Korea "for its outrageous actions and threats against another U.N. member state" in the aftermath of its latest launch of a missile that flew over Japan.

The "presidential statement," which counts as the council's fastest form of reaction to events, reiterated that North Korea is in violation of multiple Security Council resolutions banning ballistic-missile and nuclear tests.

"The Security Council expresses its grave concern that the DPRK is, by conducting such a launch over Japan as well as its recent actions and public statements, deliberately undermining regional peace and stability and has caused grave security concerns around the world," the statement said, referring to North Korea by its acronym.

The statement stopped short of spelling out consequences for North Korea's re-

fusal to comply and didn't specify whether the council was considering further action, such as tightening economic sanctions.

The U.S. has maintained that all options, including a military one, are on the table. But Russia and China, two countries that hold veto power on the Security Council, have made it clear that they would block the council from handing the U.S. endorsement or permission for military escalation.

Earlier Tuesday, U.S. Ambassador Nikki Haley said the council must get serious in reacting to North Korea's repeated provocations. In a statement after the Security Council meeting, she said: "The world is united against North Korea. The United States will not allow their lawlessness to continue. And the rest of the world is with us."

U.K. and French ambassadors, close allies of the U.S. on North Korea policy, told reporters that the international community must stand united in sending a strong message of condemnation to North Korea.

## WORLD NEWS



AZAD RASHEED/REUTERS

Kurdish people gathering this month in northern Iraqi city of Kirkuk in support of a controversial plan to hold a referendum on Iraqi Kurdistan's independence, to be held on Sept. 25.

# Kurdish Statehood Plan Alarms Iraq, U.S.

Independence vote is to be held in an ethnically mixed region in September

Ibrahim Mahmood has been waiting to return to his hometown of Zummar in Iraq's Kurdistan region since Kurdish militias kicked him out three years ago, early in the battle against Islamic State.

By Maria Abi-Habib  
in Beirut and Ghassan Adnan in Baghdad

But a referendum on Kurdistan's independence—planned for next month and certain to pass—will likely dash the hopes for return Mr. Mahmood shares with thousands of other Arabs displaced from the semiautonomous northern region during the latest war. American and Iraqi officials say they are worried the vote, hailed by Kurds as an exercise in democracy, will lead to the violent breakup of Iraq just as it is on the verge of expelling Islamic State.

"We will lose everything in this referendum," said Mr. Mahmood from a refugee camp in Baghdad, where he lives in a cramped tent with his wife, three children and his brother's family.

"We thought the end of Islamic State in Mosul would be an end to this violence," the 32-year-old said. "But the Kurds are now making their demands. We need to take the defense of our people into our hands."

The referendum, set for Sept. 25, is an initiative of the Kurdistan Regional Government, which administers a



Peshmerga forces clashing with Islamic State militants in November 2016 in Bashiqa, east of Mosul.

AZAD LASHKARI/REUTERS

semiautonomous region roughly the size of Ireland and home to some 5.2 million people. Since 1991 Kurdistan has enjoyed broad self-rule under the Iraqi constitution, with its own security forces and immigration controls.

While Washington and Baghdad oppose the independence vote even within that region, they have expressed particular alarm that it is to be held across the far broader, ethnically mixed swath of northern Iraq where Kurdish Peshmerga fighters played a key role in expelling the Sunni Arab extremists of Islamic State.

In three years of chaotic fighting, Peshmerga fighters have grabbed disputed territory from their Arab neighbors, human-rights groups and Iraqi officials say. The referen-

dum, they say, would solidify demographic changes wrought by the conflict, feed longstanding grievances of the Sunni Arab community, and possibly set off clashes between Kurds and Arabs over contested areas across four provinces.

Mr. Mahmood's hometown of Zummar has a recent history typical of many such disputed territories. Islamic State briefly controlled the town until U.S.-backed Peshmerga fighters expelled the group in August 2014. But then the Kurdish militia kicked out the town's Arab residents and laid claim to their homes, according to residents and human-rights groups.

"The Peshmerga treated us like Islamic State did," Mr. Mahmood said.

The Kurdistan Regional Gov-

ernment, or KRG, denies that Kurdish forces forcefully displaced Arabs, and Majid Shigali a senior Kurdish member of Iraq's parliament, defended the referendum and the ambition to make Kurdistan independent.

"We don't expect there to be any problems as all sides want to live in peace," Mr. Shigali said. "The only problem may surface is that of the disputed territories and in this case, we will craft a constitution to address it."

But U.S. and Iraqi officials say disputes won't be easily resolved, particularly in the oil-rich province of Kirkuk, claimed by Kurds and Arabs alike. The Peshmerga seized the ethnically mixed city in northern Iraq in June 2014, after Iraq's army fled south as Islamic State blitzed across lands bordering

Kurdistan.

"We oppose the referendum for a number of reasons," a senior U.S. official said. "The key one is the potential for violence, particularly if it is held in disputed territories like Kirkuk with its ethnic mix and various forces."

Arab Iraqis accuse the KRG of taking advantage of Baghdad's preoccupation with fighting Islamic State to seize Kirkuk, where the regional authorities voted on Tuesday to take part in the referendum, over the protests of representatives from the Arab and Turkmen communities.

While optimism over the referendum runs high among many Kurds, an independent Kurdistan would face considerable financial challenges. Like the government in Baghdad,

Kurdistan's government has a cash-strapped economy heavily dependent on oil revenues, which fell to historic lows this year. A regional real-estate boom ended in 2014 and construction cranes dotting the skyline of its capital, Erbil, now stand idle.

The U.S. is concerned the referendum will break down the close cooperation between Kurdistan's government and Baghdad, an alliance that has been crucial to defeating Islamic State. The Iraqi military, backed by the U.S. and working with the Peshmerga and Iran-backed Shiite militias, has pushed the radical group out of the main northern city Mosul, and the same partnership scored a key victory on Sunday in the strategic town of Tal Afar, near the Syrian border.

## ISIS

Continued from Page One  
out #Iraq's consent," Brett McGurk, U.S. President Donald Trump's special envoy for combating Islamic State, tweeted ahead of the airstrike. "Our @coalition will help ensure that these terrorists can never enter #Iraq or escape from what remains of their dwindling 'caliphate.'

Iraqi Prime Minister Haider al-Abadi criticized the deal.

"We consider it an insult to the Iraqi people. Moving this number of terrorists for such a long distance through Syria is unacceptable," Mr. Abadi told reporters on Tuesday night. "We are fighting terrorism in Iraq and we are killing them in Iraq. We don't send them to Syria."

U.S.-backed Iraqi forces are battling Islamic State, recently ousting the group from Mosul, Iraq's second-largest city, and the strategic town of Tal Afar

near the Syrian border. Syrian government officials in the past have accused the U.S.-led coalition battling Islamic State of allowing some of the group's fighters to flee Mosul into Syria.

The Lebanese army earlier this month launched a ground operation in the country's mountainous northeast to clear it of Islamic State militants who controlled the territory for about three years. Syrian government forces and Hezbollah pressed a simultaneous but separate offensive from the Syrian side of the border.

The fighting stopped on Sunday after Hezbollah negotiated the cease-fire and evacuation agreement with Islamic State in return for information on the fate of nine Lebanese soldiers who were kidnapped by the group in 2014. Eight bodies believed to belong to the soldiers have since been retrieved by Lebanese authorities.

Hezbollah leader Hassan Nasrallah on Wednesday defended the agreement, saying



SCANIA  
A convoy of Islamic State fighters and their families leaving the Lebanon-Syria border.

OMAR SANADIKI/REUTERS

## WORLD NEWS

# Alliance To Monitor Russia Drills

Moscow says 12,700 troops will take part in the exercises. Western officials expect 70,000.

By JULIAN E. BARNES

BRUSSELS—The North Atlantic Treaty Organization announced it would send three observers to Russia's Zapad military exercise but said Moscow's invitation fell short of Russia's international obligations.

The statement from NATO came as the U.S. took over the Baltic air-policing mission in Lithuania.

The U.S. began flying seven F-15C jet fighters from the U.K. out of Lithuania on Wednesday. The U.S. fighters will begin standing alert to intercept unknown aircraft

Thursday, replacing four Polish F-16s.

NATO officials have warned the Zapad maneuvers, planned amid a military buildup in the region by the alliance and Russia, could serve as a screen for Russia to deploy more military equipment and heighten the risk of an accident or miscalculation that could touch off a crisis.

NATO will send two experts to Belarus and one to Russia. The experts will be allowed to attend the official "Visitor Day" of the exercise, NATO said.

Oana Lungescu, chief NATO spokeswoman, said that although the alliance welcomes the invitation "they are not a substitute" for the kind of observation required under the Vienna Document, an international agreement governing military exercises



The U.S. began flying seven F-15C jet fighters out of Lithuania on Wednesday as it took over the Baltic air-policing mission.

in Europe.

The Vienna Document, which has no enforcement mechanism, requires briefings on the exercise scenario and events, access to individual soldiers and overflights of the drill area.

"Russia and Belarus are instead choosing a selective approach that falls short," Ms. Lungescu said. "Such avoid-

ance of mandatory transparency only raises questions about the nature and purpose of the exercise."

Russian officials said Wednesday that the Zapad exercise would be under the threshold set by Vienna for inviting formal observation teams.

Russia plans to have 12,700 troops participate in Zapad.

NATO and U.S. officials have disputed that saying that they expect 70,000 or more troops to take part in Zapad and interconnected exercises.

NATO ambassadors met for an update on the Zapad exercise on Tuesday, according to allied diplomats. While Poland and Sweden, a NATO partner, are conducting drills in September, the alliance as a whole

won't hold any of its own exercises during Zapad.

While the alliance has increased the number of planes conducting the Baltic air-policing mission, it intends to keep the size of its ground force, roughly 4,000 personnel, steady in September, to avoid any moves that look like provocation, allied officials said.

## More Rohingya Flee Myanmar

By ASSOCIATED PRESS

COX'S BAZAR, Bangladesh—At least 18,000 Rohingya Muslims have fled fresh violence in Myanmar and crossed into Bangladesh in less than a week, with hundreds stranded in no-man's-land at the countries' border, the International Organization for Migration said.

Sanjukta Sahany, a spokeswoman for the organization in Cox's Bazar, on the Bangladesh border with Myanmar, released the figures as human-rights advocates for the Rohingya said the Myanmar army was retaliating for attacks last week by Rohingya militants by burning down villages and shooting civilians.

The Myanmar government blames Rohingya insurgents for the violence, including the arson. Government figures put the death toll since last week at a minimum of 103, including 12 members of the security forces, 77 persons described as insurgents and 14 civilians.

Rohingya advocates fear



Displaced people arrived at the boat jetty in Sittwe, in Myanmar's Rakhine state, on Wednesday.

hundreds of civilians may have been killed in army raids.

A report issued Wednesday by Myanmar's Information Ministry said that 45 improvised explosive devices were detonated and seven villages, one security post and two

neighborhoods in the township of Maungdaw burned down on Sunday and Monday.

Maungdaw, in the northern part of Rakhine state, is a center for the violence, though villages over a much wider area were also hit.

A majority of Myanmar's

estimated one million Rohingya live in northern Rakhine, where they have faced persecution in the Buddhist-majority country that refuses to recognize them as a legitimate native ethnic minority, leaving them without citizenship and basic rights.

city's local government asked all schools and colleges to shut down for a day.

Every year the city struggles to cope with the annual monsoon deluge, drawing criticism about its poor planning.

Heavy rain warnings have also been issued for other parts of the state of Maharashtra, where Mumbai is located.

A heavy rainfall alert has

also been issued for parts of Maharashtra's neighboring states of Goa and Gujarat.

India's monsoon season runs from June through September.

Since the start of the season this year, devastating floods across South Asia have killed more than 950 people and affected close to 40 million across northern India, southern Nepal and northern Bangladesh.

2018, economists said.

"Robust survey indicators in euro area countries suggest that growth should accelerate through the rest of the year," while the consumer confidence indicator close to a 16-year high bodes well for the consumer-driven recovery, said Madhavi Bokil, a vice president at Moody's Investors Service.

An improving economic outlook also prompted Moody's to raise its forecasts for growth in the eurozone to 2.1% in 2017 and 1.9% in 2018.

The European Commission said industrial companies in the 19-country euro currency bloc raised their employment plans in August and their selling-price-expectations increased, too. However, consumers' price expectations remained "virtually unchanged," the commission said.

But some economists caution that a rising euro and geopolitical tensions pose risks to the upswing.

While it remains to be seen if the euro's appreciation since the start of the year will put a damper on exports, it is becoming "an increasingly important part of the debate around the next policy move for the ECB," Angel Talavera, an economist at Oxford Economics, wrote in a recent note to clients.

A rising euro threatens to hurt the international competitiveness of goods produced in the eurozone. A rising euro could also weigh on the outlook for inflation as it reduces the prices of many imported goods.

## India's Financial Hub Hit by Floods

Associated Press

MUMBAI—Torrential monsoon rains paralyzed India's financial capital for a second day Wednesday as the streets turned into rivers and people waded through waist-deep waters.

On Tuesday, about 5 inches of rain fell on the city and its already hamstrung infrastructure collapsed.

Public transport stopped

and thousands of commuters were stranded in their offices overnight. Commuter trains shut down, buses were half-submerged in water and the delayed airport had to divert flights to other cities.

By Wednesday morning, most trains were running but traffic remained chaotic.

According to the Meteorological Department, more heavy rain was expected and the

city's local government asked all schools and colleges to shut down for a day.

Every year the city struggles to cope with the annual monsoon deluge, drawing criticism about its poor planning.

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## WORLD WATCH

### GAZA STRIP

#### Guterres Urges Israel To Ease Blockade

The U.N. secretary-general on Wednesday urged Israel to ease its blockade of the Hamas-ruled Gaza Strip and called for large-scale foreign aid, saying the situation in the isolated territory is "one of the most dramatic humanitarian crises" he has seen.

Speaking at a U.N.-backed elementary school in the northern Gaza Strip, António Guterres also called for unity among the Palestinians' warring factions—Hamas, which rules Gaza, and Fatah, the party of Palestinian Authority President Mahmoud Abbas.

"The division only undermines the cause of the Palestinian people," he said. In an apparent message to Hamas, he said "militantism" was causing damage to the region, adding that he had a dream to "come back to Gaza one day and to see Gaza as part of a Palestine state in peace and prosperity."

Mr. Guterres is on his first visit since taking office in January. During his visit, he met with Israeli and Palestinian leaders to encourage peace talks.

—Associated Press



SHELTER FROM THE SUN: Bishops at Pope Francis' weekly general audience in St. Peter's Square at the Vatican on Wednesday.

### VENEZUELA

#### U.N. Accuses Caracas Of Rights Abuses

The United Nations said Venezuela's security forces had committed extensive and apparently deliberate human-rights violations in crushing antigovernment protests and that democracy was "barely alive."

The actions indicated "a policy

to repress political dissent and instill fear," the U.N. human-rights office said, in a report that called for investigation and accountability. It called on President Nicolás Maduro's government to release arbitrarily detained demonstrators and to halt the unlawful use of military courts to try civilians.

U.N. High Commissioner for Human Rights Zeid Ra'ad al-Hussein was asked whether the country was now a dictatorship.

"I think we would argue that over the course of time we have seen an erosion of democratic life in Venezuela," the official said at a news conference. "It must be barely alive, if still alive, is the way I would look at it."

Some 882 people are believed to be in custody, among 5,341 detained in street protests since April, U.N. human-rights official Hernan Vales said. Detainees are often subjected to ill treatment, in

some documented cases amounting to torture, the report said.

—Reuters

### UNITED KINGDOM

#### Princes Pay Tribute To Princess Diana

Princes William and Harry visited a memorial garden at Kensington Palace in London dedicated to Princess Diana to

pay tribute to their mother's charity work on the eve of the 20th anniversary of her death.

The princes, accompanied by William's wife, the duchess of Cambridge, huddled under umbrellas in the pouring rain as they strolled through the Sunken Garden, which is planted with white flowers and dedicated to the princess at her former home, where she once strolled and where she used to talk with the gardeners about their ever-changing displays.

William and Harry, who have both promised to carry on their mother's charity work, also chatted with representatives from groups that Diana supported.

The princes then left the palace grounds to meet with members of the public, who had braved the rain for a chance to share memories of Diana with her sons.

The weeks before the anniversary of Diana's death have been met with reflection in Britain as the public remembers "the people's princess" and considers her contributions to the country and the monarchy.

Many brought flowers, which the princes gathered and laid in front of the black and gold gates of Kensington Palace.

—Associated Press

## HARVEY'S DESTRUCTION

# Economic Heft Gives Houston an Edge

City is equipped with means to recover faster than New Orleans did from Hurricane Katrina

By CHRISTOPHER M. MATTHEWS

Houston's economy will suffer a significant and perhaps unprecedented blow from Tropical Storm Harvey. But economists project that unlike New Orleans following Hurricane Katrina, Houston's resurrection is nearly certain.

By some estimates, Harvey could be the most expensive U.S. storm ever. Kevin M. Simmons, a disaster economist at Austin College, estimated that \$145 billion in property is at risk of being damaged.

Adam Kamins, an economist for Moody's Analytics, estimates the price tag could be as much as \$75 billion for southeast Texas. He predicts that the city could lose as much as \$10 billion in economic output, and that businesses might suffer some \$10 billion to \$15 billion in property damage from flooding. Economic output could be flat for two months following the storm but would likely grow thereafter, he said.

Hurricane Katrina is estimated to have cost about \$100 billion in property damage in 2005, the most costly storm in U.S. history to date.

But unlike New Orleans, the greater Houston area economy is better equipped to absorb the blow because of its size, diversity and prominence as the nation's energy hub.

Houston is the country's fourth-largest city by population and economic output, with 2.3 million people and a gross domestic product of more than



The greater Houston area is better equipped to absorb the blow from Harvey because of its size and prominence as the nation's energy hub.

\$503 billion in 2015, according to the most recent data from the Department of Commerce, making it roughly the size of Sweden's economy.

At the time of Katrina, New Orleans had a population of roughly 450,000 and an economy largely dependent on tourism. Following the storm, tens of thousands fled the city and never returned. Its population today is less than 400,000. "New Orleans was hurt because people didn't come back," said James Richardson, an economics professor at Louisiana State University.

"We're still not back to the pre-Katrina population."

Mr. Richardson studied Ka-

trina's effect on New Orleans and found it lost 190,000 jobs and employment fell by more than 30% from August 2005 to December 2005. "I would be surprised if there's a comparable net loss in Houston," he said. Mr. Richardson said part of Houston's resilience lies in its diversified economy.

While the city has long been tied to the boom-bust cycle of the oil industry, it has diversified in recent years. Some 84% of Houston's economy was dependent on the oil-and-gas industry during the 1980s, according to data from the Dallas Federal Reserve. But that had dropped to about 44% by 2016.

Houston boasts one of the

largest medical centers in the world. Its health-care and education industries were the city's largest employers as of 2014, according to a 2017 study by the Greater Houston Partnership, the region's chamber of commerce.

Houston and the surrounding region are also in the midst of a petrochemical boom, with more than \$50 billion of capital investment projected to create thousands of jobs.

Mr. Kamins of Moody's predicts the real "economic tragedy" will be for homeowners. He predicts that most of the property damage—\$30 billion to \$40 billion in damage to homes and vehicles—will be

residential and is unlikely to be covered by insurance. That could prevent a full-scale reconstruction effort and even potentially slow the region's rapid population growth, he said, but it wouldn't spark a Katrina-like exodus.

The storm had disrupted more than 15% of U.S. refinery capacity located on the Texas Gulf Coast by Tuesday, and that figure is climbing. Employees in all industries could be prevented from reaching their offices for days to come as roads remain impassable.

Trade in the Houston Ship Channel, the second busiest in the country by tonnage, has also come to a halt and could

need weeks before traffic resumes normal levels, according to analysts.

Regina Mayor, Houston-based head of energy at KPMG, said any damage at refineries had been relatively contained so far. While companies are losing millions of dollars a day while their facilities are idled, "they've been through this before and planned accordingly," she said.

Longer term, Ms. Mayor said, oil-and-gas companies may need to think about where and how they build offices. Houston's energy corridor, where many of the world's largest oil-and-gas companies have offices, sits in between two decades-old reservoirs built to contain floodwaters. Those reservoirs are expected to flood for the first time ever after water levels reached historic highs, according to the Army Corps of Engineers.

Richard Fisher, the former president of the Federal Reserve Bank of Dallas, said that construction would provide a short-term boost to the economy, but that there could be constraints on the available labor force if people leave and don't return and President Donald Trump pursues tighter immigration policies. "All these business will have to be reconstructed," Mr. Fisher said. "That's an enormous opportunity, but you can't rebuild Houston without Mexican labor."

Mr. Fisher also said the dozens of Fortune 500 companies in Houston are unlikely to relocate but that the city's small-business community could face challenges. Nearly 40% of small businesses never reopen their doors following a flood disaster, in part because many are uninsured, according to the Federal Emergency Management Agency.

## HARVEY

*Continued from Page One*  
where the storm made landfall again Wednesday morning, have confirmed a woman died there after getting washed away into a canal with her young daughter clinging to her. The girl survived after a dramatic rescue, police said.

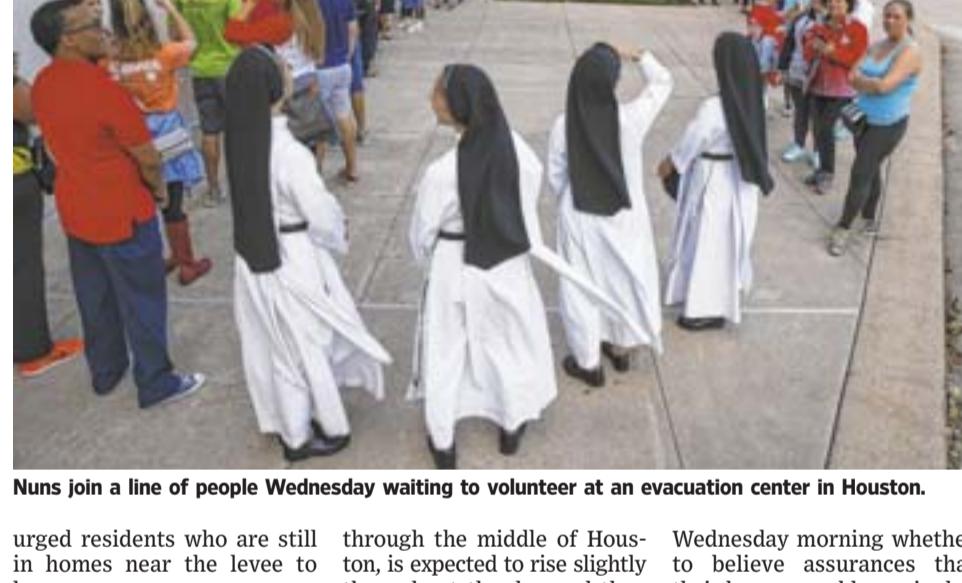
Five people have been confirmed dead by the medical examiner in Harris County, including a veteran Houston police officer. Officials in nearby Pasadena also said that a family—four students and two of their great-grandparents—were swept away by the floodwaters.

There are three confirmed deaths in Galveston County, Chief Medical Examiner Erin Barnhart said. Floodwaters have made it hard to coordinate with outlying funeral homes, she said.

Jeff Lindner, a meteorologist with the Harris County Flood Control District, said the city's watersheds have crested and up to 30% of the county has been flooded.

He added that officials were concerned about a levee near a subdivision in northeast Houston that "has sloughed a little bit."

The likelihood of a breach remains low, he said, but he



Nuns join a line of people Wednesday waiting to volunteer at an evacuation center in Houston.

ing, but the water keeps coming."

Meanwhile, Harvey is losing strength as it moves inland, said Phil Grigsby, a meteorologist with the National Weather Service office in Slidell, La.

As the storm moves off the Gulf Coast, tornadoes are possible in neighboring states as the weather system moves up toward western Tennessee and Kentucky, according to the National Weather Service.

In much of Louisiana, including New Orleans and Baton Rouge, "rain totals are significantly lower than what we expected" in part because of drier air from Mexico that wrapped around the storm and weakened its bands of heavy rain, Mr. Lindner said.

"Obviously, things are not as bad as has been forecasted. We're very thankful for that," said Louisiana Gov. John Bel Edwards, a Democrat. "We've fared much better than we feared might be the case."

Harvey touched down at roughly 4 a.m. in the southwestern corner of Louisiana near the town of Cameron, which is about 50 miles from the Texas border.

The far western reaches of the state already experienced up to 30 inches of rainfall over several days, and Wednesday's landfall accelerated flooding.

Harvey also packed a several foot storm surge across

the coastal areas, and several tornadoes blazed through fields and forested areas. But no fatalities or injuries have been reported in Louisiana, where the storm is losing force.

"It has been weakening," said Andy Tingler, a National Weather Service meteorologist based out of Lake Charles, La. "It is expected to drop below tropical storm force winds later this afternoon."

Back in Texas, Gov. Greg Abbott said federal funding for recovery efforts will need to be greater than the roughly \$120 billion provided to New Orleans after Hurricane Katrina.

The damage caused by Harvey is "far larger than Katrina and far larger than [superstorm] Sandy," Mr. Abbott, a Republican, said.

He said he expects "ongoing challenges" with flooding for up to a week even though floodwaters are receding in the Houston area and the storm is moving eastward.

"The worst is not yet over for Southeast Texas as far as the rain is concerned," he said, referring to a region that includes Beaumont and Port Arthur.

Tawnell D. Hobbs,  
Dan Frosch, Ben Kesling,  
Christopher M. Matthews  
and Erin Ailworth  
contributed to this article.

# Storm Jumbles Global Oil Trade as Key Link Severed

BY ALISON SIDER  
AND STEPHANIE YANG

Tropical Storm Harvey is upending the flow of oil and petroleum all around the world—a consequence of the growing influence of the U.S. in the global energy industry.

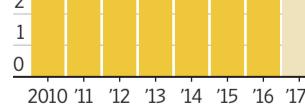
Since the last time a major storm passed through the Gulf Coast, vast quantities of oil and natural gas have been unlocked from shale formations in the U.S.

While production from these fields accounts for just a fraction of the global oil market, that output now feeds a huge volume of gasoline, chemicals, plastics and crude exports, which means Harvey will have repercussions of global proportions.

And the U.S. Gulf Coast has been at the center of this shift. The area has become a critical link in the global energy chain. Shipments from the region now satisfy 6% of global demand for oil and other liquid petroleum fuels—twice as much as in 2012, according to

## High Output

Gulf Coast exports of crude oil and other liquid fuels as a share of global demand



\*Through May  
Source: Barclays analysis of U.S. Energy Information Administration data  
THE WALL STREET JOURNAL

## Nation's Largest Refinery Shuts Down

The U.S.'s largest refinery, in Port Arthur, Texas, said Wednesday that it has initiated a full shutdown because of flooding, as Tropical Storm Harvey pushed east of Houston, dumping a foot of rain on the region overnight.

In an emailed statement, Motiva, owned by Saudi Arabia state oil giant Saudi Aramco, said the controlled shutdown of

Barclays PLC.

That means Harvey, which was the most powerful storm to hit Texas in half a century, is likely to cause shortages that affect consumers from Houston to Beijing. Countries such as Mexico, which relies on the U.S. for as much as half of the gasoline it consumes, according to the U.S. Energy Information Administration, are the most likely to feel the

effects, analysts said.

The consequences of a major disruption on the U.S. Gulf Coast will be felt in the pricing of oil product markets in Latin America and Europe and crude markets as far away as Asia," J.P. Morgan Chase & Co. analysts wrote.

The U.S. became a net exporter of refined products in 2011. Gasoline exports surged 33% to a record last year and

its 603,000-barrel-a-day Port Arthur refinery began at 5 a.m. Central Time "in response to increasing local flood conditions."

It said the refinery would stay shut until flood water recede in the area. "Our priority remains the safety of our employees and community."

The Motiva Port Arthur refinery, located 90 miles east of Houston, had already begun reducing production rates on Tuesday as Harvey's rains poured down, and analysts warned then it was only a matter of time before the plant

have continued to rise this year. Some 17% of gasoline made at the Gulf Coast and 39% of the diesel produced there this year has been exported, according to consultancy Turner, Mason & Co.

Exports of crude oil itself, which were largely banned before 2015, have grown from a trickle to surpass one million barrels a day at times this year, winding up in China, the

Netherlands and Peru.

Harvey has shut off much of that flow. Vessels that planned to come in to be loaded with crude destined for foreign markets changed course before entering Corpus Christi last week.

And fuel production has been curtailed. About 20% of U.S. oil-refining capacity has been shut because of the storm, and that number is

climbing as Harvey has started to track eastward.

"While everyone is watching the impact from a U.S.-centric perspective...disruption to U.S. product exports to places like Latin America could actually end up being a bigger story," said Michael Tran, director of energy strategy at RBC Capital Markets.

Market participants are already starting to respond. Trade flows should start to shift to bring more fuel from Europe to Latin America, which would typically get fuel from the U.S., analysts said.

It isn't clear how disruptive Harvey will prove to be. If refineries sustain significant damage, they could be down for months. But even if producers, pipelines and fuel-making plants can ramp up relatively quickly, analysts said its effects may linger.

"Back to normal is months, not weeks, for exports and for the industry and the region. We have to acknowledge that," said Barclays analyst Michael Cohen.

## U.S. NEWS



President Trump, on a visit to a Missouri factory, called for lower corporate taxes but offered few other specifics for the tax plan.

# Trump Stumps for Tax Cut

By MICHAEL C. BENDER  
AND RICHARD RUBIN

SPRINGFIELD, Mo.—President Donald Trump called on Congress to approve a steep cut in corporate tax rates and simplify the U.S. tax system, saying the moves will boost the middle class, as he urged bipartisan support for a tax plan that is still being written.

Mr. Trump's remarks were a broad-brush opening pitch for the major tax bill that Republicans aim to pass ahead of the 2018 midterm elections. They have deep support from corporate America and strong GOP desire to rack up a major legislative victory, but they have to grapple with the competing factions and interest groups that have bedeviled previous tax proposals.

The president said he wants to lower business rates to 15% and make it easier for companies to repatriate foreign profits, but he offered few other specifics. Instead, he repeated broad goals to make tax filing easier and lower tax rates on corporations and individuals. He also said he wants to eliminates "loopholes" that benefit the wealthiest Americans.

"If we want to renew our prosperity and to restore opportunity then we must reduce the tax burden on our companies and our workers," Mr. Trump said.

But while he called on Congress to put aside partisan politics and unite behind a goal of "letting Americans keep more of what they earn," he also took aim at U.S. Sen. Claire McCaskill, a Missouri Democrat seeking re-election next year. The president said the state should vote her out of office if she doesn't commit to supporting his plan.

"If she doesn't do it for you, you have to vote her out of office," he said. "She's got to make that commitment."

Ms. McCaskill said in statement last weekend that she supports lowering the current 35% corporate tax rate and that she was optimistic about finding common ground with Mr. Trump.

The president also nodded to Congress's central role in getting tax changes passed, after Republican lawmakers' failure to get a health-care overhaul passed.

"I don't want to be disappointed by Congress, do you

understand?" Mr. Trump said to loud applause from workers at Loren Cook Co., a business that makes industrial fans and blowers.

Mr. Trump called for the tax plan to be bipartisan and the core principles he laid out appeal to Democrats, including simplification, assistance for middle-class families and economic growth.

But the policies that Mr. Trump has proposed as a can-

wealthiest 1% of Americans, period. Not one penny of tax cuts," for the top 1%, Senate Minority Leader Chuck Schumer (D., N.Y.) said Wednesday. "It's middle class Americans, not those in the 1%, that deserve tax relief."

Independent analyses of prior tax plans from Republicans and Mr. Trump show the biggest benefits going to high-income households. The Treasury Department and the congressional Joint Committee on Taxation estimate that workers do pay some corporate taxes in the form of depressed wages, but that the bulk of the cost is borne by owners of capital.

Faced with the political urgency of needing something to show to voters in 2018, Republicans hope to push a major tax bill through Congress by the end of the year.

They are still working on the legislation and they have obstacles to overcome. They haven't settled on which tax breaks would go away, or whether they want a net tax cut, or how much revenue the new tax code would raise.

—Peter Nicholas contributed to this article.

*The president said he wants to lower business rates to 15% from the current 35%.*

didate and as president have turned many Democrats away. His plans to dramatically lower business taxes, lower individual tax rates for high-income households and repeal the estate tax have found little support among Democrats.

"Tax reform should not increase the tax burden on the middle class and there should not be any tax cut for the

# Economy Grew 3% In Second Quarter

By BEN LEUBSDORF

WASHINGTON—The U.S. economy expanded at its most robust pace in more than two years in the spring and appears to have momentum going into the second half of the year, supported by solid consumer spending and a pickup in business investment.

Gross domestic product, a measure of the goods and services produced across the U.S., rose at a seasonally and inflation-adjusted annual rate of 3% in the second quarter, the Commerce Department said Wednesday. That was the strongest quarter in more than two years and some forecasters expect growth will remain near that pace this quarter.

Since the recession ended in mid-2009, economic growth has fluctuated from quarter to quarter while averaging a little more than 2% a year. It is far from clear that a sustained breakout from that modest pace was building as the expansion entered its ninth year; similar past accelerations have proven fleeting. But some promising trends are underway, including a global pickup in growth supporting exports, rising employment supporting household income and spending, and robust corporate profits and confidence, supporting investment.

"We just announced that we hit 3% in GDP, it just came out," Mr. Trump said Wednesday during an event in Springfield, Mo. "And on a yearly basis, as you know, the last administration during an eight-year period never hit 3%. So we're really on our way."

The quarterly GDP growth rate was above 3% eight times during President Barack Obama's eight years in office, and GDP growth exceeded 3% in four quarters on a year-over-year basis. The U.S. economy didn't have a full calendar year of 3% growth during the Obama administration.

Many forecasters expect growth will remain modest in the coming years, shaped by long-term demographic and other forces including slow worker productivity growth.

Federal Reserve policy makers' median projection in June was for 2.2% growth this year followed by 2.1% growth in 2018 and 1.9% growth in 2019.



The GDP reading partly reflected stronger business investment.

# Pressure Grows to Fund Health Program

By STEPHANIE ARMOUR

WASHINGTON—State officials increasingly worry that this year's turbulent health-care politics could threaten funding for the Children's Health Insurance Program, a popular initiative that usually wins broad bipartisan support.

Federal funding for CHIP is set to end Sept. 30. The federal-state program provides health coverage to more than eight million low-income, uninsured children whose family incomes are too high to qualify for Medicaid.

Republicans are looking to possibly attach a repeal of Affordable Care Act taxes—including levies on certain health-insurance plans and medical devices—to a CHIP reauthorization bill, people familiar with the thinking said.

Members of both parties have also discussed using the CHIP bill to extend payments to insurers under the ACA.

The risk, lobbyists and state health officials say, is that such brinkmanship could endanger quick passage of a funding reauthorization.

When Congress returns to

## CHIP at a Glance



Sen. Orrin Hatch was a chief sponsor of the 1997 CHIP legislation.

- ◆ Serves more than eight million uninsured children
- ◆ About \$16 billion allotted to states in fiscal 2017
- ◆ Federal funding set to end Sept. 30 if not extended

Washington next week after its August recess, it isn't clear how hard lawmakers will push to attach measures to the CHIP bill. But some state officials are worried enough that they already are looking at whether they may have to wind down their programs if Congress fails to reauthorize the funding.

CHIP has earned bipartisan support from the outset. Sen. Orrin Hatch (R., Utah), now

chairman of the Senate Finance Committee, was a chief sponsor of the 1997 CHIP legislation along with the late Democratic Sen. Edward Kennedy of Massachusetts.

Mr. Hatch is working with fellow lawmakers and the Trump administration to find a way to ensure funding is provided, a committee spokeswoman said.

"There is a bipartisan desire

within the Finance Committee to ensure funding for CHIP is continued and services for vulnerable children are maintained," the spokeswoman said.

The uncertainty reflects the political dynamic after the failure of the hard-fought Republican effort to topple most of the ACA.

CHIP supporters face other obstacles. Congress must pass a broad spending bill by the end of September to avoid a partial government shutdown, and lawmakers also face pressure to raise the government's debt limit in coming weeks.

CHIP is authorized through 2019, but federal money for the state portion of the program isn't. Congress last reauthorized that funding in 2015 for a two-year period that ends Sept. 30. In fiscal 2017, federal CHIP allotments to the states came to roughly \$16 billion.

States have some cushion if the federal funding is delayed, with unspent federal funds redistributed to states that have used up their allotment covering some of the shortfall.

Arizona, Minnesota, North Carolina and Washington, D.C., would run out of their federal

CHIP funding by December, according the Medicaid and CHIP Payment and Access Commission, or MACPAC, a nonpartisan legislative agency that provides analysis and recommendations to Congress. An additional 27 states would exhaust their federal funds by March.

Some Republicans say the reserves mean there isn't an urgent need to reauthorize funding. But some state officials say they would run out of money sooner than projected.

Virginia is estimated to exhaust its federal funds in March, but due to its payment procedures the state's CHIP program would actually wind down in January, said Linda Nabilo, chief deputy director for the Virginia Department of Medical Assistance Services. Families would get a 60-day notice that their coverage was ending, she said.

More than 121,000 children are covered in Virginia, including 1,100 with cancer. About 70,000 would be at risk of losing coverage at January's end, she said. "We have kids in the middle of lifesaving treatment. What do we say to those families?" said Ms. Nabilo.

# Expanded Pay-Data Disclosure Is Halted

By TED MANN

The White House said it would halt a planned Obama-era rule that would have required businesses to begin collecting data about how much they pay workers of different genders, races and ethnic groups, saying that it posed a burden to employers.

The data-collection requirement was proposed by the Obama administration in 2016 as part of its efforts to address pay disparities among workers of different groups.

The Trump administration will stay implementation of the rule, which would have required employers to report the pay data for the first time in the spring. "It's enormously burdensome," said Neomi Rao, administrator of the Office of Information and Regulatory Affairs, which analyzes the cost of federal rules and regulations.

"We don't believe it would actually help us gather information about wage and employment discrimination."

The Obama administration proposal directed the Equal Employment Opportunity Commission to begin collecting wage and pay data from private employers with 100 or more employees and federal contractors with 50 or more employees. The proposal effectively expanded the range of data employers were required to report beginning this year on a form called the EEO-1. That form has been used to collect information on the racial and gender makeup of the workforce.

In a memo, dated Tuesday, to Victoria Lipnic, the acting chairwoman of the EEOC, Ms. Rao said the White House Office of Management and Budget would stay the rule and conduct a review.

## Wisconsin Suit Aims to Cut Through Butter Laws

By QUINT FORGEY

A new lawsuit is churning up trouble in America's Dairyland. Attorneys with the Wisconsin Institute for Law and Liberty are taking the state to court over a 1953 law that mandates all butter sold in Wisconsin be graded and labeled on factors such as flavor, texture and color by state-licensed tasters.

Those convicted of selling unlabeled butter in the state more than once could pay up to \$5,000 in fines and spend a year in county jail.

The statute has enraged

devotees of the popular Kerrygold brand of butter, which is produced in Ireland and hasn't been tested by the state. Local retailers say their inability to sell the grass-fed, gold-packed spread has affected their bottom line. WILL is representing four consumers in counties across Southeast Wisconsin in the suit, as well as a health-food store in Grafton.

"I think the issue is important because it's a specific instance of a larger problem," Rick Esenberg, WILL president and lead counsel, said of the obscure, 64-year-old ordinance.

Butter is serious business in Wisconsin. While other states elect butter queens and honor massive butter sculptures at

their state fairs, Wisconsin, home of a \$43.4 billion dairy industry, plays it straight.

The Wisconsin State Fair's only butter competition is a mostly corporate auction where networking bidders from a who's-who list of the state's dairy world vie to purchase the first-place winners from a cheese and butter contest held two months prior. "The people that enter the contest are passionate," said Katy Katzman with the Wisconsin State Fair Dairy Promotion Board.

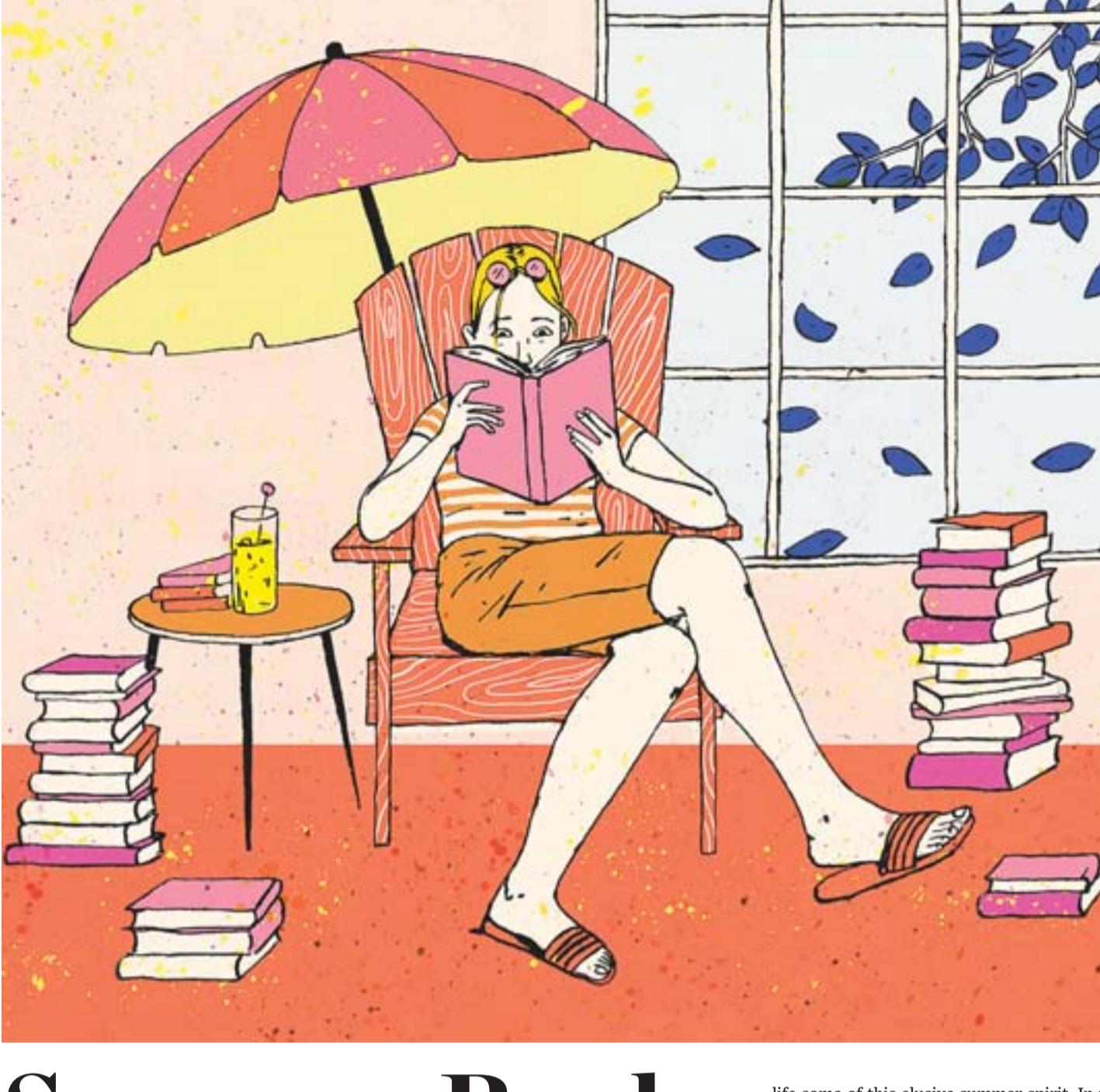
WILL is alleging Wisconsin's butter law violates the state constitution's due process

equal protection and commercial speech clauses.

Wisconsin laws have shielded the dairy industry from out-of-state competition for decades, but have often crumbled under judicial scrutiny. The Wisconsin Supreme Court in 1927 ruled unconstitutional a law prohibiting the sale of oleomargarine and other butter substitutes in the state, and in 1952 turned back an attempt to ban the sale of Dairy Queen soft-serve.

In 1895, Wisconsin forbade the sale of artificially colored margarine. That law wasn't repealed until 1967.

## REVIEW



# Summer Books For All Seasons

Aimless, whimsical reading shouldn't just be for the beach and summer cottage

BY WILL SCHWALBE

This summer, a friend told me that he was surprised to find himself sharing a cottage with Tom Brokaw, Tina Fey, John Irving, Mary Higgins Clark, Amy Tan, Al Gore and Condoleezza Rice. Not with any of those people themselves, of course. He had rented the cottage for a week with his family, and those were the authors of books left behind—by the owners or by previous renters and guests.

He had brought with him George Eliot's "Daniel Deronda," a book he'd always intended to read; this he left unread while he devoured John Irving's "The Water-METHOD Man," Amy Tan's "The Kitchen God's Wife" and several Mary Higgins Clark mysteries. The other books he didn't read cover-to-cover but sampled in

the early morning hours, lying in bed and waiting until he heard some other family member putting away the previous night's dishes and making the morning coffee.

My friend didn't take any of the summer-house books home with him—that would be more than bad manners. He left them all, and even added to the pile. Next year's visitors will find George Eliot waiting to greet them.

The rest of the year, we tend to be purposeful about what we read. Most of us carefully choose the books we buy or borrow, gaining inspiration from friends, reviewers, podcasts, librarians and booksellers—or we simply follow the choices of our book club. But summer days spent in someone else's home or at a B&B make possible a different kind of reading: more aimless, whimsical, promiscuous.

As I savor the remaining days of summer, it occurs to me that I could incorporate into my

**The serendipity of a random book is thrilling.**

life some of this elusive summer spirit. In fact, I think we all might benefit from doing so. Summer is a time when we remember to put our smartphones down, even if only for a few hours a day, and pay attention to things that last: the sea, mountains, friendships, a fool-proof recipe for blueberry pie, great ideas and books—books of all sorts, whether published last week or centuries ago.

When you are in a rented home or staying with a friend for a weekend, you can be the kind of person you aren't for the rest of the year: someone who canoes, plays Parcheesi and reads detective novels from decades past and political memoirs from both sides of the aisle by politicians long dead. The serendipity is thrilling. What's best about books left behind in summer houses and country inns is that they so often offer random and unexpected choices.

There is some predictability, however. It is fairly likely that if you're staying at a seaside cottage, you'll find Anne Morrow Lindbergh's "Gift From the Sea," the 1955 classic that sought to teach everyone, but especially women, how to bring balance back into their lives. In a cabin in the woods, you'll probably encounter Henry David Thoreau's "Walden." Geography is destiny, as well. Guides to local flora and fauna, books of maps and trails, cookbooks from the neighboring

schools and junior leagues, mysteries set in the surrounding towns and villages—all find their way to a permanent place on summer-house bookshelves and bedside tables.

If there are mysteries and thrillers, and there almost always are, you'll probably find a selection of books by James Patterson, Sue Grafton, Walter Mosley, Louise Penny and John Grisham, alongside dozens of Agatha Christie, Ngaio Marsh and Erle Stanley Gardner novels. And if there are children's books, you are pretty sure to come across Louisa May Alcott's "Little Women" and an assortment of Nancy Drew and Hardy Boys books.

Then there are the books of summer—the ones whose covers feature a baseball diamond or Adirondack chairs on a sun-dappled dock. No summer-house library is complete without a few of these.

Some houses are frozen in a particular time, with every book a best seller from the same era. In those, "Love Story" by Erich Segal, "The Love-Machine" by Jacqueline Susann, "Rich Man, Poor Man" by Irwin Shaw, "The Lord Won't Mind" by Gordon Merrick and "A White House Diary" by Lady Bird Johnson, all best sellers in 1970, might sit together, waiting patiently for today's summer readers to discover them. Some cottages feature yards of Reader's Digest condensed books, allowing visitors to whip their way through every decade's most popular works, year-by-year.

One friend reports that she and her friends stay every year at a turn-of-the-century hotel in Maine that has a library overflowing with books from decades past. They start each dinner by taking turns reading aloud from books chosen at random. These run the gamut from essays on archery to novels about zoology.

Summer is also a time for rereading. Recently, I came across Ken Follett's "The Key to Rebecca" while spending a weekend with a friend. I'll never forget racing through it and other Follett thrillers the summer I turned 20. It's still every bit as thrilling as it was then. As are "The Day of the Jackal" by Frederick Forsyth and Octavia E. Butler's "Parable of the Sower," a masterpiece set in a dystopian future.

But there is a different thrill that comes from the glorious oddities and unknowns. What makes summer house books so delightful is that they are often books I never knew existed and wouldn't have chosen to read if other options had been available. And yet it's astonishing how often my friends and I find ourselves engrossed in random books. My most recent was "Thatched With Gold: The Memoirs of Mabell, Countess of Airlie"; another was "Fillets of Plaice," a 1971 book of "vignettes" by the memoirist and naturalist Gerald Durrell. Often these are diaries, collected letters, or books of poetry by writers and public figures who were previously complete strangers to me.

Sometimes these are books I had heard about but thought would be of no interest. I'll find myself transfixed by the memoirs of a teen idol or happily exploring a topic in science or natural history that I had assumed would be as dry as the dust that covered the book itself. We could all spend more time reading books other than ones that simply confirm beliefs we already hold, or cater to interests we know we have.

There's a simple way of re-creating the serendipity of summer reading. It involves a superstition, I believe that if I knock over a book in a bookstore, I have to buy it. So in the darkest days of the fall or winter, when I need a break from everything, I'll take my clumsy self to my favorite local bookseller and buy the first volume I topple. Or if that fails, I'll let a random stranger choose a book for me. I'll then cancel any plans and stay home and read it. Instant summer, year round.

*Mr. Schwalbe is an executive vice president at Macmillan Publishers and the author, most recently, of "Books for Living," out in paperback from Vintage on Tuesday.*

## REPEALING THE DEATH SENTENCE OF A SNAKEBITE

BY BETSY MCKAY

John Heenan stepped over a fence while volunteering at an organic farm in Novato, Calif. earlier this month and felt a sharp burning pain. "I've been bitten by a rattlesnake!" the 68-year-old yelled to fellow volunteers nearby, after looking down to see that he had stepped on one about 5 feet long.

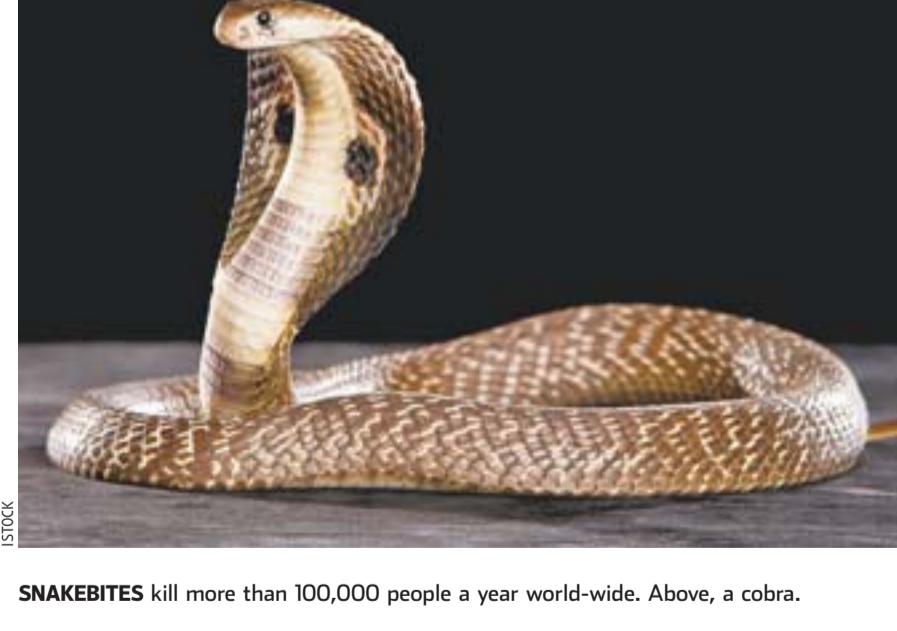
Mr. Heenan staggered a few steps and collapsed. He foamed at the mouth and felt like he was suffocating, and his muscles rippled uncontrollably. By the time he arrived at the hospital minutes later, his airway was so swollen and clogged that doctors struggled to put a breathing tube down his throat, and his blood pressure had plummeted. He was given antivenom and put on life support, and remained unconscious for two days.

Now recovering at home, Mr. Heenan faces extensive physical therapy and follow-up care. But he considers himself lucky to have gotten medical attention so quickly. "I'm alive," he says. "I can't ask for much more than that."

Many others aren't so fortunate. Every year, more than 100,000 people world-wide are killed by snakebites, and about 400,000 undergo limb amputations or are otherwise disabled, according to the World Health Organization. Experts say the real toll is likely much higher because so many poisonous snakebites go unreported.

Yet the problem attracts little investment. Snakebite "envenoming," or poisoning, is largely ignored by public-health authorities and drug developers, though experts hope that it will attract more attention and funding after being added to the WHO's official list of neglected tropical diseases in June.

Antivenom can be hard to find in Africa and Asia, where snakebites pose the largest threat. It can also be of poor quality. It usually has to be kept cool and administered in-



SNAKEBITES kill more than 100,000 people a year world-wide. Above, a cobra.

travenously in hospitals or clinics, far from where many victims are bitten. And it is still manufactured using the same basic method created in the 1890s, which involves milking snakes through their fangs, injecting the venom into horses or other large animals and collecting their antibodies.

Scientists, including some from outside the field, are working on ways to modernize snakebite medicine, but it isn't easy: Venom is a complex mixture of enzymes and proteins and varies by species of snake.

Matthew Lewin, an emergency-medicine doctor in Corte Madera, Calif., is developing an antidote that could be administered to a snakebite victim on the spot, blocking many immediately life-threatening effects until the

victim can get antivenom and medical care. "We're just trying to fill the gap between the bite and the hospital," says Dr. Lewin, who helped to treat Mr. Heenan.

Lab tests show that the drug, known as an sPLA2 inhibitor, blocks one of the deadliest toxins in venoms from an array of snakes, Dr. Lewin says. The drug was originally developed by Eli Lilly and Shionogi for other purposes but was shelved. Eli Lilly recently provided documents to help Dr. Lewin further his research and development.

Snakebite science needs groundbreaking solutions, says Jerry Harrison, a member of the bands Talking Heads and the Modern Lovers, who co-founded a biotech company called Ophirex with Dr. Lewin to advance the drug.

"The name 'antivenom' is so perfect that people think the problem is solved," says Mr. Harrison, who is now a music producer and works with technology and startup companies.

Other scientists are seeking more modern approaches. Andreas Laustsen, a bioengineer at the Technical University of Denmark, is developing a new type of antivenom that would be made with mixtures of human, rather than animal, antibodies. These so-called "recombinant antivenoms," produced in a fermentation tank, would be safer, more effective and less expensive than current antivenoms, says Dr. Laustsen. The idea is to develop an antivenom that would neutralize a range of toxins from different types of snakes, he says. He is using techniques, he adds, that were developed in the course of research on cancer and autoimmune disease.

Still others are working on ways to improve existing antivenoms. Some veterans of snakebite research say that should be the priority, given limited funding. "At the moment, we need to fix the current system because people are dying literally over 100,000 a year, and they can't wait 15 to 20 years for a wonder drug," says David Williams, a toxinologist and herpetologist at the University of Melbourne in Australia and CEO of the nonprofit Global Snakebite Initiative.

Dr. Williams sees an urgent need to improve the prevention and treatment of snakebites, to tighten regulations to keep poor-quality antivenoms off the market, and to make antivenom production more efficient. He supports both immediate and long-term approaches. "I think we need to innovate across the board," he says.

As for the farm where Mr. Heenan was bitten, it has put up signs warning about rattlesnakes. Once he recovers, Mr. Heenan is determined to get back to work there. "I guarantee you I will religiously watch every step from now on," he says.

# LIFE & ARTS

THE MIDDLE SEAT | By Scott McCartney

## How to Inspect Every Piece of a Widebody Plane

American Airlines pilots, mechanics and flight attendants kick the tires on a new Boeing 787-9

TRAVIS DOVE FOR THE WALL STREET JOURNAL

**IMAGINE YOU'RE BUYING** a \$270 million car. You'd want to kick the tires pretty hard. That's what airlines do with new airplanes.

Some carriers station their own engineers at **Boeing** and Airbus factories to watch their flying machines get built and check parts as they arrive. Finicky buyers send flight attendants, mechanics and pilots for what are called shake-down inspections. They get to be the worst passengers and pilots ever—yanking seat backs, punching all the call buttons and flying the plane aggressively right up to its limits before the deal is done.

"If I was buying the airplane, I'd probably want to fly it, too," says David Carbon, Boeing's vice president of 787 operations in South Carolina.

Tagging along with a team of experienced American tire-kickers at Boeing's factory here over two steamy days last week shows just how carefully airlines check out their purchases before passengers ever board.

Armed with rolls of red tape used to mark problems, five flight attendants, a couple of mechanical experts and a test pilot attack the 285-passenger plane. All the doors and panels are opened for inspection. In the cabin, everyone wears booties over shoes to keep dirt out. Like an operating room nurse counting sponges, Boeing counts flashlights and mirrors to make sure nothing gets left behind in an

efficiency. Five years ago, American's fleet averaged 15 years old. Now the average age is 10 years.

But getting that new airplane smell into service isn't like ordering pants on Amazon Prime. Boeing does its own testing, but most airline buyers repeat the same tests and do their own extra inspection. Some carriers are more persnickety than others, Boeing executives say, but the airline is always right. Unhappy customers could lead to lost future orders.

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American Airlines employees check the rudder and inspect the paint on a new 787-9, above. A technician tracks problems found in the cabin, below.



engine or mechanical compartment.

Joseph Maloy, American's director of aircraft acquisition, dispositions and records, heads straight to the tail of the airplane to inspect the auxiliary power unit—a small engine that provides power on the ground and in emergencies. He checks the oil level and insulation and looks for any leaks. He makes sure safety wiring is correct and fire-detection tubes are properly positioned and haven't been bumped or bent. It all looks OK.

But not everything is perfect. Another mechanic shows him a cooling tube inside the General Electric engine that appears bent. Mr. Maloy thinks it's probably within limits, but the tube gets written up for GE inspection.

Inside the cabin, flight attendants shake each seat violently, grab the headrest and pull it up as if curling weights and jerk the cord on each entertainment controller. They test power ports, USB ports, audio jacks and the entertainment system. They open all

tray tables, turn all lights on and off. Then they recline each seat with knee-knocking force.

One squeaks like a mouse on an exercise wheel. "Write it up," says Joyce Adkins, a veteran flight attendant from Los Angeles who's been part of the new-plane inspection team for 17 years. "No one wants to hear that in the middle of the night."

The team leaves the seats reclined during a lunch break to see if any creep back up, which would indicate a mechanical defect.

In galleys, flight attendants verify temperature readings on ovens and chillers. (On one plane, Ms. Adkins says she discovered a chiller wired backward, so off was on and on was off.) They flush all the toilets, blow fake smoke into smoke alarms, make sure all pre-recorded emergency messages sound when required. They check to make sure carpet seams line up. They look for scuff and scratches.

"We basically touch everything on the airplane that the crew and customers contact," says Steve Young, a Los Angeles based flight attendant. "We're all airplane geeks, very detail-oriented."

In the cockpit, Gary Beam, an American pilot whose main job is to test new and overhauled airplanes, checks systems on the ground with a Boeing analyst sitting beside him. He shuts off systems to see if backups kick in and warning lights come on, tests he'll repeat the following day in the air.

Capt. Beam cuts all the power—emergency lights illuminate the cockpit, as expected. He tests evacuation alarms and fire alarms. With no air conditioning in the cockpit because normal electrical power has been cut, sweat runs down his face.

The next day, Capt. Beam and a Boeing test pilot fly the plane south from Charleston to the Florida panhandle, taking it up to 38,000 feet. Capt. Beam flies the jet to its limits, making sure alarms sound when he increases air speed or slows the plane down to stall speed. Even at 690 mph, the ride is smooth, he says later.

After three hours of flight testing, Capt. Beam is pleased with the product. "It's really kind of an amazing flight. You learn so much about the airplane doing this," he says back on the ground.

Flight attendant Tom Baldwin says about 20 cabin items needed to be checked after the test flight. One major squawk: The crew couldn't connect to the Wi-Fi system.

The day before, 120 issues were recorded, most of them cosmetic and minor, like seat squeaks. "It was pretty routine," he says, except for the Wi-Fi failure.

Those 140 punch list items, about average for a widebody, Mr. Baldwin says, will be addressed this week by Boeing and its suppliers.

The airplane will be officially delivered to American on Friday, 74 days after assembly began, with tail number N830AN and American's fleet number 8LL.

PHOTO ILLUSTRATION BY THE WALL STREET JOURNAL; PHOTOS: GASOLINE GLAMOUR; KATE SPADE NEW YORK (3); CHASER BRAND; THREEPOTATOFOURCO; CUFFLINKS, INC; LETTERCLOTHINGCO; WILDFOX; UNCOMMONGOODS; ISTOCK (2)

### FASHION

## HOW TACOS BECAME A FASHION TREND

BY ANNE MARIE CHAKER

**DON'T LOOK**, but there's a taco on your T-shirt.

Tacos have gone from one of America's most popular restaurant foods to a serious fashion statement. A \$59 tank top from Los Angeles-based clothing brand Chaser reads "tacos are my life." New York-based Nylon Media's online store sells taco-themed jewelry and sunglasses while Kate Spade offers a \$358 purse in the shape of a taco truck. Online retailer Etsy says taco searches were up more than 65% in the first half of this year.

Kevin Palarz, a 36-year-old structural engineer in Barrington, Ill., has a thing for tacos. He and his friend Mark Lanctot track their taco consumption—including restaurants and ratings—on a shared spreadsheet. Mr. Palarz, who has consumed, 881 tacos since January, owns several taco-themed T-shirts and socks. "When I wear my taco T-shirt, people on the street talk to me," he says. "It's a social thing."

The public taco obsession has been stoked in recent years by teens and 20-somethings, experts say, who are exposed to celebrity-magazine images of a chilled-out, West Coast lifestyle. "There is something fundamentally California about tacos," says Megan Baca, vice president of design for Chaser, whose beachy T-shirts and dresses are sold in department stores such as Bloomingdale's and Nordstrom. Celebrities such as singer Katy Perry and model Chrissy Teigen have recently been photographed waiting in line for tacos or eating them. Tacos got a major break in 2015: After much lobbying by Taco



Bell and others, the nonprofit Unicode Consortium, which regulates coding standards for written computer text, approved the taco as an emoji. Graphics of tacos began trickling in after that, says Sarah Owen, senior editor of digital media and marketing at fashion forecasting firm WGSN. Everything from rugs, towels and baby booties followed,

as well as shirts that say "It's Taco Time" or "There is no We in Tacos."

Clothing with symbols and statements are like wearable tweets, says Ms. Baca at Chaser. "It's little soundbites of ourselves," she says. "I'm trying to capture the emotion of a mini-mental vacation in a T-shirt."

Ms. Baca designed her first taco shirt two

years ago after department store buyers balked at designs touting champagne and beer. "It was, 'How do you capture the fun . . . without alcohol?'" Ms. Baca says.

More broadly, food seems to be having a fashion moment. While many trends start on the runway and trickle down to the masses, the food-symbol trend is going the reverse, says Mark-Evan Blackman, assistant professor in the fashion design department at the Fashion Institute of Technology. High-end Italian brands such as Milan-based Etro are incorporating foods such as spaghetti into designs, he says. Tacos, Mr. Blackman says, remain planted in U.S. fashion. "They are cool and they are sexy."

Tacos are among the top five foods ordered at U.S. restaurants, according to NPD Group. Their influence has crossed into other restaurant cuisines.

Part of the fun is that some taco designs make people laugh and some leave others scratching their heads. Ms. Owen authors an annual report titled Slanguage which deconstructs popular new catch phrases and symbols for marketers. The report explains that teens and 20-somethings have created their own vernacular, "with an injection of humor and irony that transcends parents and anyone over the age of, say, 35." Tacos, which have attained street credibility among 20-somethings, she says, are part of that. "The microtrend of food," Ms. Owen says—designs containing symbols and expressions of love for certain foods—"is a backlash to this huge wellness and clean-eating movement. Now, it's that girl who says 'I'm going to treat myself to a doughnut and talk about how much I love tacos,'" she says.

## OPINION

### REVIEW & OUTLOOK

## The Hurricane Learning Curve

**H**urricane Harvey is still pouring torrential rain on Texas and Louisiana, which means more damage to come. But it isn't too soon to point out some compensating news: Storm responders are putting into practice the lessons of past extreme weather and saving lives as a result.

By late Tuesday the storm had dropped 50 inches of rain on parts of Texas—breaking continental records. Harvey appears to have claimed at least 15 lives, including a family of six swept away in a vehicle that remains missing. The Houston police by Tuesday morning had rescued at least 3,400 people from rising floodwater, and the Coast Guard rescued 3,000 on Monday. Officials are predicting the storm will force 30,000 people into shelters and the economic damage will be at least \$30 billion.

Yet as terrible as the toll is, it's impossible to ignore the improved response compared to storms past. Hurricane Katrina in 2005 left New Orleans a chaotic scene of failed evacuation, stranding 100,000 people in the low-lying city. It killed 1,833, left three million without power and cost an estimated \$100 billion to \$130 billion. A few weeks later more than 100 people died attempting to leave Houston, part of a panicked evacuation before Hurricane Rita.

The federal government, local officials and private and charitable interests are now applying the lessons of these past failures. Katrina exposed the Federal Emergency Management Agency's dysfunction, and Congress responded with reforms that altered how the agency works—particularly on pre-storm preparation. Prior to Katrina, FEMA waited until governors requested assistance, often arriving late as it did in New Orleans.

FEMA was on the ground in Texas nearly 48 hours before Harvey made landfall, working with local partners and unifying a larger federal effort. In addition to thousands of FEMA employees and the Coast Guard, the Energy Department was on hand to monitor oil and gas facilities, and Health and Human Services sent 650 staffers to provide medical assistance. The Department of Homeland Security on Saturday activated a post-Katrina program that stands up a "surge" force of non-FEMA federal employees trained to assist in natural disasters.

Former Louisiana Gov. Kathleen Blanco dawdled about getting her National Guard on the streets to help with rescues and maintain order. Texas Governor Greg Abbott quickly activated the entire Texas National Guard, including those

preparing to deploy overseas. By Monday more than 12,000 Guardsmen were assisting with search and rescue, and preparing to help with recovery.

The state ramped up more than 200 buses to transport people out of coastal areas, and more than 40,000 shelter beds in safe zones. Houston Mayor Sylvester Turner gave

clear instructions to residents to stock up and avoid roads, and he quickly deployed police and firefighters. Dallas opened a megashelter at its convention center and put hundreds of buses on standby for flood victims. Officials in smaller, coastal towns worked with state authorities on mandatory evacuations.

One theme is communication and clear lines of authority. Every analysis of Katrina has pointed to confusion between Louisiana and Washington about who should be in charge. In this case, Governor Abbott and local officials appear to be taking the lead but are working closely with the feds to marshal resources. These agencies are also using social media to provide instructions to victims, cut through rumors, and work with Houstonians rushing to help neighbors.

Corporate America also learned from Katrina. Telecom companies have upgraded their networks against natural disasters after Katrina knocked out more than 1,000 cell sites and put 911 calls and other networks in gridlock. As Harvey neared, AT&T and Verizon dispatched fuel for emergency generators and deployed mobile cell sites.

The Federal Communications Commission reported Sunday that just 4% of 7,804 cell sites in Harvey's path were knocked out. While Texans are certainly getting busy signals, many emergency calls are getting through. By Friday Wal-Mart had already dispatched more than 1,000 trucks of goods to Houston, and Bass Pro Shops is handing over 80 of its Tracker boats for rescues.

The Texas stretch of the Gulf Coast is home to nearly five million barrels a day of oil and gas refining capacity. Post-Katrina, refineries hardened their facilities against the flooding threat by investing in systems that guard electric equipment. They stacked up on emergency generators and fortified against wind and storm damage. So while refineries are closed as they ride out the storm, they should be back online quickly when weather and roads clear.

The storm isn't over, and no doubt some will find reasons to point fingers. But at a time when Americans have so little trust in government, it's worth noting when it shows it can learn from previous failures.

## Nixing the \$520,000 'Footlong'

**A**merica's Seventh Circuit Court of Appeals has given the plaintiffs bar something to chew on. Writing for a three-member panel, Judge Diane Sykes on Friday threw out a class-action lawsuit settlement involving the Subway food chain's "Footlong" sandwich on grounds that the only beneficiaries were the lawyers.

The case started in 2013 after an Australian teenager posted a photo on Facebook of a Subway Footlong next to a tape-measure showing it to be 11 inches. The post went viral—and so did the lawyers. Nine class-action suits were launched around the U.S., later consolidated into one.

Subway soon announced steps to ensure its baked rolls would be at least 12 inches. In 2016 a lower court approved a settlement under which Subway promised to maintain practices to ensure more uniformity in its bread. The suing

attorneys were to collect \$520,000 in fees.

Enter Theodore Frank, who directs the Center for Class Action Fairness at the Competitive Enterprise Institute. He objected to the settlement on grounds that while the lawyers were "handsomely compensated" the class received "negligible to no relief."

During litigation it emerged that though the baked length of a roll may vary, the amount of dough is uniform. Judge Sykes also noted that "after the settlement—despite the new measuring tools, protocols, and inspections—there's still the same small chance that Subway will sell a class member a sandwich that is slightly shorter than advertised," owing to the inherent vagaries of food production. It's safe to assume, wrote Judge Sykes, that Subway customers "know this as a matter of common sense." These days we'll take any victory for common sense.

## Nuclear Missiles Over Tokyo

**R**esidents of northern Japan awoke Tuesday to sirens and cellphone warnings to take cover as a North Korean rocket flew overhead. The intermediate-range missile test will further roil the politics of security in Northeast Asia and is another prod toward Japan acquiring its own nuclear deterrent.

Pyongyang tested long-range missiles over Japan in 1998 and 2009, claiming they were satellite launches. The first shocked Japanese and led to cooperation with the U.S. on theater missile defense. After the second, Tokyo curtailed the North's funding sources within Japan's ethnic Korean community. Tuesday's launch is even more threatening because U.S. and allied intelligence agencies assess that North Korea now has the ability to hit Japan with a miniaturized nuclear warhead mounted on a missile.

Much of Japan is protected by its own missile defenses as well as systems operated by U.S. forces in the region. Japan also recently deployed four Patriot PAC-3 missile-defense batteries to the west of the country, but these didn't cover the northern island of Hokkaido overflowed by Tuesday's missile.

Japan's ultimate security is the U.S. defense and nuclear umbrella, with its treaty guarantee that the U.S. will respond if Japan is attacked. But the logic of deterrence depends on having a rational actor as an adversary, and rationality can't be guaranteed in North Korea. Its recent development of an ICBM capable of hitting the U.S. mainland also changes the equation. If North Korea attacked Tokyo and the U.S. responded with an attack on Pyongyang, U.S. cities might then be endangered.

Japanese leaders have long resisted building

Accepting a nuclear North Korea probably means a nuclear Japan.

their own nuclear arsenal, but that could change if they conclude America isn't reliable in a crisis. Or Japanese may simply decide they can't have their survival depend on even a faithful ally's judgment.

Some Japanese politicians are already talking about their own nuclear deterrent. And while public opinion currently opposes nuclear weapons, fear

could change minds. Japan has enough plutonium from its civilian nuclear reactors for more than 1,000 nuclear warheads, and it has the know-how to build them in months.

This prospect should alarm China, which would suddenly face a nuclear-armed regional rival. The U.S. also has a strong interest in preventing a nuclear Japan, not least because South Korea might soon follow. East Asia would join the Middle East in a new era of nuclear proliferation, with grave risks to world order. This is one reason that acquiescing to a North Korea with nuclear missiles is so dangerous.

Yet this is the line now peddled by former Obama National Security Adviser Susan Rice and former Director of National Intelligence James Clapper, who says the U.S. must begin "accepting it and trying to cap it or control it." Having said for eight years that a nuclear North is unacceptable, they now say that President Trump and Japanese Prime Minister Shinzo Abe had better get used to it.

But "control it" how? North Korea has made clear it won't negotiate away its nuclear program. The U.S. can threaten mutual-assured destruction, but Tuesday's missile test over Japan shows how North Korea will use its nuclear threat to coerce and divide the U.S. and its allies. Accepting a nuclear North Korea means accepting a far more dangerous world.

Accepting a nuclear North Korea probably means a nuclear Japan.

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## First Resilience, Then Boondoggle



BUSINESS WORLD

By Holman W.

Jenkins, Jr.

It has nothing to do

with climate change.

During the past decade that we keep being told was the hottest on record (the record being skimpy), the U.S. also saw a dearth of hurricane landfalls. A major storm hadn't hit the U.S. since 2005.

Sandy, as many in the press played down at the time, had actually been downgraded to a tropical storm when it reached the New York and New Jersey shore in 2012. The impact was worse than it might have been for a simple reason: The storm followed an unusual westward track, and a garden-variety storm surge happened to coincide with a full-moon high tide.

Harvey has been an energetic storm but also an uncharacteristically stationary one. The deluge that fell and continues to fall on Houston is created by a storm hovering in place, sucking up moisture from the Gulf of Mexico and dumping it on land.

Even press accounts that noted a lack of discernible connection to climate change somehow, by paragraph three, were quoting climate-change campaigners.

This is a counsel of despair. Daily tides rise and fall along the East Coast anywhere from 2 feet to 11 feet. Storm surges associated with hurricanes range from 7 feet to 23 feet. These dwarf the effect of any global-warming-caused increase in the steadily rising sea levels of the past century.

The U.S. economy consists of millions of Americans who aren't waiting around for someone to tell them what to do. This makes it resilient. Private boat owners in Houston leapt into action to rescue the stranded, many whose pleas were transmitted via social media, bouncing server to server until they reached the guy with a skiff down the block.

Gasoline prices ticked up on reports of damage to the Gulf's massive refining industry, encouraging some to forgo filling up and leaving more fuel available for those who value it most. Foreign refiners are eyeing the higher margins available in the U.S. and dispatching cargoes our way.

Thousands in Houston have been flooded out, and thousands more are without power and likely to be so for days. The outages Americans experience nowadays aren't more frequent, but tolerance for them is lower, hence a growing number of householders who outfit themselves with emergency generators.

Even those Houston-area residents who were free to move around in their

cars found their way blocked by a massive cattle drive down U.S. 90, as ranchers moved their herds to higher ground.

Disrupted drivers didn't mind; they stopped to take pictures, according to the Houston Chronicle, eyewitnesses to a phenomenon seen only in John Wayne movies. Another expression of resilience.

At the time of Sandy, New York's Mayor Mike Bloomberg and Gov. Andrew Cuomo blamed the damage, nonsensically, on global warming. They had an eye on the administration in Washington. They knew its hobbyhorses and talking points. Their blather was aimed at creating an atmosphere conducive to the billions in federal rebuilding grants that soon would be flowing.

**Maybe we should start budgeting for the kind of bailout Houston will need.**

Two-thirds of Katrina's damage in New Orleans wasn't covered by insurance. Less than half of Houston commercial buildings and homes in the waterlogged zone are covered by flood insurance.

It wouldn't be politically realistic to expect the Trump administration to resist opening the spigots as every other administration has. The background chant may not be "climate change"—perhaps the political sound effects will dwell instead on Houston's role in protecting America's "energy independence."

Only 10% of California residents have earthquake insurance; 85% of the public assets in San Francisco are "self-insured"—i.e., uninsured. What will be the accompanying music then?

If Gov. Jerry Brown is still in office, maybe he will find some way to connect an earthquake to global warming. Otherwise taxpayers in the Midwest can expect to hear how vital Silicon Valley is to America's global leadership.

If the U.S. were a private business, such "contingent" liabilities would show up in measures of the federal debt and deficit. In Washington, they do things differently.

One of the most interesting quotes collected by Journal reporters this week comes from Michael Williams, a ballpark maintenance worker for the Houston Astros, whose position atop the American League West will be a solace to the hard-hit city. He noted succinctly: "Houston floods fast. They're doing all this construction but we still got no [storm] outlets."

Between the immediate displays of self-help and resilience, and the predictable federal spendathon that's coming, let Mr. Williams be heard too. A few such lessons and better planning might help lighten the burden of those facing future emergencies.

## Those Who Commute Deserve a Salute

By James Bruce

Camped almost to the point of suffocation, surrounded by hard plastic and metal, you glide through the darkness, wondering whether you will survive. You're not piloting a submarine or a spacecraft headed toward Mars. You're just a New York commuter trying to get home, as the "Summer of Hell" for public transit nears its end. Or perhaps you're leaving Los Angeles on Tuesday to beat the Friday traffic.

Nearly 40% of American workers—more than 50 million people—travel 30 minutes or more to work, according to the Census Bureau. It's a grind: the delayed trains, the stink of sweaty dress shirts, the motionless traffic on the freeways.

But the worst part is the incessant reminder that you are the world's problem. Walking doesn't pollute. Cars and trains do. Today's cultural trends protest your lifestyle. Think about it the next time you drink your fair-trade coffee on a train built before the Hogwarts Express. Your trip isn't recyclable.

As you face the day ahead—and the straphanger next to you, who really needs a shower—you may begin to forget why you commute. Here's a fresh reminder:

• For your family. How you used to love the city when you were single and carefree! But that cute neighbor became your spouse, and then came marriage and maybe children. A kitchen the size of a waffle iron felt hip when you were eating out all the time, but then you learned to cook.

• For the community. If you drive from suburbia to an office downtown, you're leaving a place where first comes love, then comes marriage, then comes a baby in a carriage. In cities the baby often comes first, sometimes with no marriage at all. That's a crucial difference. Married fathers work to make their neighborhoods places where children can

flourish, and too many unmarried fathers don't, as Charles Murray explains in "Coming Apart."

• For the schools. If you can afford a private education for your little angels, then good for you. But for many parents, choosing a school means changing districts. So get into that car, dad. Take that train, mom.

• For the opportunity. What do New York, Washington and San Francisco have in common, apart from terrible

traffic? The answer is good white-collar jobs and a chance for a better life. Cities are America's economic engines, and they can take you to success only if you hop on board.

• For America. According to Mark J. Perry, in terms of economic output, New York state rivals South Korea, but with 17 million fewer workers. California beats France, but with six million fewer workers. This kind of performance wouldn't be possible without millions of American commuters. Your disagreeable journey helps support the productivity that delivers prosperity to the country, indeed the world.

That includes the small town in Arkansas where I live. I walk to work, which isn't without hazards. One time I was bitten by a duck overeager (in my estimation) to protect its nest.

But, overall, it's wonderful. Yet I know how much I depend on you, the big-city commuters: You set up my retirement account, approved my mortgage application and routed my new shirt from a distribution center to my doorstep. So thank you—and have a safe trip home.

Mr. Bruce is an associate professor of philosophy at John Brown University in Siloam Springs, Ark.

## OPINION

# Trump's Reassuring Hurricane Response

By Tevi Troy

President Trump visited Texas Tuesday to assess the damage from Hurricane Harvey and show concern for its victims. So far, his administration is largely getting praise for effective handling of the crisis. Washington's disaster authorities appear to be in sync with the state on roles and responsibilities; the Federal Emergency Management Agency and its leader, Brock Long, deployed resources as Harvey approached; and the government response as a whole appears well coordinated.

The White House has shown a focus on Harvey that extends even to the president's Twitter feed.

"I give FEMA a grade of A-plus, all the way from the president down," Texas Gov. Greg Abbott told "Fox News Sunday." Yes, Mr. Abbott is a fellow Republican, but he is also interested in protecting Texas and would not have said "A-plus" if the state weren't getting what it needed.

That assessment is backed up by Rear Adm. W. Craig Vanderwagen, a former career emergency manager who is plugged into the Harvey effort. "Early read," he told me in an email, "is that Executive Branch is performing well under this President."

Two reasons suggest themselves for the apparent success: personnel and preparation. Mr. Trump has surrounded himself with leaders experienced in this area. John Kelly, the president's chief of staff, is fresh off his stint as the secretary of homeland security. He brought to the White House his own deputy, Kirsten Nielsen, a veteran of George W. Bush's Homeland Security Council.

Tom Bossert, another Bush alumnus now advising Mr. Trump on homeland security, has acquitted himself well on television, projecting calm and expertise as he discusses the hurricane response. It may be premature to conclude that Mr. Kelly has succeeded in bringing order to the Oval Office, but Harvey has demonstrated a reassuring ability to focus on a disaster when needed.

Beyond the White House, Mr. Trump still lags behind his predecessors in filling political appointments, but he appears to have prioritized the right ones.

The president has made nominations for about half the slots at the Department of Homeland Security, more than at most departments. Some nominees, such as Mr. Long's two deputies at FEMA, await Senate confirmation hearings. Mr. Long is an experienced hand, having previously served as Alabama's head of emergency management. He has been a reassuring and take-charge presence throughout the Harvey response.

Mr. Long began preparing for the next disaster the day he was sworn in, when he presided over a cabinet-wide tabletop exercise on



REUTERS

Texas Gov. Greg Abbott and President Trump in Corpus Christi, Texas, Aug. 29.

emergency management. Frank Cilluffo, a homeland security aide in the Bush administration, says this showed the White House was taking disaster readiness seriously. "Training is everything here," he told me. "You want to make mistakes on the practice field, not in the actual event." Then in early August, weeks before Harvey showed up on the radar, Mr. Long hosted the president and other cabinet officials at FEMA for a briefing on the coming hurricane season.

Thus far, the most controversial part of the president's hurricane response has been communications. On the positive side of the ledger, Mr. Trump has used his vast Twitter following both to provide useful information and to convey that

the White House is actively monitoring events. On Tuesday he retweeted an urgent alert from Brazoria County saying that a levee at Columbia Lakes had been breached and residents needed to get out immediately.

Mr. Trump's tweets about the storm have been informative and responsible, with a tone appropriate to the human tragedy. To the extent he has been criticized, it has been mostly for tweeting on unrelated topics, such as his pardoning of former Sheriff Joe Arpaio and the "great" new book by Sheriff David Clarke. Although it isn't realistic to expect the White House to eschew all other subjects during a crisis, perhaps the president could avoid tweeting about unessential matters until the storm passes.

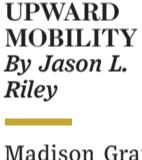
Outside Twitter, the administration has relied on experts like Messrs. Long and Bossert to reassure the public, which seems an appropriate strategy. Message discipline matters. When responding to a disaster, Mr. Cilluffo says, you "can't have one message here, another message there, and a tweet saying a third thing."

It's reassuring that the White House understands the importance of relying on trusted messengers during a crisis—especially given the backlash to Mr. Trump's comments this month after the violence in Charlottesville, Va. During an emergency, the government needs wide cooperation from the public, which may not be possible under any president with credibility problems. Messrs. Long and Bossert have the standing to appeal to Americans across the partisan divide during Harvey and whatever disaster may come next.

Mr. Trump's handling of the hurricane response thus far is to be commended, but this is no time for complacency. The recovery in Texas will take a long time, and new disasters are always in the offing. The Trump administration would serve Americans well by following its successful approach to this first crisis with a continuing focus on disaster management. Today it's Harvey. Tomorrow, who knows?

Mr. Troy, a former deputy secretary of health and human services, is author of *"Shall We Wake the President? Two Centuries of Disaster Management From the Oval Office"* (Lyons Press, 2016).

## Modern Liberalism's False Obsession With Civil War Monuments



Visit the American Museum of Natural History in New York City, and between exhibits of dinosaur skeletons, Asian elephants and Alaskan moose you might notice a bust of Henry Fairfield Osborn and a plaque honoring

Madison Grant. Osborn and Grant were two of the country's leading conservationists in the early 1900s. They also were dedicated white supremacists.

Osborn, a former president of the museum, founded the Eugenics Education Society—now known as the Galton Institute—which sought the improvement of humanity through selective breeding.

Grant, a co-founder of the Bronx Zoo, is known today for his influential 1916 best seller, "The Passing of the Great Race," a pseudoscientific polemic arguing that nonwhite immigrants—which included Eastern and Southern Europeans by his definition—were tainting America's superior Nordic stock.

Osborn, who was a zoologist by training, wrote the introduction to Grant's book, which Hitler called

"my Bible." The New Yorker magazine once described Grant as someone who "extended a passion for preserving bison and caribou into a mania for preserving the 'Nordic race.'

Given their options, why are liberals so focused on monuments to Civil War figures? Politically, it makes some tactical sense. The GOP has spent decades warding off claims of racism, and forcing Republican politicians to defend prominent displays of Confederate statuary keeps them on the defensive.

On another level, however, liberals make a fetish of Civil War monuments because it feeds their hallowed slavery narrative, which posits that racial inequality today is mainly a legacy of the country's slave past.

One problem with these assumptions about slavery's effects on black outcomes today is that they are undermined by what blacks were able to accomplish in the first hundred years after their emancipation, when white racism was rampant and legal and blacks had bigger concerns than Robert E. Lee's likeness in a public park.

Today, slavery is still being blamed for everything from black broken families to high crime

rates in black neighborhoods to racial gaps in education, employment and income. Yet outcomes in all of those areas improved markedly in the immediate aftermath of slavery and continued to improve for decades.

### Black accomplishments in 1940s and '50s America prove today's setbacks aren't due to slavery.

Between 1890 and 1940, for example, black marriage rates in the U.S. were higher than white marriage rates. In the 1940s and '50s, black labor-participation rates exceeded those of whites; black incomes grew much faster than white incomes; and the black poverty rate fell by 40 percentage points.

Between 1940 and 1970—that is, during Jim Crow and prior to the era of affirmative action—the number of blacks in middle-class professions quadrupled.

In other words, racial gaps were narrowing. Steady progress was being made. Blacks today hear plenty about what they can't

achieve due to the legacy of slavery and not enough about what they did in fact achieve notwithstanding hundreds of years in bondage followed by decades of legal segregation.

In the post-'60s era, these positive trends would slow, stall or in some cases even reverse course. The homicide rate for black men fell by 18% in the 1940s and by another 22% in the 1950s. But in the 1960s all of those gains would vanish as the homicide rate for black males rose by nearly 90%.

Are today's black violent-crime rates a legacy of slavery and Jim Crow or of something else? Unfortunately, that's a question few people on the left will even entertain.

Just ask Amy Wax and Lawrence Alexander, law professors at the University of Pennsylvania and University of San Diego, respectively, who were taken to task for co-authoring an op-ed this month in the Philadelphia Inquirer that lamented the breakdown of "bourgeois" cultural values that prevailed in mid-20th-century America.

"That culture laid out the script we all were supposed to follow," they wrote. "Get married before you have children and strive to stay married for their sake. Get

the education you need for gainful employment, work hard, and avoid idleness.... Be respectful of authority. Eschew substance abuse and crime."

The professors noted that disadvantaged groups have been hit hardest by the disintegration of these middle-class mores and that the expansion of the welfare state, which reduced the financial need for two-parent families, hastened social regression.

"A strong pro-marriage norm might have blunted this effect," they wrote. "Instead, the number of single parents grew astronomically, producing children more prone to academic failure, addiction, idleness, crime, and poverty."

For the suggestion that something other than continuing racial bigotry and the legacy of slavery has contributed to racial inequality, a coalition of faculty and students at the University of Pennsylvania promptly accused the professors of advancing a "racist and white supremacist discourse."

The reality is that there was a time when blacks and whites alike shared conventional attitudes toward marriage, parenting, school and work, and those attitudes abetted unprecedented social and economic black advancement.

## Misusing U.S. Sanctions Will Sap Their Power

By Jarrett Blanc

Since taking office, President Trump hasn't hesitated to threaten or implement sanctions against countries such as Venezuela and North Korea. Sanctions are useful tools, but Mr. Trump and bipartisan majorities in U.S. Congress run the risk of making them less effective.

The U.S. economy's size isn't the primary reason its sanctions are so powerful: Countries without a significant trade relationship with the U.S. can still be severely damaged by bilateral sanctions.

Though the European Union's gross domestic product almost matches America's, EU sanctions are much less devastating. This in-

fluence derives from America's central position in international finance—particularly its control over the invisible plumbing that allows money to move around the world.

Recognizing how much of their work touches the U.S., major foreign banks will often go so far as to treat themselves as "U.S. persons" for legal and regulatory purposes. Countries or entities subject to U.S. sanctions thus have a very difficult time with even simple banking transactions, which is catastrophic for trade.

Yet America's dominant place in international banking, like its position in the broader international system, can be lost. The international financial plumbing can be

changed with the investment of time and resources by banks, governments and regulators. So far there haven't been sufficient incentives to make those changes, but governments and banks will reconsider if the U.S. abuses its position.

Policy makers and regulators in the U.S. have long been sensitive to this risk. They have taken it into account in the application of new sanctions and have worked closely with foreign banks to ensure they're doing permissible business—even business barred to their American competitors.

For example, outreach surrounding the Iran deal was designed to assure foreign businesses and regulators that remaining U.S. sanctions were tailored and not a back door to enforcing the sanctions lifted by the deal. Thanks to these efforts, major foreign banks working with Iran have largely chosen to work with U.S. officials and stay in careful compliance.

Washington's caution seems to have been lost with the latest sanctions against Iran, Russia and North Korea—legislation that passed with overwhelming support from both parties and was signed into law by a hesitant Mr. Trump. The new sanctions will do little to change the kinds of commerce allowed with the target countries. The law's main function is to shift influence over lifting sanctions from the White House to Capitol Hill.

Congress has historically found it more attractive to levy sanctions than to lift them. Sanctions generally target adversaries, so that even if a country changes the pol-

icy that prompted sanctions, it likely will have other problems with the U.S.

Some members of Congress will be tempted to promote these remaining issues as new reason to keep sanctions in place. That's why the 1974 Jackson-Vanik restrictions on most-favored-nation status for

### America's central role in finance gives it unique clout, but this could erode if Congress isn't careful.

Russia stayed in place for a generation after Russia opened up emigration restrictions, the legislation's original aim.

Mr. Trump is right to say the shift in power toward Congress will make it harder to use sanctions as a chit in international negotiations.

For those who are deeply concerned by Russian meddling in other countries' elections—and by Mr. Trump's apparent nonchalance—congressional authority over sanctions may feel like progress. For banks, governments and regulators abroad, it looks as if the U.S. is turning sanctions from a means of achieving particular ends into permanent stigmas. That makes it more attractive to find ways to leave the U.S. banking system.

Mr. Trump also is threatening loudly to trash the Joint Comprehensive Plan of Action, better known as the Iran deal. Never mind that America's international

partners and the intelligence community agree that Iran is fulfilling its commitments.

The U.S. built an international consensus that Iran's nuclear program was a problem. European and Asian partners took appropriate action, suffering real economic harm by ratcheting back oil purchases and other commerce with Iran and then working to negotiate the deal.

If the U.S. cannot take "yes" for an answer, those same partners likely will be at least as concerned about the threat posed by America's financial power as the threat of Iran's nuclear program.

In a time when U.S. consistency and reliability is openly questioned by some of America's closest allies, threats of permanent sanctions will draw more attention to the risks of being dependent on the U.S. financial system. America's importance as an international financial hub won't disappear overnight, and neither will the reach of U.S. sanctions.

If the U.S. comes to be seen as an untrustworthy custodian, there will be a slow and inexorable erosion of America's role and influence.

Sanctions compare favorably with any other tool the U.S. has—and certainly very favorably to military action. They can help address real problems in the world, which is why the U.S. shouldn't fritter them away.

Mr. Blanc, a senior fellow at the Carnegie Endowment for International Peace, was the U.S. State Department coordinator for Iran nuclear implementation (2015-17).

## THE WALL STREET JOURNAL.

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## LIFE & ARTS

### ART REVIEW

# 'Truth-to-Materials' Sculpture

Tom Joyce's monumental works are a love letter to abstract shape, paying homage to forebears dating back to Brancusi

BY ANN LANDI

Santa Fe, N.M.

**THESE ARE** strange times for monumental sculpture, whether outdoors or indoors, sited in public spaces or ensconced in the capacious lobbies of high-rise buildings. Yet for ambitious artists, big works in durable materials can prove irresistible. And while contemporary art may not carry the controversial charge of Confederate statues, it's still a cultural landscape dotted with extremes: Jeff Koons's giant balloon dogs and Damien Hirst's flayed vision of the Virgin Mary on the one hand, and on the other, works by younger artists like Carol Bove and Roxy Paine, who riff on a Modernist tradition that the uninitiated may find hard to understand.

But another strain of sculpture is still adventurously at work, and this one stems from the venerable "truth-to-materials" aesthetic and love of abstract shape that runs from Constantin Brancusi through David Smith right up to Richard Serra. Tom Joyce—who is the subject of a mini-survey here at the Center for Contemporary Arts called "Everything at Hand," comprising 45 works made in the past 12 years—falls squarely into this tradition, with noble monuments weighing up to 21 tons made from cast iron and forged steel.

The show, however, runs into trouble almost from the start. Outside the main gallery doors are giant clusters of stainless-steel spikes, like frozen sparklers, with cast-iron modeled hammerheads providing a central core. Those inner elements are a reference to Mr. Joyce's history as a blacksmith, a trade he learned almost 50 years ago as a teenager in El Rito, N.M., and an important leitmotif that runs throughout a distinguished career that includes a MacArthur award. The spikes are made from steel filings retrieved from earlier projects, and recycling is another concern of the artist's,



Installation view of 'Everything at Hand' at the Center for Contemporary Arts with 'Bloom V' (2016) in the foreground

whether his sources are weapon parts or the soil from battlefields around the world. A little wall text might have lent more resonance to visually pleasing sculptures that otherwise haven't much new to say.

A couple of silent videos near the reception desk show the artist at work in the studio and the foundry, where clumps of red-hot metal emit showers of sparks as a layer of steel is sheared off. Not much explanation needed here, but "Core Value" (2015), a high-definition video projected on an interior wall is truly baffling. In conversation with the sculptor later, I learned that this was an animation of a CT scan of the compact sculpture "Core IX" (2013/2015) near the entrance. Those test results

also provided the schematic geometries for a series of three seven-color lithographs. This is a kind of high-tech recycling that could be tied together better through wall text.

Another gallery presents ghostly 3-D printed tools used by the artist, primitive shapes that look like they're made from quartz, suspended from the ceiling (they are "stereolithography printed clear polycarbonate-like plastic [with] LED lights," according to the exhibition checklist). In the same gallery is a series called "Well" (2017), described as "dye sublimation photographs on aluminum." They are painterly, with a nubbly texture that's illusory because the prints are flat and affixed to aluminum boxes. Though they might

look like crusty canvases cooked up by, say, Larry Poons 40 years ago, these are in reality photos of the ends of the massive ingots that provide Mr. Joyce with his raw material. Again, some explanation would be helpful.

This reviewer felt on firmer ground in the largest interior gallery, where big steel sculptures give full rein to Mr. Joyce's dexterity with shape and surface, talents that tie him to the grand Brancusi-to-Serra tradition. "Bloom IV" and "Bloom V" (both 2016) have a quirky organic life, blocky shapes rounded at the top and clustered together, rising from a bed of pebbles and suggesting Brancusi's "The Kiss." "Lignifact I" (2017), tucked in a corner, has a pillow-like aspect one never would have

thought possible from forged steel. And the same is true of several of the outdoor sculptures, like "Stack VI" and the "Surge" series (2015-17), five discrete plump sculptures, whose gentle folds have an almost erotic charge. In the same gallery, a couple of huge charred drawings, made up of exuberant circular shapes burned into wood fiber through "pyroengraving," are impressive in size but oddly inert, like giant doodles with a protractor and compass.

And what to make of the last interior gallery, an installation called "Tenet" (2017), which is literally the sculptor's studio turned upside down? A desk (with gloves, a notebook and other implements of the artist's trade attached), bookcases and tools are all affixed to the ceiling. Mr. Joyce told me it was a kind of farewell, a notion I had trouble grasping. To the average visitor, the dimly lighted installation will seem spooky, threatening and surreal.

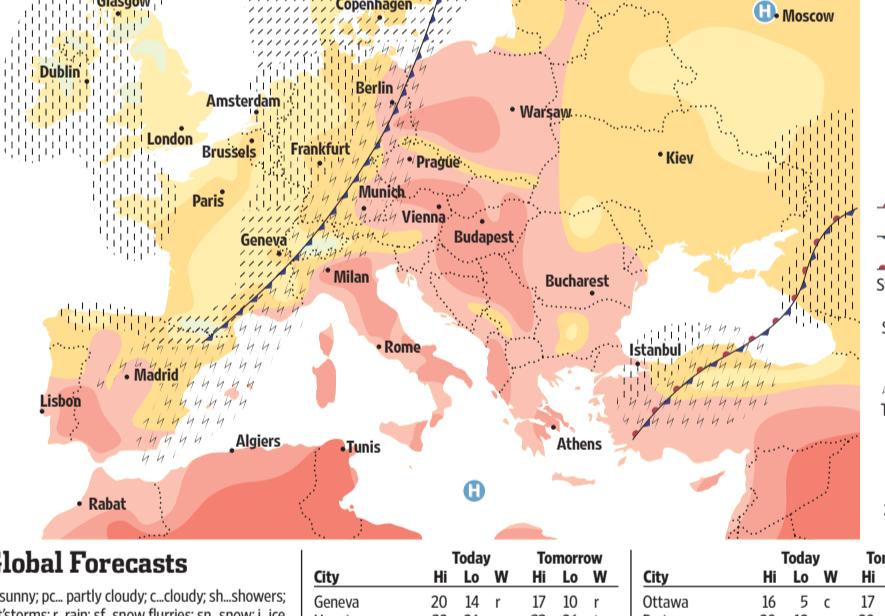
Mr. Joyce is an artist of huge gifts with perhaps too many ideas percolating at once. I'm generally not one to complain about the absence of lengthy labels (and I'm told a catalog will be available soon), but visitors to this show will need more hand holding to grasp the most promising direction suggested by this survey: the interface between technology (CT scans, 3-D computer imaging, video, high-tech photography) and traditional large-scale abstract sculpture.

There is much here to delight, and many works that puzzle. A better edited exhibition, one that connected the disparate strains of the artist's fertile imagination through text and placement, would leave visitors with more of a sense of "Aha" and less of "Huh?"

**Tom Joyce: Everything at Hand**  
Center for Contemporary Arts, through Dec. 31

*Ms. Landi writes on the arts and culture from Taos, N.M.*

## Weather



## Global Forecasts

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

City	Today			Tomorrow		
	Hi	Lo	W	Hi	Lo	W
Amsterdam	18	11	c	19	11	sh
Anchorage	14	9	r	13	8	sh
Athens	30	21	s	31	23	s
Atlanta	28	22	t	27	20	t
Bahrain	48	29	s	48	29	s
Baltimore	29	15	pc	20	13	pc
Bangkok	34	25	t	35	26	t
Beijing	28	18	pc	29	20	pc
Berlin	25	12	t	16	11	pc
Bogota	20	7	pc	21	8	pc
Boise	33	15	s	33	18	s
Boston	27	12	c	19	11	s
Brussels	20	10	c	18	11	pc
Buenos Aires	17	12	s	21	16	c
Cairo	35	23	s	33	23	s
Calgary	25	9	pc	25	11	pc
Caracas	31	25	pc	32	25	pc
Charlotte	27	20	t	27	19	t
Chicago	23	13	pc	21	12	pc
Dallas	32	21	pc	31	21	pc
Denver	31	16	c	31	15	pc
Detroit	22	10	pc	20	13	pc
Dubai	40	30	s	39	30	pc
Dublin	16	9	c	16	8	pc
Edinburgh	16	7	pc	17	8	pc
Frankfurt	21	12	c	18	10	pc

## AccuWeather.com

## The WSJ Daily Crossword | Edited by Mike Shenk



### KING ME! | By Brendan Emmett Quigley

Across			
1	Wee speck	26	Tesla creation
5	Amulet for Amenhotep	27	Mailroom tape?
11	Circumference segment	34	One who has a lot of screwdrivers?
14	Serb or Sorb	36	"Count me as well"
15	Sequoia, e.g.	37	Fight for 15 concern
16	Mason's creation	38	"The truth is I never left you" singer
17	Big bank, of a sort	39	"Doesn't sound familiar"
18	Mexican treat at a Philadelphia university?	40	Patch things up?
20	Pizzeria sights	41	Composer Webern
22	"Gangnam Style" rapper	42	First name in the Solidarity movement
23	Constant nag	43	Give the Bronx cheer
24	One in the upper class	44	Put to rest
		45	Grp. that confiscates water bottles
		46	Stipulation that things are on the house at an old drugstore?
		47	Graduation time
		48	Home of Presque Isle State Park, briefly
		49	He had a beef with Biggie
		50	Patch things up?
		51	Put to rest
		52	Role Nigel Farage played in a 2016 vote?
		53	Seacoast flyer
		54	Personal number
		55	No longer lying
		56	Bubbie

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

- 67 MC of NWA  
68 Temporarily inactive  
69 1974 Sutherland/Gould spoof  
**Down**  
1 "Abort, Retry, Fail?" software  
2 Salad spheroid  
3 Observe closely  
4 Though  
5 Sex ed subj.  
6 NYSE listing  
7 Sounds from the pros  
8 \_\_\_ Music (Brian Eno's old band)  
9 Worked on a sub  
10 Incense ingredient  
11 Allowing eavesdropping, perhaps  
12 Be on the fast track?  
13 Eschew modesty  
19 Cast  
21 Capital on the Balkan peninsula  
25 Relieved  
26 Wall St. bigwig  
28 Huddle in fear  
29 Region beyond the ozone  
30 Dalton's predecessor  
31 Lemon  
32 Stars sometimes have big ones  
33 Fictional warrior from *Amphipolis*  
34 Personal nature  
35 Higher than  
39 Uppermost limit  
41 Tournament Cyberball 2072 maker  
43 Elation  
44 "The Shining" prop  
47 Spa treatment  
48 White sale goods  
51 Item flattened in a souvenir machine  
52 Precincts  
53 Lift variety  
54 Pressure  
55 Hammerhead's end  
56 Narrow point of land  
57 Absence of challenge  
58 Singer of a complex song  
61 Chorus line syllable  
62 "Claws" network

### Previous Puzzle's Solution

SHANTY	MINING
MIMOSA	MENORAH
AGEGAP	BUCKAROO
LUNG	STOIC CHAMPS
LYDIA	ARRAY DIT
NOTED	ALI
CBS	KOBIE CHEAPO
OATH	NORTH ET TU
WHAMMY	TEAM EAR
GOO	OPTIC
ROE	CANNWE LARAM
IVAN	DANES LOGO
VICE	COPS UPLOAD
ENTRAPS	ISITME
RESORT	TINSEL

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THE WALL STREET JOURNAL.  
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# BUSINESS & FINANCE

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THE WALL STREET JOURNAL.

Thursday, August 31, 2017 | B1

Euro vs. Dollar 1.1922 ▼ 0.43%

FTSE 100 7365.26 ▲ 0.38%

Gold 1308.10 ▼ 0.38%

WTI crude 45.96 ▼ 1.03%

German Bund yield 0.362%

10-Year Treasury yield 2.145%

## Novartis Cancer Therapy Wins Approval

Drugmaker defends \$475,000 price tag for treatment, which breaks new ground

By DENISE ROLAND  
AND PETER LOFTUS

The U.S. Food and Drug Administration approved a first-of-its kind cancer therapy aimed at bolstering a patient's own immune cells, while the drugmaker behind the treatment attempted to allay worry over the high cost of the procedure.

Swiss pharmaceuticals giant Novartis AG said it would charge \$475,000 for the treatment, which involves extracting a patient's disease-fighting blood cells, modifying them to attack cancer cells more vigorously and then reinjecting them in the patient. The \$475,000 price tag was significantly lower than many analysts had expected.

The procedure can only be undertaken at a limited number of facilities in the U.S. It is highly tailored to individual patients and can take the better part of a month to complete. Those logistical hurdles

and its expected high price had cast a shadow over what has otherwise been seen as a groundbreaking treatment.

The treatment, called CLT019 but rechristened by Novartis after the FDA approval as Kymriah, has been shown to dramatically raise the chances of survival for children and young people with an aggressive form of leukemia who don't respond to standard treatment.

In a bid to blunt criticism over the price, Novartis said it would take payment for patients covered by Medicaid only if they respond to Kymriah

within a month of treatment. The company also said it would offer financial assistance—such as help with copay, travel and accommodation costs—to privately insured patients.

"We have taken a very responsible approach" to pricing, said Bill Hinshaw, Novartis's U.S. oncology head. He cited independent cost-effectiveness estimates that showed Kymriah could command a price of \$600,000 to \$750,000. He said that because patients will be children or young adults—who typically fall under their parents' or caregivers' private

Please see GENES page B2



U.S. health regulators approved Novartis's Kymriah treatment, which uses a patient's own immune cells to fight cancer.

## High Returns Wither for Marijuana Growers



Since peaking in September 2015 at about \$2,133 a pound, average U.S. wholesale cannabis prices dropped to \$1,614 in July, according to an industry research firm.

### Cheaper High

Cannabis' U.S. wholesale price



Source: New Leaf Data Services LLC  
THE WALL STREET JOURNAL

By JACOB BUNGE

After decades of dodging law enforcement and fighting for legalization, U.S. marijuana growers face a new challenge: low prices.

From Washington to Colorado, wholesale cannabis prices are tumbling as dozens of states have legalized the drug for recreational and medicinal uses, seeding a boom in marijuana production.

The market is still tiny compared with the U.S. tobacco industry's \$119 billion in annual retail sales, but the nascent cannabis business has grown to more than \$6 billion a year at retail, according to data from Euromonitor International Ltd. and Cowen & Co.

For marijuana smokers, the price drop is sweet news. Recreational users and those prescribed cannabis for health reasons have seen prices decline as wholesale prices have fallen, though some retailers have pocketed part of the difference, according to New Leaf Data Services LLC, which researches the U.S. cannabis market.

At Hashtag Cannabis, a Seattle-based retailer running two dispensaries, co-owner Jerina Pillert said wholesale price declines show up on the plastic vials holding green-and-tan nuggets of "Super Silver Lemon Haze" marijuana produced by Longview, Wash.-based Bondi Farms. A gram sells for about \$10 currently, down by a third from the \$15

a gram it fetched in September 2015, she said.

But for growers—ranging from high-tech warehouse operations to backcountry pot farmers gone legit—the price drop has been painful.

Since peaking in September 2015 at about \$2,133 a pound, average U.S. wholesale cannabis prices fell to \$1,614 in July, according to New Leaf. That is the sort of market decline that hit Midwestern corn and soybean growers in recent years after a string of record-breaking crops.

"There is an increasing recognition, on the part of the industry and those that grow and dispense, that this market is a commodity," said Jonathan Rubin, New Leaf's chief executive.

In response, some producers are taking a page from the food industry, where farmers and food companies increasingly appeal to health and environment-conscious consumers.

Growth in organic food products for years has outpaced conventional grocery sales, and products made without genetically modified crops, gluten and artificial flavorings can command premium pricing and shelf space.

Stephen Jensen, who secured a state license to grow cannabis in Washington in 2015, has yet to turn a profit. He is promoting what he described as natural growing methods.

"We needed to give people a reason to select us," said Mr.

Please see FARMS page B2

## Red Flag Is Waved On Bonds Over GOP Tax Plan

By VIPAL MONGA

Republican plans to scale back tax deductions on companies' interest payments risk pushing more borrowing overseas, say analysts and market participants, eroding the competitive advantage of the \$6.053 trillion U.S. corporate-bond market.

Rep. Kevin Brady (R., Texas), chairman of the House Ways and Means Committee, said this month that he wanted to curtail companies' capacity to deduct net interest payments from taxable income to pay for tax cuts. The comments virtually ensure the topic will feature prominently in the coming tax debate, which is expected to begin in earnest after Labor Day.

White House officials and top House Republicans say they are optimistic about finishing a major tax bill this year, but they have a long way to go. President Donald Trump was set to cite the importance of a tax-code revamp in a speech Wednesday in Missouri.

Any U.S. limits on interest write-offs would diverge from the policies in many other rich countries and likely prompt companies to shift some borrowing to places where deductibility would still be in effect, many analysts say. Large U.S.-based companies such as Apple Inc. and Microsoft Corp. routinely borrow billions of dollars in the U.S., knowing that interest payments will lower their tax bills.

Ironically, a tax revamp meant to boost U.S. competitiveness and bring overseas earnings home may weaken a central pillar of the U.S. capital.

Please see PLAN page B2

## Clearinghouse Is the Latest To Crimp Venezuelan Debt

By JULIE WERNAU

The Depository Trust & Clearing Corp., one of the largest securities clearinghouses in the U.S., said it would no longer settle Venezuela bond trades, the latest blow for investors in the South American nation in the wake of U.S. sanctions.

The New York-based clearinghouse said in a notice on its website that, based on a recent executive order, it has suspended settlement services that allow Venezuelan bonds to change hands, including those of state-owned oil company Petróleos de Venezuela SA. A clearinghouse acts as an intermediary between buyers and sellers to exchange payments, and is crucial to bond trading.

The move is the latest com-

plication for traders of Venezuelan bonds and shows a rising awareness of the risk of dealing in these securities. Fears of falling on the wrong side of U.S. or Venezuelan policy have pushed some major institutional players out of the

DTCC says it won't settle the country's bond trades following U.S. sanctions.

market and driven down liquidity. That is causing concerns that bondholders will find it difficult to find buyers when and if they decide to sell those securities.

On Tuesday, Cantor

Fitzgerald LP stopped trading Venezuelan debt. The move was the first blanket restriction on Venezuelan bonds by a large U.S. financial institution.

This month, Credit Suisse Group AG said that it prohibited its traders from buying and selling two existing Venezuelan bonds because of the risk the trades would finance human-rights abuses.

An executive order from President Donald Trump on Friday prohibited U.S. institutions from trading new bonds with the government of President Nicolás Maduro. Officials said the move aims to punish Mr. Maduro and his administration for a move toward authoritarianism and that more financial sanctions would come if the repression continues.

Please see BONDS page B2

## Amazon Lures Grocery Shoppers

By LAURA STEVENS  
AND HEATHER HADDON

Amazon.com Inc. this week introduced hundreds of Whole Foods products to its website to encourage consumers to buy their groceries online.

Online grocery shopping accounts for less than 5% of the nearly \$800 billion in food and beverage sales in the U.S., despite Amazon and others rolling out deliveries in major U.S. metro areas. Buying groceries online has been slow to take hold because of shoppers' desire to touch and smell fresh produce, as well as price concerns and limits to where it is available.

"I don't want some guy



The online retailer is adding Whole Foods products to its site, and it is likely to introduce grocery pickup in the chain's stores.

shopping. Amazon has expanded its catalog with Whole Foods groceries at the same prices as in stores, and could use Whole Foods' 470 stores as hubs for online pickups and deliveries.

Food retailers that have both physical stores and e-commerce offerings have done better in capturing the online grocery

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♦ Heard: Worries over Amazon leave Costco at a discount. B8

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## AMAZON

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market. Twenty-two percent of consumers surveyed in April by Morgan Stanley had shopped for food from nearby supermarket's website, while only 13% had done so from an online-only grocery service.

While shares of traditional grocers have tanked in the past week as Amazon implements price cuts in Whole Foods stores, the greater menace to their business could be Amazon's grocery ambitions online, especially if Amazon drives down prices further, analysts said.

**Amazon's strategy for selling Whole Foods online is likely twofold, analysts say.**

"The biggest threat is what Amazon can do online. There's only so much reach the stores can achieve," said William Kirk, an analyst for RBC Capital Markets LLC.

Amazon declined to comment beyond its statement issued last week that several Whole Foods private labels, including 365 Everyday Value, would be available on Amazon.com and via some of its grocery-delivery options. Whole Foods also declined to comment.

The new Whole Foods category on Amazon.com for customers of AmazonFresh, its online grocery-delivery service, displays nearly 900 results for everything from \$4.99 organic vanilla ice cream to \$6.99 creamy almond butter. On Amazon's Prime Now app, which offers faster delivery, about 90 products are available to start. Amazon said previously it would add other private label brands to its selection.

## GENES

*Continued from the prior page*  
insurance plans, Medicaid or other federal plans aimed specifically at children—few patients would likely end up paying near the full price out of pocket. That cost will fall to the employers, insurers and taxpayer-funded government programs that fund healthcare costs.

Novartis Chief Executive Joe Jimenez said the company may charge a lower price in cancer types where the benefit is less dramatic. Novartis is testing Kymriah in adults with diffuse large B cell lymphoma, another form of blood cancer, but its remission rates are lower than in childhood leukemia.

Still, the company has already faced backlash over the announced price. "While Novartis's decision to set a price at \$475,000 per treatment may be seen by some as restraint, we believe it is excessive," said David Mitchell, president of Patients for Affordable Drugs, a campaign group backed by the Laura and John Arnold Foundation, which supports efforts to make prescription

Amazon's strategy for selling Whole Foods online is likely twofold, analysts say. Private-label products are typically higher-margin because of lower production and marketing costs, so the grocery chain's addition brings a new profitable line to Amazon's site. And Whole Foods' cachet as a healthy lifestyle brand could entice more shoppers to add food to their online shopping cart.

Amazon's push into food started in earnest in 2007, when it launched AmazonFresh in Seattle. Fresh costs \$15 extra a month on top of Amazon's \$99 annual Prime membership fee. But it is tricky to handle perishable items, such as ice cream in the summer heat, and the business is costly, requiring refrigerated storage that thins profit margins. After testing the delivery service for about six years in its hometown, Amazon rolled it out to more than 20 U.S. markets, as well as London, Berlin and Tokyo.

But online grocery has become increasingly crowded. Delivery services such as Instacart Inc., Peapod LLC, Shipt Inc. and FreshDirect LLC have expanded nationally. Instacart has handled Whole Foods online orders since 2014. (Instacart executives have declined to say what Amazon's merger with Whole Foods will mean for its business.)

Wal-Mart Stores Inc. and Kroger Co. have rolled out in-store pickup for online orders.

While Amazon hasn't described exactly how it might use Whole Foods to bolster its online delivery options, people familiar with the matter have said that it is likely to introduce online grocery pickup in stores. In an announcement last week, Amazon said it would be adding lockers for package pickups in Whole Foods stores. It is unclear if the lockers will be used for food orders. Still, the higher prices charged by Whole Foods for its organic store goods could limit sales on a mass-market platform such as Amazon, analysts say.

drugs more affordable in the U.S. "Novartis should not get credit for bringing a \$475,000 drug to market and claiming they could have charged people a lot more."

Steve Pearson, head of the Institute for Clinical and Economic Review, which studies the cost of drugs, said that while the price is lower than analysts expected, it should be judged on whether it reflects the benefit to patients.

"It will leave patients and others wondering" why \$475,000 is the right price "instead of 175 [thousand], 600, 750 or any other number," Dr. Pearson said. "And questions will remain about how this price will affect patients' ability to access the drug, and how it will be used to set a benchmark for other uses of this drug and perhaps other cancer drugs in the future."

On Wednesday, the FDA approved Kymriah for children and young adults up to 25 years old who suffer from acute lymphoblastic leukemia and who have not responded to standard therapy. The decision was expected, following the backing of an FDA advisory committee of experts, who voted unanimously in favor of approval in July.

## BUSINESS & FINANCE

# Cardiac Software Updated

Abbott releases patches to protect pacemakers against threat of hacking

BY PETER LOFTUS

**Abbott Laboratories** released new software updates designed to protect hundreds of thousands of implanted pacemakers from external hacking that could harm heart patients and to guard against dangerous battery depletions in a different cardiac device linked to two patient deaths.

U.S. health regulators flagged the safety risks of the devices and issued a blistering warning letter earlier this year criticizing Abbott's handling of the problems.

Abbott acquired the products with its \$23.6 billion purchase of **St. Jude Medical** in January and said the issues cited in the warning letter occurred before the deal closed.

The software patches underscore the growing concern about cybersecurity of medical devices that are increasingly connected via the internet or other networks.

Abbott said in a letter to doctors Monday that the new



NICK HUH/ASSOCIATED PRESS

**The move comes amid growing concern about cybersecurity.**

firmware—a type of software embedded in the device's hardware—is intended to reduce the risk of unauthorized access to pacemakers that use radio-frequency communications.

"This firmware update provides an additional layer of security against unauthorized access to these devices that further reduces the potential for a successful cybersecurity attack," Abbott said in the letter.

Abbott said it doesn't recommend that patients have their pacemakers replaced. Rather, the company advises doctors to discuss the matter with patients at their next visits and to administer the software update if it is deemed appropriate.

The doctor administers the update through a wand held over the site of the implanted pacemaker. The update itself carries small risks of causing a device malfunction, Abbott said.

About 465,000 implanted pacemakers are eligible for the update, and Abbott said the update will be built into all newly implanted devices. The pacemakers are sold under brand names including Accent, Anthem and Assurity.

The Food and Drug Administration said Tuesday there are no known reports of patient harm related to cybersecurity vulnerabilities in the implanted pacemaker devices.

The agency said it approved

Abbott's software update "to reduce the risk of patient harm due to potential exploitation of cybersecurity vulnerabilities" for the pacemakers, which use electrical jolts to maintain a regular heartbeat in patients with abnormal heart rhythm.

The FDA said the Abbott pacemakers had vulnerabilities that, if exploited, could allow an unauthorized user to access a patient's device using commercially available equipment. Hackers could modify programming commands to the pacemaker, which could result in patient harm from rapid battery depletion or administration of inappropriate heart pacing, the FDA said.

Abbott also released a new software update for more than 398,000 implanted cardioverter defibrillators, which are designed to prevent cardiac arrest in patients with rapid heartbeats.

The software update provides doctors with earlier warnings of the potential for premature battery depletion.

In its warning letter this year, the FDA said Abbott hadn't properly investigated and resolved the cybersecurity risks of its pacemakers or the risk of premature battery depletion in the defibrillators.

"The socially conscious, premium customer is going to want us because we're sustainable," he said. "It only takes me 30 seconds to convert somebody wearing Patagonia and driving a Prius that they should never smoke indoor weed again."

At Hashtag Cannabis in Seattle, Ms. Pillert said customers occasionally ask for pesticide-free or sun-grown varieties. Smokers' main fixation, she said, is the potency rating for the key active ingredient, tetrahydrocannabinol, or THC. "They want to make sure they are getting the biggest bang for their buck."

Many in the emergent industry expect marijuana to eventually resemble the beer business, where pricier craft brews have built followings in the shadow of cheaper mass-market beers like Budweiser and Busch.

While high-quality strains and specialty brands may secure premium prices, more low-quality marijuana will be processed into oil used in vaporizer cartridges or adult-oriented baked goods like brownies and cookies, growers and retailers said.

Mr. Jensen, the Washington cannabis producer, said he hopes that his sun-grown, naturally produced plants over time will yield a 20% to 30% premium over the average market price.

"I always buy organic products at the store and think there is a future for that in the [cannabis] industry," said Mr. Jensen. But, he said, "it's a battle getting that awareness out."

## FARMS

*Continued from the prior page*

Jensen. He said his Green Barn Farms eschews synthetic pesticides and relies on natural light over high-powered lamps, which he said helps his cannabis stand out among more than 1,100 other Washington farms.

Because cannabis remains illegal under federal law, growers can't get their crops certified as organic, a label that can only be bestowed by the U.S. Department of Agriculture.

Cannabis farmers instead have turned to alternative labels such as SunGrown Certified, which requires that growers use sunlight and water-conservation practices. They hope such labels will entice

smokers and secure shelf space in the 29 states where marijuana is legal in some form.

Another label, Clean Green Certified, is modeled on U.S. organic standards. It bars synthetic pesticides and emphasizes what the program deems fair labor practices. In May, Washington state passed a law that would set up a state-level organic-certification program, though it may need to have a label that doesn't use that word.

That push to differentiate is splitting pot farmers into rival camps.

Indoor-grown cannabis, where climate controls and high-powered lights allow several crops a year, typically is of a more consistent quality, industry officials say. Its dense, often bright-green buds

catch consumers' eyes, often sell at a higher price and can be costlier to produce.

Proponents of marijuana grown outdoors and in greenhouses say indoor facilities rely on synthetic fertilizers and heavily consume electricity. They point to a 2012 paper by University of California senior scientist Evan Mills, who estimated that indoor cannabis production accounted for 1% of national electricity use, though some growers have been adopting LED lights, which consume less electricity.

Jeremy Moberg, owner of Riverside, Wash.-based Canna-Sol Farms and head of the **Washington Sungrowers Industry Association**, says marijuana smokers will come to care about the environmental cost of their high.



NICK AGO/THE ORANGE COUNTY REGISTER/ZUMA PRESS

## PLAN

*Continued from the prior page*  
tal markets. "If you remove interest deductibility in one location and retain it in others, then of course companies will want to move their borrowing," said Matt King, a credit analyst at Citigroup Inc.

A spokesman for the House Ways and Means Committee said the tax cuts will help revitalize the economy, which in turn will stimulate capital markets.

A debt boom after the financial crisis has only burthened the U.S.'s status as the world's largest bond market. Companies routinely borrow billions to build new factories, finance acquisitions and fund share buybacks. Nonfinancial, investment-grade companies in the U.S. have borrowed roughly \$575 billion this year, on pace to break the record of close to \$800 billion set in 2015, according to data provider Dealogic.

Steve Pearson, head of the Institute for Clinical and Economic Review, which studies the cost of drugs, said that while the price is lower than analysts expected, it should be judged on whether it reflects the benefit to patients.

changing the tax code could push some borrowing into foreign markets, Mr. King said.

Debt is popular because it is cheaper than selling equity. Its low cost is enhanced by deductibility, which began in the early 1900s when railroad and real-estate executives persuaded the federal government that their businesses wouldn't survive if they paid interest with after-tax profits, said Steve Bank, a professor at the UCLA School of Law.

**Towering**  
Corporate bonds outstanding as of Aug. 22, by region  
**U.S.** \$6.1 trillion  
**Europe** \$2.2 trillion  
**China** \$2.0 trillion

Source: Dealogic  
THE WALL STREET JOURNAL.

to their benefit, said Brian Kitte, a tax lawyer at Mayer Brown LLP. Companies including Mylan NV, Medtronic PLC and Johnson Controls International PLC have in recent years moved abroad in part to lower their U.S. tax bills.

Removing interest deductibility would create a "strange and ironic" echo of such "corporate inversion" strategies in which firms move their headquarters overseas but keep their main operations in the U.S., said Citigroup's Mr. King. In this case, companies could keep their funds in the U.S. and borrow elsewhere.

U.S. companies have also stockpiled more than \$2.6 trillion in earnings offshore, because they don't pay U.S. tax on any reinvested foreign earnings.

Apple, Microsoft and Pfizer Inc. have collectively borrowed almost \$200 billion in the U.S. investment-grade bond market since 2008, according to Dealogic, even as their earnings overseas rose.

Foreign companies already borrow in the U.S. to lower their tax bills. German industrial conglomerate Siemens AG has borrowed \$21.25 billion in the U.S. investment-grade market since 2015. Others are spreading their bets. Apple issued a 2.5 billion Canadian-dollar (US\$2 billion) bond in August, the largest corporate borrowing by a foreign issuer on record there.

Richard Rubin contributed to this article.

## BONDS

*Continued from the prior page*

Bond traders said that the majority of Venezuela bond trades are cleared through Europe-based settlement houses, including Euroclear in Brussels and Clearstream in Luxembourg, but that DTCC's move raised concerns that other clearinghouses would follow suit. Euroclear and Clearstream didn't respond to requests for comment.

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## BUSINESS NEWS

# Hotel Building Boom Stalls in U.S.

Tighter lending, surging supply of rooms are cooling plans for new projects

Hotel developers are slowing down new U.S. construction projects after years of rapid growth, a result of tighter lending conditions and a ballooning supply of rooms in large markets.

By Sharon Nunn,  
Chris Kirkham  
and Sarah Chaney

Though consumer demand remains healthy, hotel construction spending was down 2% to \$27.5 billion in June at a seasonally adjusted annual rate from December, according to Census Bureau data, after more than tripling since bottoming in 2011. A combination of increased travel spending, growing consumer confidence and cheap credit prompted developers to pour money into hotel-construction projects in the aftermath of the 2007-09 recession. Now, growth in new hotel rooms is outpacing the number of consumers able to stay in them in cities like New York, Houston and Miami, prompting banks and developers to take a breather.

"As soon as they started seeing a lot of cranes in the air, people started getting cautious again," said Inigo Ardid, co-president of **Key International**, a Miami real-estate investment and development company for hotels throughout Florida.

Overall growth in the supply of U.S. hotel rooms has been slower in recent years than it was going into the last downturn, but there has been rapid growth in the nation's



A hotel project in New York City this year. Hotel construction spending in the U.S. fell in June.

10 lenders that were interested in the project," said Amit Patel, president of Winwood Hospitality Group, which owns and develops hotels in North Carolina and has an existing hotel investment in Nashville. "That number today is probably closer to three."

Miami's growing supply and recently declining lodging market is a microcosm of the trend and a warning; almost 3,500 rooms were under construction as of March, which is 6% of Miami's existing supply, and the city's occupancy rates and revenue per room have ticked down by almost 7% since 2015.

Houston was experiencing similar perils before flooding hit the city this week. The oil-rich city had almost 5,000 rooms under construction as of March, which is 6% of Houston's existing supply. Almost half of Houston-area hotel loans are distressed because of declines in hotel-room occupancy and dwindling income to pay back mortgages, according to Kroll Bond Rating Agency.

Still, some fundamentals point in the sector's favor. The average annual U.S. occupancy rate at the peak of hotel construction last cycle was 62.8%, and was rapidly declining. By comparison, occupancy was at 65.5% over the last year, which is a slight uptick from a year earlier.

Unlike in past cycles, when developers overbuilt across the board, this last growth period has been more moderate.

Average room-supply growth was less than 2% across the U.S. in June, according to STR.

That is in line with long-term averages and lower than supply growth of about 3% going into the 2007-09 recession and 4% growth before the 2001 recession.

## Toyota, Startup Grab Set Alliance

BY SEAN MCCLAIN

TOKYO—**Toyota Motor Corp.** said Wednesday it plans to dive deeper into the ride-hailing business by teaming up with Singapore-based startup **Grab Inc.**

Separately, Toyota Group company **Toyota Tsusho Corp.** said it would invest an undisclosed amount in Grab as part of a \$2.5 billion fundraising round announced in July.

Toyota says it will install tracking devices on 100 Grab vehicles to gather data on driver behavior to help develop aspects of its mobility services, such as usage-based insurance and financing programs.

Japanese auto makers have been sampling the ride-hailing and car-sharing business. In December, **Honda Motor Co.** invested an undisclosed amount in Grab to explore motorcycle ride-hailing.

Toyota's deal with Grab is the auto maker's second foray into the competitive ride-hailing market.

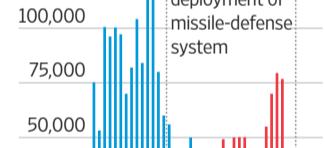
Last year, Toyota said it would work with **Uber Technologies Inc.** to lease vehicles to Uber drivers.

In October, Toyota said it was running a pilot program in the U.S. with car-sharing startup Getaround, making use of a Toyota technology that allows cars to be started with a smartphone.

The deals are part of Toyota's long-term plan to build its own platform for mobility services.

## In a Jam

China sales at South Korea's Hyundai and its Kia subsidiary tumbled after Seoul deployed a U.S.-made missile-defense system.



nese consumers to steer clear of Korean goods and switch off once-popular Korean pop music and television shows.

When Mr. Moon took office

in May, he put additional de-

ployments of the new mis-

sile-defense system on hold,

in an ap-

parent effort to mollify Bei-

jing, though he has since

come under political pres-

sure not to cave into China's per-

ceived bullying tactics by dis-

continuing the missile system

altogether.

The missile-defense spat

came at the worst possi-

ble time for Hyundai, which

was already facing a "fundamen-

tal issue with product position-

ing and brand equity" in China,

according to Janet Lewis,

managing director of equity

research at Macquarie Capital

Securities.

The company needs to re-

fresh its "aging product

lineup" to win back custom-

ers, Ms. Lewis said, while hoping that an end to the political backlash against Korean products enables a quick re-

bound.

—Min Sun Lee in Seoul contributed to this article.

## Messaging App Plans Initial Coin Offer

By PAUL VIGNA

Messaging-app operator **Kik Interactive** said Tuesday that it was aiming to raise \$125 million through an initial coin offering in September, one of the first established companies to step into the mushrooming, highly speculative market for these digital tokens.

Hyundai said Wednesday that its Chinese joint venture, **Beijing Hyundai Motor Co.**, halted production last week because it was unable to pay a supplier of essential fuel-tank parts, causing the supplier to halt deliveries.

"The slowdown in China has put a strain on their financial situation. That's why they haven't been able to pay their supplier," said a Hyundai spokesman.

Production resumed at midday Wednesday after talks with the supplier, he said.

Hyundai Motor's shares fell

roughly 4% after news reports of the shutdown early Wednesday, before recovering to close off less than 1%. The company's stock has lost 16% of its value since May. Hyundai posted its worst quarterly results in five years in July, citing the China situation as a primary cause.

The production halt compounds what has already been a disastrous year for Hyundai in China. Sales slumped after Seoul's deployment of a U.S.-built missile-defense system in February amid North Korea's growing nuclear threat.

Beijing condemned the move, claiming it threatened China's national security. That sparked an unofficial campaign against South Korean consumer goods in China, with retailers and auto makers among the hardest hit.

Hyundai's sales in China fell 55% from March to July,

while sales at the company's Kia Motors Corp. subsidiary dropped 63%. Both operate in China with state-run joint venture partners **Beijing Auto Industry Corp.** and Dongfeng Motor Corp., respectively.

The dispute has led Kia to cut production at its three factories in Yancheng, about 965 kilometers south of Beijing. Those plants employ about 30,000 people, who have been getting by on reduced hours and lower pay as Kia tries to avoid full-scale layoffs.

The production suspension at Beijing Hyundai didn't affect the separate Kia joint venture, the Hyundai spokesman said.

Hyundai, previously the No. 3 foreign auto maker in China by sales, had been planning to accelerate its China output in 2017. A fifth Hyundai plant in Chongqing had been due to start production this month, and in its 2017 business plan the auto maker said it expected China sales to increase 9.5% this year to 1.25 million vehicles.

But Hyundai only managed about 350,000 sales in the first seven months of the year.

Hyundai sold 1.14 million vehicles in China last year, not far behind its domestic tally of 1.67 million. China accounted for roughly one-quarter of its global sales.

South Korean President Moon Jae-in urged Chinese President Xi Jinping to remove the "constraints" being placed on Korean businesses in China at a July meeting, but the pressure on Korean companies hasn't eased.

Chinese officials have denied there is any official boycott against South Korean products, though state-controlled media have urged Chinese consumers to steer clear of Korean goods and switch off once-popular Korean pop music and television shows.

When Mr. Moon took office in May, he put additional deployments of the new missile-defense system on hold, in an apparent effort to mollify Beijing, though he has since come under political pressure not to cave into China's perceived bullying tactics by discontinuing the missile system altogether.

The missile-defense spat came at the worst possible time for Hyundai, which was already facing a "fundamental issue with product positioning and brand equity" in China, according to Janet Lewis, managing director of equity research at Macquarie Capital Securities.

The company needs to refresh its "aging product lineup" to win back customers, Ms. Lewis said, while hoping that an end to the political backlash against Korean products enables a quick rebound.

## BUSINESS WATCH

NEW YORK TIMES

### Court Dismisses Suit Brought by Palin

A federal court on Tuesday

dismissed a defamation lawsuit

brought by Sarah Palin against

New York Times Co.

saying the former Alaska governor failed to show that the newspaper acted maliciously when it made an error in an editorial about gun violence.

The 2008 Republican vice-

presidential nominee filed the

suit after the Times ran an edi-

torial in June that suggested her

political-action committee helped

incite the 2011 assassination at-

tempt against former Demo-

cratic Rep. Gabrielle Giffords.

After publication, the Times

corrected the article, noting that

there was no evidence of a link

between Ms. Palin's activities

and the shooting.

Representatives for Ms. Palin

didn't respond to a request for

comment.

—Imani Moise

FACEBOOK

### Site Scores Show About Ball Family

Facebook Inc. is betting a

family of media-savvy basketball

personalities can draw a dedi-

cated audience to its revamped

original programming effort.

LaVar Ball and his family—in-

cluding his son, Los Angeles Laker

rookie Lonzo Ball—will star in

a new reality series called "Ball

in the Family," which was created specifically for the social-media website's recently redesigned Watch video tab.

Mr. Ball's spirited and even theatrical promotion of Lonzo, who was selected second in the National Basketball Association draft this summer, has been the subject of much media attention.

Mr. Ball made headlines after claiming Lonzo, who has yet to play in an NBA game, is a better player than two-time MVP Steph Curry and that, in his prime, he himself could have taken on basketball legend Michael Jordan in a one-on-one contest.

Trailers for the show indicate it will offer an inside look at the family, including LaVar's efforts to groom his three sons into basketball legends, the building of the Big Baller Brand business and his wife's rehabilitation after a stroke.

"We wanted to give our fans an unfiltered look into our lives and show them a side of us that isn't typically seen," LaVar Ball said in a statement.

The video series is being produced by Bunim/Murray Productions, the company behind "Keeping Up with the Kardashians," "The Real World" and "The Simple Life."

The social-media site is hoping the show will attract a significant weekly audience for appointment viewing similar to traditional TV programming and also compete with the likes of Google's YouTube.

—Imani Moise

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Messaging-app operator **Kik Interactive** said Tuesday that it was aiming to raise \$125 million through an initial coin offering in September, one of the first established companies to step into the mushrooming, highly speculative market for these digital tokens.

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Production resumed at midday Wednesday after talks with the supplier, he said.

Hyundai Motor's shares fell

ada and the U.S.

Kik also allows developers to publish games and services within the platform.

The Ontario-based company has said it has 300 million registered users. But Kik revealed in the token offering's marketing materials that it only has 15 million monthly active users, a key metric.

"We went on record two years ago and said growth is a problem for us," Chief Executive Ted Livingston said in a recent interview. Kik has been boxed out by larger rivals like Facebook Inc., he added, which



"We went on record two years ago and said growth is a problem for us," said Kik CEO Ted Livingston.

## TECHNOLOGY

WSJ.com/Tech

# Microsoft, Amazon on Speaking Terms

By JAY GREENE  
AND LAURA STEVENS

**Microsoft** Corp. and **Amazon.com** Inc., fierce rivals in cloud computing, are collaborating in another emerging field: voice computing.

The companies on Wednesday announced plans to allow their voice-enabled digital assistants—Microsoft's Cortana and Amazon's Alexa—to work together beginning later this year. The agreement provides each assistant with capabilities they lacked, and poses new challenges to **Apple** Inc. and **Alphabet** Inc.'s Google, which have their own voice-enabled assistants.

Amazon customers who use the company's voice-activated Echo speakers will be able to tap into Microsoft's artificial-intelligence capabilities by saying, "Alexa, open Cortana." They can check their Outlook calendar for coming appointments, for example. At the same time, customers using computers running Windows 10 will be able to say, "Hey Cortana, open Alexa," to turn on the lights in their homes or



Amazon's digital assistant Alexa surfaced in 2014 when the company introduced the Echo, above.

add items to shopping lists.

By joining with Microsoft, Amazon expands Alexa's reach. Morgan Stanley estimates Amazon has sold more than 11 million Echo devices through last year, while Cortana is available

on the 500 million computers running Windows 10—though Microsoft said in May Cortana has 141 million monthly users. Both services also run on apps available on the mobile operating systems from Apple and

Google.

"This is a great move for Alexa, but also a necessary move," said Gene Munster, head of research at venture-capital firm Loup Ventures. Right now, Alexa is lacking in

some aspects such as email and calendar options, which it gains through the partnership, he said.

One thing the companies won't share is data. An Amazon spokeswoman said the companies will only exchange necessary information to process requests that is consistent with both companies' privacy policies. "Once you open Cortana, all voice data goes to Microsoft and not Amazon," she said.

Alexa, which surfaced in 2014 when Amazon introduced the Echo, has focused on consumer and home-automation needs. Cortana, which made its debut in 2014, works in personal computers as well as Microsoft's Xbox One game consoles. Cortana's strength is in its integration with Microsoft's productivity software, said Patrick Moorhead, an analyst with research firm Moor Insights & Strategy.

The digital-assistant market is still emerging, with no clear leader. Apple's Siri is on as many as a billion devices, Mr. Moorhead estimates. The company will start selling its HomePod speaker later this

year, a device that likely will tie into millions of iPhones and iPads and their calendar and email information.

Google Assistant is on about 150 million devices that run the latest versions of its Android operating system, Mr. Moorhead said. The company is racing to catch up to Alexa with Google Home, a voice-activated speaker similar to Amazon's Echo.

"There are going to be multiple successful intelligent agents, each with access to different sets of data and with different specialized skill areas," Amazon Chief Executive Jeff Bezos said in a statement.

The tie-up is a signal the companies realize the future of voice assistants may be more about the content rather than how it is delivered, said Ahmed Bouzid, a former member of the Alexa team and founder and CEO of Witlingo, which builds voice products for Alexa, Google and Cortana.

"This development is moving towards that world where it really doesn't matter if you access the content through Google or Alexa or Cortana or Siri or Bixby," Mr. Bouzid said.

## Apple Reaches Out to WeChat Users

By ALYSSA ABKOWITZ

**BEIJING**—**Apple** Inc. is now allowing Chinese customers to use local mobile-payment system WeChat Pay for purchases in its App Store, underscoring the expanding reach of the service owned by technology firm **Tencent Holdings** Ltd.

Apple's decision to accept payments from the service came despite recent tensions with Tencent, including over the Chinese company's rollout this year of a so-called miniprogram system that has been seen as a competitor to the App Store.

"We are committed to offering customers across our ecosystem a variety of payment options that are simple and

convenient," Apple said in a written statement.

In the second quarter of this year, Apple's App Store pulled in more revenue in China—an estimated \$2.2 billion—than in any other market, according to mobile-analytics firm App Annie.

Tencent's latest victory comes as it challenges the more established Alipay mobile-payment system backed by local rival **Alibaba Group Holding** Ltd. As WeChat Pay, which controls 40% of the Chinese market, has gained wider acceptance, Alipay's market share has fallen from 80% in 2014 to about 50% currently, according to data from iResearch Consulting Group. Apple began accepting App Store payments from Ali-

pay in November 2016 and from state-backed network UnionPay two years earlier.

WeChat has become an all-purpose smartphone utility in China, with nearly one billion monthly active users who rely on it for mobile payments, social messaging and entertainment, among other functions.

Chinese smartphone users spend so much time on WeChat that some analysts say they believe it could hurt sales of Apple's 10th-anniversary iPhone expected in September, because consumers here won't see the need to upgrade their handsets as long as they can access the platform.

Apple has said it views Tencent, one of the world's biggest competitors in mobile games,

as a partner. On an earnings call with analysts earlier this month, Chief Executive Tim Cook said Tencent is "one of our biggest and best developers" and that Apple looked forward to working with the company "even more."

However, the decision to accept WeChat Pay comes as Apple struggles to gain traction with its own mobile-payment system, Apple Pay, which made its debut in China in May 2016. The system's footprint in the country's market is negligible, iResearch says.

Also, Apple has sparred with Tencent recently over purchases in the App Store. Earlier this year, Apple forced the Chinese company's WeChat messaging app to disable its "tip"



A sign indicates acceptance of WeChat Pay, at a restaurant in Guangzhou, China. Apple's App Store now accepts the service.

function to comply with App Store rules. The function allowed WeChat users to give small amounts of money to authors and other content creators as gratuities via transfers from mobile-wallet accounts. Apple considered these payments to be in-app purchases, of which it takes a 30% cut.

—Xiao Xiao contributed to this article.

WSJ TALK / EXPERIENCE / OFFER / GETAWAY



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## FINANCE & MARKETS

# Insurers' Drones Win After-Storm Role

By NICOLE FRIEDMAN  
AND LESLIE SCISM

Property insurers are preparing to fly dozens of drones over homes and businesses to assess damage in the wake of Tropical Storm Harvey, the first widespread use of unmanned aircraft to size up catastrophe claims.

Insurers have been testing drones and using them on a small scale since getting Federal Aviation Administration approval in 2015 to use the technology for U.S. inspections. Drones provide aerial images that can help insurance adjusters inspect buildings faster and more safely, executives say, part of a larger industry effort to speed up time-consuming claims.

The storm presents the first opportunity for some insurers to test their new fleets on a large scale. Harvey, which made landfall in Texas last week and moved to Louisiana on Wednesday, is estimated to have caused up to \$20 billion in insurable damage.

Travelers Cos., a large commercial and personal-property insurer, has about 24 drones



Harvey is the first opportunity for some insurers to test their drone fleets on a large scale.

ready to be used in Texas and about 200 Travelers employees certified by the FAA as drone pilots, according to a spokesman.

Allstate Corp. expects to make hundreds of flights a day and thousands a week with drones that it uses on a contract basis, according to a spokesman. It already routinely uses drones to settle

claims in Texas and three other states.

Farmers Insurance, one of the top homeowners' insurers in Texas, has seven drones available for use in Texas and 14 adjusters who are trained to use them. Adjusters using drones can inspect three homes an hour, while an inspector without a drone could take more than an hour to

climb onto a badly damaged roof and inspect it, according to Jarrod Murrieta, head of claims catastrophe response at Farmers.

"We are pretty confident" that the adjusters can make accurate estimates based on photos, Mr. Murrieta said. The company has received more than 14,000 claims reports as of midday Wednesday, a

spokesman said.

There are potential complications to the use of so many drones at one time after a storm. The FAA has temporarily restricted flights of all types, with exceptions, over most of Houston, meaning operators have to get federal approvals to fly.

Federal regulations also prohibit drones from being flown too close to airports, and insurers can fly over a home only with permission, preventing the companies from filming over a wide area.

To be sure, insurance adjusters will still be climbing on thousands of roofs to inspect damage in person. State Farm, the largest homeowners' and personal car insurer in Texas, isn't currently using drones in its Harvey claims handling, a spokeswoman said.

"Our claims adjusters will likely need to inspect both the interior and exterior of the home to assess coverage and damages," she said. "For this situation, we find that the best way to service our customers and evaluate coverage and damages is through on-the-ground claims handling."

Other insurers want to evaluate the situation further. United Services Automobile Association, or USAA, had 10,000 claims as of Tuesday from various places hit by Harvey, but it hasn't yet made the decision to use 12 of its own drones and additional ones under contract.

It had adjusters in Corpus Christi, Texas, on Tuesday assessing the situation. "We're trying to survey what type of damage is there to know whether or not we need to deploy the drones," spokeswoman Rebekah Nelson said.

Chubb Ltd., a big business insurer that also specializes in insuring expensive homes and other property of wealthy people, will mostly use drones for commercial property or to reach areas that are inaccessible, like barrier islands, said Fran O'Brien, who heads the company's high-net-worth business.

"If technology is the way to give good service, we will do that," she said. "If it can be done through human adjusters with lots and lots of experience with these kinds of claims, we will" go that route.

## NYSE Seeks a Delay On End-of-Day News

By ALEXANDER OSPOVICH

The New York Stock Exchange wants to impose a brief delay on the late-afternoon release of important company news, saying that when firms publish such announcements too soon after 4 p.m., it causes confusion and undermines the NYSE's closing auctions.

Under a proposed change to its rule book, the NYSE would make listed companies delay news releases until 4:05 p.m. or whenever the exchange published their stock's closing price for the day, whichever comes first.

The Securities and Exchange Commission disclosed that the NYSE, owned by Intercontinental Exchange Inc., was seeking the rule change in a notice posted on its website Tuesday. SEC approval is needed for the change to take effect.

"This prohibition would mitigate the risk of market disruption and investor confu-

sion associated with the occurrence of significant news-related price volatility on other markets during the brief period between the NYSE's official closing time and the completion of the closing auction," the notice said.

Companies typically wait until after major markets close at 4 p.m. to issue announcements that could affect their stock price, such as earnings releases.

But 4 p.m. is also when the NYSE holds its closing auction, a process that determines the final end-of-day prices for thousands of NYSE-listed securities. In turn, the NYSE's closing prices determine the value of exchange-traded funds and index-tracking mutual funds that hold those securities in their baskets.

All-electronic exchanges such as Nasdaq Inc. can hold the closing auction nearly instantly, but the NYSE's auction can experience short delays because of the role played by its human traders.



Bank of America hailed Berkshire Hathaway's 'continued support.'

## Buffett's Paper Profit On BofA: \$13 Billion

By RACHEL LOUISE ENSIGN

Warren Buffett's Berkshire Hathaway Inc. officially became the biggest shareholder of Bank of America Corp., notching billions in gains on the bank's recovery from the financial crisis.

Bank of America said Tuesday that Berkshire exercised warrants to buy 700 million of its shares at below-market prices, a deal that ties back to a crisis-era investment. The move makes the famous stock picker's firm the largest shareholder of the second- and third-largest U.S. banks—the third being Wells Fargo & Co.—while also providing a vote of confidence for Bank of America stock.

"Berkshire is going to keep every share for a very long time," Mr. Buffett said in an email to the Journal.

Berkshire's exercise of the warrants, along with dividends the company has received on Bank of America preferred stock, brings its paper gain on its investment in the bank to about \$13 billion.

Berkshire bought preferred shares in the bank in 2011

when the lender needed to shore up investor sentiment. Bank of America's share price was slumping as investors became worried about potentially billions of dollars in legal claims and fines related to the crisis.

Mr. Buffett helped change the market's perception with the investment and by calling the bank "well led."

The \$5 billion deal also included warrants for Berkshire to buy 700 million shares of Bank of America common stock for \$7.14 apiece.

At the time, the strike price was slightly above where Bank of America's shares were trading. Now, it is far below the current price of about \$23.90 a share.

"In 2011, we welcomed Berkshire Hathaway as a shareholder, and we appreciate their continued support now as our largest common shareholder," Bank of America Chief Executive Officer Brian Moynihan said.

The terms of the initial investment were expensive for the bank. The preferred stock paid a 6% annual dividend, or \$300 million a year.

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###### GOVERNMENT OF MAHARASHTRA (INDIA)

###### PUBLIC WORKS DEPARTMENT

###### E-TENDER NOTICE NO.03/2017-18.

###### NOTICE INVITING BID

Package No. AU 64

Dated: 02/08/2017

Subject:- RFP for Improvement of Roads in the Osmanabad District in Maharashtra State, India For Two laning road / Two Laning road with paved shoulders under MRIP Package AU-64 on Hybrid Annuity Mode.

The Government of Maharashtra had entrusted to the Authority the development, maintenance and management of state highways and Major District Roads of State of Maharashtra, India. The Authority has resolved to augment the existing road section of improvement of Jamkhed Kharda Bhoom Pardi Phata Washi Road SH-57 Km 87/00 to 132/00 (Approx. Length = 46.138 Km) (hereinafter called as "SH-57"), and section of improvement of Kallam Dhoki Ter Road SH-208 Km 0/00 to 34/00 and Osmanabad Varuda Ter road SH-203 km 64/00 to 87/500 (Approx. length = 57.855 km.) hereinafter called as "SH-208" and SH-203"), and section of improvement of kati Sawargaon Suratgaon Pimpala Devkurali Katgaon Talernagar to SH-208 Road MDR-39 km 0/00 to 38/400 (Approx. Length = 37.780 km.), (hereinafter called as "MDR-39") in the state of Maharashtra by two laning road/two laning road with paved shoulder on "Hybrid Annuity" basis (the project) and has decided to carry out the bidding process for selection of a private entity as the bidder to whom the project may be awarded. Brief particulars of the project are as below.

Name of the State Highway / Major District Road	Length (in Km)	Estimated Project Cost (In Rs. Cr.)
141.773	249.95	

The development and operation/maintenance of the Road no. 1 - Including the section of SH-57 from km 87/00 to 132/00 (Approx. Length = 46.138 km.), Road no. 2 - including the section of SH-208 km 0/00 to 34/00, SH-203 km 64/00 to 87/500 (Approx. Length = 57.855 km.) and Road no.3 - including the section of MDR-39 km 0/00 to 38/400 (Approx. length = 37.780 km.) by two laning road/two laning road with paved shoulders on "Hybrid Annuity" basis.

The complete BID document can be viewed / downloaded from e-procurement portal of <https://mahatenders.gov.in> from Dt. 28/08/2017 at 10.00 hrs. (IST) to 30/10/2017 at 17.45 hrs. (IST). Bid must be submitted online only at [<https://mahatenders.gov.in>] during the validity of registration with the Maharashtra Government e-Tendering Portal being managed by portal / website, i.e. (<https://mahatenders.gov.in>) on or before 30/10/2017 till 17.45 Hrs. (IST), Technical submissions of the Bids received online shall be opened on at 11.30 Hrs. (IST) on 02/11/2017.

Bid submitted through any other mode shall not be entertained. Similarly, Bid Security, Proof of online payment of cost of bid document, Power of Attorney and Joint bidding agreements specified in the RFP shall be submitted physically by the Bidder on or before 17.45 Hrs. (IST) on 30/10/2017.

Please note that the Authority reserves the right to accept or reject all or any of the BIDs without assigning any reason whatsoever.

Thanking you,

Yours faithfully,  
Executive Engineer,  
Construction Division, Osmanabad.  
(P.W.D. Premises, Samata Nagar,  
Osmanabad - 413501.  
(Maharashtra India)

Email ID - [constnosmanabad.ee@mahapwd.com](mailto:constnosmanabad.ee@mahapwd.com)

DGIPR/2017-2018/2526

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##### BUSINESS OPPORTUNITY

◆ As with all investments, appropriate advice should be obtained prior to entering into any binding contract. ◆

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##### TIME SCHEDULE

Sr. No.	Details	Start Date	Hrs.	End Date	Hrs.
1	Publication of Tender			Before	10/08/2017
2	Document Purchase Period	10/08/2017	10:00 AM	11/09/2017	05:45 PM
3	Pre Bid Conference	24/08/2017			Upto 05:45 PM
4	Bid Submission	16/09/2017	---	Upto	03:00 PM
5	Opening of Bid	22/09/2017	—		12:00 Noon

14. If any assistance is required regarding E-Tendering (upload & download) refer the website and it's helpdesk Please. NIC, E Procurement toll free No.

(24x7) 180030702232

Executive Engineer Jayakwadi Irrigation Division, Nath Nagar (N) Paithan

DGIPR/2017-2018/2540

## MARKETS DIGEST

### Nikkei 225 Index

**19506.54** ▲ 143.99, or 0.74%

High, low, open and close for each trading day of the past three months.

Year-to-date  
52-wk high/low  
All-time high

▲ 2.05%  
20230.41  
38915.87

12/29/89

16251.54

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## FINANCE & MARKETS

# Worries Build on ‘Repo’ Market Safety

With one bank left to handle a \$3.5 trillion sector, investors fret segment is too risky

BY KATY BURNE

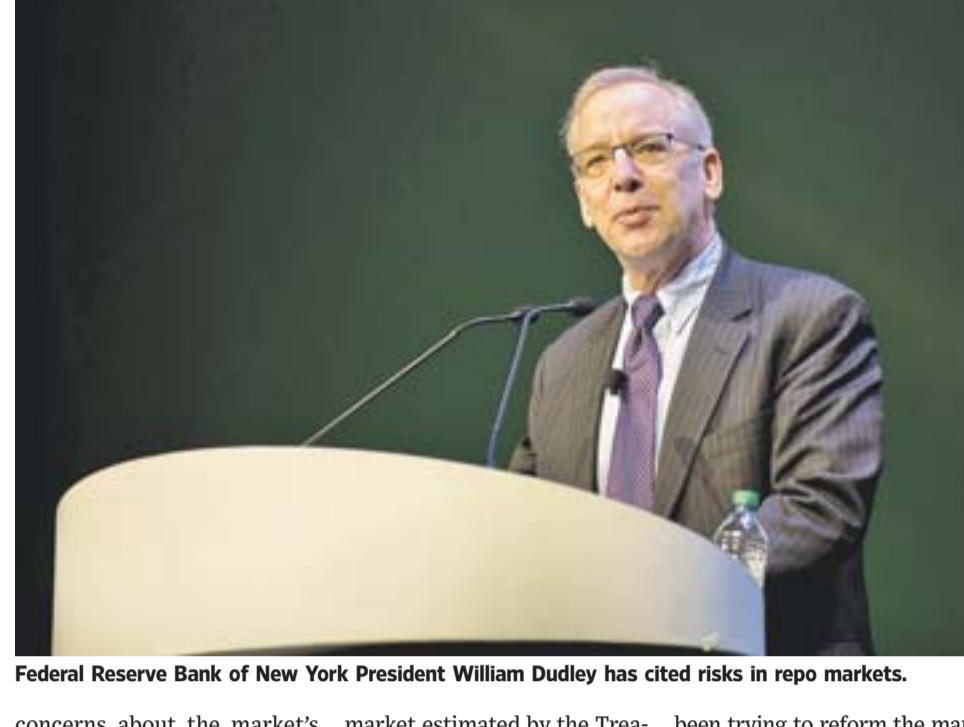
When ED&F Man Capital Markets in June opened a settlement account for government bonds at **Bank of New York Mellon** Corp., it was a watershed moment in an obscure but vital corner of the global financial system.

That was when London-based ED&F became the first bond broker to change “repo” clearing banks in nearly a decade.

ED&F’s move, and other brokers doing the same, shift more of the market onto Bank of New York, which already dominated that sector with an 85% share. That exacerbates concerns many traders have about the safety of repos, or repurchase agreements, in which lenders such as money-market funds make short-term loans, often using government bonds as collateral.

Bank of New York’s onetime sole rival in the business of clearing U.S. Treasurys and repos backed by them, **J.P. Morgan Chase & Co.**, in 2016 decided to exit from the business, prompting more than two dozen brokers including ED&F to move to Bank of New York.

With J.P. Morgan’s retreat,



Federal Reserve Bank of New York President William Dudley has cited risks in repo markets.

cial firms funded themselves “wholesale” by borrowing in the market overnight. Today, repo borrowings tend to be longer-term and backed by stronger collateral, such as Treasury securities rather than privately issued mortgage bonds.

“When bad things happened in 2008, we saw that there were virtually no bids in the market for anything other than the risk-off sovereign market,” said Mark Robinson, a former managing director at Bank of New York and most recently a business-development executive at financial-technology company Broadridge Financial Solutions.

Regulators have been trying on and off for years to resolve concerns about problems in repos spilling over to broader financial markets.

In April, Federal Reserve Bank of New York President William Dudley wrote that repo markets pose risks to market functioning and “are not settled yet,” in part because participants can still choose to raise cash in a hurry by selling assets in a so-called fire sale.

Bank of New York this summer began transitioning some clients of J.P. Morgan. Besides ED&F, it has also added as new clearing clients INTL FCStone and Landesbank Baden-Württemberg. In all, about 30 are expected to move.

“We were nervous at first,” said Bruce Fields, group trea-

surer at INTL FCStone. But he said his fears have been allayed since his firm’s conversion on July 10, which he said has provided access to a wider array of repo lenders than at J.P. Morgan.

Beyond Bank of New York, efforts to make the repo market safer continue. In May, a unit of Depository Trust & Clearing Corp., a financial-infrastructure firm controlled by large banks, got permission from the Securities and Exchange Commission to expand a repo safety net already in use for bond broker to cover institutional investors, too. Some view this as potentially mitigating fire sales. Hedge-fund firm Citadel LLC joined the safety net in June.

Trading volumes have shrunk, owing to new rules that have levied extra capital charges on banks. Other rules have meant more repos are locked in for longer terms, reducing the incentives for firms to borrow in the short term while lending in the long term and creating an unsound condition known as an asset-liability mismatch.

Perhaps most important, the hundreds of billions of dollars in intraday loans that J.P. Morgan and Bank of New York once made every morning to bond brokers have been reduced by 97%, according to Fed estimates, virtually eliminating the exposure the two clearing banks had precipitated to a broker default.

## Delay for Fiduciary Deadline

BY LISA BEILFUSS

The U.S. Labor Department said it would delay the fiduciary rule’s final compliance deadline by 18 months while signaling it may eliminate a provision that would allow investors to bring class-action suits against brokers they say breached their fiduciary duty.

The latest notices shed light on how the government’s re-evaluation of the fiduciary rule, aimed at easing firms’ regulatory burden, is taking shape. President Donald Trump earlier this year ordered the department to reassess the economic costs of regulation, with an eye toward revision or repeal. The first phase of the regulation went into effect June 9, requiring stewards of tax-advantaged retirement accounts to act in clients’ best interest.

In a notice set to publish Thursday, the department says it will delay the rule’s final compliance deadline to July 1, 2019, as it conducts its economic review through the end of the year. On Tuesday, the Labor Department won approval for its latest delay, a move that experts have said suggests the retirement-savings rule will emerge from a re-evaluation with significant revisions.

Labor is considering a conditions-based system for compliance, by which firms might have different transition periods based on the steps they have taken or where the transition period is tied to the review’s progress. The department will reopen the comment period starting Thursday for 15 days, soliciting feedback from consumers and the industry on the latest delay and how it should structure it.

The Labor Department also is working on a change that would make it easier for firms to operate in exemption of the rule while encouraging the development of investor-friendly products. The department said it “anticipates it will propose in the near future a new and more streamlined class exemption built in large part on recent innovations in the financial services industry” and that any such changes couldn’t be realistically implemented by the end of the year.

“This is a carrot,” said George Gerstein of a new potential exemption, an attorney at Stradley Ronon who represents financial-services firms.

Mr. Gerstein said Labor is signaling that it will propose a new, more flexible exemption track for products that pose few conflicts of interest.

## Europe Stocks Rebound; Chip Makers Rally in U.S.

BY AMRITH RAMKUMAR  
AND RIVA GOLD

The Nasdaq Composite rose for a third day in a row, boosted by shares of chip makers, as stocks in Europe and Asia rebounded from losses triggered by North Korea’s missile launch over Japan.

Tuesday’s missile was the first that Pyongyang has fired over Japan’s main islands since 2009, and the latest in a string of moves that have briefly weighed on financial markets in recent weeks. Still, many investors said the economic and earnings backdrop for stocks remained favorable, keeping the market within striking distance of records.

Asian and European markets had fallen Tuesday in re-

sponse to the launch, but the Dow Jones Industrial Average added 57 points that day after trading down as much as 135 points, its biggest intraday recovery in nine months.

“I think the market has learned the wrong lesson, which is to buy any dip indiscriminately, and there are risks out there that should be factored into stock prices,” said Eddie Perkin, chief equity investment officer at Eaton Vance.

On Wednesday, Japan’s Nikkei Stock Average rose 0.7%, helped by a nearly 1% gain in the dollar against the yen from the end of Tuesday’s trading, a shift that supported shares of exporters. Auto maker Mitsubishi Motors gained 1% while Sony climbed 2.9%. Hong Kong’s Hang Seng Index rose 1.2% while South Korea’s Kospi index nudged up 0.3%.

U.S. economic data showing

that growth remains steady and consumer sentiment is upbeat helped stocks to rise, said Masashi Murata, currency strategist at Brown Brothers Harriman.

“The fundamentals remain unchanged, so the bounce back has been easier,” he said.

A measure of U.S. consumer confidence rose in August to its second-highest reading since late 2000 on Tuesday, while on Wednesday, eurozone economic sentiment in August reached its highest level in more than 10 years, according to the European Commission.

The Stoxx Europe 600 index closed up 2.59 points, or 0.7%. BioMerieux, a French biotechnology company, rallied 8% after lifting its guidance for sales. The Swiss insurer Baillie Gifford rose 1.3%; its first-half profit soared 34%.

In the U.S., the Nasdaq rose 1.1%, while gains in semicon-



A technician checks on wafers at an Applied Materials facility.

ductor stocks helped the S&P 500 edge up 0.5%. The Dow industrials were up 27.06 points, or 0.1%, to 21892.43 in late trading.

The gains in semiconductor stocks came as Analog Devices beat earnings expectations. Its shares rose 5.2% by late afternoon in New York. Microchip Technology, Advanced Micro Devices and Applied Materials were also among the S&P 500’s biggest gainers.

Shares of chip makers have soared in the past year, often leading larger tech companies

on the way up and the way down because chips are used in so many consumer products. Analog Devices is one of several semiconductor and technology stocks up more than 30% in the past 12 months.

“They’re the ones that can deliver the top-line growth, which makes them kind of unique in this marketplace,” said Crit Thomas, global market strategist at Touchstone Investments.

—Sara Sjolin contributed to this article.

## 1MDB Pays Abu Dhabi Fund After Two Delays

BY YANTOULTRA NGUI

KUALA LUMPUR—Malaysia’s troubled state-investment fund **1Malaysia Development Bhd.**, or IMDB, said Wednesday that it had paid the second part of a missed installment to Abu Dhabi’s **International Petroleum Investment Co.**

While IMDB is under pressure and being wound up, the payment could alleviate some concerns about Malaysian state securities for foreign investors, who own a significant share of government bonds in Malaysia. Allegations of fraud involving IMDB, which is under investigation in half a dozen countries, have already spooked investors by weighing on the country’s currency, the ringgit.

The payment announced on Wednesday is a balance payment by IMDB to compensate the Abu Dhabi sovereign fund—a former business partner known as IPIC—for an emergency loan and other financial support extended after IMDB was unable to service its debt obligations.

The precise amount of the payment wasn’t disclosed either by IMDB or IPIC, which stated earlier in a filing to the London Stock Exchange that it had been made.

IPIC said the payment fulfilled the obligations that were initially due July 31. IMDB missed an original deadline of July 31 and an initial five-day extension granted by IPIC to pay \$628.75 million. The Abu Dhabi fund again extended the



IPIC had extended an emergency loan and other financial help to Malaysia’s state-investment fund.

deadline and IMDB made a payment of \$350 million on Aug. 11, with the understanding that the balance would be paid by Aug. 31.

IMDB, which is wholly owned by the Malaysian finance ministry, said that all funds were “paid from proceeds of the ongoing rationalization program,” referring to an effort to reduce debt by selling assets.

The market has been watching closely to see if IMDB would be able to meet its payment deadline.

A default would likely erode investor confidence toward Malaysian government securities and raise the risk of capital outflows from the country,

Kuala Lumpur-based Kenanga Research said.

IMDB is due to make another payment, of around \$600 million, to IPIC by the end of the year.

In July, total foreign owner-

ship of Malaysian government debt securities fell for the second consecutive month, by 2.3%

compared with a net outflow of 300 million ringgit in June, according to data from

Malaysia’s central bank.

IPIC and IMDB signed a settlement agreement in April. The July 31 payment was the first to come due since the U.S. Justice Department in June and Singapore’s public prosecutor in July alleged in court filings that units owned by IMDB in an offshore investment fund were almost worthless. IMDB had maintained they were worth about \$940 million. The fund hasn’t commented on the allegations.

The fund was launched by Prime Minister Najib Razak in 2009 to spur economic development but accumulated \$13 billion in debt. It began struggling in 2015 to make payments on its debts and later was found to be missing billions of dollars. Investigations are under way in the U.S., Singapore and elsewhere. U.S. investigators allege that at least \$4.5 billion was stolen.

IMDB has denied wrongdoing and promised to cooperate with investigators. Mr. Najib denied wrongdoing and was cleared of any wrongdoing by Malaysia’s attorney general.

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# MARKETS

## Emerging Markets Pick Up LNG Slack

Gas demand is rising in developing Asian nations as it weakens in richer neighbors

By DEMI GUO

Emerging-market nations in Asia are turning to imports of liquefied natural gas to offset dwindling domestic supplies, bolstering LNG trade in the region as demand from bigger markets eases.

Nearly 90% of global LNG demand growth will come from emerging and frontier economies by 2022, the International Energy Agency estimates. Natural-gas prices fell to their lowest in a decade in 2016, according to the IEA, making it a more affordable source of energy for developing countries. LNG is a form of gas that is converted into liquid form so that it can be transported from producing to consuming countries, where it is converted back into gaseous form.

While most of the demand growth will come from economic behemoth China, as it competes with Singapore and Japan to establish itself as an LNG hub, the rest will come from smaller economies, the IEA says.

Domestic LNG reserves are running low in countries such as Bangladesh, Pakistan and the Philippines, forcing them to seek outside sources. Bangladesh has only 12 years' worth of domestic natural gas left, said Lance Crist, global head of oil, gas and mining at International Finance Corp., a private branch of the World Bank.

As demand growth slows in traditional consumers such as Japan and South Korea, those smaller players will make up 20% of the global LNG trade by 2022, the IEA says.

"What really drives the demand is the shortages of electricity," said Victoria Zarets-

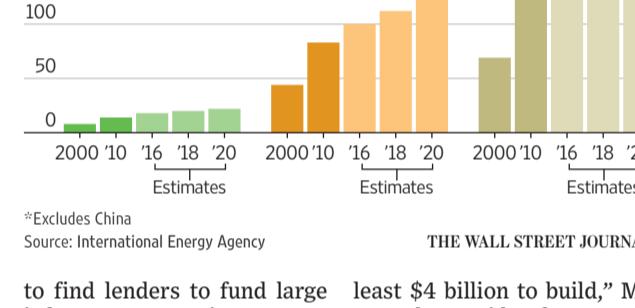


TOMOHIRO OSAKI/BLOOMBERG NEWS

An LNG tanker near Tokyo. Asia relies on liquefied natural gas because it is hard to build pipelines to isolated markets such as Japan.

### Gas Demand

Non-OECD Asia\* countries are increasingly turning to liquefied natural gas.



\*Excludes China

Source: International Energy Agency

THE WALL STREET JOURNAL.

such as banks, is why nations such as Bangladesh, which has a low international credit rating, have struggled to find lenders.

A cheaper alternative is to put the import terminals offshore. A floating LNG terminal costs significantly less than an onshore one. The leasing period is also shorter, said Mel Ydreos, executive director of public affairs at the International Gas Union.

Bangladesh's state-owned national energy company, Petrobangla, is building the country's first floating LNG terminal off Moheshkhali Island in the Bay of Bengal, partially financed by International Finance Corp.

Petrobangla expects to earn

to find lenders to fund large infrastructure projects.

"A typical plant takes at least \$4 billion to build," Ms. Zaretskaya said. Infrastructure cost, often funded by investors

\$400 million annually selling imports to the domestic market, but that isn't enough to cover the annual \$1.8 billion in estimated costs to import the LNG.

Petrobangla is seeking \$1.4 billion in financing from the government to offset the import costs.

Even so, the first pipeline to transport gas from the terminal was completed this month and Petrobangla expects the project to be finished in 2018.

The World Bank's IFC also helped finance Pakistan's first floating LNG terminal in Port Qasim, which became operational in early 2015, to facilitate imports from Qatar.

Pakistan's gas demand in 2015 was 6 billion cubic feet a day, while its domestic supplies covered 4 billion cubic feet a day, according to numbers provided by Engro Elengy Terminal Ltd., which runs the Port Qasim terminal.

As of the beginning of 2017, the terminal covers roughly 30% of that deficit, according to Engro Elengy Terminal data.

Emerging markets' surging demand for LNG stands in contrast with slowing growth in developed markets in the region.

Natural-gas demand from Australia, Japan, South Korea and New Zealand is expected to decline to 206 billion cubic meters in 2022 from 218 billion cubic meters in 2016, according to the IEA. Emerging-market demand, meanwhile, is expected to jump to 375 billion cubic meters in 2022 from 312 billion cubic meters last year.

While LNG prices will likely stay low for the foreseeable future, the real question is what happens when natural-gas prices rise, Mr. Ydreos said.

"It depends on how demand will increase and how all these projects on schedule are completed and can actually deliver to the market," he said.

## HEARD ON THE STREET

FINANCIAL ANALYSIS & COMMENTARY

WSJ.com/Heard

Email: heard@wsj.com

### Megamerger Shows Off China's Power

China is trimming the number of its state-owned enterprises, the huge government-backed companies whose inefficiencies are often blamed for holding back the economy. But it is doing so only by making even bigger state-backed entities.

Witness this week's whopping merger of **Shenhua Group**, China's top miner and a major power producer, and electricity firm **China Guodian**. The combined company will have assets of \$270 billion.

Chinese power producers have suffered from intensifying competition in the past two years as the government has started to liberalize part of the market. Return on equity in the sector is expected to plunge to 3.6% this year from 14.4% two years ago, according to Credit Suisse Group.

Part of the predicament stems from China's central planning. Power producers have suffered from surging coal prices since last year thanks in large part to untimely Beijing-mandated capacity cuts. As both the largest producer and consumer of coal, China has a big interest in stable coal prices, yet its all-too-visible hand has added more volatility to prices recently.

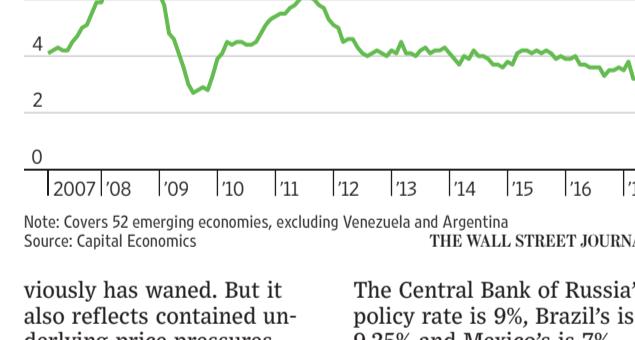
Sure, less competition in the power sector, as rivals bow to the new giant company, could help to reduce China's electricity glut in the short term. Yet in the long run, letting market signals dictate capital allocation rather than creating larger state-owned behemoths is a better way for China to reform. Unfortunately, Beijing looks unlikely to give up its meddling in the market just yet.

—Jacky Wong

### Stars Line Up in Emerging Bonds

#### Low Pressure

Aggregate emerging-market inflation



Note: Covers 52 emerging economies, excluding Venezuela and Argentina  
Source: Capital Economics

yet rise. J.P. Morgan Asset Management points to Mexico, Indonesia and Turkey as offering potential.

The foreign-exchange part of the trade that has boosted returns may be more risky. A sharp rise in the dollar, perhaps because markets start to worry more about U.S. interest-rate rises, could be a big problem for many emerging-market assets, and could reverse investment flows into these countries. But brighter growth prospects for emerging countries are a countervailing force.

The yield on the GBI-EM index is still north of 6%, far above the yield on developed-market government bonds. Even without the tailwind of foreign-exchange gains, that is a tempting prospect in a world where low yields are depressing prospective bond returns. The stars may still be aligned for emerging-market bond investors.

—Richard Barley

#### OVERHEARD

According to The Urban Dictionary, "Kanoa" is slang for having your girlfriend stolen by someone good-looking. "I went to the gym with my girl and I got Kanoa'd" is the sample sentence.

Kanoa may soon become slang in Silicon Valley for losing money given to a startup.

A company with the name Kanoa had raised funds by offering a set of its planned high-tech Bluetooth earphones for upward of \$150, a 50% discount for paying up front for a nonexistent product. The earphones were supposed to arrive about a year ago, but now the company says it is going out of business and they never will.

"Over the past 2 years you have joined Kanoa on this journey to create something special," reads a message on its website, explaining that they were "emotionally overwhelmed" with the turn of events and that they "genuinely tried."

### Worries Over Amazon Leave Costco Shares at a Discount

One of the few ways for retailers to compete against the growing might of **Amazon.com** is to offer something different. **Costco Wholesale** does that, but the market has been unwilling of late to give it credit for its uniqueness.

The discounter, like other grocers, was punished twice by investors fearful that Amazon's acquisition of Whole Foods Market would mean aggressive price competition in grocery. Costco shares fell 13% in the week following Amazon's June 16 announcement of the deal, shaving roughly \$10 billion off its market capitalization. Its shares then fell another 5%, representing an additional \$3.5 billion of value, on Thursday last week, when

Amazon said it would be cutting prices on certain Whole Foods items when the deal closed on Monday.

Investors typically buy the rumor and sell the news. In this case, they sold the rumor as well as the news. For a company that isn't just a typical grocery store, though, that degree of pessimism seems unwarranted.

The primary way in which Costco differentiates itself is by offering the lowest prices on bulk food, dry goods, appliances, electronics and apparel. The company is able to undercut competitors in part because of its annual membership fees of either \$60 or \$120 a year. The fees are similar to Amazon's Prime membership fee, except that in Costco's case they don't

need to subsidize the cost of Prime benefits, such as free shipping or the e-commerce giant's online video-streaming service. The fee essentially flows directly to the bottom line. Its membership-renewal rate exceeded 90% in the U.S. and Canada during its most recent quarter and was 88% worldwide.

Costco's low pricing also is enabled by the higher margins it gets on products made under its private-label Kirkland Signature brand, which accounts for 25% of sales, according to Cowen. It has a meat-processing plant and is building a poultry farm. In contrast to "the everything store," Costco limits the number of items it sells, giving it greater purchasing power on the items it

#### Food Fight

Costco's stock price



Source: FactSet

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chooses to stock. Costco members also can buy gas for about 20 cents less a gallon, on average, than national prices—a perk that Amazon can't match.

Granted, the portion of Costco members who were also Amazon Prime members

was 64% in the second quarter of 2017, up from 28% in the first quarter of 2013, Cowen estimates. But that overlap hasn't put a dent in Costco's sales growth. The company reported 5% same-store sales growth in its fiscal third quarter ended in May. Late Wednesday, Costco was set to report same-store sales for August, the final month of its fiscal year.

The market hasn't been cheered by Costco's recent top-line strength amid fears of what Amazon might do. That edginess should ease now that the Whole Foods tie-up is complete. At 24 times forward earnings estimates, Costco shares trade below their five-year average multiple. Investors should buy them in bulk.

—Miriam Gottfried