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THE WALL STREET JOURNAL.

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What's News

Business & Finance

Securities firms with a high number of troubled brokers are selling billions of dollars a year of private placements, often targeting seniors, a Wall Street Journal analysis found. **B1**

◆ **GE is nearing a deal** to sell a unit that makes large industrial engines to private-equity firm Advent for \$3 billion or more. **B1**

◆ **Intel's next CEO** will take over just as the Silicon Valley giant is falling behind in the race to shrink chip circuitry. **B1**

◆ **U.S. shale-oil** companies are poised to profit as OPEC moves to lift output to head off higher prices that can damp demand. **B3**

◆ **China's central bank** is freeing up more than \$100 billion for commercial banks to boost lending and restructure debt. **A5**

◆ **Quinnipiac University's** investments returned 6.1% over 10 years with stock pickers' help, beating much bigger schools. **B8**

◆ **A record 1.2 million** shares worth more than \$39 billion traded in less than a second Friday on the Nasdaq as the Russell indexes rebalanced. **B9**

World-Wide

◆ **The administration** sought to establish means to reunify families separated under its "zero tolerance" policy toward illegal immigration as confusion reigned about how it would be accomplished. **A1**

◆ **Trump plans to bar** many Chinese firms from investing in U.S. technology and block more U.S. tech exports to Beijing. **A1**

◆ **Turkish President** Recep Tayyip Erdogan won a sweeping election victory as voters extended his 15-year hold on power. **A1**

◆ **Regime ally Russia** carried out airstrikes in southwest Syria, defying a cease-fire pact with the U.S. and Jordan. **A7**

◆ **Astronaut Buzz Aldrin** is in a legal fight with two of his adult children and an ex-business manager over his competency and assets. **A3**

◆ **Republican Sen.** Jeff Flake threatened to hold up Trump's judicial nominees to protest tariffs imposed on U.S. allies. **A3**

◆ **Saudi women**, formally released from the kingdom's ban on female drivers, took to the roads there as conservatives frowned. **A8**

JOURNAL REPORT

Is there a limit to lifespan?

Health Care

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U.S. NEWS

THE OUTLOOK | By Josh Mitchell

Student-Debt Relief May Prove Taxing



Students seeking relief on their college and graduate-school debt could be sitting on a hidden tax bomb: billions of dollars in one-time bills from the Internal Revenue Service for any debt they get forgiven.

The tax bills are a feature of the "income-driven repayment plans" that have been offered by the Education Department since 2007. One version of these plans allows borrowers to set monthly loan payments at 10% of their discretionary income. The balances often grow over time because payments don't cover accrued interest.

Private-sector workers

pay for 20 or 25 years. At the end of that period, any remaining balance would be forgiven. Under federal tax rules, that disappearing debt is considered part of a borrower's income for that given year, and taxed as such.

Those delayed tax bills are piling up. There are now seven million borrowers owing \$389 billion in income-driven repayment, according to the Education Department.

The first borrowers likely won't have debt expunged until 2027. As enrollment surges, education analysts and student advocates are warning of a potential crisis facing borrowers and the government: huge one-time tax bills.

With the inflating tax bills, the plans for some borrowers resemble "balloon payment" plans offered by some mortgage lenders, under which borrowers make low monthly payments for a period and then are required to make a big, one-time payment. Some policy makers have criticized balloon payments as a form of risky lending.

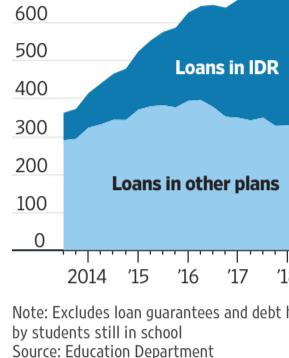
"I'm very doubtful that everybody is going to be able to make these tax payments," said Constantine Yannelis, an assistant professor of finance at New York University who worked in the Obama Treasury Department.

The Government Accountability Office said in 2016 it expected the government to forgive \$108 billion in student debt for all loans extended through 2016, a number that has been growing in subsequent years. That sum is understated, as it only includes principal and not interest accrued.

Tax Man Cometh

A growing share of student debt is being paid under so-called income-driven repayment plans, which could lead to unexpected future tax bills for borrowers.

Loans in repayment



Note: Excludes loan guarantees and debt held by students still in school
Source: Education Department

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\$10,000. Some borrowers would face far bigger amounts. On the extreme end, an orthodontist profiled by The Wall Street Journal in May, who owes more than \$1 million in student debt, could face a tax bill of more than \$700,000 if he receives forgiveness.

Borrowers generally are better off because they are having debt forgiven, but Ashley Harrington of the Center for Responsible Lending, a consumer-advocacy group, said many student-loan borrowers are unaware they will face a big tax bill. "We're very concerned" about the borrowers' ability to repay, she said.

The IRS has vast powers to collect taxes, including placement of liens on individual homes. The government already garnishes Social Security checks and wages for retirees who fail to repay student debt. Student advocates say the practice leaves some seniors with little money to live.

For borrowers who don't have enough money to cover tax bills, taxpayers would be on the hook. The IRS would likely be forced to cut deals or write off taxable amounts altogether when borrowers

can't pay, some experts say.

Justin Draeger, head of the National Association of Student Financial Aid Administrators, said when Congress passed the income-driven repayment program, the tax was likely an oversight. He and others say Congress will likely face heavy pressure to remove the tax once Americans start facing bills from the IRS. That would add potentially tens of billions of dollars in taxpayer costs for the student-loan program.

The IRS didn't respond to a request for comment.

Experts say inequities in the student-lending system are also underlined by the looming tax bomb. Many borrowers with large debts hold graduate degrees or attended prestigious private schools.

They are likely earning high incomes and have consulted financial advisers on the best way to receive the biggest benefits under income-driven repayment, and how to reduce their tax burden.

Meanwhile, many low-income borrowers lack such resources and have a greater risk of being on the hook for unexpected tax bills.

ECONOMIC CALENDAR

WEDNESDAY: The Commerce Department releases May data on **durable goods**. In April, durable goods fell. Meanwhile, a proxy for business investment showed solid growth. Economists will parse the May figures for signs of a pickup in capital spending.

THURSDAY: The Commerce Department releases its third estimate for first-quarter **gross domestic product** and its second estimate for corporate profits. The 2.2% growth rate for GDP was revised lower from an initial estimate of 2.3%, and a slowdown from the fourth quarter's 2.9% growth rate.

FRIDAY: The Commerce Department releases the May **personal income and spending** report. Personal consumption expenditures, a measure of household spending on everything from health care to magazines, increased a seasonally adjusted 0.6% in April from the prior month.

While the outlook for eurozone economic growth remains uncertain after a weak start to the year, **inflation** is moving in the right direction for the European Central Bank. After a jump to 1.9% in May from 1.2% in April, figures released by the European Union's statistics agency are expected to record a further, small increase to 2% in June, or slightly above the central bank's target.

Most Seekers From Across Border Don't Get Asylum

BY ALICIA A. CALDWELL

EL PASO, Texas—When 42-year-old Angelica walked up to a U.S. Customs and Border Protection inspection booth here Wednesday, she started what is likely to be a lengthy, long-shot bid to win refuge in the U.S.

Angelica and her 3-year-old granddaughter, Ruth Sofia, said they fled their home in Michoacán, along Mexico's Pacific coast, more than a month ago amid increasing violence and threats to their safety.

On Saturday, days after Angelica had asked for asylum, U.S. Rep. Beto O'Rourke (D., Texas) said he met with her at Annunciation House, a migrant shelter and aid group in El Paso. Mr. O'Rourke said Angelica and her granddaughter had been separated by immigration authorities.

Their requests for asylum had come shortly before President Donald Trump signed on Wednesday an executive order directing that immigrant families taken into custody at the border be kept together.



Mexican resident Angelica and her granddaughter, Ruth, waited in Ciudad Juarez, Mexico, as she prepared to seek asylum in the U.S.

About 6,300 asylum requests were approved between January and March 31, according to the Executive Office for Immigration Review.

During the same period, about 90,000 people were arrested crossing the border illegally and about 32,700 immigrants went to ports of

entry. Many of those people have likely asked for asylum.

According to EOIR, about 22% of the asylum cases decided this year were ap-

proved, while 41% were denied. Other cases were closed without a ruling in favor or against.

The approval rate in the

court has fluctuated since 2009, agency data show. Approval rates hit a high of nearly 33% in 2011 but dropped below 17% in 2016.

Asylum seekers have been in the spotlight after the Trump administration vowed to tighten the rules around asylum.

"Asylum and credible fear claims have skyrocketed across the board in recent years largely because individuals know they can exploit a broken system to enter the U.S., avoid removal, and remain in the country," said Michael Bars, a spokesman for U.S. Citizenship and Immigration Services.

Attorney General Jeff Sessions earlier this month ruled in one asylum case that domestic violence victims and people fleeing generalized violence, including from gangs, won't necessarily qualify for asylum going forward.

Jeremy McKinney, a Greensboro, N.C., immigration attorney, said that ruling may not have an immediate impact on the hundreds of thousands of pending asylum cases in immigration courts.

Democrat said. "Someone from the White House who can whip things into shape and coordinate among the various agencies is very much needed."

While parents have been held at ICE detention centers near the border, the Department of Health and Human Services is responsible for the children, many of whom have been sent to shelters and foster homes around the country. In addition to the 2,053 children who were turned into unaccompanied minors by the policy, HHS has approximately 10,000 more children in its care who arrived alone.

Officials in Los Angeles said at least 100 children were in their area; around 700 are in New York, according to state officials there; 66 are at a shelter in Chicago, which said it had identified a family member for "most of them." More than a dozen more are at multiple sites in south Florida and 22 at a shelter in San Antonio.

Eric Garcetti, the mayor of Los Angeles, said he was working to help figure out who the children in Los Angeles are and where their parents were held.

Some immigrant advocates expressed concerns that some children may never be reunified with their parents. Sen. James Lankford (R., Okla.), however, said the government hadn't lost track of the location of children.

"We know where every single child is," Mr. Lankford told NBC on Sunday. The issue, he said, is that it wasn't clear whether children had arrived with a parent or with another adult.

—Siobhan Hughes and Vivian Salama contributed to this article.

Chaos at Southern Border

Continued from Page One whom have been held for weeks without being able to contact their children. Ms. Goodwin said Port Isabel wasn't set up for family detention and she didn't know how parents and children could be held together there.

Despite some progress, a range of unanswered questions hung over the effort to straighten out the bureaucratic turmoil, including the locations of some of the children—leaving local officials around the country to compile their own tallies of who was placed in their jurisdictions.

Meanwhile, disagreements among top administration officials about how to weigh com-

peting demands to continue to prosecute adults crossing the border, and simultaneously comply with the president's directive to detain adults together with their children while their asylum claims are adjudicated, produced little firm guidance about how the system would work as more immigrants arrive. Agency officials were set to meet again Monday.

Mr. Trump escalated his rhetoric in a series of tweets Sunday, including one suggesting he would like to change the legal process for asylum seekers.

"When somebody comes in, we must immediately, with no Judges or Court Cases, bring them back from where they came. Our system is a mockery to good immigration policy and Law and Order," he wrote.

It is unclear whether he has any policy proposals to support that suggestion or the authority to enforce it. He also described the immigrants as people who

WASHINGTON—The U.S. House will try this week to vote on a Republican-written immigration overhaul, its second attempt in two weeks, as GOP lawmakers balance pressure from President Donald Trump and the party's base demanding a harder line on illegal immigration against a broader public outraged over the forced division of families under the recent crackdown.

Even if congressional leaders manage to bring legislation to a vote, members say it is all but

"invade our Country."

Under his executive order last week, the administration will seek to detain families together while their asylum claims are adjudicated, al-

certain to fail, underscoring the party's lack of consensus on the issue. Lawmakers may then proceed with a narrower proposal aimed at addressing the uproar over the practice of separating children of illegal immigrants from their parents. It is unclear whether they can win sufficient support.

The president made he considers a tougher immigration stance a core part of his strategy for defending and expanding Republican congressional majorities in November's elections. At a Las Vegas rally Saturday, he accused Democrats of backing "weak, weak borders," saying at one point: "I think I got elected largely because we are strong on the border."

though it faces significant logistical and legal hurdles in doing so. Mr. Trump has committed to maintain the policy of prosecuting all adults for illegal entry. Federal agencies may soon run

out of space, money or both.

The efforts have been complicated by federal bureaucracy,

which has sent children to the custody of one department and parents to another. In addition,

when separations began last month, no system was in place for tracking them, leaving government officials, immigration lawyers and refugee agencies

scrambling to figure out which children are in their custody and where their parents are being held.

"We at a minimum have to deal with the family separation," Rep. Michael McCaul (R., Texas) told Fox on Sunday. "I'm a father of five—I think this is inhumane."

Senate Minority Leader Chuck Schumer called on Mr. Trump to appoint a czar to oversee family reunifications. "There are thousands of kids lost in limbo," the New York

CORRECTIONS & AMPLIFICATIONS

Homes in Edinburgh's New Town neighborhood typically were built during the mid-18th to late-19th centuries. A Mansion article and photo caption on Friday about the Scottish capital incorrectly said the homes were built between the late-17th and early-18th centuries.

Dianping is a review website and app. A Technology ar-

ticle on Friday about China's Meituan-Dianping incorrectly described Dianping as a delivery service.

San Francisco's Phoenix Hotel remained open while undergoing renovations earlier this year. An Off Duty article June 9 about revamped motor lodges incorrectly said the Phoenix reopened last year after renovations.

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U.S. NEWS

Buzz Aldrin Battles His Children

His daughter and son ask a court to appoint them his guardians, citing mental decline

BY GRETCHEN MORGENSEN

Buzz Aldrin has walked on the moon and received the Distinguished Flying Cross in the Korean War and the Presidential Medal of Freedom. At 88, the former astronaut has visited the White House to discuss space exploration, and envisions humans living on Mars.

His legacy in space is secure. On earth it's another matter.

Col. Aldrin is grounded in a legal fight with two of his adult children and a former business manager, who he says are trying to grab his legacy and money.

At issue are the operations of his private company, Buzz Aldrin Enterprises, and his nonprofit ShareSpace Foundation, overseen by his son and daughter, Andrew and Janice Aldrin.

Col. Aldrin said in an interview he was shocked last month when his two children asked a Florida state court to appoint them his co-guardians because he is "in cognitive decline" and experiencing paranoia and confusion. That would give them power to make decisions on his behalf, and give them control of his finances and business dealings.

They also requested that their father undergo a competency examination by three mental health specialists appointed by the court because, they say, he is associating with new people who appear to be manipulating him, according to documents they filed with the court. Col. Aldrin denies that.

He is scheduled to undergo the examination this Tuesday and Wednesday, he and his lawyers say.

In an interview last week, Col. Aldrin said: "Nobody is going to come close to thinking I should be under a guardianship."

Col. Aldrin responded this month with a lawsuit, accusing Andrew Aldrin and his business manager of recent years, Christina Korp, of elder exploitation, unjust enrichment and of converting his property for themselves. The suit also accused his daughter Janice of conspiracy and breach of fiduciary duty.

In a statement through lawyers, Andrew Aldrin, 60 years old, and Janice Aldrin, 61, said they are "deeply disappointed and saddened by the unjustified

lawsuit that has been brought against us individually and against the Foundation that we have built together as a family to carry on Dad's legacy for generations to come. We love and respect our father very much and remain hopeful that we can rise above this situation and recover the strong relationship that built this foundation in the first place."

Ms. Korp, 45, did not respond to an email seeking comment and could not be reached by telephone. In the Aldrin children's request for a mental examination of their father, they mention Ms. Korp as a person with knowledge of his "cognitive decline."

It isn't uncommon for family members to disagree over how aging parents spend their money or handle their affairs, or for some spats to escalate to all-out legal combat. Rarely do such disputes involve a moonwalking American icon.

Col. Aldrin, in his lawsuit, accuses Andrew and Ms. Korp of improperly using his credit cards and bank accounts, and of transferring nearly a half million dollars in the past two years from his savings account to his private company and his foundation for their own purposes.

They have also assumed control of Col. Aldrin's "space memorabilia, space artifacts, social media accounts and all elements of the Buzz Aldrin brand," according to the suit, filed in a Florida state court. It also alleges that Andrew Aldrin and Ms. Korp slandered Col. Aldrin by saying he has dementia.

Robert Bauer, a lawyer in Gainesville, Fla., who represents Col. Aldrin there and has talked with Andrew Aldrin, says "What Andy is doing is saying to Buzz, 'you're old, you're not in your right mind anymore because you don't agree with me!'"

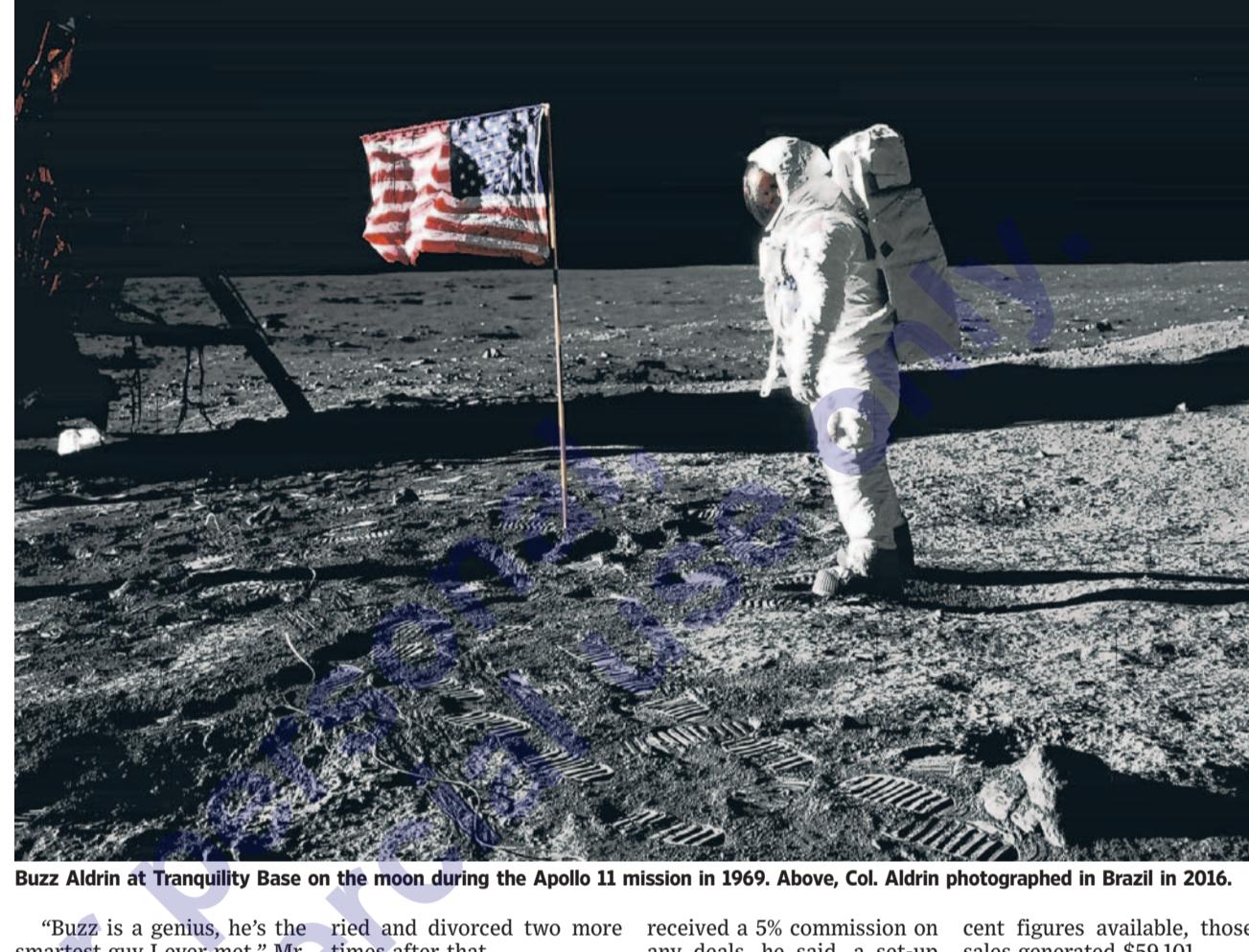
In April, Col. Aldrin voluntarily submitted to a mental evaluation by Dr. James Spar, a professor of Psychiatry and Biobehavioral sciences at UCLA Medical School. Dr. Spar concluded that Col. Aldrin is "cognitively intact and retains all forms of decisional capacity," according to the report, reviewed by The Wall Street Journal.

Col. Aldrin, who grew up in Montclair, N.J., graduated third in his class at West Point and earned a PhD in aeronautics from the Massachusetts Institute of Technology. But he has never paid much attention to money matters, said his longtime lawyer and friend Robert Tourtelot.

In a statement through lawyers, Andrew Aldrin, 60 years old, and Janice Aldrin, 61, said they are "deeply disappointed and saddened by the unjustified



MIKE MARSLAND/WIREIMAGE



Buzz Aldrin at Tranquility Base on the moon during the Apollo 11 mission in 1969. Above, Col. Aldrin photographed in Brazil in 2016.

"Buzz is a genius, he's the smartest guy I ever met," Mr. Tourtelot said. "But Buzz has never been street smart."

His relationship with his kids has been a rocky ride, according to Mr. Tourtelot. There have been periodic estrangements, Mr. Tourtelot said. Col. Aldrin was rarely home when they were young. His eldest son, James Michael, is not involved in the legal dispute between his father and siblings.

Col. Aldrin said he has tried unsuccessfully to bring all the children together in recent years. "I intend to disengage as a repairman of family ruptures," he said.

He divorced his children's mother, Joan, in 1974, remarried and divorced two more times after that.

It was after his last divorce in 2013 that Ms. Korp gradually took over the business, according to Col. Aldrin and Mr. Tourtelot. Hired as an executive secretary at the Aldrin operation around 2007, she is a director of the ShareSpace Foundation with Janice Aldrin. Andrew Aldrin is president.

After working for Buzz Aldrin Enterprises, she set up Christina Korp Management in 2016 "to manage media and entertainment projects and interesting world changing personalities," according to her LinkedIn page. "My motto is: I bring astronauts back down to Earth."

In 2015, the Aldrin operation was newly incorporated with a board consisting of Col. Aldrin, Andrew Aldrin and Janice Aldrin. After a share transaction, Col. Aldrin lost control of the company, and had just one vote out of three, according to Mr. Tourtelot who has examined the transaction.

Ms. Korp continued to oversee Buzz Aldrin Enterprises, planning annual fundraising galas for ShareSpace and managing the former astronaut's Twitter and other social-media accounts, according to Col. Aldrin and Mr. Tourtelot.

She fired the agency sometime after 2013 that had been booking Mr. Aldrin's speaking engagements and began making those arrangements herself, Mr. Tourtelot said. She

received a 5% commission on any deals, he said, a set-up Col. Aldrin didn't know about or authorize.

By 2016, Col. Aldrin said he increasingly grew frustrated that his foundation wasn't moving in the direction he wanted. While it focused on educating elementary-school children about Mars through maps, he wanted to work more urgently on getting a permanent human settlement on the planet.

He said he also was booked for events he didn't want to attend and encouraged to pursue endorsement deals he didn't favor.

For instance, he "never quite saw why I should get involved with Faberge eggs and

Col. Aldrin's lawsuit alleges elder exploitation and unjust enrichment.

cent figures available, those sales generated \$59,101.

Last year, Mr. Tourtelot said, Col. Aldrin expressed concerns that he didn't know how much money he had.

In September, on his client's behalf, Mr. Tourtelot demanded seven years of financial records of Buzz Aldrin Enterprises and the ShareSpace Foundation.

They show Buzz Aldrin Enterprises paid the former astronaut a salary of \$36,000 in 2017 and reimbursed him for expenses, according to Mr. Tourtelot and documents reviewed by the Journal. Andrew Aldrin and Ms. Korp, meanwhile, each received salaries of \$153,000 from the company as well as reimbursements for expenses such as first-class air travel, according to Mr. Tourtelot and documents reviewed by the Journal.

The rift in the Aldrin family deepened after a trip to the South Pole with Col. Aldrin to generate revenues for the foundation, which he said he was reluctant to take.

It required a walk at over 9,000 feet above sea level. Col. Aldrin tired and collapsed. He was flown to a New Zealand hospital to recover.

After that, Col. Aldrin said, Andrew and Janice started limiting his activities. They told him he can no longer scuba dive, his favorite hobby, and have taken away his passport.

—Jim Oberman contributed to this article.



Edward 'Buzz' Aldrin, center, is shown with his family in 1970. From left to right are son Andrew, Edwin Aldrin Sr., Buzz, former wife Joan, daughter Janice and son James Michael.

Tariff Dispute Threatens Judicial Nominees

BY DEL QUENTIN WILBER

WASHINGTON—A Republican senator threatened Sunday to hold up President Donald Trump's judicial nominees to protest the administration's imposition of tariffs on imports from U.S. allies, including Canada and Mexico.

"Myself and a number of senators, at least a few of us, will stand up and say let's not move any more judges until we get a vote, for example, on tariffs," Sen. Jeff Flake (R., Ariz.) said on ABC.

Mr. Flake's comments followed reports last week that he

was considering such a tactic and already had set his sights on at least one Trump nominee.

Sen. Chuck Grassley (R., Iowa), the chairman of the Senate Judiciary Committee, on Thursday said in a statement that Mr. Flake was responsible for delaying a scheduled vote that day on Britt Grant, a justice on the Georgia state supreme court, to be an appellate judge.

Mr. Flake has "concerns with the administration and leader's office on issues not related to her nomination," Mr. Grassley said.

The Arizona lawmaker is a

member of the Senate Judiciary Committee, which approves nominees before consideration by the full Senate, where Republicans hold an 11-10 majority.

Mr. Flake, who isn't running for re-election and has become one of the president's sharpest Republican critics, is targeting a priority for Sen. Majority Leader Mitch McConnell (R., Ky.): Clearing a large backlog of pending Senate confirmation votes on conservative judges nominated by Mr. Trump to the federal courts.

Mr. McConnell already is threading a needle in the closely divided Senate—Republicans have a 51-49 majority—to win approval of judges who have drawn opposition from Democrats portraying the nominees as too ideological.

Mr. Trump recently imposed stiff levies on steel and aluminum imported from Canada, Mexico and the European Union, invoking a Cold War-era law empowering him to do so in the name of national security. The administration has said that a global metals glut has weakened the health of domestic industries necessary for maintaining a vibrant defense industrial base.

Mr. Flake said countries like Canada weren't a security threat and urged Republicans "to stand up on issues like tariffs facing us right now" and to enact legislation pushing back on the president's actions.

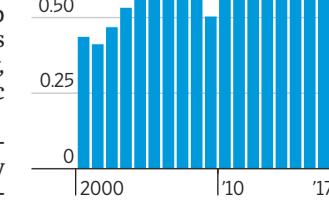
In a television interview broadcast Saturday, Mr. Trump said he thought his tariffs were helping the U.S. economy, by encouraging more domestic production.

"Our steel industry is coming back because that way they don't have to pay the tariff. It's very nice actually," the president said.

Deficit Division

President Donald Trump's efforts to curb the rising trade deficit with tariffs has prompted a backlash within his Republican Party.

\$1.00 trillion deficit



Source: U.S. Census Bureau

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U.S. NEWS

Cyberattacks Target Local Governments

By JON KAMP
AND SCOTT CALVERT

Town officials in Rockport, Maine, were closing up shop on Friday, April 13, when they realized they couldn't open files on their computers.

After fielding messages from town workers, local information-technology contractor Gus Natale said he "went straight to the town office and started yanking plugs."

An unknown hacker had sneaked malicious software onto the network and was demanding a payment of roughly \$1,200 in bitcoin in return for codes to unlock the town's files.

"My thinking was, let's just get this paid. It's a small amount," said Town Manager Rick Bates. But, he added, Mr. Natale and a helper "did not want the bad guys to beat them."

The attack on Rockport is one example in a rising tide of

similar invasions of municipal systems across the U.S.—from major cities like Atlanta, which got hit in March, to counties, tiny towns and even a library system in St. Louis. Local governments are forced to spend money on frantic efforts to recover data, system upgrades, cybersecurity insurance and, in some cases, to pay their online extortionists if they can't restore files some other way.

Public-sector attacks appear to be rising faster than those in the private sector, according to the Ponemon Institute, a Traverse City, Mich., research company focused on information security.

Ponemon estimates 38% of the public entities it samples will suffer a ransomware attack this year, based on reports through May, up from 31% last year and 13% in 2016. The company samples roughly 300 to 400 public-sector entities each year.

Ransom Requests

Atlanta: March 2018. Ransom demanded: \$51,000 (not paid).

Leeds, Ala.: Feb. 2018. Ransom demanded: \$12,000 (paid \$8,000).

Rockport, Maine: April 2018. Ransom demanded: \$1,200 (not paid).

St. Louis Public Library: Jan. 2017. Ransom demanded: \$25,000 (not paid).

Licking County, Ohio: Early 2017. Ransom demanded: \$50,000 (not paid).

NOTE: Ransom demands were generally made in bitcoin, and some dollar amounts represent calculations that jurisdictions made to approximate the demand in dollars.

Hacking Away

Percentage of local-government entities that have experienced at least one cyberattack involving...

- Data breaches of 1,000 or more confidential records
- Denials-of-service resulting in data center outages
- Ransomware



Note: Based on a sample of 317 to 408 organizations during the time period.
Source: Ponemon Institute

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vulnerabilities wherever they may occur, security experts said.

Hackers attacking cities aren't typically nation states, but rather cybercriminals, said Christopher Krebs, a senior official at the Department of Homeland Security, at a recent mayors' conference in Boston. Sometimes the hackers demand ransoms in poorly written English, and they typically demand to be paid in bitcoin, according to officials who have been hacked.

The Rockport hacker offered tips on how to acquire cryptocurrency.

The Federal Bureau of Investigation advises against paying, and warns that "some individuals or organizations are never provided with decryption keys after paying a ransom."

Rockport didn't pay the hackers. Instead, Mr. Natale and a helper worked through the weekend and had town

systems up and running again by the next week. Still, the hamlet of about 3,400 ultimately paid about \$10,000 to cover the immediate restoration work, plus another \$28,000 to \$30,000 on security improvements.

Compared with private companies, local governments may be less prepared for an attack, according to security experts. Some smaller entities can't afford to compete for cybersecurity talent, which is in high demand across the country.

Speaking at the recent mayors' conference, Atlanta Mayor Keisha Lance Bottoms triggered murmurs in a roomful of mayors when she said her city had purchased cyber insurance just months before getting hit.

She estimated that the city, which decided to rebuild its systems, was facing more than \$20 million in costs, but she hoped insurance would cover much of that.

Candidates Highlight Their Ties to Trump

By VALERIE BAUERLEIN



John Warren, left, and Gov. Henry McMaster participated in a debate on Wednesday.

SPARTANBURG, S.C.—Gov. Henry McMaster's bid to hold on to his office depends on whether his alliance with President Donald Trump endears him to voters who would otherwise be disdainful of a career politician.

The 71-year-old is telling voters ahead of Tuesday's gubernatorial primary runoff that he and the president aren't just friends, but ideological doppelgängers.

At a soup-and-sandwich dinner for 100 GOP activists here this past week in the vote-rich Upstate region, Mr. McMaster said he wants to cut taxes, oppose restrictions on guns and outlaw so-called sanctuary cities. "Does it sound familiar?" Mr. McMaster asked. "Because it's the exact same thing that President Donald Trump is doing."

Mr. Trump and Mr. McMaster have been allies since 2016, when the latter, then the state's lieutenant governor, endorsed Mr. Trump in the state's presidential primary. Mr. Trump repaid the favor by naming then-Gov. Nikki Haley as ambassador to the United Nations, which elevated Mr. McMaster to the governor's office.

It is unclear whether Mr. McMaster's attempt to recast his political identity after

nearly 40 years in the establishment will blunt a challenge by John Warren, a self-made millionaire running as an outsider in the mold of the president.

Mr. Warren is a 39-year-old military veteran who founded Lima One Capital, a Greenville-based real-estate lender. He has largely self-funded his campaign with a \$3 million check, which he said in a Wednesday debate means he wouldn't be reliant on outside donors, like those who financed Mr. McMaster's \$4.4 million campaign.

He has promised to clean up corruption in the state's chummy capitol by tightening ethics rules, imposing term limits and eliminating no-bid

state contracts. "We need someone who's an outsider like Donald Trump to go to Columbia and drain the swamp," he said in the debate.

"You are a good man, but you are not Donald Trump," said Mr. McMaster, who has been a political fixture in the state since he was named U.S. attorney in 1981.

In a battle between two candidates who hold virtually the same conservative views, who can better sell himself as the embodiment of Mr. Trump would appear to have the advantage. The winner next week will face a different test: Whether a Trump-like campaign is transferable to other Republicans in a general elec-

House Candidate Is Seriously Hurt In Car Wreck

Katie Arrington, a candidate for Congress in South Carolina who earlier this month defeated Rep. Mark Sanford in the state's Republican primary, was expected to fully recover after being seriously injured in a car accident on Friday night.

Michael Mulé, a spokesman for Ms. Arrington, said she underwent two major surgeries Sunday, following an initial operation Friday night.

The latest surgeries "went very well, and with no complications" said Mr. Mulé in a statement on Sunday.

"Katie will have no neurolog-

ical deficits or limitations moving forward. And, she is expected to be out of bed and walking as early as the next few days," Mr. Mulé added.

Mr. Mulé said the candidate will likely remain in the hospital for the next two weeks but is planning to resume her campaign.

Ms. Arrington, a 47-year-old South Carolina state representative, was traveling with a friend on state highway 17 when their vehicle was struck by a car going in the wrong direction.

Ms. Arrington "sustained a fracture in her back and several broken ribs," among other injuries, a post on her Facebook page said.

—Charles Passy,

Ian Lovett

took credit for helping oust U.S. Rep. Mark Sanford in the June 12 GOP primary by tweeting last-minute support for his opponent, state Rep. Katie Arrington. But a previous Trump rally and tweets in support of Mr. McMaster came up short in the five-way gubernatorial primary on June 12, when Mr. McMaster failed to clear the 50% threshold needed to avoid a runoff. Mr. McMaster got 42% of the 368,000 votes cast. Mr. Warren got 28%.

Mr. Trump's announcement was the culmination of months of frustration over what he felt was a lack of action on his initial suggestions, according to people familiar with the decision. Now, Pentagon brass must decide how such a new entity should be structured, staffed and coordinated with the current branches of the armed forces.

The White House announcement last Monday—which surprised many military officials, senior aerospace-industry executives and lawmakers—went against well-known opposition by Pentagon leaders to the idea a new military branch.

Just days before, Air Force Secretary Heather Wilson and the service's senior commanders met for a strategy session in Dayton, Ohio, but none had an inkling about Mr. Trump's impending announcement, said one of these people, who attended the sessions.

The evolution of Mr. Trump's idea of a space force, the people familiar with the issue said, reflects his management style. He occasionally offers seemingly ad hoc ideas in public, but at some point expects aides and cabinet officials to follow up with implementation plans. If Mr. Trump feels appointees are dragging their feet, he may suddenly demand action, sometimes in a dramatic and public fashion.

"He doesn't forget, and ultimately erupts when he feels slighted," according to one former industry and government official close to the Trump administration. White House officials didn't respond to a request for comment.

White House consideration of creating a sixth branch of the armed forces stretches back at least to March, when Mr. Trump gave a speech at a Southern California air base.

Proponents contend the change is essential because the current airplane-focused structure hasn't responded adequately to fast-growing threats outside the atmosphere.

On May 1, Mr. Trump returned to the topic, this time at a White House reception. "We're actually thinking of a sixth" branch of the armed services, he said, "and that would be the space force."

In those tentative sets of remarks, Mr. Trump appeared to take at least some of the credit for a concept the House included last year as part of its national defense authorization bill. That proposal, to carve out a dedicated "space corps" from the Air Force failed to become law, as the Senate subsequently stripped it from the legislation.

—Vivian Salama contributed to this article.

U.S. WATCH



Fire crews battled the Pawnee Fire in Lake County on Sunday. It was one of four wildfires burning in areas of Northern California.

NEAL WATERS/ZUMA PRESS

WORLD NEWS

China Eases Credit as U.S. Tariffs Loom

Cut in bank reserve requirement aims to support growth as trade war heats up

By LINGLING WEI
AND CHAO DENG

BEIJING—China's central bank is freeing up more than \$100 billion for commercial banks to boost lending and restructure debt, as the Chinese leadership tries to shore up growth amid slowing momentum for economic expansion and an intensifying trade brawl with the U.S.

In a statement Sunday, the People's Bank of China announced it is reducing the amount of reserves banks are required to keep with the central bank by half a percentage point starting July 5. That is the day before a U.S. deadline to slap punitive tariffs on tens of billions of dollars in Chinese goods.

Under the reserve cut, some 500 billion yuan (\$76.86 billion) will be released for 17 large banks, including the Big Five state-owned banks, the central bank said. It said the banks are to use the freed-up funds by converting bad loans into equity in companies that default on their debts.

Another 200 billion yuan is being unleashed for the country's city-level commercial banks and other smaller lenders, and those funds are to be used to expand lending to small businesses, the central bank said in the statement.

The move was well-flagged, following a notice last week from the governing State Council urging more measures to help small firms. Still, it marks a shift in policy toward easier access to funds for lenders and away from the tightfisted credit controls imposed in recent years to keep in check already high debt levels that could choke growth long term.

That change, government ad-



A toy stall in Shenzhen. Despite a strong economy, markets were rattled by fears of a trade conflict.

debt and reflating asset bubbles Beijing has fought hard to control. In some previous reserve reductions, banks have had to meet central-bank criteria for lending to small businesses to lower their reserves. For the latest move, the central bank didn't impose such a condition.

The reduction also tries to jump-start a two-year-old loan-relief plan that is supposed to help big corporate borrowers cut their debt but that the banks dislike. Under the debt-for-equity plan, companies give equity to their lenders in return for debt forgiveness. But in accepting equities of questionable value, banks were required to bump up capital they set aside against these riskier holdings, constraining their liquidity.

By releasing more long-term funds for the big banks, the central bank said it wants to encourage these lenders to step up their debt-for-equity restructurings. The central bank also warned the big lenders against using the funds to make more loans to struggling corporate borrowers.

Targeted easing measures hasn't worked well in the recent past. In 2015, for instance, reserve requirements were cut for select banks four times to channel more financing for small businesses. Funds continued to flow to state-owned firms, causing their debt loads to keep climbing well into 2016, while private companies pared their leverage during that time, according to research firm Gavekal Dragonomics.

Meanwhile, the selective loosening also contributed to frenzied home buying in many big cities, prompting the government to reinstate tight mortgage and other restrictions to curb speculation. "The tendency will be for the liquidity to leak to other parts of the system, most likely property, where the moral hazard problem remains as great as ever," said Gene Frieda, London-based global strategist at Pacific Investment Management Co.

Bank Move Comes As Growth Shows Signs of Waning

Property investment, more government spending on infrastructure and a surprising boost from exports to a rebounding U.S. and Europe kept the Chinese economy humming most of the past two years. That allowed President Xi Jinping to focus on curbing the growth of debt and other financial risks that economists have cited as a long-term vulnerability for the world's second largest economy.

Chinese growth is showing signs of waning—from investment in fixed assets to household consumption—and corporate defaults are rising, especially by private companies squeezed by the debt controls.

So far, the trade fight, initiated by the U.S. to reduce a trade imbalance \$375 billion in Beijing's favor last year and to get China to end policies Washington says favor Chinese companies, has been mostly words. In April, the central bank cut the reserve requirement pre-emptively to allay worries that the trade battle would hit the economy.

Should the U.S. impose tariffs on \$34 billion of Chinese goods early next month as the White House has planned, that would shave 0.1 percentage point off China's growth in the first year, according to economists. The damage could rise to 0.3 percentage point if the tariffs increase to \$200 billion of Chinese products, as President Donald Trump has threatened. Those estimates don't factor in retaliation from China, which has vowed to match the U.S. dollar for dollar.

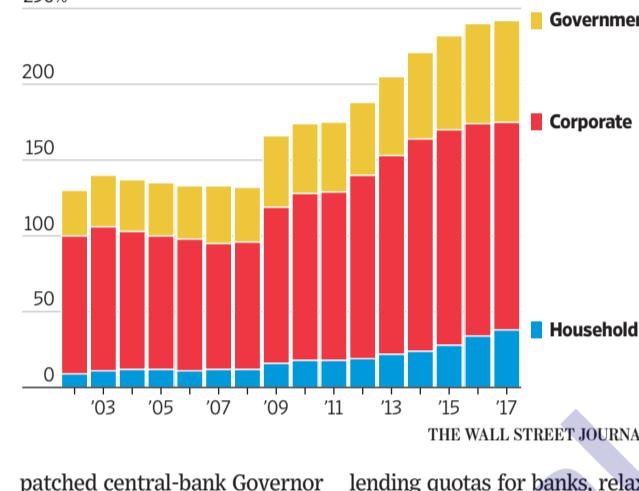
Balancing Act

China eased reserve requirements for some banks in order to stimulate lending, though some fear the move could exacerbate China's already growing debt burden.

Reserve-requirement ratio



Debt as a share of GDP



visers and economists said, reflects Chinese leaders' desire to shore up growth, stabilize financial markets and alleviate concerns that the trade fight with Washington will batter an economy that is losing steam.

After shares on Chinese exchanges followed global markets downward Tuesday on fears of an outright trade conflict, Liu He, President Xi Jinping's economic captain, dis-

patched central-bank Governor Yi Gang to talk to state media to try to calm jittery investors, according to people with knowledge of the matter. In an interview, Mr. Yi pledged to use monetary policy "comprehensively" to fend off any "external shocks."

Following the reduction in banks' reserve-requirement ratio, analysts expect more loosening, including increasing

lending quotas for banks, relaxing mortgage restrictions for home buyers in some cities and easing limits on local governments to borrow.

"China is on the way toward monetary easing," said Zhu Chaoping, a Shanghai-based global market strategist at J.P. Morgan Asset Management.

The shift is tricky, potentially aggravating voluminous levels of corporate and government

Trump to Curb China Investment

Continued from Page One

up lower than that, according to people familiar with discussions finalizing the plans.

In addition, the National Security Council and the Commerce Department are putting together plans for "enhanced" export controls, designed to keep such technologies from being shipped to China, said the people familiar with the proposals.

"We've got trillions of dollars seeking our crown jewels of technology," said White House trade adviser Peter Navarro last week. "There has to be a defense against that."

Before the rules go into effect, the individuals said, U.S. industry would have a chance to comment.

Industry groups, especially in finance and technology, have been trying to track the progress of the proposal as it goes through various iterations in the administration. They are mainly concerned that the export controls could negatively affect their businesses.

While many object to the investment restrictions, they are seen as having less practical impact because Chinese investment has fallen off so drastically. Most of the industry lobbying has been focused on Congress, which is debating how to strengthen national-security reviews of foreign investment.

The twin measures would continue the administration's use of a national-security rationale to justify economic actions. Steel and aluminum tariffs on Canada, Mexico, the European Union and other allies were put into effect earlier this year under a national-security provision of the Trade Expansion Act of 1962.

For investment restrictions, the administration plans to use the International Emergency Economic Powers Act of 1977, or IEEPA, which gives the president broad authority in the case of an "unusual and extraordinary threat," said the people familiar with the internal debate. IEEPA was widely employed

after the Sept. 11, 2001, terrorist attacks to impose sanctions on other countries.

"The administration is saying, 'if we declare everything a national security issue we can do whatever we want,'" said Derek Scissors, a China expert at the American Enterprise Institute.

"The President has made clear his desire to protect American technology," said Commerce Secretary Wilbur Ross, in a statement to The Wall Street Journal on Sunday. "All possibilities that would better protect American technology, including potential changes to export controls, are under review."

Tech and finance companies worry that export controls would harm their businesses.

The plan hasn't been finalized and some details may change. Under it, the U.S. would bar purchases of U.S. technology companies by entities in which Chinese investors own at least 25%—the exact cutoff is still being discussed. Investments below that mark could still be blocked if the administration determines that Chinese investors could obtain the technology through board seats, licensing agreements or other measures.

The administration would look only at new deals and wouldn't try to unwind existing ones, the individuals said.

To make sure that certain U.S. technologies didn't flow to China via trade, the administration would also clamp down on

exports of the Made-in-China-2025 technologies. The National Security Council is putting together policy recommendations on how to carry that out.

The Commerce Department's Bureau of Industry and Security regularly reviews technology with an eye toward allowing U.S. companies to sell product without exports licenses if the technology is commercially available.

Josh Kallmer, senior vice president at the Information Technology Industry Council, a trade association of high-technology businesses, said he expected plenty of companies to offer comments on the proposal.

The beefed-up investment and export restrictions would come on top of threats by Mr. Trump last week to impose tariffs on as much as \$450 billion of Chinese goods.

Foreign investments already must pass interagency review under the Committee on Foreign Investment in the U.S., to see if they violate national security. CFIUS reviews—or the threat of reviews—have largely halted Chinese purchases of U.S. computer chip companies. They have also put a crimp on other Chinese investments.

According to Rhodium Group, a market research firm, Chinese investments were down 92% in the first half of 2018 from a year earlier, to \$1.8 billion, because of Chinese curbs on credit and U.S. scrutiny of Chinese deals.

A bill to make CFIUS reviews even tougher is making its way through Congress. Treasury officials have argued that a stricter CFIUS would go a long way to protecting U.S. technology, and any additional restrictions must be narrowly focused.



The president also seeks to block additional tech exports to Beijing.

YURI GRIPAS/REUTERS

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WORLD NEWS

Erdogan Wins Vote In Turkey

Continued from Page One

CHP, the newly created nationalist Good Party and the pro-Islam Felicity Party—joined to oppose Mr. Erdogan.

Mr. Ince galvanized large crowds of supporters across the country. After Mr. Erdogan mocked him as “the poor guy” CHP lined up, his rival said he was indeed the son of a poor truck driver, adding: “It is better to be poor than to earn dirty money.” When Mr. Erdogan proposed building libraries with free tea and cakes, Mr. Ince said “If you want to eat free cakes, vote for Mr. Erdogan, if you want factory jobs, vote for me.”

Mr. Erdogan has been running the nation of 80 million under emergency rule he instituted after a failed coup in 2016.

Constitutional changes, approved by voters last year and which will now take effect, give him vastly expanded executive powers over legislation and the judiciary in his new, five-year term.

With a majority in parliament, he will have unprecedented control over a state apparatus he has purged of tens of thousands of civil servants he suspects have had sympathy with coup plotters.

The CHP, which had deployed tens of thousands of supporters and created special cellphone apps to collate results independently from the electoral board, said that under its count, Mr. Ince had qualified for a runoff against Mr. Erdogan.

Supporters of Mr. Erdogan “shouldn’t celebrate,” said Bulent Tezcan, the CHP’s vice chairman and spokesman. “We will work all night, until the results are right.”

Under the state of emergency, the opposition’s options are limited.

In a Twitter post, Mr. Ince said he planned to comment on the results at a press conference at noon on Monday.



Turkish President Recep Tayyip Erdogan, center, spoke to supporters after casting his ballot in Istanbul on Sunday.

the accusation.

Turkish-U.S. relations will be tested as soon as July 18, the date of a planned hearing in the trial of an American pastor detained in Turkey on accusations he colluded with coup plotters and Kurdish terrorists. The pastor, Andrew Brunson, denies the accusations.

Members of the U.S. Congress have labeled the detention of the Presbyterian minister “hostage taking,” and threatened sanctions, including an embargo on deliveries of advanced F-35 jet fighters to Turkey, if he wasn’t released quickly. Turkish authorities say the charges, which Mr. Brunson denies, are serious.

Mr. Erdogan called the vote in late April despite the fact that elections weren’t due until the end of 2019, catching the country and rival contenders off guard.

For weeks, he campaigned with little apparent competition, unveiling planned construction projects, including a 25-mile canal parallel to the Bosphorus and announcing a \$6 billion package comprising a tax amnesty and special allowances for retirees.

Among supporters of the opposition, Mr. Ince’s energetic campaign fueled hopes in opposition ranks that an alternative to Mr. Erdogan was possible.

“I am surprised,” said Mehmet Asil Yilmaz, a 24-year-old university graduate who spent the evening at CHP headquarters in Ankara to follow the results. “I really thought Mr. Ince would at least qualify for a runoff and have a go at the presidency.”

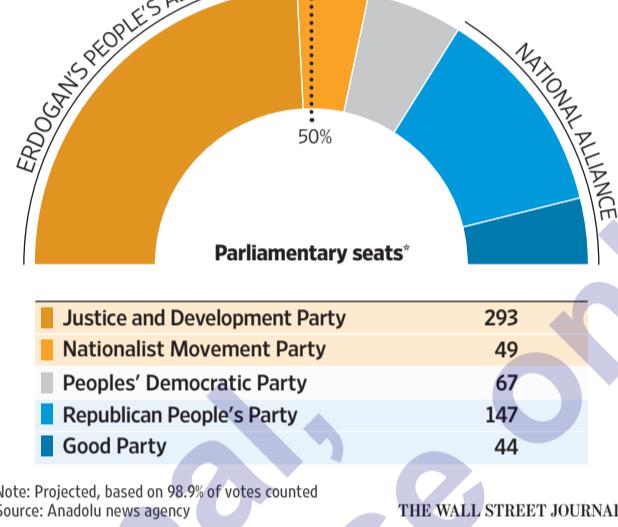
When he cast his vote in Istanbul on Sunday, Mr. Erdogan was greeted with chants and applause.

“Stand upright, the nation is by your side,” a crowd of supporters chanted in unison as they gathered near the school, which was being used as a polling station.

Among them, Beytullah Altinogullari, a 30-year old construction worker, said he had voted for Mr. Erdogan because, although the economy wasn’t doing well, the president was entirely devoted to his task.

“He’s the captain of Turkey,” he said.

Election Results



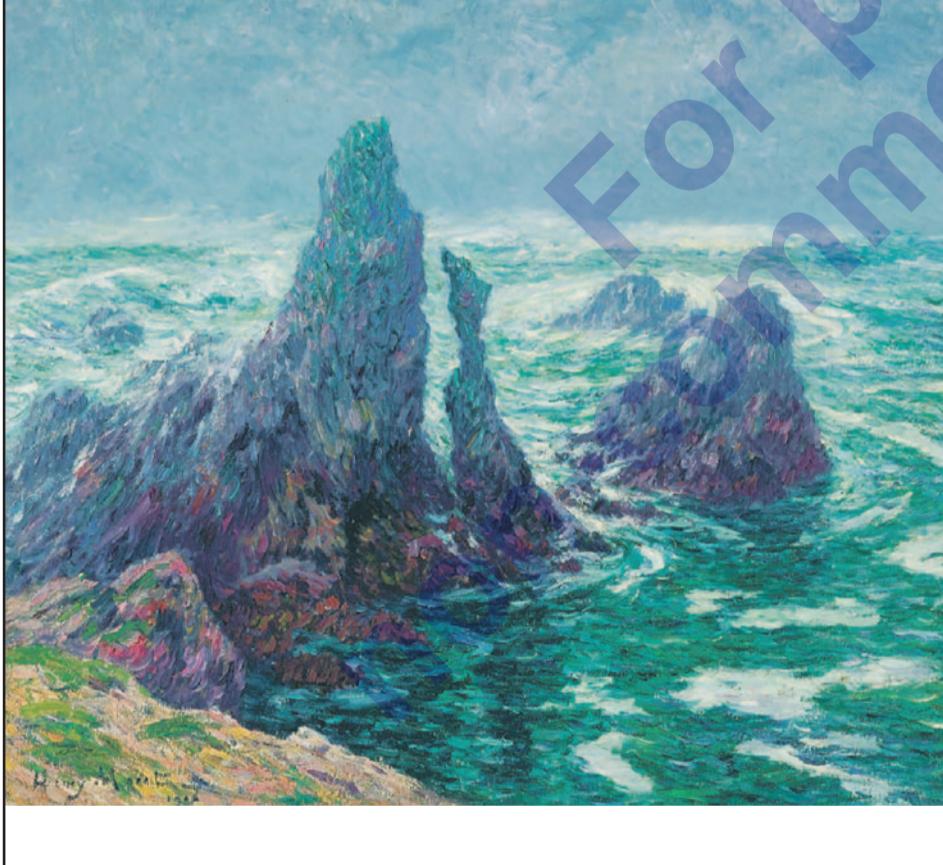
Note: Projected, based on 98.9% of votes counted
Source: Anadolu news agency

long-festering issue over the role of Kurdish fighters in Syria, whom Washington sees as allies in the fight against Islamic State, and Ankara regards as terrorists.

The U.S. is angry over Turkey’s decision to purchase an antimissile shield from Russia and Turkish authorities are stewing over the lack of action on their demand that the U.S. deport a cleric they say was behind the failed coup. The cleric, Fethullah Gulen, denies

But the bilateral relationship has soured over many flashpoints.

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WORLD NEWS

Russia Airstrikes Break Syria Truce

BY RAJA ABDULRAHIM
AND MICHAEL R. GORDON

The Syrian regime's main military ally, Russia, carried out airstrikes in the country's southwest, defying a cease-fire pact with the U.S. and Jordan, as forces aligned with President Bashar al-Assad pushed to capture one of the last opposition strongholds.

The Russian strikes, which have been accompanied by regime barrel bombs and mortar shells, are the latest signs of the high-stakes military maneuvers unfolding in a volatile corner of southwest Syria. Forces aligned with President Assad have threatened a ground offensive, dropping leaflets that demand the surrender of rebels in the area. At least five civilians have been killed in the bombardment, which also destroyed a hospital and emergency rescue center, antigovernment activists said.

For weeks, the U.S. has warned the Syrian regime not to violate a cease-fire agreement brokered last year with Russia and Jordan that stretches across the Syrian provinces of Daraa and Quneitra.

But the U.S. appears intent on not getting dragged into a confrontation between the rebels and Mr. Assad's Russian and Iranian-backed forces. On Saturday night, as Russian airstrikes

were beginning, U.S.-allied rebels were told by the Americans not to expect a military intervention on their behalf, several rebel commanders said.

The State Department expressed concern about the airstrikes and said it had been in touch with the Russian government and "parties on the ground."

"This is once again an example of Russia flouting arrangements it has entered into with no regard for civilian lives," a State Department official said.

State Department officials noted that Secretary of State Mike Pompeo had told his Russian counterpart a week ago that it was important to uphold the cease-fire arrangement. Rebel groups in Syria also protested the strikes.

"The Russian intervention is a flagrant violation of the de-escalation deal," said Saber Sifer, the political representative of one of Daraa's largest rebel groups. "They are aware that the regime is not capable of advancing on its own. The airstrikes are targeting civilians and they are trying to intimidate them," he added.

A Jordanian government official said his country will take the necessary measures to protect its security and is in contact with the all parties to achieve that.



German Chancellor Angela Merkel arriving for an informal meeting of European leaders on migration and asylum in Brussels, June 25, 2018.

EU Talks on Migrants Stall

Outcome raises stakes for German leader, who is under pressure at home over migration

BY VALENTINA POP

European leaders on Sunday failed to reach a deal on a new approach to immigration, as German leader Angela Merkel fights for her political life.

Under pressure over an open-door policy which brought over 1 million migrants to Germany over the past three years, Ms. Merkel is seeking to limit the number of migrants entering the country, renewing tensions over who should take in refugees.

Ms. Merkel said an emergency meeting Sunday among 16 EU leaders was good but that differences remain. "Traffickers and refugees cannot choose in which EU countries they file for asy-

lum," she said.

Heading into the meeting, she said she sought arrangements with other EU countries to address the migration issue.

Germany's goal is to return some of the migrants who arrived in Europe by crossing the Mediterranean Sea to Italy, according to European diplomats.

But Italy's new nationalist government, which has pledged to stop mass migration to the country, refused such a deal. Prime Minister Giuseppe Conte declared himself "definitely satisfied" with the outcome of the meeting.

Merkel is going home empty-handed. There is no deal with Rome to accept asylum seekers that Germany would reject at the border," said one senior diplomat.

Still, Ms. Merkel and the leaders of Malta and Belgium, who took part in the meeting, said "operational measures"

could be agreed to in the run-up to or during a meeting of all 28 EU leaders in Brussels on Thursday and Friday.

Ms. Merkel's woes didn't go unnoticed by her peers. French President Emmanuel Macron said that the current migration crisis was "due to political pressure in certain member states," while Luxembourg Prime Minister Xavier Bettel said jokingly that the meeting was "not about whether Ms. Merkel stays chancellor next week or not."

Leaders focused their discussions on areas they could all agree on—expanding the funding and mandate of the bloc's border-control agency and striking more deals with African countries to take back and stop migrants from crossing the Mediterranean in the first place.

The meeting was called by Jean-Claude Juncker, the president of the European Commission, the bloc's executive branch in charge of

drafting policies and funding the bloc's border and asylum agencies. Mr. Juncker was in Berlin earlier this past week and offered to host the meeting in an attempt to help Ms. Merkel after she narrowly avoided the collapse of her government.

The German chancellor had rejected a plan by her coalition partner to start turning away migrants at the German-Austrian border and was given two weeks to find a European solution.

Austria, sandwiched between Germany and Italy, said such a unilateral move would force it to start sending asylum seekers back to Italy.

Meanwhile, the leaders of Hungary, the Czech Republic, Poland and Slovakia didn't take part in Sunday's meeting, saying the EU proposals were "unacceptable."

—Sam Schechner in Paris and Laurence Norman in Brussels contributed to this article.



Syrian rebels in Daraa, in Syria's southwest, on Saturday.

WORLD WATCH

MIDDLE EAST

Kushner Says U.S. Peace Plan is Near

President Donald Trump's son-in-law and senior adviser said in an interview published on Sunday that the administration will soon present its Israeli-Palestinian peace plan, with or without input from Palestinian Authority President Mahmoud Abbas.

In an interview published in the Arabic language Al-Quds newspaper, Jared Kushner appealed directly to Palestinians and criticized Mr. Abbas, who has shunned the Trump team over its alleged pro-Israel bias, particularly on the fate of contested Jerusalem.

The interview came out after a weeklong trip around the region by Mr. Kushner and Middle East envoy Jason Greenblatt. The team met with leaders of Israel, Jordan, Qatar, Egypt and Saudi Arabia to discuss the worsening humanitarian situation in Gaza and the administration's proposals for a peace deal.

The Palestinians refused to meet with Mr. Kushner, and leaders have criticized the Trump negotiating team in recent days.

Senior Palestinian negotiator Saeb Erekat accused Messrs. Kushner and Greenblatt on Sat-

urday of trying to topple the Abbas-led West Bank autonomy government and dismantle the U.N. aid agency for Palestinian refugees. On Sunday, Mr. Erekat doubled down on his criticism, telling Israel's Channel 10 that the American negotiators are "not neutral" and predicting their plan would fail.

—Associated Press

ZIMBABWE

President Survives Bomb Attack

President Emmerson Mnangagwa dodged an apparent assassination attempt ahead of a historic election, and a blast at a rally attended by Ethiopia's new leader killed one person, rattling politics in two African nations in the midst of major transitions.

Video footage from a campaign rally held Saturday in the southwestern town of Bulawayo, Zimbabwe's second-largest city, showed an explosion just as Mr. Mnangagwa and other ruling-party dignitaries were leaving the stage.

The violent blast knocked over several officials of the ZANU-PF party, sending at least one tumbling off the stage. Photos and video showed multiple people wearing party regalia injured and crying for help.

In an interview on state radio

Saturday evening, Mr. Mnangagwa said several senior party members, including his second vice president, Kembo Mohadi, the ZANU-PF chairman and the deputy speaker of parliament were injured in the blast, along with the wife of first Vice President Constantino Chiwenga.

The apparent assassination attempt risks igniting a peaceful campaign in Zimbabwe five weeks ahead of the election, in which Mr. Mnangagwa is seeking a popular mandate after ousting longtime strongman Robert Mugabe with the help of the military in November.

—Gabriele Steinhauser

GERMANY

Mystery Explosion At Building Hurts 25

Twenty-five people were injured, four of them severely, when an explosion destroyed an apartment building in the western city of Wuppertal, police said.

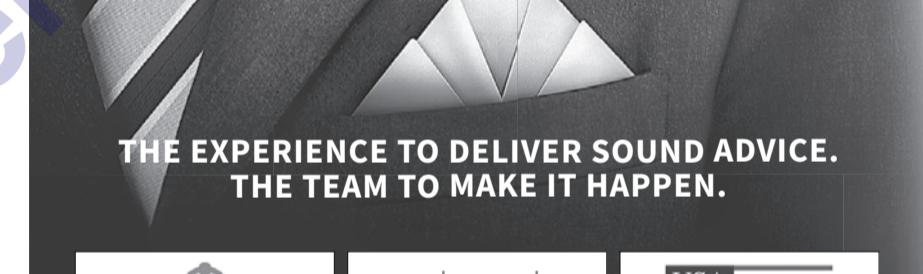
The cause and nature of the blast was under investigation, news agency dpa reported.

The blast, which hit shortly before midnight Saturday, destroyed the attic and top three floors and caused a large fire. Firefighters rescued four severely injured people from the building. Another 21 people were slightly injured and treated on the scene.

—Associated Press



An explosion in the western German city of Wuppertal destroyed an apartment building, injuring 25 people, four of them severely. Police say they are investigating the cause of the blast.



Protective

\$1,000,000,000

Senior Unsecured Credit Facility

Joint Lead Arranger and Sole Bookrunner

May 2018

TSYS

\$1,750,000,000

Senior Unsecured Credit Facility

Joint Lead Arranger and Bookrunner

April 2018

\$1,000,000,000

Two-Part Senior Notes

Joint Book-Running Manager

May 2018

USA COMPRESSION

\$1,600,000,000

Senior Secured Credit Facility

Joint Lead Arranger and Bookrunner

April 2018

\$725,000,000

6.875% Senior Notes due 2026

Joint Book-Running Manager

March 2018

FLEXI VAN

EXPERIENCE DELIVERED

\$185,000,000

Senior Secured Credit Facility

Joint Lead Arranger and Bookrunner

\$300,000,000

10.000% Senior Secured

Second Lien Notes due 2023

Joint Book-Running Manager

February 2018

ALFA

\$150,000,000

Senior Unsecured Credit Facility

Sole Lead Arranger and Bookrunner

February 2018

\$100,000,000

Senior Secured Credit Facility

Sole Lead Arranger and Bookrunner

January 2018

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WORLD NEWS

Saudi Women Steer Toward More Rights

BY MARGHERITA STANCATI
AND DONNA ABDULAZIZ

BURAIDAH, Saudi Arabia—The lifting of the female driving ban marked an extraordinary moment for this kingdom and showed how social overhauls are seeping into even the most conservative pockets here as Saudi women press for change.

In the desert region of Qassim, the center of the austere interpretation of Islam practiced in the nation, Aljohara al-Wabli slid into the driver's seat of her son's Toyota FJ Cruiser and, in Sunday's wee hours, uttered a prayer and drove onto the roads of the capital Buraidah.

She recorded the momentous 30-minute event with a Snapchat video.

Ms. al-Wabli is one of many women across Saudi Arabia who took a celebratory spin after the ban was lifted on Sunday.

In Riyadh and Jeddah, Saudi women drove down busy commercial streets, while in the kingdom's Eastern province, large numbers of women marked the occasion by crossing the border into Bahrain.

The driving ban has been at the heart of the debate over how fast and how far Saudi women can push for more participation in public life.

Saudi conservatives who favored the ban argued that abolishing it would give women too much freedom and lead to social decay.

Liberals wanted the ban lifted, seeing it as a symbol of women's state-sanctioned oppression.

"It's the last major battle

that was left for the conservatives to fight," said Ali Shihabi, head of the Arabia Foundation, a Washington think tank close to the Saudi government. The ban's lifting "sent a message that says: We want to integrate women in society fully."

There are still formidable obstacles to women's equality in the kingdom. First among them is the male-guardianship system, under which women are forced to obtain the permission of a male relative—typically a father or a husband—to travel abroad or marry.

Unlike in bigger and more cosmopolitan cities like Riyadh or Jeddah, no one cheered as Ms. al-Wabli drove past. Traffic police didn't hand her flowers, as they did elsewhere. She didn't encounter any other women drivers.

But on Buraidah's main boulevard, swathed in festive lights for the just-ended Islamic holy month of Ramadan, Ms. al-Wabli said she could see a brighter road ahead for women in her country.

"The road is lit up for Ramadan, but I'd like to think it's lit up for us," said Ms. al-Wabli, a 54-year-old former school principal, as traditional Saudi music blasted from her phone. "Driving is our right."

The monarchy, bound by its alliance with Saudi Arabia's powerful religious establishment, initially resisted calls to lift what, until Sunday, was the world's only female driving ban.

That changed under the leadership of Crown Prince Mohammed bin Salman, who has set out to remake the kingdom by relaxing its strict



A woman drove in Riyadh on Sunday, the day the ban on Saudi women getting behind the wheel was lifted after a long debate.

Hard-Line Regions Resist Changes

In the years since Crown Prince Mohammed bin Salman rose to power with his father's ascension to the throne in early 2015, the Saudi government has curbed the influence of once-powerful religious conservatives, for instance stripping the religious police force of its power to arrest.

The first cinemas in more than three decades have opened and music, widely con-

sidered sinful, is regularly played at government-sponsored events.

But the crown prince has also cracked down on activists and intellectuals who had campaigned for the right of women to drive. Out of at least 19 people who were detained over the past two months, 10 remain in jail, a move that appeared intended to show that change can only come from above.

In Qassim, a region that has produced generations of hard-line Salafi clerics, change is happening more slowly.

There are no movies or pop-music concerts, and residents expect very few women to drive, at least for a while. Women dress strictly in black, and virtually all wear face-covering veils, known as niqabs.

A religious policeman prowling Buraidah's market area on Sunday spotted two women without the niqab. "You have to cover your face," he instructed. "One of this country's fundamental principles is that women have to follow the rules. More importantly, it's a fundamental principle of our religion."

Wasima Rashidi, a 38-year-old woman who works in a Qassim mall.

Even a place like Qassim, she added, "has become a bit more tolerant." She wants to drive, but will wait to see how the people of Qassim respond to the change before applying for a permit.

Since the government in September announced plans to end the driving ban, 120,000 women have signed up for lessons in the six driving schools for women that so far have opened in the country, a spokesman for Saudi Arabia's Ministry of Interior said on Sunday.

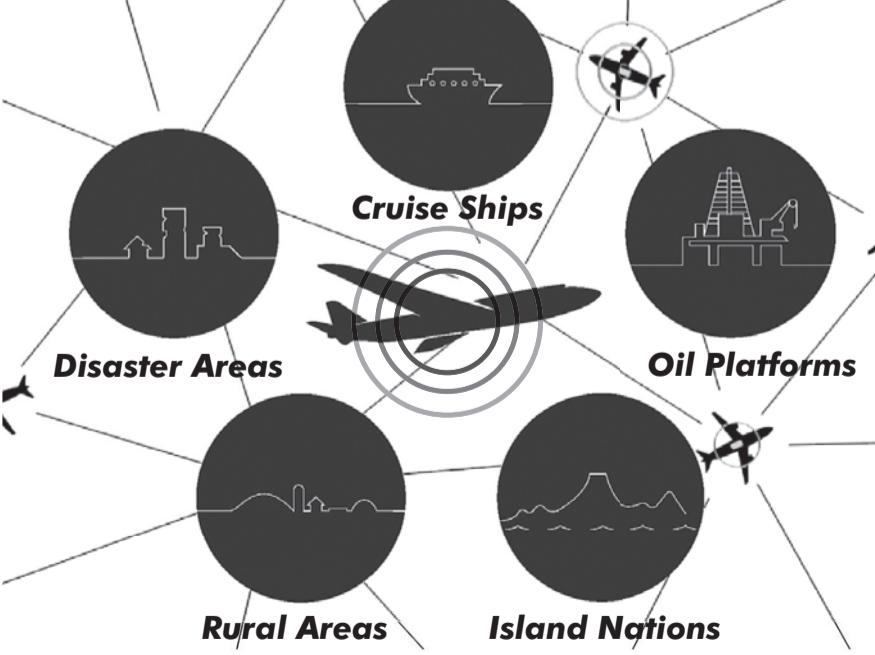
A driving school for women is due to soon open in Qassim as well.

"Whenever change comes to the kingdom, Qassim is the last place to accept it," said Ibrahim Mohammed, 37, who runs a jewelry store in downtown Buraidah, the capital of Qassim. "The majority of people here oppose women driving. It will take some time, but eventually it will be accepted."

Airborne

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Canada Promotes Antidote As Opioid Deaths Rocket

BY VIPAL MONGA

TORONTO—By his own account, Leon "Pops" Alward should be dead. The 47-year-old Toronto resident has overdosed five times in the past four years after injecting the synthetic opioid fentanyl. He is still alive today because in four of those five emergencies, he received timely shots of naloxone, an opioid antidote.

Mr. Alward, like any Ontario resident, can get as much naloxone as he needs free from one of the more than 2,800 pharmacies that stock the medication in the province. The federal government made the drug available without a prescription in 2016, and Canada's provinces have developed a range of approaches to delivering it to users. In Ontario, Canada's most populous province, authorities began two years ago distributing it to drugstores and jails, and later expanded the program to include homeless shelters and drug-rehabilitation centers.

Canada serves as a model for those lobbying for similar access to naloxone in the U.S., where a patchwork of state laws governs the medication's availability. The federal government has deemed naloxone a prescription drug, but the U.S. Food and Drug Administration began working two years ago

on helping drug makers develop an over-the-counter version.

Laura Thomas, interim state director in California for the Drug Policy Alliance, a New York-based group that advocates ending the so-called war on drugs, has called on the FDA to take quicker action to make the drug more available.

"If Canada can make it over-the-counter, the U.S. certainly could," said Ms. Thomas.

U.S. critics say wider availability of naloxone could increase opioid use.

U.S. critics say widespread availability of naloxone could increase opioid use. Republican Maine Gov. Paul LePage has consistently vetoed legislation, most recently in April, to widen the drug's availability in the state, where opioid abuse is widespread. Giving addicts access to naloxone "produces a sense of normalcy and security around heroin use that serves only to perpetuate the cycle of addiction," he wrote in a letter explaining a 2016 veto.

Mr. Alward said he has used the antidote 28 times on people who overdosed. The medication is one prong in a so-called harm-reduction approach, adopted by the cities of Vancouver and Toronto, that also includes creating safe places for addicts to inject, offering sophisticated rehabilitation programs, and even advocating for decriminalization.



Leon Alward says he has used naloxone on himself four times, and 28 times to save others' lives.

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IN DEPTH

Robots Work the Kitchens

Continued from Page One
and drinking places has increased by 1.6 million since May 2013 to 11.9 million in May 2018.

If businesses were just using machines to replace workers, you would see high unemployment in the industry, said Donald Grimes, a labor economist at the University of Michigan. "But you're not seeing that at all."

The 6% unemployment rate for restaurant workers is the lowest on record, according to the Labor Department. It tops the 3.8% overall unemployment rate, yet is extremely low for an industry with notoriously brisk turnover—a full percentage point below where it stood in 2000, the last time overall unemployment was as low as it is today.

The rise of machines in theory should lead restaurants to employ fewer people per establishment. So far that's not happening, either.

Nationwide, employment is up at individual quick-service restaurants, to 18.4 workers per establishment last year, from 17.4 before the recession began in late 2007.

Many restaurants are trying to do more, including staying open around the clock or delivering food. Some chains also need more employees to handle the increased demand that comes from automating tasks such as ordering.

"I've never seen the labor market this tight," said Scott Murphy, chief operating officer for Dunkin' Donuts U.S. "We spend a lot of time training people and a month later they walk out the door."

Dunkin' conducted focus groups with former employees to pinpoint the mundane tasks that made them want to leave and geared automation around that.

Workers used to create thousands of hand-written labels daily for everything from coffee to cheese expirations. Last year, Dunkin' installed small terminals that print out expiration times.

Brewing a single pot involved grinding and weighing coffee and comparing its fineness and coarseness to a perfect sample. Now, some Dunkin' shops use digital refractometers to determine if coffee meets specifications.

Automation improves consistency, shaves time off tasks, and may help ease the incessant turnover that crimps productivity and staffing across the industry.

Alexandra Guajardo, the morning shift leader at a Dunkin' Donuts shop in Corona, Calif., said she's likely to stick with the job longer now than she otherwise would have.

"I don't have to constantly be worried about other smaller tasks that were tedious," she said. "I can focus



A boy watches "Flippy" the robot work at CaliBurger in Pasadena, Calif. Below, Kenny Green Jr., left, and Giacomo Perri finish the job.

on other things that need my attention in the restaurant."

Mr. Murphy said he can't see a time when a Dunkin' Donuts shop is fully automated.

The company experimented with a robot barista nearly two years ago at an innovation lab in Massachusetts.

The robot did fine at making simple drinks, but couldn't grasp custom orders, such as "light sugar."

The machine also required a lot of cleaning and maintenance, and at up to \$100,000 per robot, Mr. Murphy said, he couldn't see a return on the investment.

Patrick Sugrue, the chief executive of Saladworks, a 95-store chain based in West Conshohocken, Pa., said technology enhancements, including self-ordering kiosks now in many of the company's locations, give him some peace of mind.

"In this market, employees will leave if they have one bad day," Mr. Sugrue said. "If that happens, having this technology in place makes it easier to deal with."

He added: "Having wait times go up due to short staffing is a quick way to kill a brand."

A 2013 study by University of Oxford economists Carl Frey and Michael Osborne found that food service occupations, including cooks, hosts and servers, ranked in the top 20% of most automatable jobs among 700 occupations examined.

Additional research from The Organization of Economic Co-operation and Development said food preparation faced the highest probability of automation among 88 industries.

In past years, the fast-food industry had no pressing need to turn toward this technology because a large supply of people was willing to work low-wage jobs.

Now, the labor pool is shrinking and wages are pick-



NICK AGIRO FOR THE WALL STREET JOURNAL (2)

ing up, in part because of the shortages and also due to minimum-wage increases in many states.

"There aren't as many people as there used to be looking for jobs, and it will encourage automation," said Andy Puzder, the former CEO of the Carl's Jr. and Hardee's burger chains, and President Donald Trump's early pick for Labor secretary before he withdrew from consideration.

At some point, Mr. Puzder said, more automation could lead to a dearth of jobs in the industry.

"A self-cleaning oven isn't going to replace people," he said, "but if you have several of those labor-saving tools, eventually you won't need all those workers."

It might not play out that way. Automats, the waiterless establishments of the early 20th century that combined vending machines and a cafe-

teria, could be considered the first fast-food restaurants, said Magne Mogstad, a labor economist at the University of Chicago. They were shooed aside by fast-food restaurants that depended on humans to function.

Automation improves consistency, shaves time off tasks and could ease turnover.

"Automation," he said, "may very well create demand for service with a personal touch."

Panera Bread has created approximately 25,000 new jobs over the past two years including delivery drivers and new restaurant workers to handle the extra volume com-

ing from digital ordering. Those numbers do not include the replacement of workers that left or include people hired to staff newly opened restaurants.

The 2,000-unit bakery chain, which underwent an estimated \$100 million technology overhaul in recent years, now derives more than 30% of its orders from in-store kiosks, consumer desktops and mobile devices.

Panera can reassign cash register workers to other tasks such as delivering food to customer tables—a new level of service in the quick-serve restaurant industry. McDonald's Corp. is offering table service now too, thanks to self-order kiosks.

The extra workers Panera hired are assigned mostly to making salads and sandwiches, something Chief Executive Blaine Hurst said he can't see robots doing:

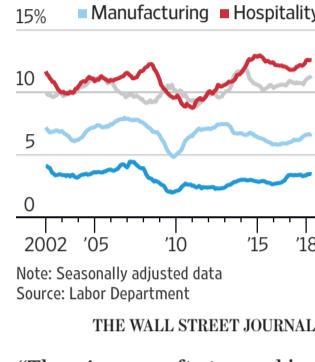
Now Hiring

Job openings in hospitality, including restaurants, have increased since 2010 and account for more available positions than retail or manufacturing firms.

Job openings in hospitality



Job openings by industry as a share of all nonfarm openings



Note: Seasonally adjusted data
Source: Labor Department

THE WALL STREET JOURNAL.

"There's a craft to making food," he said, "and that's hard to replicate with robotics."

Roast beef chain Arby's installed ovens that roast the beef and then switch to holding mode after reaching optimal cook time. That allows night crews to begin cooking for the next day's lunch before leaving, eliminating the need for morning employees to arrive at 7 a.m. to begin the three-hour roasting process.

"It actually allows us to reallocate labor to other areas, such as having more dining room attendants or extra hands at the drive-thru," said an Arby's spokesman.

Wendy's Co. is using automation to eliminate one of the most undesirable jobs in the kitchen: washing the bowls, spatulas and other utensils used to prep food.

Workers at most of Wendy's 5,400 U.S. restaurants must follow six steps to run dishwashers and stop what they're doing from time to time to start new cycles. Franchisees have begun purchasing \$6,500 dishwashers that need just one press of a button and no additional monitoring, saving almost ten hours of labor per week.

Wendy's also is trying to drop the drudgery of cleaning bacon grease off ovens. In the last year, the chain began installing self-cleaning ovens.

Like the others, it's not letting its workers go.

In some restaurants, Wendy's has hired people as hosts to walk through dining rooms to refill drinks, help customers with kiosks and see if guests need anything more.

"This is an extremely tight labor market and finding talent in our restaurants is paramount right now," said Colley O'Brien, Chief People Officer at Wendy's.

"It's a battle that we engage in on a daily basis," he said.

Apps Seek Women in India

Continued from Page One
India to the concept of "boy browsing" through a YouTube video. Another competitor, Woo, allows women on its app free but charges men, and lets women use initials.

"We want women to feel pampered," said Woo Chief Executive Sumesh Menon, adding that about one-fifth of Woo users are women.

Woo recently co-hosted a singles event in New Delhi with POPxo, a popular women's lifestyle website—and got about 75% men.

At the event, men competed in push-ups and pickup lines. The winner: "You have nice eyes." Another contestant tried to woo a woman named Konika.

"My grandmother was right," he exclaimed. "She said that I would marry someone with a name starting in K."

Konika just shook her head and said "No."

Woo is also sponsoring a Web series that includes a scene where a woman explains to her friend that dating apps aren't all bad.

Abhineeta Raghunath, 26,



The crowd was mostly male at a recent singles mixer in New Delhi hosted by an Indian dating app.

would agree. She signed up for Tinder when she moved to Hyderabad to pursue a master's degree a few years ago.

"I wanted to hang out with people who weren't on campus," said Ms. Raghunath, who estimates she met about 100 people through Tinder. "Everybody is a surprise."

Tinder doesn't disclose a gender breakdown, but among the app's members in India, men far outnumber women, according to a person familiar with the matter.

"Girls get hundreds of matches so it's hard to stand out," said 26-year-old Abhishek Madhavan, who went to

great lengths to try to distinguish himself.

On his profile, he left notes instead of the typical mug shot to try to attract attention.

"Tinder is not for average-looking guys because there are hundreds of dudes just like you," he said.

Tinder has made urban Indian women the focus of its marketing, running Bollywood-inspired ads, including one with actress Alia Bhatt in which she talks about dating and love. Then she swipes through profiles on Tinder and concludes that she will "go with the flow, one step at

a time."

Another ad, which showed a mother approving of Tinder, was mocked by some Indians as an unrealistic portrayal of cultural attitudes.

Tinder has said the ad targeted a subset of the population.

Mr. Menon, the CEO of Woo, said parents have requested he create profiles for their daughters on the company's dating app. He tells them that's the daughter's call.

Some women say they've avoided dating apps because of fears they will be judged by friends and family, concerns about safety, and potentially

awkward encounters.

One woman saw her family driver on an app which made her uncomfortable because it meant he likely saw her on it as well.

Around India, millions of educated young people are leaving their hometowns to pursue jobs in cities, becoming financially independent and buying smartphones.

The number of people in India using smartphones in 2018 is expected to grow by close to 16%—the highest growth rate in the world, according to research firm eMarketer.

"In India, any place where there is a high density of educated, smartphone-carrying people, those people are more open to forgo arranged marriage. This is where we focus our efforts," said Mandy Ginsberg, CEO of Match Group.

Tinder and other dating sites are betting that these urban professionals will make dating more mainstream.

"I think there are enough guys that are open to the idea of dating in India," said Gourav Rakshit, chief executive of Shaadi.com. "The sociological change will be when girls feel comfortable."

Shaadi, an online matchmaker that Mr. Rakshit says operates in the "happily ever after" space for serious relationships, runs a small dating business that he plans to ex-

pand if dating goes mainstream.

Tinder offers its app in four Indian languages. Besides gaming, it earned the most revenue of apps in India via Google Play, the app store for most Android phones, for the year that ended in April, according to research firm App Annie.

If the online dating sites don't take off among women, men in India could get turned off.

Abhimanyu Chaturvedi, 28, from New Delhi, spent an hour each day carefully picking potential partners on Tinder.

He paid for a premium membership that gave him access to more profiles.

In nine months, Mr. Chaturvedi matched with three women. Two of them unmatched within seconds, he said, preventing him from sending them messages, and the third never responded.

He tried changing his bio a dozen times and displaying different photos, before taking a break.

"Sometimes I try to laugh it off," Mr. Chaturvedi said. "I like to joke that maybe I have horns."

He may give it another try.

"If it doesn't work then I guess it is my bad luck," he said. "I will go for an arranged marriage then."

—Corinne Abrams contributed to this article.

GREATER NEW YORK

GOP Primary Tests Trump Impact

Michael Grimm fights to retake congressional seat from Dan Donovan, backed by the president

BY JOSEPH DE AVILA

A bitter Republican primary in a conservative New York congressional district will be the latest test of the value of an endorsement from President Donald Trump.

Tuesday's GOP primary in the 11th Congressional District pits Rep. Dan Donovan, a former district attorney, against his predecessor, Michael Grimm, a former Federal Bureau of Investigation agent and a felon. Mr. Grimm previously held the seat for about four years before resigning in early 2015 and pleading guilty to tax fraud related to his restaurant business.

Now, Mr. Grimm, who was released from federal prison in 2016 after serving seven months, is attempting a comeback in the district covering Staten Island and a slice of Brooklyn. While Mr. Trump has endorsed Mr. Donovan, a recent poll from Siena College showed Mr. Grimm leading by 10 points.

Mr. Grimm has embraced the president, while painting Mr. Donovan as a moderate. Both candidates largely agree with Mr. Trump's hard-line stance on immigration. But Mr. Grimm notes his opponent's record of voting against key legislation



Rep. Dan Donovan, second from left, has been endorsed by President Trump. His GOP primary rival, Michael Grimm, second from right, has accused him of being less than loyal to the president.

"He's had his fingerprints on every major victory that we scored on the island," he said.

Mr. Grimm said conservative voters will stay home in November if Mr. Donovan is the Republican candidate.

Democrats are fielding six candidates in their primary. Max Rose, a U.S. Army veteran who worked as director of public engagement in the Brooklyn District Attorney's office, is considered the front-runner.

"For months, the Republicans have torn each other apart in this swing district, with Grimm accurately calling Donovan a spineless politician, and Donovan highlighting Grimm's felony conviction for tax fraud," said Evan Lukaske, a spokesman for the Democratic Congressional Campaign Committee. "Both attacks are true and set up a stark contrast with Democrat Max Rose."

Mr. Grimm, who was first elected in 2010 in the Tea Party wave, built a strong following in the district after helping families following superstorm Sandy in 2012.

Leticia Remauro, a political consultant and former Staten Island GOP chairwoman, said voters are willing to give Mr. Grimm another chance because they think he was unfairly prosecuted and deserved a fine rather than prison time. Mr. Grimm admitted to under-reporting income from his restaurant and paying workers off the books.

on the president's agenda: Repealing the Affordable Care Act, the federal tax overhaul, and withholding funding from "sanctuary cities"—jurisdictions that don't comply with strict federal immigration policies.

"Watching his voting record was infuriating," Mr. Grimm said in an interview. "How do you justify that as a Republican? I don't think you can. And that's why he's not getting the support."

Mr. Trump said in his endorsement of Mr. Donovan in May that he is a safer bet in the general election. In a tweet, Mr. Trump alluded to Sen.

Doug Jones's (D, Ala.) defeat of Republican Roy Moore last year in a race that was considered to be safe for the GOP. "We can't take any chances on losing to a Nancy Pelosi controlled Democrat!" he tweeted.

Mr. Donovan said Mr. Trump's backing will help him win in a district that voted for the president in 2016 but backed President Barack Obama, a Democrat, twice.

"The president endorsed me after my votes, and the president is proud that I represent my district," Mr. Donovan said in an interview. "My opponent can't win a general election."

Some political observers agree. If Mr. Grimm wins the primary, that will make the general election more competitive for the Democrats, said Steven Greenberg, a pollster with Siena College. "I think the Democrat comes in as the underdog under either scenario, but I think conventional wisdom is probably right here," he said.

Brendan Lantry, chairman of the Staten Island Republican party, said Mr. Donovan, who focused on reducing gun violence as a district attorney and helped close a landfill in the borough, has been a stellar congressman.

Newcomer Challenges Crowley in Congress

BY KATIE HONAN

Democratic Rep. Joe Crowley will face his first primary in 14 years on Tuesday.

Mr. Crowley, who heads the House Democratic Caucus and the Queens Democratic Party, has represented New York's 14th congressional district since 1999. His opponent, Alexandria Ocasio-Cortez of the Bronx, didn't work her way up through political clubs and has never held office. Her campaign to unseat the 56-year-old incumbent has relied on grass-roots canvassing, endorsements from national left-leaning organizations and an active online presence.

Ms. Ocasio-Cortez, a 28-year-old born in the Bronx whose family is from Puerto Rico, is challenging Mr. Crowley's position as leader of one of the most diverse congressional districts in the country. The district, which covers part of the Bronx and of Queens, is

Democrat Alexandria Ocasio-Cortez is trying to unseat Rep. Joe Crowley in primary.

overwhelmingly Democratic, and the majority of residents are black and Hispanic, according to the U.S. Census Bureau.

"I didn't feel that he was doing anywhere near what a rep for the district should be doing," said Ms. Ocasio-Cortez, who has worked as an educational director and an immigration and foreign-affairs liaison for the late Sen. Edward Kennedy.

She launched her campaign in May 2017, expressing her positions, including expanding Medicare and abolishing Immigration and Customs Enforcement, on social media. She received endorsements from national groups such as the Black Lives Caucus and MoveOn.

"The local issues facing New Yorkers are facing many, many Americans," she said. "Voters are concerned about housing, they are concerned about immigration, they're concerned about health care."

Crowley campaign spokeswoman Lauren French said Mr. Crowley would continue to fight for his constituents. "The people of Queens and the Bronx have elected Joe Crowley to represent them in Congress each and every time his name has appeared on the ballot," she said. "This year will be no different."

Ms. Ocasio-Cortez said her online presence supplements her grass-roots work. "We've built this campaign from the bottom-up," she said. "All of the national support we've received so far is really channeled in amplifying our efforts on the ground and helping our local supporters."

Whether it can lead to upset on Tuesday in the Democratic primary is unknown. Mr. Crowley has the backing of major unions, as well as Planned Parenthood and the Women's Equality Party.

"The power of incumbency is so strong," said Brian Browne, who teaches government and politics at St. John's University in Queens. "Joe Crowley probably has more of his constituent phone numbers in his cellphone than Alexandria has in her targeted voter list."



People attended the 49th annual Pride March in New York City on Sunday. Below, fire department personnel and passersby cheered as a couple got engaged.

Pride March Heads in a Different Direction

BY CHARLES PASSY

The 2018 NYC Pride March kicked off Sunday afternoon with a promise to celebrate the LGBTQ community in all its "defiantly different" attitudes and perspectives.

But perhaps the most unusual element of this year's march, which was expected to draw as many as two million attendees, was the route itself.

In the past, the march, run by the Heritage of Pride organization, has started on Fifth Avenue in Midtown and worked its way south to Greenwich Village, often celebrated as the birthplace of the gay-rights movement.

This year, organizers chose a j-shaped route that began in Chelsea on 16th Street and Seventh Avenue, then went

downtown to Greenwich Village before circling back up town along Fifth Avenue.

The change, said Heritage of Pride spokesman James Fallarino, was to speed the flow of the march by keeping it moving largely along major thoroughfares. Another key advantage to the new route, he said, is that the end point at 29th Street and Fifth Avenue is near a host of transportation options, including Penn Station.

In many ways, the moves were made with an eye to preparing for next year's march, when the city will simultaneously play host to WorldPride, a global gathering of the LGBTQ community, to tie in with the 50th anniversary of the uprising at Greenwich Village's Stonewall Inn, which was a grand marshal of this year's event.

the gay-rights movement.

Mr. Fallarino said attendance at the 2019 march is expected to soar. "We are preparing for five million people."

Still, not everyone considered the new route a plus. Ken Kidd, a gay-rights activist who lives in Manhattan, said it was important that the march end in Greenwich Village because of that neighborhood's historic significance. The new route is "a march to nowhere," he said.

Regardless of the routing, the march continued with its tradition of welcoming a wide range of participants. Among the groups that led the way were the Sirens Women's Motorcycle Club and Scouts for Equality. Also at the front: Tennis great and gay-rights advocate Billie Jean King, who was a grand marshal of this year's event.

The Democrat said on Saturday that the state would help find licensed care providers to house the children while they await reunification.

In a letter to Health and Human Services Secretary Alex Azar sent Friday, Mr. Malloy pressed the federal government to move quickly to reunite families separated by President Donald Trump's "zero-tolerance" detention policies.

The governor has criticized the Trump administration for their "inhumane practice" of separating children from their fami-

lies, equating the policy to "government-sanctioned child abuse."

On Wednesday, Mr. Malloy said at least two children separated from their parents were brought or were in the process of being brought to Connecticut.

—Associated Press

CRIME

NYPD Investigating Fatal Teen Shooting

The New York Police Department said it is investigating the

death of a Bronx teenager who was found with a gunshot wound to his chest.

Police said they found the 18-year-old at the intersection of Ward and Watson avenues in the Bronx at about 5 p.m. on Saturday after they responded to a 911 call.

The victim, identified as Robert Williams, was taken to a nearby hospital, where he was pronounced dead, officials said.

No arrests have been made, police said.

—Associated Press

GREATER NEW YORK WATCH

REAL ESTATE

SL Green to Buy Stake From HNA

SL Green Realty Corp. is buying a stake in the office building at 245 Park Avenue from HNA Group Co., a Chinese conglomerate that has been under pressure to sell its assets, according to people familiar with the deal.

The price SL Green is paying and the size of the stake couldn't be determined. SL Green will have operating control of the

property and a preferred position in the joint venture, according to a person familiar with the deal. The SL Green deal is expected to close in multiple stages, according to one of the people.

HNA bought the 1.8 million square-foot tower last year for \$2.21 billion, among the highest prices paid for a Manhattan office building.

HNA has been looking to shed a large portfolio of commercial properties in New York, London and other major cities, sharply reversing its buying

spree in recent years.

SL Green, a real-estate investment trust, is the largest office-building owner in New York.

—Keiko Morris

CONNECTICUT

State Will Help Feds With Migrant Children

Gov. Dannel Malloy is offering state resources to help the U.S. Department of Health and Human Services with migrant children separated from their parents.

The Democrat said on Saturday that the state would help find licensed care providers to house the children while they await reunification.

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—Associated Press

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September 26, 2018 | New York, NY

October 15, 2018 | New York, NY

October 17, 2018 | Orlando, FL

November 2018 | Laguna Beach, CA

December 11, 2018 | New York, NY

March 27, 2019 | New York, NY

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LIFE & ARTS

TURNING POINTS | By Clare Ansberry

A Family's Late Reckoning With Drinking

YVONNE MIRILOVICH came home from work in January 2016 and found her mother drunk while babysitting her two young daughters.

"I just lost it. I screamed at her. I called her a monster. She just stared at me with a blank face," says Yvonne, who is 39 and lives in Limerick, Pa. She told her mother, then 64, that she wanted her out of the house and not around her children.

"That was when it finally sank in. Wow. I guess this really is an issue and I better do something about it," says her mother, Elaine Kurtz, of Orefield, Pa. "The more I learn and look back at some of the things that occurred in the past, I think 'What have I done?'"

That afternoon was the first step in getting Ms. Kurtz, who had a longtime addiction that spiraled out of control when she got older, the help she needed. "It was always the elephant in the room," says Robbyn Svetetz, her oldest daughter. Talking to her own teens about the dangers of substance abuse was easier than talking to her mother. "With my own kids, I'm the grown-up," she says.

Substance abuse is rising among older adults, and their children are often at a loss about what to do. The number of Americans 65 and older abusing drugs and alcohol is expected to double to 5.7 million by 2020, according to the Substance Abuse and Mental Health Services Administration, a branch of the U.S. Department of Health and Human Services.

Experts note that about 10,000 people turn 65 each day. Many feel lost and lonely when the children are gone and they are no longer working. They may begin feeling chronic pain and rely on prescription drugs. Older adults can't handle as much alcohol as they once did, so problems can develop without consumption habits changing. Widowers over the age of 75 have the highest rate of alcoholism in the U.S., according to the National Council on Alcoholism and Drug Dependence.

Their adult children aren't sure if shaky hands, fatigue and forgetfulness are signs of normal aging or something else. Even if they suspect substance abuse, nearly one-third of adult children aren't comfortable discussing it with their parents, according to an online survey of 1,055 Americans commissioned by WellCare Health Plans, which provides government-sponsored managed-care services.

The survey, released in March, found that 22% of adult children feared angering their parents. One in five said they don't know how to start the conversation. One approach, says Mark Leenay, chief medical director of WellCare, is to

focus on the impact of drugs or alcohol on their parent's safety and ability to function, rather than taking a more confrontational tone.

Eileen Warren of Hopkinton, Mass., says addiction runs in her family. Her father was a high-functioning alcoholic who loved scotch and only drank at home. Her brother and daughter died of fentanyl poisoning. She suspects some older extended family members drink too much and abuse pain medications, and has discussed concerns with other relatives. No one wants to say anything.

In a big family, she says, it's hard to get everyone to agree. "Half say leave them alone. As long as they aren't driving."

Sharon Matthew, clinical director of the older adult program at Caron Treatment Centers in Wernersville, Pa., says 70% of her patients never sought treatment, but develop problems, often after experiencing a loss.

Alcohol is the drug of choice, followed by benzodiazepines such as Valium. "It's not about getting high. It's about wanting to feel better emotionally or physically," she says.

She has one 90-year-old patient and is often asked why she treats a person that age. She responds, "Because they are no longer living a quality life. What time we have on earth, we need to have purpose and quality of life." Most referrals, she says, come from adult children. Many older adults agree to treatment because, like Elaine, they are afraid of being cut off from their family.

Elaine's daughters remember their mother drinking when they were children. Yvonne recalls being the last one picked up at softball practice because her mother drank too much and lost track of time. Robbyn says she quit inviting friends over. In college, she wouldn't answer her mother's calls after 9 p.m.

Elaine says she didn't know these things. "To me everything seemed normal. I didn't see it as a problem," she says.

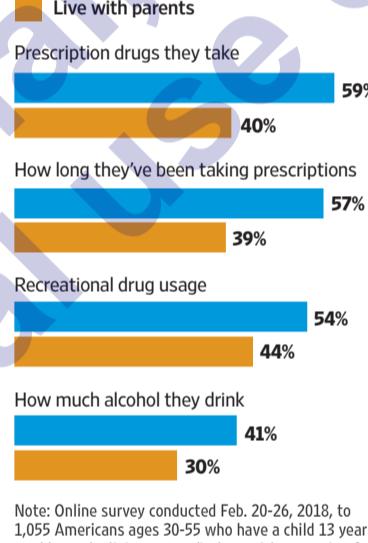
When her children moved out and started their own families, she started drinking more. Her husband worked long hours at their family carpet business. She taught



JESSE NEIDER FOR THE WALL STREET JOURNAL

In the Dark

Many U.S. adult children say they know little or nothing about their parents' behaviors of substance abuse:



Note: Online survey conducted Feb. 20-26, 2018, to 1,055 Americans ages 30-55 who have a child 13 years or older and a living parent/in-law, with a margin of error of plus/minus 3.1%.

Source: WellCare Health Plans Inc.

THE WALL STREET JOURNAL.

Elaine Kurtz, above right with her daughter, Yvonne Mirilovich, and left with her grandchildren, got treatment for alcoholism after years of abuse.

recalls. Yvonne drove her mother home that night and ignored her texts. She contacted her brother, sister and dad, said something had to be done, and began calling treatment programs, including Caron. On their advice, she wrote notes on index cards about what to say to her mother, called and asked: "Are you ready to let me get the help you need? I know you won't do it yourself."

Her mother, to her shock, said yes. "I knew at that point she had had it," Elaine says. "She had said the magic words. 'I don't want you around the girls anymore.'"

A few weeks later, Elaine entered a 45-day older-adult treatment program at Caron. Her children, husband and two grandchildren wrote her letters. Her then-14-year-old grandson described how they used to have fun playing miniature golf and having Nerf ball fights. She recalls the note ending with him saying he wanted his fun grandma back.

Yvonne was hopeful, but afraid her mother would drop out or was just going along to get everyone off her back. Even after Elaine completed the program and continued her weekly counseling sessions, Yvonne wouldn't leave her alone with her daughters. Just before Elaine's 65th birthday, Yvonne called and asked if she wanted to go apple picking with her daughter's class. "What a birthday present to have them back in my life and to have Yvonne trust me to be around them without her around," Elaine says.

Yvonne says she and her mother are close, but traces of hurt and anger remain. "I don't know if that will ever go away. But we now have an incredible relationship."



part-time. Instead of coming home from teaching, she stopped at happy hour. When she went to family gatherings, she brought two or three ice tea bottles filled mainly with vodka. Her greatest fear, she says, was that her family would discover how much she was drinking and try to make her quit.

Her daughters didn't think their mother would stop, but they still wanted her to be a part of their families. Robbyn says her mother is a tenderhearted grandmother who played cards in the hallway and football in the backyard with the children. "I didn't want them to not have her in their life," she says.

Yvonne felt the same way. When she had the first of her two girls, Elaine babysat two days a week. She helped out for years without any apparent issues.

Things started unraveling for Elaine in 2015, when her mother and mother-in-law died. A few

months later, Elaine sold her share of the carpet business that her father had given her. Although she didn't work there, she was distraught over the sale and felt she was letting her father down.

Shortly after the sale, Yvonne came home from work, found her daughters on iPads and her mother slumped on the couch crying. She remembers asking her mother what was going on. "Then I thought, 'Oh my gosh.' For the first time I thought, 'Does she have alcohol in this house? I can kick myself for being so stupid.'" She rushed upstairs, upended her mother's purse, found the ice tea bottle and yelled for her mother to come upstairs.

"It was quite a scene," Elaine

INFLUENCERS

BACK TO THE SPOTLIGHT AFTER 'WINTER'S BONE'

BY CARYN JAMES

DEBRA GRANIK seemed to come out of nowhere with her 2010 film, "Winter's Bone," the story of a young woman holding her family together in the backwoods of the Ozarks. Made for only \$1.8 million, it gained four Oscar nominations, including Best Picture and Best Actress for the then-unknown Jennifer Lawrence.

That kind of success can make the doors of Hollywood fly open, but Ms. Granik chose a different path. Eight years on, she is returning with another independent, modestly budgeted drama, "Leave No Trace," distributed by Bleecker Street and opening June 29.

In the new film, made for less than \$5 million, Ben Foster plays a veteran with post-traumatic stress disorder who lives off the grid with his teenage daughter (Thomaston McKenzie) in a nature preserve just outside Portland, Ore. Based on a novel inspired by ac-

tual events, the film displays the style that runs through Ms. Granik's features: a drama about the socially dispossessed, rooted in strong family emotions and depicted with near-documentary realism. Like "Winter's Bone," it was written by Ms. Granik and her producing partner, Anne Rosellini.

Ms. Granik, who is 55, grew up in a suburb of Washington, D.C., and lives in New York City.

"I am a slow turtle," Ms. Granik said. "I like to think it's not because of an impairment, it's more that it's my job description. Social realism takes research." She talked about navigating her career outside the Hollywood system. Here are edited excerpts:

"Leave No Trace" is based on Peter Rock's novel, "My Abandonment." When you started on the film, what came first, the script or the research?

It's kind of a test when you read a novel thinking about its poten-

tial for the screen: How does it play on your mind's screen? There were tall trees, 99 shades of green, this very observant child-woman with a dad who has a tempest in him. It was all in there, not to mention the mystery of: How does a family in contemporary society live undetected in a public park for so long?

We asked a ranger: Can you show us where some people that you knew of lived undetected? We talked to social workers and detectives. How do you approach a teenager who you think is a runaway at a bus station?

After the success of "Winter's Bone," what reaction did you get in Hollywood?

People buzz around what the next "It" thing might be. They call and have projects. There was one spate where films about women were being sent to us, and the woman's triumph was to stop cutting herself, or to get released from a psych ward. I was so saddened.

We got a bunch of weird things where the stakes revolved around a missing or dead child. Or to get financing you could pick the lead from these three A-list people. I realized after awards season, thank you for having these conversations with me, but I have to go home. I have to go East and function in my Please turn to page A12



Director Debra Granik is out with a new drama, "Leave No Trace".

THOMAS LAINÉ/CONTOUR/GETTY IMAGES

LIFE & ARTS



FROM TOP: THIRD PILLAR VR AND PLASTIC DEMO; VAN LERIE COLLECTION, BRUSSELS; VINCENT EVERBARTS

ART REVIEW

Utopia in Miniature

BY PETER PLAGENS

New York

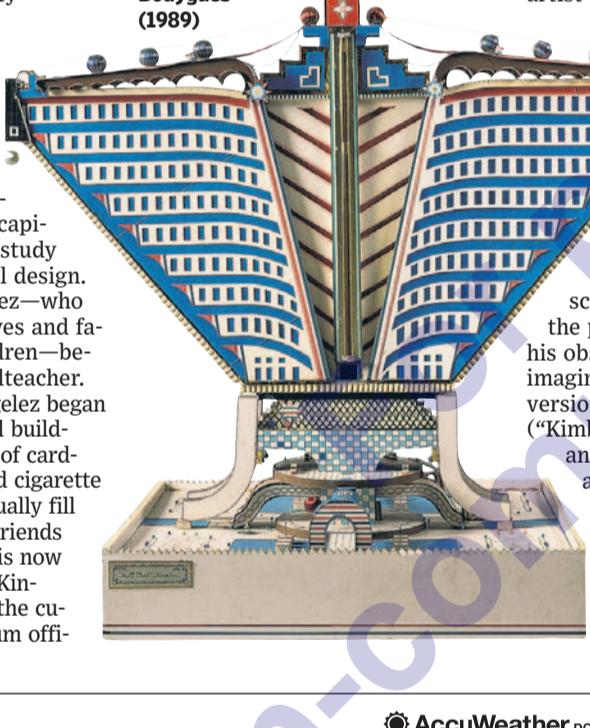
AN OLD ARTIST'S bumper sticker said, "When Outsiders are Insiders, only Insiders will be Outsiders." At first gobsmacked glance, the "extreme maquettes" (as the artist called them) of tabletop make-believe cities by Bodys Isek Kingelez (1948-2015) appear to be the products of an artist inhabiting both categories at once. They look like acid-trip models of Las Vegas made out of toothpaste packaging and the like, done with the ironic folksiness of Red Grooms. They're on view at the Museum of Modern Art in "Bodys Isek Kingelez: City Dreams."

Kingelez was born in the village of Kimbembe-Ihunga in what was then the Belgian Congo (now Democratic Republic of Congo). An excellent student, he traveled to the capital, Kinshasa, in 1970 to study economics and industrial design. After graduation, Kingelez—who eventually had three wives and fathered a number of children—became a secondary schoolteacher.

In his spare time, Kingelez began making the kind of model buildings—from paper, pieces of cardboard, colored plastic and cigarette packs—that would eventually fill up his imaginary cities. Friends urged him to go to what is now the National Museum of Kinshasa and show them to the curators. He did, but museum offi-

cials, not believing Kingelez had made them by himself, asked him to make more on site. They were so impressed by what they saw that Kingelez was offered not what he wanted—an immediate show—but a job as a conservator of tribal art. Later, after his own work had acquired a bit of an international reputation, he refused to have anything to do with the local art world—determined, it seems, to be an outsider somewhere.

At the same time, he spoke five languages, and in 1989 six of his



maquettes were included in perhaps the most influential anthology of contemporary art since the famous Armory Show in New York in 1913: "Magiciens de la Terre," at the Centre Pompidou in Paris. This exhibition did for the visibility of non-Western artists in Europe (and America) what the Armory Show had done for early European modernists in the U.S. Several years later, Kingelez became the subject of solo museum exhibitions in Berlin, Hamburg and Brussels, as well as Houston, Texas. This exhibition at MoMA is, however, the first full-blown Kingelez retrospective in the U.S., and with 33 works, it includes a third of all the metropolises the artist ever made.

The centerpiece in a show almost entirely of centerpieces is "Ville Fantôme" (1996). Seven feet wide by 18 feet long, and comprising some 50 buildings, as well as its own airport and a golden skyscraper with "USA" on top, the piece required two years of his obsessive labor. Kingelez even imagined an urbanized, utopian version of his home village ("Kimbembe Ville," 1992), and an AIDS hospital (1991) that's as attractive as a Swiss resort. "Sparkling," "colorful," "intricate" and "inventive" are so inadequate in describing his work that one is tempted to drag out that overused compliment

Screen capture of a virtual reality tour of Bodys Isek Kingelez's 'Ville Fantôme,' above

in contemporary arts commentary: "amazing."

Yet it is amazing. And it is even more astonishing that Kingelez made no preparatory drawings or plans. That fact, along with what curator Sarah Suzuki describes as the artist's "tenderness toward objects" (each building is a product of real artistic affection), as well as his economic optimism (no real city is as clean, colorful and prosperous as those in Kingelez's art), make the work euphoric.

In proportion, viewer flow, access to all angles of vision, and ingenious overhead mirrors, the installation by German artist Carsten Höller is high-grade, although the amoeba-shaped platforms and slow turntables for some works are unnecessary.

An insider's outsider, Kingelez saw himself as a "small god" and said that no one—since the beginning of time—has had a vision like his. In modern art alone, Simon Rodia's Watts Towers, James Turrell's Roden Crater and Maya Lin's Vietnam War Memorial were all made by artists with equally grand visions. But none has been as compellingly cheerful as that of Bodys Isek Kingelez.

Bodys Isek Kingelez: City Dreams
Museum of Modern Art, through Jan. 1, 2019

Mr. Plagens is an artist and writer in New York.

Returning to The Spotlight

Continued from page A11
home genre, which is social realism. I wasn't angry, I didn't feel excluded. It was more of a Bartleby moment: I prefer not to.

While you were trying to get other projects going, did you have to earn a living?

"Winter's Bone" has financed [our small production company] in a very modest way. It doesn't allow us to do too much, but we can make phone calls, we can research.

What advice would you give an aspiring independent filmmaker?

Make your film for the least amount you can. The model on the West Coast is that it has to please as many people as humanly possible.

If there's a nebulous moment in your film you might have to explain it. You might have to have the female take off a lot of her clothing. There are all these rules that they claim amplify the profit. But if you make your film for less, you don't have those rules in play. A big part of the equation for "Winter's Bone" was making it for so little that we owe nobody. We had a guaranteed loan and were able to pay it back.

Who Is She?

Name: Debra Granik

What She Does: Independent feature and documentary filmmaker

How She Got There: She attended the graduate film school at New York University. Her short "Snake Feed" was developed into her first feature, "Down to the Bone" (2004), with the help of the Sundance Institute.

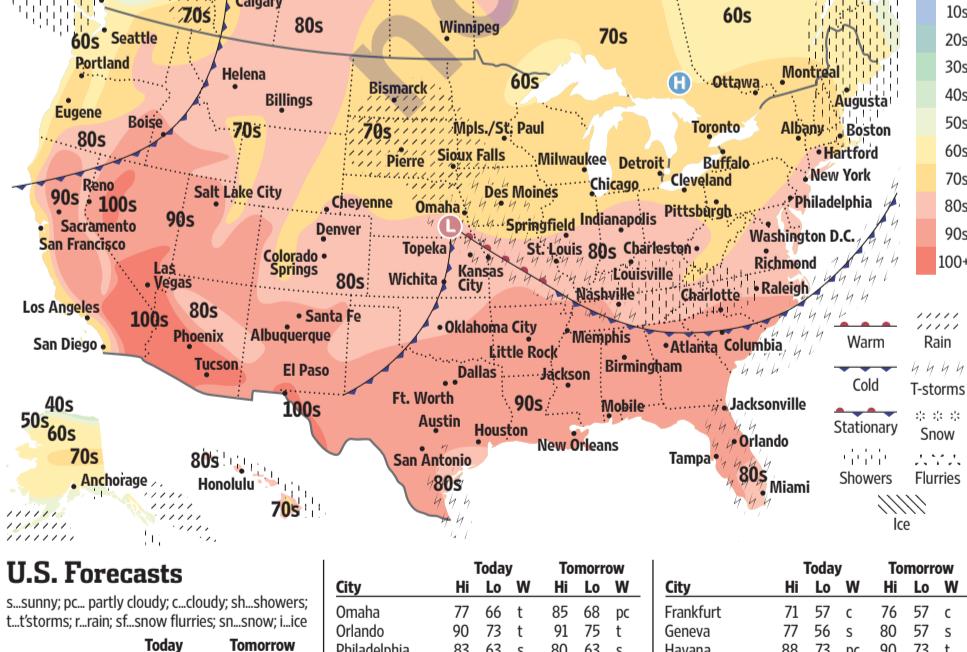
Her Big Break: "Winter's Bone" broke through to the Oscar race, made a star of Jennifer Lawrence and earned over \$13 million.

Her Obsession: "I tend to be a worrier, so one of my obsessions is to constantly list in my notebook something that I think is solidly optimistic or good, these very banal rays of hope."



Thomasin McKenzie and Ben Foster star in Ms. Granik's new film.

Weather



U.S. Forecasts

s...sunny; pc...partly cloudy; c...cloudy; sh...showers;

t...storms; r...rain; sf...snow; sn...snow; Li...ice

Today Hi Lo W **Tomorrow** Hi Lo W

City Anchorage 62 50 c 63 49 c

Atlanta 94 74 t 92 75 t

Austin 93 76 pc 97 74 pc

Baltimore 82 60 s 80 64 pc

Boise 95 55 pc 84 58 s

Boston 71 58 sh 73 61 s

Burlington 73 50 pc 78 58 s

Charlotte 91 71 pc 85 67 c

Chicago 78 65 pc 83 69 t

Cleveland 75 59 s 83 71 pc

Dallas 96 78 pc 97 78 pc

Denver 86 58 pc 82 62 s

Detroit 78 59 s 78 69 pc

Honolulu 87 76 sh 87 76 sh

Houston 92 78 pc 92 74 pc

Indianapolis 83 68 pc 84 72 t

Kansas City 81 68 t 89 71 t

Las Vegas 108 84 s 109 84 s

Little Rock 93 76 pc 94 75 s

Los Angeles 78 60 pc 79 62 pc

Miami 87 76 pc 89 76 t

Milwaukee 70 62 pc 75 66 t

Minneapolis 77 65 r 76 63 r

Nashville 88 72 t 94 74 t

New Orleans 91 78 s 90 76 t

New York City 81 62 s 77 63 s

Oklahoma City 86 72 pc 94 75 s

Today Hi Lo W **Tomorrow** Hi Lo W

City Amsterdam 70 53 c 71 54 c

Athènes 82 66 pc 78 65 t

Baghdad 109 83 s 112 83 s

Bangkok 95 80 t 91 79 t

Beijing 95 71 c 93 72 s

Berlin 72 54 pc 74 55 pc

Brussels 74 54 c 75 56 s

Buenos Aires 56 38 s 63 43 pc

Dubai 100 85 s 100 86 s

Dublin 73 53 pc 71 53 pc

Edinburgh 75 50 pc 70 53 pc

Today Hi Lo W **Tomorrow** Hi Lo W

City Frankfurt 71 57 c 76 57 c

Geneva 77 56 s 80 57 s

Havana 88 73 pc 90 73 t

Hong Kong 86 78 t 87 80 t

Istanbul 79 72 c 81 71 t

Jakarta 88 76 sh 88 75 t

Jerusalem 83 64 s 85 65 s

Johannesburg 65 39 s 63 40 s

London 83 58 s 81 54 s

Madrid 100 70 s 99 71 pc

Manila 90 78 t 90 78 t

Melbourne 56 40 pc 57 41 c

Mexico City 74 57 t 74 57 t

Milan 83 63 pc 84 63 pc

Moscow 70 54 c 76 58 pc

Mumbai 86 79 r 86 80 sh

Paris 77 57 s 80 59 s

Rio de Janeiro 83 70 s 87 69 s

Riyadh 106 81 s 108 83 s

Rome 80 61 t 83 62 pc

San Juan 88 79 pc 90 78 t

Seoul 88 70 pc 79 70 r

Shanghai 94 81 t 97 82 pc

Singapore 84 79 c 85 76 c

Sydney 64 48 s 64 51 s

Taipei City 90 77 c 91 76 t

Tokyo 85 71 s 83 74 c

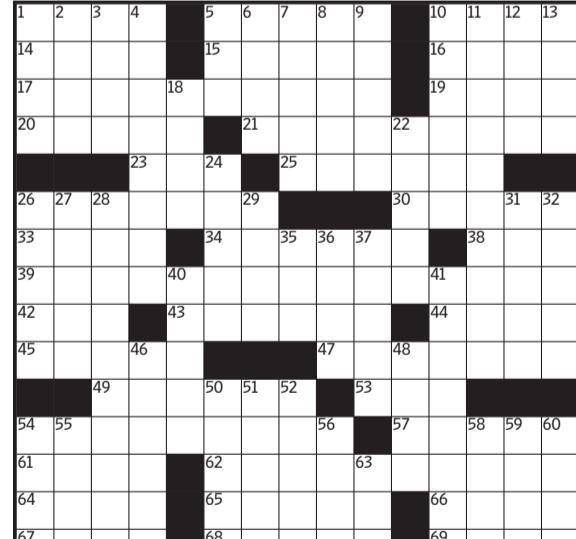
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Vancouver 67 54 sh 67 52 pc

Warsaw 62 49 t 68 53 t

Zurich 73 51 pc 77 54 pc

The WSJ Daily Crossword | Edited by Mike Shenk

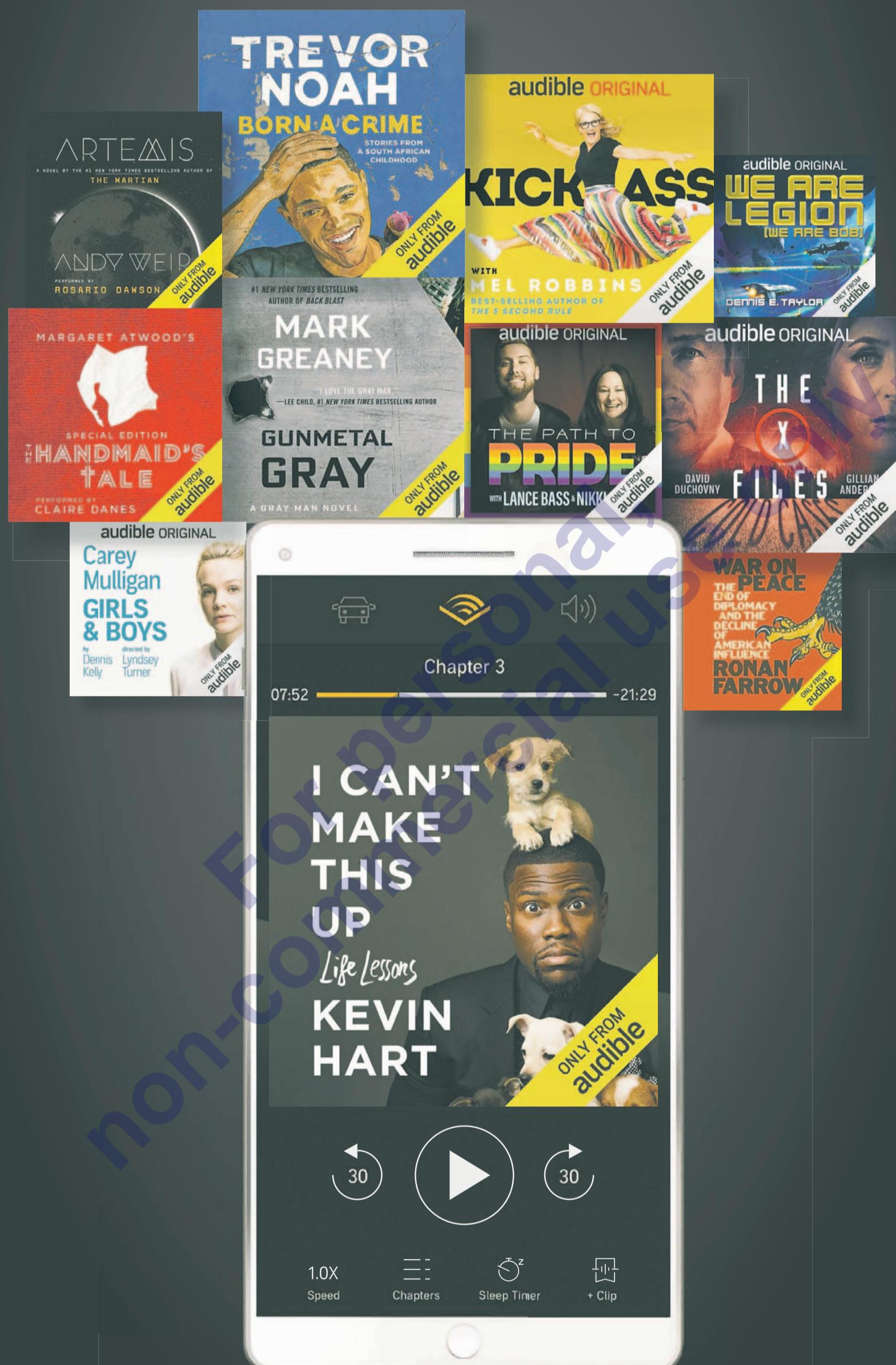


KP DUTY | By Aaron L. Peterson

- Across**
- 1 1970 movie "Diary of a Housewife"
 - 5 Black key next to G
 - 10 Carpet choice
 - 14 Protected from danger
 - 15 Capital of the Bahamas
 - 16 Muscle quality
 - 17 Makeup of many shopping bags
 - 19 Abbr. on memos and fax cover pages
 - 20 Theater backdrop
 - 21 Hearty pub fare
 - 22 German steel center
 - 24 Binary type of question
 - 26 Encrusted
 - 27 Without help
 - 28 Seedy spot?
 - 29 Nighttime bugle call
 - 31 Edmonton hockey player
 - 32 Arctic explorer Robert
 - 35 Guitarist Paul
 - 36 Get years
 - 37 Leg-revealing garments
 - 38 Sprechen Deutsch?
 - 40 Accepted without question
 - 41 Dictation need
 - 42 Finish
 - 43 Add without extra cost
 - 44 Layer
 - 45 "Robinson Crusoe" writer
 - 46 Yellow flowers resembling daisies
 - 47 You almost got away with it!
 - 49 Oozes, as charm
 - 53 Pride or gluttony, for example
 - 54 Quaint schoolboy's wear
 - 55 November birthstone
 - 56 Wood used for paneling
 - 57 November birthstone
 - 58 Strong cotton variety
 - 59 Shortly, in poetry
 - 60 "The Wizard of Oz" farmhand
 - 61 Intense chase of a fleeing suspect
 - 62 Cousins of

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SPORTS

WORLD CUP

HOW THE GROUPS SHAKE OUT

BY JOSHUA ROBINSON

MOSCOW—The World Cup is nearly two weeks old and for some the party is about to end. As we head into the third round of group-stage games, things are starting to clear up as half the field prepares to pack their bags while the other 16 teams move on to the knockout stages.

Here are the winners, losers, and downright irrelevants so far:

Time for Caviar

The World Cup could not have started better for the hosts. With two wins from two matches in Group A, **Russia** is already guaranteed a spot in the Round of 16, as is **Uruguay**. Those two will meet on Monday to see who tops the group. The same situation is unfolding in Group G, where **England** and **Belgium** are both perfect through two games and play each other on Thursday.

The only other sides with records as polished as the Moscow Metro are **France**, which is in charge of Group C but could still be unseated by **Denmark**, and **Croatia**, which stomped Argentina and dismissed Nigeria, to take command of Group D.

Time for Vodka

Speaking of Group D. Everyone but Croatia may need a little extra fortitude to survive their last day of group play on Tuesday. Lionel Messi's **Argentina** is a basket case with just one point, but could still advance if it beats **Nigeria** and **Iceland** loses to Croatia. A Nigerian victory, however, would knock out Argentina and Iceland in one fell swoop. The booby prize for whichever team scrapes together to finish as Group D's runner-up is a likely matchup with **France**.

Chasing Les Bleus in Group C is **Denmark**, which needs only a draw against France to punch its ticket to the last 16. That leaves **Australia** on thin ice. The team needs to beat **Peru** comprehensively and hope Les Bleus do the same to Denmark.

In Group B, meanwhile, the soc-

cer bourgeoisie is a little safer. **Spain** and its Russian-doll squad of nearly identical playmakers sits on four points, the same total as Cristiano Ronaldo's **Portugal**, the tournament's Fabergé Egg (shiny but fragile). Spain meets already eliminated **Morocco** and is set to win the group. Portugal is also favored to advance, but faces a more stubborn test against a well-organized **Iran** team that snatched a victory in its first match.

It's impossible to talk about soccer bourgeoisie, though, without mentioning **Brazil**. After a draw with **Switzerland** and a victory against **Costa Rica**, the five-time champions sit top of Group E, ahead of the Swiss on goal difference. Their finale is against **Serbia**, which has three points. Switzerland has a chance to win the group if it racks up the goals against bottom side Costa Rica.

Group F is a little more complicated. After a loss to **Mexico** in its first game, **Germany** is proving harder to kill off than Rasputin. The Germans recovered with a last-gasp winner against **Sweden** to put themselves on the verge of the next round if they can beat **South Korea**. A point against the Swedes will be good enough for Mexico to finish first. But with Germany looking back in form and heading for a total of six points, Sweden really needs a win against El Tri for any hope of advancing.

And finally, Group H is locked tighter than the Kremlin with **Japan**, **Senegal** and **Colombia** all in the mix before their last games. Japan and Senegal both have four points. They play **Poland** (zero points) and Colombia (three points) respectively.

Time for the Airport

The eight teams without a single point might want to consider boarding the trans-Siberian Express and never looking back. Already mathematically eliminated from the World Cup, they might as well skip their third games. At this World Cup, **Egypt**, **Saudi Arabia**, **Morocco**, **Peru**, **Costa Rica**, **Tunisia**, **Panama** and **Poland** are heading for the ash heap of history.



DENIS CHERYSHEV STARTED RUSSIA'S OPENER AGAINST SAUDI ARABIA ON THE BENCH, BUT LEADS THE TEAM WITH THREE GOALS.

Russian Soccer Gets Spanish Influence.

Denis Cheryshev spent most of his life in Spain—and he plays like it

BY JOSHUA ROBINSON

Moscow

As the home team at this World Cup, Russia has taken great pride in the sheer Russian-ness of its squad.

While other squads relied on their nations' diasporas to enlist better players and talent scattered across the globe, the team they call the Sbornaya could brag about being more Russian than onion domes and nesting dolls. Only one member of Russia's squad was born outside the country's borders and 21 of its 23 players plied their trade over here.

None of that, however, is why the team is exceeding expectations at this tournament and already heading to the round of 16. Because Russia's secret weapon, in fact, is the guy who hasn't lived here since kindergarten. His name is Denis Cheryshev. He speaks the language with a Spanish inflection. And at this World Cup, he is Russia's very own foreign agent.

Heading into Russia's third match, against Uruguay on Monday, Cheryshev already has three goals, as many as Spain's Diego Costa. The most surprising thing about them is that he wasn't even supposed to be on the field to score them. Cheryshev started Russia's opener against Saudi Arabia on the bench. He was only deployed to replace Alan Dzagoev who limped off injured and then plugged the hole in the lineup for the second match against Egypt.

"Cheryshev was no accident," Russia manager Stanislav Cherchesov said. "I know his qualities. I know what he's capable of."

Though he was born in Nizhny Novgorod, east of Moscow, Cheryshev moved to Spain when he was 5 after his father, a professional soccer player, signed with Sporting Gijon. The elder Cheryshev stayed at the club through the late 1990s and the family put down Spanish roots.

While they spoke Russian at home, Denis attended local schools and learned his father's game from local coaches. Which was far from the worst thing for him. There might have been no better place in the 1990s for a soccer education than Spain, where kids grow up with the ball at their feet and a Ph.D. in tactics.

It was enough to mold Cheryshev into a typical Spanish player. Like so many others who rolled off the Iberian soccer conveyor belt, he is a gifted attacker who exists most effectively in the space between central midfield and the striker's position. He likes to drift across defenders, shoots with both feet, and loves to sprint in a flourish of skill.

So as he progressed through Real Madrid's famed youth academy, there was little besides his blue eyes and the name on his jersey to blow his cover. There was even talk during his days as a twinkle-toed prospect of calling him up to Spain's Under-21 team. That persisted until well after he made his debut for Russia's Under-21s, since soccer rules would have allowed him to switch allegiances as long as he didn't play a match for his native country at senior level. Cheryshev himself admitted that he was thinking about it.

"I do not close the doors on [representing] Spain at all," he

told the Spanish sports daily Marca in 2011. "In fact, I consider myself more Spanish than Russian because I have been living in Spain all my life, even though I was born in Russia. But of course I have a part of myself that is Russian: the name."

Once he committed to the Russian national team for good, Cheryshev would soften his stance a little, finding more that his ties ran deeper than his name.

"My character is Russian, quite cold," he told *El País* in 2014, but "my behavior is Spanish, because I enjoy talking to people a lot."

The Russians collectively ran over 73 miles in their opener and 71 in their second match as they pressed opponents into submission. But those breathless performances have raised questions. The last time Russia hosted an event of this magnitude—the Sochi Olympics in 2014—the home nation's athletes were embroiled in a doping controversy.

Four years later, Cherchesov has dismissed the possibility that the same could happen to his team. To him, the Sbornaya's performance is a matter of hard work and good timing.

"To be good is one thing," Cherchesov said. "To be good at the right time and place is another thing altogether."

TV Schedule

Monday, June 25
(All times Eastern)
10 a.m.: Uruguay vs. Russia (FOX)
Saudi Arabia vs. Egypt (FS1)
2 p.m.: Spain vs. Morocco (FS1)
Iran vs. Portugal (FOX)



TONI KROOS SCORED A GAME-WINNING GOAL FOR GERMANY ON SATURDAY.

ENGLAND LOOKS SET TO MAKE A RUN—SERIOUSLY

BY JONATHAN CLEGG

Nizhny Novgorod, Russia

Late in the second half, as England comfortably knocked the ball around, winding down the clock at the end of a crushing win that locked up a berth in the World Cup's knockout round, a nagging thought began to take hold.

What have they done with the real England team?

Results like Sunday's 6-1 rout of Panama aren't supposed to happen to England at the World Cup. Clinically dispatching a lower-ranked opponent, putting the game to bed before halftime, picking up three points and a hatful of goals, that is what Germany or Brazil does.

But a late goal and an eye-catching win in its opening game in Russia had hinted that England may have been ready to shed its reputation as the great chokers of the international game. Now this demolition of Panama has raised the possibility that it may even be ready for a new title: World Cup contender.

"With the squad we've got and the confidence flowing, I don't see why not," midfielder Jesse Lingard said afterward, when asked if England was now a threat to lift

the trophy. "There's a great team spirit at the moment, a lot of positivity to take into the next game."

Granted, it will take a lot more than this drubbing of the world's 55th-ranked team to give the rest of the World Cup field sleepless nights. But there was enough on show on a sticky afternoon at the Nizhny Novgorod Stadium to suggest England will trouble the world's best teams, not least the form of its captain and star striker, Harry Kane.

Kane followed up his two-goal performance in England's opening match with a hat-trick here, converting two penalty kicks in the first half, and adding a third goal—England's sixth of the afternoon—when a long-range effort from Ruben Loftus-Cheek in the second half struck his heel and ballooned into the Panama net.

"There's a long way to go but it's going well," Kane said of his ambition to finish as the tournament's top scorer. "I've always said that the most important thing is that the team gets the win, but if my goals help my team win, that's the perfect situation."

The other thing that will alarm England's upcoming opponents, beginning with Belgium on Thursday in a game that will determine which of those teams advances in first place, is its devastating proficiency



ENGLAND CAPTAIN HARRY KANE, LEFT, SCORED THREE GOALS IN A 6-1 VICTORY OVER PANAMA ON SUNDAY.

at set pieces.

No team in the tournament has looked as dangerous from dead-ball situations. Both goals in England's opener against Tunisia came from corner kicks, and so did the opening goal here, when Kieran Trippier's delivery was met by John Stones unmarked in the center of the penalty area,

who headed England into a eight-minute lead.

"We've identified that as a key area," England manager Gareth Southgate said afterward. "No matter how much you control the game and control possession, in tournaments, set pieces at both ends are very important."

OWEN HUMPHREYS/PA WIRE/ZUMA PRESS

ALEXANDER HASSENSTEIN/GETTY IMAGES

OPINION

General Electric's Long Unwinding

INSIDE
VIEWBy Andy
Kessler

I had only one question after seeing General Electric tossed from the Dow Jones Industrial Average: What took so long? Yes, GE used to be revered by Wall Street. Investors would explain to each other that GE was 1% of the U.S. economy. As the company went, so did the U.S. But its stock peaked in 2000, and GE has been a failing industrial giant ever since. This underlying reality was hard to see through the smokescreen of its finance business, GE Capital.

I remember when Harper-Collins, which had published a book of mine, announced it would be publishing a book by former GE CEO Jack Welch and his wife. I immediately called my publisher and complained in mock horror, "I thought I was your hedge fund guy." He didn't get it. I explained that he should forget about turbines and locomotives. GE was basically a giant hedge fund—a bet on its finance unit, which contributed half of GE's profits.

Jack Welch played Wall Street like a fiddle with his decadeslong record of consistent earnings. His CFO, Dennis Dammmerman, even told Fortune magazine in 1997, "We have a

lot of diverse businesses, and when you put them all together they produce consistent, reliable earnings growth." Wall Street believed it. A colleague once told me that Mr. Welch would get up in front of Wall Street analysts and toy with them. He'd joke, "Well, you guys are saying that 'we might not meet our earnings estimates this quarter because of this or that.' Wait, why are you writing that down? I'm telling you what you are saying, only write down what I am saying, which is that we deliver consistent earnings growth."

Dammmerman further admitted, "We're going to take these large gains and offset them with discretionary decisions, with restructurings." I've seen it. I invested in technology companies only to see GE Capital come in and write big checks. It's an old corporate accounting trick—some called it a honey pot, others a cookie jar. When the investments went public, GE could time the sale of stock for when it needed to book additional profits to make up for a shortfall elsewhere. Jeffrey Immelt took over as CEO at the end of 2001 and kept the Welch legacy going, growing assets at GE Capital to more than \$500 billion for a globally expanding business of loans, leasing, factoring, equity finance and insurance.

Mr. Welch had a famous leadership lesson—be No. 1 or No. 2 in any business, or get out. Sadly, as a hedge fund, it was dead last. During the 2008-09 financial crisis, its honey pot was destroyed. GE even took \$3 billion from Warren Buffett to meet short-term obligations. Mr. Immelt and GE have been unwinding this hedge fund ever since.

The company turned out to be a hedge fund masquerading as an industrial giant.

The Securities and Exchange Commission complained about GE accounting in 2009 and earlier this year. Once investors figured out the game, GE stock sold off—meaning its access to capital shrank. That's what markets do.

By 2015 the GE Capital sell-off accelerated. Commercial lending went to Wells Fargo, real estate debt to Blackstone. John Flannery took over for Mr. Immelt last summer. In January 2018, GE announced a \$10 billion loss, including a \$6.2 billion charge to shore up its insurance business. It also announced plans to sell off \$20 billion more in assets. It's still

a great company, but the unwind continues.

As for the Dow Jones Industrial Average, indexes are not the economy. GE was the last of the original members of the Dow, which included the American Cotton Oil Co. and the Distilling & Cattle Feeding Co. Things change slowly and then quickly. The U.S. is no longer an industrial powerhouse. But who cares? Investors chase profits rather than revenues. The U.S. has successfully given up large low-margin businesses in favor of high-margin moneymakers.

Speaking of which, there's lots of chatter about breaking up the tech giants: Amazon needs to spin off its cloud business. Apple should split into a hardware and software company. Facebook has to jettison WhatsApp. And Google, well, it should voluntarily reduce its presence in advertising.

Like GE once did, Apple and Amazon each represent around 1% of the U.S. economy. But only Apple is in the Dow. It's a pretty good bet that in 10 years, and certainly in 20, these companies won't be the dominating players they are today. I can identify the seeds of destruction already planted at Apple, Amazon, Google and Facebook. No need to break them up; the market will take care of that for us. Just ask GE.

Mexico's Election Is in Play

AMERICAS
By Mary
Anastasia
O'Grady

With one week to go before Mexico's July 1 presidential election, most polls favor left-wing candidate Andrés Manuel López Obrador of the Morena Party by at least 10 points.

But many Mexicans are still hanging onto the hope that he will be defeated by either National Action Party (PAN) candidate Ricardo Anaya or Institutional Revolutionary Party (PRI) candidate José Antonio Meade.

These optimists have their reasons, and it's worth making a record of them ahead of the vote. In previous runs for president, AMLO, as the front-runner is popularly known, has earned a reputation as a bad loser. If he is defeated this time, after his followers were told he was a shoo-in, he won't react well. Even the Spanish daily *El País*, which in a June 3 analysis assigned a high probability to an AMLO victory, admitted that it isn't "guaranteed."

AMLO styled himself the anticorruption candidate because Mexicans are fed up with a thieving political class. Over the past six years, during the PRI government of President Enrique Peña Nieto, the president's family, his administration, the state-owned oil company Petróleos Mexicanos and multiple PRI governors—once touted as the party's new

generation of leaders—have been credibly accused of flagrant corruption. Though Mr. Meade is considered clean, PRI baggage has badly damaged his chances.

Mr. Anaya, who is in a coalition with the left-wing Revolutionary Democratic Party (PRD) and is running second to AMLO in most polls, has also come under suspicion. Earlier this year Mr. Peña Nieto's attorney general announced he was investigating allegations that the PAN candidate engaged in an illicit land deal and money laundering. Publicizing an ongoing investigation is prohibited and Mr. Anaya, who denied the charges, alleged dirty PRI tricks. But the damage was done to his candidacy.

AMLO is hardly the antidote to any of this. His own record is stained, and he has a problem coming clean about it.

Take, for example, the construction of an elevated highway in Mexico City during his mayoralty from 2000 to 2005. He claims the project records are public. That is not true. Multiple no-bid contracts, including, according to Mr. Anaya, deals totaling \$8 million for a single contractor, are part of what Team AMLO marked "classified" before it left power.

Writing on Jan. 20, 2016, in the Mexican daily *El Universal*, columnist Salvador García Soto observed that inside Mexico City government it is well known that the process wasn't transparent: "There is much

more information that is classified since 2005 and if it were to be declassified it would cause [AMLO] serious credibility problems due to information that speaks of 'shady or irregular' handling in the assignment of contracts and the surcharge that was paid for that great work."

For someone who bills himself as morally superior to his opponents, Mr. López Obrador also has a weird collection of friends and supporters. One of the more colorful is René Bejarano, who worked in AMLO's city government but is better

The leftist López Obrador leads in the polls. But don't rule out a surprise result.

known for being caught on video in 2004 packing a valise with stacks of cash from Argentine businessman Carlos Ahumada.

To counter facts about shady deals and slippery friends, AMLO also calls himself the "antiestablishment" candidate. Morena, unlike the PRI and PAN, has never held the presidency. That hardly qualifies the lifetime politician as an outsider. But it might explain some of his support.

A lot of uncertainties remain. One problem pollsters have in getting a clear picture of the electorate's preferences

is the high number of Mexican households that refuse to participate in surveys. Add the undecided vote, which runs at least 10% in most surveys and above 30% in a few. By assigning undecided votes to the candidates proportionately, some pollsters may be distorting the picture.

AMLO supporters are hardcore and unlikely to be undecided. Many AMLO opponents, on the other hand, plan to pull the lever for whoever looks like he can beat the left-wing demagogue. They know that if Mr. López Obrador wins, he will bring the PRD into his fold, giving him a likely majority in Congress. If that happens, he will have presidential power not seen since President Carlos Salinas de Gortari (1988-94).

This is unsettling given his authoritarian style, and countering it is a priority for many voters. They may be undecided but they are not contemplating a vote for AMLO. If their votes go heavily for, say, Mr. Anaya and if turnout is heavy, AMLO could be defeated.

Those are a lot of "ifs" and the odds today favor AMLO. But the vote making Donald Trump the U.S. president, the Brexit referendum and the Colombian referendum on President Juan Manuel Santos's deal with the terrorist group FARC all surprised pollsters. An AMLO loss isn't out of the question.

Write to O'Grady@wsj.com.

By Adam Candeub

Observers shrugged when Google acquired YouTube for \$1.65 billion in 2006. Likewise when Facebook bought Instagram for \$1 billion six years later. Surely these were nothing more than splurges by cash-rich internet moguls. Who even knew what Instagram was?

Google and Facebook were shrewd in ways few predicted. These highly profitable acquisitions stifled potential competition and solidified Google's and Facebook's market dominance in search and social media, respectively.

Microsoft's \$7.5 billion proposed acquisition of GitHub raises anticompetitive concerns of the sort that went ignored in the Google-YouTube and Facebook-Instagram deals. Microsoft, although not as dominant as it was 20 years ago, still has the nation's third-largest market capitalization and the largest share of the software market by most estimates.

Like Instagram in 2012, few have heard of GitHub. It

provides an open-source platform and revision-tracking system that helps software developers collaborate. Programmers post projects, write additional code or make revisions, and GitHub gives project members access to newer versions while keeping track of changes.

The acquisition could have anticompetitive effects, so the FTC should scrutinize it.

Popular to the point of ubiquity among coders, GitHub has a market share that dwarfs that of its closest competitor. It has thus emerged as an unofficial social network for the programming community. Control of GitHub comes with insight into how the entire programming world trends—as well as into the people and entities shaping the trending.

Microsoft has had an adversarial relationship with the open-source community. The company viewed the free

Open Office software and the Linux operating system—which compete with Microsoft Office and Windows, respectively—as grave threats.

In 2001 Windows chief Jim Allchin said: "Open source is an intellectual-property destroyer." That same year CEO Steve Ballmer said "Linux is a cancer." Microsoft attempted to use copyright law to crush open source in the courts.

When these tactics failed, Microsoft decided if you can't beat them, join them. It incorporated Linux and other open-source code into its servers in 2014. By 2016 Microsoft had more programmers contributing code to GitHub than any other company.

The GitHub merger might reflect Microsoft's "embrace, extend and extinguish" strategy for dominating its competitors. After all, GitHub hosts not only open-source software and Microsoft software but also the open-source projects of other companies, including Oracle, IBM, and Amazon Web Services.

With GitHub, Microsoft could restrict a crucial platform for its rivals, mine data

about competitors' activities, target ads toward users, or restrict free services. Its control could lead to a sort of surveillance of innovative activity, giving it a unique, macro-scaled insight into software development.

To be sure, there is a case for the merger. Integrating with GitHub offers Microsoft many efficiencies from which consumers might benefit. Determining the exact market definition for Microsoft's many products that interact with GitHub is difficult.

Still, Microsoft, the largest software company in the world, is purchasing the largest open-source platform, which hosts code for many of its largest competitors. If successful, Microsoft will gain insight into the minutiae of its competitors' innovative processes as well as their programmers' personal data. The Federal Trade Commission should thoroughly evaluate this merger's competitive effect before approving it.

Mr. Candeub is a fellow at the Institute of Public Utilities and a law professor at Michigan State University.

BOOKSHELF | By Oren Cass

Reckoning With the Robots

The Future of Work

By Darrell M. West
(Brookings, 205 pages, \$21.99)

Human + Machine

By Paul R. Daugherty and H. James Wilson
(Harvard Business Review, 249 pages, \$32)

Most Americans once survived hand to mouth, season to season. Technology (thankfully) destroyed their jobs. The result was not catastrophe but prosperity, because the dynamic lamented in modern parlance as "job destruction" is also called "productivity growth." If farmers become 25% more productive, eight can grow a crop that previously required 10. The other two might still farm, yielding more or better food for the community. Or they might become barbers, allowing everyone to enjoy comparable food and the latest hairstyles.

The fear that superfluous workers might instead sit idle, reliant on support from their still-working neighbors, is a persistent one. Though such an outcome has never materialized, for prognosticators there is always a next time. In "The Future of Work," Brookings Institution scholar Darrell West presents his version of a now-popular claim: that robotics and artificial intelligence really do make this time different.

Mr. West describes a future in which "older positions will be eliminated faster than new ones are created," leaving "workers with few skills . . . unable to find jobs." He warns of "social unrest" and the prospect of "dystopias that are chaotic, violent, and authoritarian in nature." Accelerating technology requires us, he concludes, to "rethink the concept of work itself."

The author provides an interesting glimpse at the latest innovations: nimble robots, sophisticated software, an "Internet of Things" through which everyday objects communicate with one another. He shows how these innovations might affect existing industries and spawn new ones, reducing the need for some types of jobs and increasing the need for others, as well as changing the way people work in whatever jobs they have.

What is missing, however, is evidence that such breakthroughs reduce the economy's demand for work. Instead, the American firms that Mr. West describes using technology seem invariably to end up employing more people. He describes Dynamic, a manufacturer that once employed four people to operate a press but then bought a \$35,000 robot "that was effective at doing their jobs." But the cited article reports that no one was laid off. The robot still needed an operator. And now the firm needed a maintenance technician, too. Another manufacturer, Taco Comfort Solutions, achieved extraordinary productivity gains in the past decade—and doubled its workforce along the way. At the industry level, Mr. West asserts that "the number of jobs lost in the retail sector exceeds the number of new jobs being created," but the cited article shows an industry-wide job increase in every year since 2010.

Automation rarely outright destroys jobs. It instead augments—taking over routine tasks while humans handle more complex ones.

Though technology's dystopian consequences have not yet emerged, perhaps they soon will. To make that case, Mr. West leads with an infamous Oxford study finding that half of U.S. workers will likely see their jobs automated in the next 20 years. But the study assigns ridiculous probabilities of automation to many occupational categories: tour guides, real-estate agents and fashion models rank among the most automatable. So does school-bus driver, as if parents might lock unsupervised children into self-driving metal boxes each day.

The approach's broader problem is its binary view, in which jobs either can or cannot be "automated," rendering a worker unnecessary. Outside a few iconic examples like toll-takers, machines rarely replace people in that way. Instead, they augment, doing the most routine elements of a job while humans focus on hard cases and interpersonal interaction.

Careful studies using a task-based view of this sort find that, although substantial parts of many jobs can be automated—that is, technology can help still-needed workers become more productive—only 5% to 10% of jobs can have the human element removed entirely. The rate of productivity growth implied by the coming wave of automation would thus look similar to historical rates. Mr. West acknowledges this contrary view but never explains why the seemingly implausible Oxford forecast is the better one.

Yet this question of replacement versus augmentation is central to the future of work because of its implications for not only the predicted rate of change, but also the continued relevance of less-skilled workers. If firms need workers to make new technology function, then they can deploy it only as fast as they can train workers to use it. Firms thus remain constrained in their process improvements—automation included—by the supply of labor that actually exists and its ability to absorb change.

That constraint may help to explain why productivity growth has been stalling, not accelerating. And it suggests that the best insights into the future of work may be found in the trenches of everyday management. Take "Human + Machine," by Accenture leaders Paul Daugherty and Jim Wilson, which opens in a BMW assembly plant where "a worker and robot are collaborating." In their view, "machines are not taking over the world, nor are they obviating the need for humans in the workplace."

The authors explain, for instance, why making robots operate more safely alongside humans has been critical to factory deployment—the very breakthrough emphasized by Dynamic's CEO, but ignored by Mr. West. They describe AI's role alongside existing workers in decidedly unsexy fields like equipment maintenance, bank-fraud detection and customer complaint management. And they illuminate the promise and pitfalls of implementing new processes that allocate some tasks to machines, requiring new forms of oversight and coordination.

Even in their overuse of acronyms and the word "reimagine," the authors bring to life the realities of modern management. Readers gain a tactile sense of how technology changes business over time and why "the robots are coming" is no scarier an observation than ever before.

Mr. Cass is a senior fellow at the Manhattan Institute and the author of "The Once and Future Worker."

OPINION

How Income Equality Helped Trump

By Phil Gramm
And Robert B. Ekelund Jr.

Frenzied rhetoric about income inequality was a larger theme in Hillary Clinton's 2016 presidential campaign than in any previous American election. When the ballots were counted, however, not only did income inequality fail to move voters, but a massive shift in voting preference among lower-middle and middle-income Americans led to the election of the wealthiest president since George Washington. Now, startling new data on government spending and taxes suggests a novel explanation for this voter shift: It was a backlash against rising income equality among the bottom 60% of American household earners.

The new analysis was published in April by the Cato Institute's John F. Early, a former assistant commissioner of the Bureau of Labor Statistics, and it provides the most comprehensive accounting to date of how taxes and government payments affect income distribution in the U.S. His study includes

Working Americans sense that taxes and transfers now leave them little better off than those who work less.

the roughly \$1 trillion of annual government spending not currently counted in the U.S. Census Bureau's income-distribution tables. That includes Medicaid, food stamps, the earned-income tax credit, and 85 other federal payments and services, along with similar state and local income supplements. The study also subtracts federal, state and local taxes from individuals' measured income, an adjustment not contained in the census data.

The most surprising finding is the astonishing degree of equality among the bottom 60% of American earners, generated in part by the explosion of social-welfare spending and the economic and wage stagnation during the Obama era. Hardworking middle-income and lower-middle-income families must



have recognized that their efforts left them little better off than the growing number of recipients of government transfers. The perceived injustice of this equality helped drive the political shift among blue-collar workers, many of whom supported the pro-growth candidacy of Donald Trump in 2016 despite having voted for Mr. Obama in the two previous presidential elections.

The bottom quintile earned 2.2% of all earned income in 2013, but after adjusting for taxes and transfer payments, its share of spendable income rose to 12.9%—six times its proportion of earnings. The second quintile's share more than doubled, rising from 7% of earned income to 13.9% of spendable income. For the third quintile, middle-income Americans, the increase was much smaller, from 12.6% to 15.4%.

Not surprisingly, high earners lost a considerable share of their earnings after taxes and transfers are taken into account. The fourth quintile's share fell from 20.5% to 18.6%, while the top quintile dropped from 57.7% of earnings to 39.3% of consumable income. In other words, the top quintile's share of earnings was 26 times that of the bottom quintile, but after taxes and transfer payments its share of spendable income was only three times as much.

Even more startling is the near

equality among the bottom three quintiles. The bottom quintile, which earned only 2.2% of all earned income, had virtually the same share of spendable income as the second quintile, lower-middle-income Americans. This equality is despite the fact that lower-middle-income workers earned more than three times the share of income and worked 2½ times as much, measured by comparing each group's number of full-time workers relative to its working-age population. Middle-income workers earned almost six times the share of income and worked almost four times as much compared with the bottom quintile, but they enjoyed only about 20% more spendable income.

And even these numbers understate the huge difference in work effort. Compared with the bottom quintile, the lower-middle-income quintile had almost four times as many working-age families whose members worked two or more jobs, and the middle-income quintile had more than seven times as many families with members working two or more jobs.

The politics of envy based on income inequality has always been a hard sell in the U.S. Few Americans resent Bill Gates, whose innovations made him megarich but also made the rest of us better off. Who resents Warren Buffett, who became one of the richest men in the world

by raising the return on Americans' savings and retirement accounts? George Mitchell, the Texas oilman who invented fracking, made oil and gas cheaper for the whole world—and he received only a tiny share of the wealth he created in so doing.

Americans tend to believe that people become rich because they are smart and work hard, but it is easy to see how a middle-income husband and wife who both work could represent that people who don't work are about as well off as they are. It might be fair

that Bill Gates is rich, but it seems unjust that 60% of Americans have virtually the same standard of living despite dramatic differences in the effort they exert and the income they generate.

The harder people worked without getting ahead, the more reason they had to feel disrespected and alienated in November 2016. President Obama and Hillary Clinton mocked their values. The tax and regulatory policies of the Obama era caused economic growth and middle-income wages to stagnate. But what must have added insult to these injuries was the increasingly obvious fact that the boom in government benefits and the decline of economic growth had all but eliminated the rewards that middle-income Americans traditionally received for working hard. The explosion of social spending, and the dependency it generated, no doubt benefited the Obama campaign in 2012. But that same spending helped create the wagon-puller backlash that defeated Mrs. Clinton in the next election.

Mr. Gramm is a former chairman of the Senate Banking Committee. Mr. Ekelund is a professor emeritus in economics at Auburn University. This article is adapted from a forthcoming book, "Freedom and Inequality." Mike Solon and John Early contributed to this article.

Regulatory State Has A Bad Day In Court

By Adam J. White

Is America's administrative state unconstitutional? That's a question usually associated with conservative legal scholars. But on Thursday Justices Elena Kagan and Anthony Kennedy each produced an opinion questioning longstanding features of the modern administrative state. Both opinions should encourage further reform and modernization of administrative law.

Justice Kagan's majority opinion in *Lucia v. SEC* involved "administrative law judges." ALJs are a significant feature of modern administrative law, but they are not actually judges. They don't serve on courts, enjoy judicial independence or have life tenure. Instead, they are employed by agencies to adjudicate disputes in a quasi-judicial process authorized in the Administrative Procedure Act of 1946.

Opinions from Justices Kagan and Kennedy speak to the need to restore constitutional constraints.

The Securities and Exchange Commission's ALJs wield significant powers, exercising discretion and issuing decisions that become final and binding unless the SEC's commissioners act to overturn them. Because they have such power, they are what the Constitution calls "officers," and thus can be appointed only through the process that the Constitution mandates—by the president with Senate consent; or, if they are (in the Constitution's words) "inferior" officers, then by the president alone or by department heads (or perhaps by the courts). The SEC's ALJs, however, were simply appointed by the SEC's staff, as if they were ordinary employees.

Writing for a six-justice majority, Justice Kagan found that agency officers wielding the ALJs' powers cannot be appointed by midlevel bureaucrats, shielded from the transparency and accountability that the Constitution's process ensures.

In *Pereira v. Sessions*, Justice Kennedy joined an 8-1 ruling that affirmed an agency's interpretation of an immigration statute. But in a lone concurrence, he voiced doubts about "Chevron deference," the 1984 doctrine of judicial deference to agencies' statutory interpretations.

"The type of reflexive deference exhibited in some of these cases is troubling," he wrote. "Given the concerns raised by some Members of this Court"—namely, Chief Justice John Roberts and Justices Clarence Thomas and Neil Gorsuch—"it seems necessary and appropriate to reconsider, in an appropriate case, the premises that underlie *Chevron* and how courts have implemented that decision."

Justices Kagan's and Kennedy's opinions may surprise observers who assume that the administrative state—for whose "deconstruction" former White House aide Steve Bannon once called—is a right-wing bogeyman. But both opinions fit naturally with their authors' work.

Justice Kagan is a scholar of "presidential administration," keenly aware of why the Constitution ensured that the appointment of constitutional "officers" could not be delegated down into the bureaucracy itself. Justice Kennedy has repeatedly expressed concerns about committing too much power and discretion to agencies, and has joined other justices' opinions raising explicit questions about judicial deference.

The Kagan and Kennedy opinions, then, are useful reminders that one need not be an archconservative to see flaws in modern administrative law. Both *Chevron* deference and the ALJ structure reflect old attempts to strike balances. *Chevron* was the Court's compromise between the courts' power to interpret laws independently, and the executive branch's role in making policy choices accountably. ALJs are Congress's compromise between adjudicative independence and efficiency.

Whatever the merits of those compromises at the time they were struck, changes in our administrative state since 1984 and 1946 should cause us all to ask whether those decades-old compromises are appropriate and sustainable—and constitutional.

Mr. White is a research fellow at the Hoover Institution and director of the C. Boyden Gray Center for the Study of the Administrative State at George Mason University's Antonin Scalia Law School.

Kim Jong Un and the Art of the Asian Deal

By I. William Zartman

Two important qualities of East Asian negotiations elude the Western foreign-policy establishment: A relationship is more important than an agreement, and a deal is a moving object.

The conventional wisdom has it that President Trump's summit with Kim Jong Un was extraordinary and naive. Presidential summits are always preprogrammed, down to the devilish details and await only the signature on a fait accompli. This simplistic historical account of presidential summits ignores the sociology of the meeting, which in East Asian cultures emphasizes the importance of building a relationship before any agreement can be reached. The Singapore meeting showed an appreciation of the cultural foundations of Korean rapprochement—a necessary start to a long-term diplomatic process that could yield major dividends for the U.S.

Mr. Trump's postsummit statements—such as "Kim loves his people"—immediately caused an outcry in the West, given the brutality of the North Korean regime. But in the context of an East Asian negotiation, where building a personal relationship is paramount, such statements make sense. So too does the "enormous" concession that Mr. Trump made in suspending the biannual U.S.-South Korean war games. Washington and Seoul continue to cooperate closely but less ostentatiously. The "concession" was a stage-setter, a down payment within

the relationship, not a Western-style bargaining move.

Personal relationships are a dimension of any negotiation. But in East Asian diplomacy they take on a new level of importance, pre-empting and undergirding any substantive exchange. The Singapore meeting was not merely an occasion for Mr. Trump to display his personal "chemistry."

The Singapore summit was likely more successful than it looked. Relationships are paramount in the East.

It was the start of a long-term exchange of hugs, handshakes and repetitive homilies—along with some frank insights.

It is unfortunate that Mr. Trump does not drink, because a classical Korean deal-making relationship would include some heavy drinking sessions, where the soul is bared but lasting promises are not involved. It would behoove the press, pundits and political class to understand the culturally defined process into which the U.S. president has entered.

The other aspect of East Asian negotiations, more frustrating to Westerners, is the transitory nature of the deal. Any businessman working in the region will testify to this. Negotiation-training sessions for prospective contractors in East Asia feature stories of Americans who arrive in the region with a proposal and a

plane ticket, eager to seal the mutually advantageous deal. But whatever is finally signed amounts only to a temporary pause in continuing negotiations. This offends the Western notion of *pacta sunt servanda*—agreements must be kept—and leads to impressions of duplicity, double-dealing and backtracking.

By Western standards, it is. Such behavior is particularly enervating when the West aims to bring new countries into permanent and universal—that is, Western-style—guarantees of security and systems of relations. But in diplomatic initiatives, particularly with new and unconventional actors, the West must be aware of regional differences in norms.

This is not to say the transient view of negotiations is preferable. Continuing interaction will aim to integrate North Korea into the Western system of firm, stable agreements—for which Mr. Trump is admittedly not a role model. As U.S. Assistant

Secretary of State Christopher Hill said amid the Six-Party Talks during the George W. Bush administration: "What we are trying to do is to show North Korea that there is a better way to achieve security than excessive armament, and that is to join the security arrangements of the international community."

How can one establish a trustworthy and lasting relationship when the agreements along the way are not set in stone? In East Asian culture there is no contradiction. To be sure, the U.S. must continue to emphasize the need for consistent and committed behavior from North Korea. But we must enter into negotiations understanding where the other side is coming from, rather than judging by the exacting standards of where we want them to go.

Mr. Zartman is a professor emeritus of international organization and conflict resolution at Johns Hopkins University.

'Space Force! Space Force!'

By Taylor Dinerman

President Trump has formally begun the process of establishing a U.S. Space Force. His supporters love the idea: "Space Force! Space Force!" they chanted at a rally in Duluth, Minn., last Wednesday.

A fight is ahead, on Capitol Hill and at the Pentagon, over roles, missions and budgets. There should be no question that the primary purpose of the Space Force is to achieve space superiority. America should be ready to deny any foe the use of, and access to, low Earth orbit and beyond. Under the accepted rules of international law, no nation can be denied the use of space for peaceful purposes. But when the shooting starts, the USSF must be ready to fight and win anywhere outside the atmosphere.

Deciding what exactly constitutes an act of war in space is not going to be easy. One of the hardest jobs for Space Force leaders will be developing a doctrine that explains clearly how the U.S. intends to act if its space assets are attacked. But the idea that the U.S. can avoid an arms race in space is ridiculous. China and Russia are racing to develop and deploy a variety of anti-satellite weapons.

One of the most useful moves Mr. Trump could make now would be to

order a comprehensive report on foreign space weapons programs. It would draw from U.S. intelligence sources, as well as open sources, including the networks of amateur skywatchers who've spent years tracking ostensibly secret military

space activities. Put into context, the already publicly available information will make the case for the Space Force better than anything the Pentagon is likely to come up with on its own.

Arguments inside the Beltway over what exactly the Space Force is expected to do are going to be part of political debate for decades to come. But if Mr. Trump and Vice President Pence can establish the basic premise that space superiority is the new service's No. 1 mission, they will have made a real and lasting contribution to America's national security.

Mr. Dinerman writes on space policy and national security.

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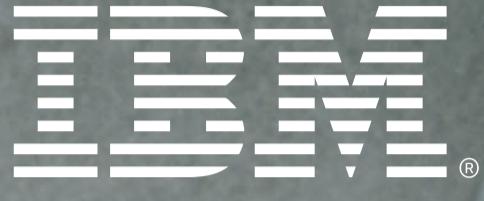
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THE WALL STREET JOURNAL.

Monday, June 25, 2018 | B1

GE Nears \$3 Billion Engine Sale

Conglomerate to shed another industrial unit as it looks for cash; Advent is likely buyer

BY BEN DUMMETT
AND DANA MATTIOLI

General Electric Co. is nearing a deal to sell a unit that makes large industrial engines to private-equity firm **Advent International** for \$3 billion or more, people familiar with the matter said, a

move that would bring in needed cash for the struggling conglomerate.

A deal, if completed, could be announced on Monday, the people said. Advent appears to have beaten out **Cummins** Inc. in an auction for the businesses, according to the people.

The sale is another step in Chief Executive John Flannery's push to simplify the beleaguered company after years of underperformance, by selling \$20 billion worth of assets by the end of next year. GE

last month agreed to sell its railroad division in a complex deal worth \$11 billion.

But investors are waiting for a major portfolio update expected to come soon. Mr. Flannery continues to preach that "everything is on the table," including a breakup of the 126-year-old company.

GE just learned in recent days that it will be removed from the Dow Jones Industrial Average after more than a century in the blue-chip index. The company's shares closed Friday at \$13.05, down by more

than half in the past year.

The assets being sold are GE's so-called distributed-power business, which makes Jenbacher and Waukesha gas engines. These truck-sized machines, often painted bright orange or green, are used to generate electricity in remote areas, along with other industrial operations requiring a mechanical drive.

The deal unwinds two acquisitions by former CEO Jeff Immelt, who left last summer after 16 years at the helm. Mr. Immelt exited amid investor

pressure to improve profits and revive the stock price, and following his departure GE slashed its dividend and financial targets.

GE acquired Jenbacher, based in Austria, in 2003. Waukesha, which dates back to 1906, came as a part of GE's purchase of oil-and-gas equipment maker Dresser Inc. for \$3 billion in 2010.

—Thomas Gryta contributed to this article.

◆ A tariff on Chinese imports would weigh on GE..... B2

Intel CEO Challenge Comes as Chips Shift

BY TED GREENWALD

Intel Corp.'s next chief executive will take over the Silicon Valley chip giant just as it is falling behind in the expensive race to shrink the circuitry on silicon chips.

Intel's problems manufacturing its next generation of chips are opening the door for rivals to threaten its near-monopoly in the personal-computer and server markets.

Intel is looking for a successor to Brian Krzanich, who resigned last week for violating company policy by having a relationship with a co-worker, which The Wall Street Journal on Friday reported began before he became CEO.

Intel under Mr. Krzanich's watch has repeatedly missed its schedule for shipping significant quantities of its next-generation chips. The effort has been mired in manufacturing troubles, with too few chips coming off production lines working properly, the company said in April.

Taiwan Semiconductor Manufacturing Co., which makes chips for Intel's chief rivals, is expected to ship new chips this year that technical and financial analysts say will bear tiny transistors of a size comparable to the next-generation chips Intel has delayed into 2019. Smaller transistors allow chip makers to pack circuitry more densely, making for more powerful chips that potentially are also smaller and use less electricity.

That would mark the first time in Intel's five-decade history that another manufacturer has beaten it to the

Please turn to page B4

Private Placements Draw Troubled Brokers

BY JEAN EAGLESHAM
AND COULTER JONES

Securities firms with an unusually high number of troubled brokers are selling tens of billions of dollars a year of private stakes in companies, often targeting seniors, an analysis by The Wall Street Journal found.

The emerging trend could mean that unsuspecting investors will be exposed to losses or fraud in a market that has grown sharply in recent years.

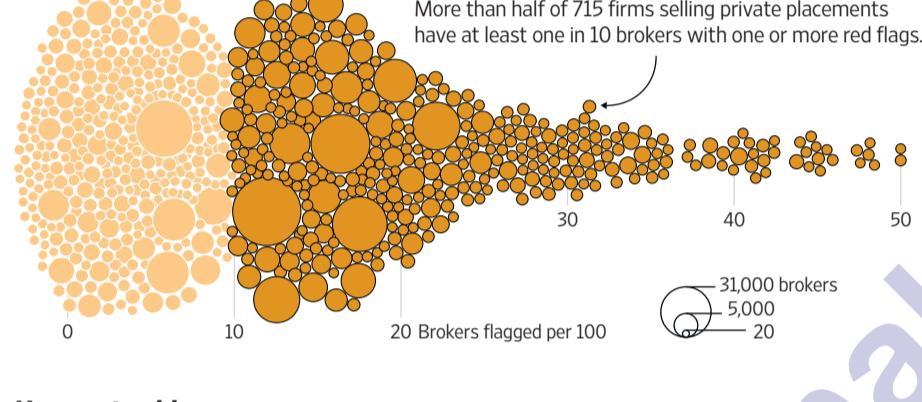
In a review of more than a million regulatory records, the Journal identified over a hundred firms where 10% to 60% of the in-house brokers had three or more investor complaints, regulatory actions, criminal charges or other red flags on their records—significant outliers in the investment community. These brokerages helped sell to investors more than \$60 billion of stakes in private companies, known as private placements.

Sales of private placements are surging, as part of a broader rise in private capital markets, fueling concerns

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Firms offering private placements tend to have more brokers with red flags...

Have sold:



More than half of 715 firms selling private placements have at least one in 10 brokers with one or more red flags.

Median flags per 100 brokers



Firms expelled per 1,000 registered



Note: Excludes disclosures of personal bankruptcies and other personal financial issues. Firms with at least 20 registered brokers featured. Includes some registered brokers that don't interact directly with investors.

Sources: Securities and Exchange Commission filings; Financial Industry Regulatory Authority

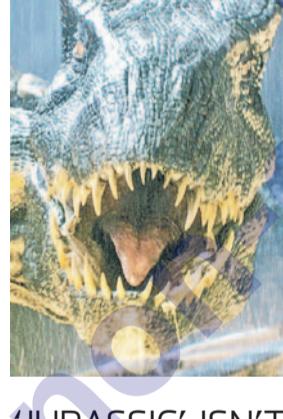
THE WALL STREET JOURNAL.

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JURASSIC' ISN'T THE MONSTER IT USED TO BE

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PERSONAL TECHNOLOGY | By David Pierce

A Search for Music Streamers' High Notes

 Streaming is the future of music. Frankly, it's the present: Services such as Spotify and Apple Music already account for nearly two-thirds of the music industry's revenue. Rather than buying one song or an album at a time, most people choose to pay about \$10 a month for unlimited access to tens of millions of tracks.

So much for the cassette comeback.

If you haven't already put your CD sleeves in the closet, now is the time. Streaming services offer more music and far better



Apple Music, YouTube Music, Amazon Music and Spotify are the four main music-streaming services you should choose from.

tools to find and play it. You can use a voice assistant to search for songs or tune into playlists created specifically

to match your tastes. With a few taps, you can soundtrack your workout or your workday. You can discover a giant

world of music that you might never have found, even browsing the best record store.

Which streaming service should you use, though? You want to make the right choice because whichever you choose will take over: It'll play your favorites, suggest playlists and learn all about your tastes. But it isn't like you can just pick the one that has "Stairway to Heaven"—lots of them have pretty much everything now. So how do you pick?

For starters, there are many players in the music-streaming space, yet only four true contenders exist:

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Source: Morningstar as of 3/31/18. Based on funds in the Morningstar Mid-Cap Blend Category (oldest share class). Rankings are based on returns after taxes that are net of all fees, maximum federal tax rate (39.6%) and applicable sales loads. Rankings reflecting lower tax rates may have resulted in less favorable results for exchange traded funds due to their tax efficiency. Universe: 111 funds for 10 years, 131 funds for 5 years, and 145 funds for 3 years. MDY's 1-year peer group percentile is 32% (54 of 177 funds). Past performance is no guarantee of future results. ETFs trade like stocks, are subject to investment risk, fluctuate in market value and may trade at prices above or below the ETF's net asset value. ETF shares may not readily trade in all market conditions. Brokerage commissions and ETF expenses will reduce returns. Investments in mid-sized companies may involve greater risks than those in larger, better known companies, but may be less volatile than investments in smaller companies. ©2018 Morningstar, Inc. All rights reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete, or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. SPDR® S&P MidCap 400® ETF Trust, a unit investment trust, is listed on NYSE Arca, Inc. SPDR®, S&P and S&P MidCap 400 are registered trademarks of Standard & Poor's Financial Services LLC, a division of S&P Global ("S&P") and have been licensed for use by State Street Corporation. No financial product offered by State Street or its affiliates is sponsored, endorsed, sold or promoted by S&P. ALPS Distributors, Inc. (fund distributor); State Street Global Advisors Funds Distributors, LLC (marketing agent). State Street Global Advisors and its affiliates have not taken into consideration the circumstances of any particular investor in producing this material and are not making an investment recommendation or acting in fiduciary capacity in connection with the provision of the information contained herein.

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BY ANNIE GASPARRO

Investors will learn this week whether Conagra Brands Inc. is still outpacing General Mills Inc. in the race to revive older food brands.

General Mills Chief Executive Jeff Harmening is banking on a new low-calorie, high-protein yogurt to stem losses in its Yoplait business, where sales plunged 14% in the first nine months of the company's fiscal year.

At rival Conagra, Chief Executive Sean Connolly has focused on revamping older brands like Healthy Choice and Banquet frozen meals and Reddi Wip dessert topping.

"Nobody thought Banquet could be brought back from the dead," Mr. Connolly said at a conference last month. "The

business is thriving now."

Conagra on Thursday will reveal whether its latest quarterly earnings confirm that confidence. General Mills reports fourth-quarter results on Wednesday. Analysts are likely to ask about the companies' merger outlooks amid reports that Conagra is interested in acquiring Pinnacle Foods Inc. for its frozen-food business.

Sales of Conagra's refrigerated and frozen brands have increased in the past three quarters. At General Mills, yogurt sales fell sharply over that period. General Mills' stock has fallen 19% over the past year, while Conagra's shares have risen nearly 4%. The S&P 500's Packaged Foods & Meats subindex is down 15% in that period.

Analysts expect revenue at General Mills to have risen 2.5% to \$3.9 billion in the

company's fourth quarter and earnings to have fallen 0.5% to 73 cents a share, according to FactSet. Conagra's sales are estimated to have risen 3.5% to \$1.93 billion with earnings up 18% at 44 cents a share.

Conagra earned approval from investors by introducing higher-quality Banquet meals that the company is selling for more than the standard 99-cent price for those frozen dinners. It also reworked Healthy Choice recipes to remove additives and introduced recyclable, plant-based packaging.

General Mills has tried to bolster its business with a move into pet food. In February, the company bought Blue Buffalo for \$8 billion and said sales in the pet-food aisle were growing faster than those of established package foods. But analysts say General Mills needs to turn around its billion-dollar U.S. yogurt business before its share price does the same.

General Mills executives have acknowledged that the company was late to the market with its Yoplait Greek-style yogurt. General Mills has been selling Yoplait in the U.S. since 1977, but a decade ago it began losing sales to a budding Greek-yogurt trend that appealed to Americans because of its higher protein and lower sugar content.

Mr. Harmening has said Yoplait is recovering. At a conference in May, he said General Mills gained market share in yogurt in the latest 13 weeks. The company says one reason is the introduction last summer of Oui by Yoplait, made without artificial ingredients. The newest yogurt General Mills introduced, called YQ by Yoplait, aims to make up for Yoplait Light, which lost favor because of its use of artificial colors and sweeteners.

Food Rivals Seek an Edge

By ANNIE GASPARRO

THE WEEK AHEAD

Sat, SallyR6
Sheffield, ScottB3
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Zaslav, DavidB5

At a General Electric production facility in Beijing in 2011.



An employee at a General Electric production facility assembles MRI devices in Beijing in 2011.

Balance of Trade

Estimated China revenues and purchases for General Electric in 2017

■ Health care ■ Aviation

■ Power ■ Oil and gas

■ Other ■ Total

\$0 billion 2.5 5.0 7.5

Revenues

Purchases

Source: UBS

THE WALL STREET JOURNAL

That shorter list includes parts for aircraft-engine turbines, submersible electric pumps, locomotives and steam boilers. It also includes key parts for X-ray machines and other equipment made by GE Healthcare—including MRIs.

GE sells its U.S.-made MRIs for anywhere from \$500,000 to \$10 million depending on service and other options, analysts say. Nearly \$1 of every \$5 in circuit boards and other components for the scanners is imported from China, the company said.

Some analysts expect the ultimate impact of the China tariffs on GE to be muted. Chinese imports make up only part of the manufacturing cost, and end-users will likely be reluctant to switch brands of complex machinery for a relatively small savings, said Nicholas Heymann, an analyst for William Blair & Co. Moreover, competitors, who also manufacture in the U.S., face the same tariffs.

GE Healthcare's MRI business directly employs about 950 people in the U.S., the company said, plus more who spend at least part of their time on the products, such as by selling or servicing multiple products. At GE's Florence location, workers make the giant magnets at the heart of the MRI scanners—each magnet can weigh as much as 9 tons—and assemble the "cabinet," which contains electronics and much of the rest of what makes

the scanners work. Workers in Waukesha, a town that is home to about 72,000 people, also assemble MRI cabinets.

Florence's mayor, Stephen Wukela, said GE has employed people for decades in the 38,000-person town and is an important part of an expanding economy that also boasts a paper mill and an Otis Elevator plant. The region is already feeling the pinch from rising construction costs, exacerbated by separate U.S. tariffs on steel, aluminum and lumber.

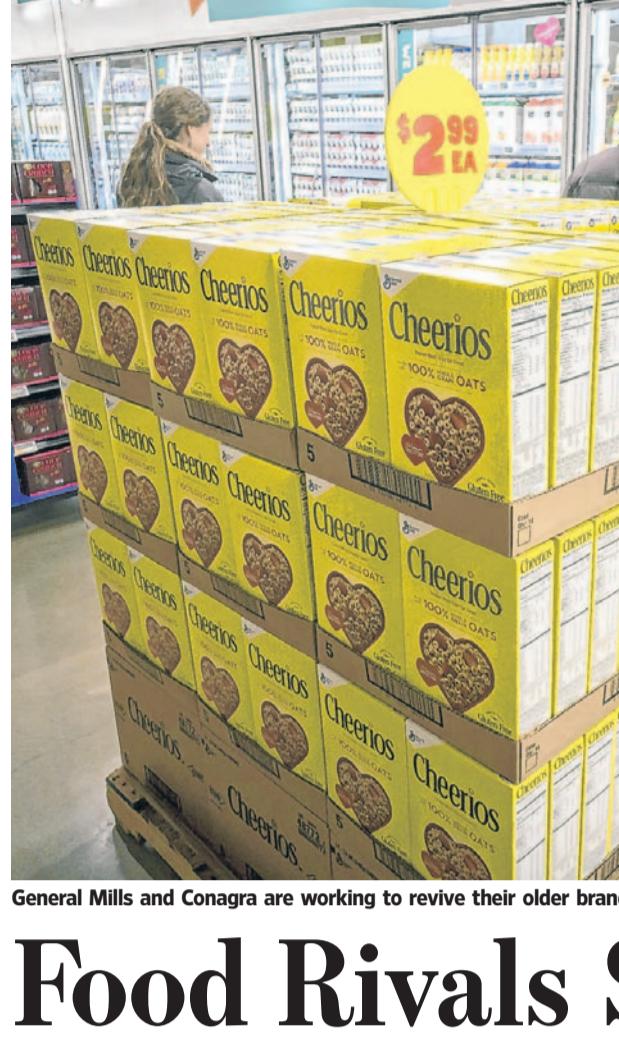
"If tariffs spread into more products, then there's more anxiety," said Mr. Wukela, who has run as a Democrat.

Like other companies, GE isn't simply waiting for tariffs to drive up prices. Mr. Bhatia, GE's president for government affairs and a former U.S. trade official, has pushed for broad exceptions for certain imports from China, including those made at U.S.-controlled factories and those with a significant proportion of U.S.-made components.

GE plans to seek exemptions for specific products where possible.

The company also is exploring how it could revamp its supply chain to produce more of the components elsewhere in the world. But that can't happen quickly, Mr. Bhatia has said. Stringent U.S. quality and safety rules for medical equipment mean that new factories can take a year or more to bring on line.

BUSINESS & FINANCE

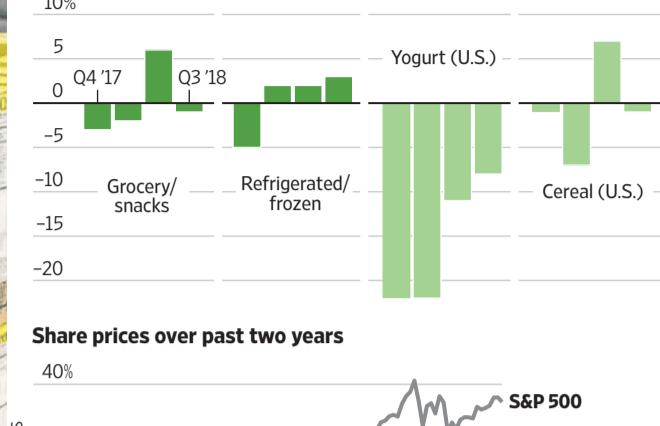


General Mills and Conagra are working to revive their older brands.

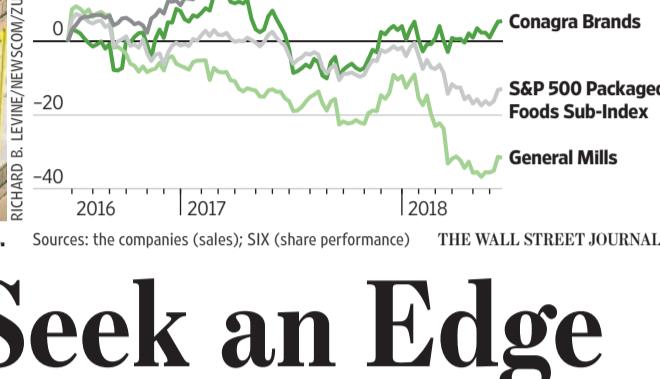
Hungry for Growth

Food companies strive to boost sales of key brands.

Sales by product category, change from previous year



Share prices over past two years



Sources: the companies (sales); SIX (share performance)

THE WALL STREET JOURNAL.

GE's U.S. Plants Brace for Tariffs

BY THEO FRANCIS

If the U.S. imposes sweeping tariffs on imports from China early next month as planned, the levies will be felt not only in ports ringing the Pacific, but also across companies, product lines and factory towns in the U.S.

For General Electric Co., that includes its business making magnetic resonance imaging machines, or MRIs, many of which are assembled at plants in Florence, S.C., and Waukesha, Wis.

GE, which is struggling to boost profit and revamp its operations after a series of missteps, has argued to federal policy makers that it is counterproductive to impose tariffs on components the company imports from its own plants in China, including some assembled using parts that were originally made in the U.S.

"Putting tariffs on the parts they produce will not hurt Chinese businesses or sway Chinese decision makers," GE executive Karan Bhatia said in a May hearing held by a committee of the Office of U.S. Trade Representative. "Rather, they hurt U.S. companies that own these facilities, as well as the U.S. workers and suppliers who rely on these parts from China to make world-class products in the United States."

GE's MRI business is just one part of the company's health-care division, which last year accounted for about 16% of companywide sales, or \$19 billion. Still, it offers a window into the complex interconnections of global trade, where components made in one country get assembled in another—and, once in finished form, may be sold back into the first. Some parts make more than a single round trip.

"Global supply chains have become so integrated over the last few decades that it's really hard to put tariffs in place that are not going to harm some domestic manufacturers," said William Hauk, an economics professor at the University of South Carolina.

The administration has said tariffs are needed to prevent China from dominating key industries with unfair state subsi-

ties. A senior administration trade official said a forthcoming product-by-product exemption process will seek to take into account the kinds of scenarios raised by GE, without creating so many exceptions that it weakens the tariffs' impact.

"We are being as sensitive as we can to these types of problems, given the overall problem that we're trying to solve," the official said. Still, he acknowledged, some U.S. companies could see costs rise.

GE, which makes everything from LED bulbs to jumbo jet engines, has said it expected to be affected by levies imposed on about three-quarters of an initial list of products facing U.S. tariffs. But it considers some three dozen products to be critical, in part because obtaining them elsewhere will prove difficult or require months to arrange.

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BUSINESS NEWS

U.S. Shale Motors Ahead Despite OPEC

Producers should benefit from effort to keep high prices from hurting oil demand

BY REBECCA ELLIOTT
AND CHRISTOPHER M. MATTHEWS

U.S. shale companies, which profited by continuing to pump oil as the rest of the world cut its production, are again poised to benefit as the Organization of the Petroleum Exporting Countries boosts its output.

OPEC's decision last week to increase production modestly is seen as an attempt to keep prices elevated without creating a sharp rise. The move eased concerns among the member countries about tightening supply and the potential for a price increase, but it also lifted the stock prices of U.S. oil producers, which have learned to survive at whichever price OPEC pursues.

"We're not running our business based on what OPEC does regarding supply," said Doug Lawler, chief executive of Chesapeake Energy Corp., a pioneer of shale drilling. "We just have to respond accordingly and focus on the technology and the innovation that helps us be efficient regardless of the price."

U.S. production has grown at a record-setting pace this year, hitting 10.9 million barrels a day this month after oil prices exceeded \$70 a barrel for the first time since 2014. That makes the U.S. the



OPEC members, plus Russia, last week agreed to boost output by 600,000 barrels a day to head off a possible run to \$100 a barrel.

world's No. 2 oil producer behind Russia, but ahead of Saudi Arabia.

OPEC members, plus Russia, came to an agreement two years ago to cut production to shrink excess supply and prop up prices. At the meeting last week in Vienna, OPEC ministers cobbled together a deal to reverse course and boost oil output by an effective 600,000 barrels a day to head off a possible run to \$100-a-barrel oil. Russia said over the weekend that it would support OPEC's efforts.

Speaking at the meeting in Vienna, Scott Sheffield, chairman of Pioneer Natural Resources Co., said the company has a shared interest with OPEC in preventing overheated prices. High prices generate a short burst of profits but can undermine economic growth and damp down demand.

Mr. Sheffield said: "\$100 is not going to help OPEC. It's not going to help us in the Permian." His company is one of the top drillers in the Permian Basin of West Texas and New Mexico.

OPEC's new barrels also come at an opportune time for shale companies, which are facing production-threatening infrastructure constraints in the Permian, the country's most active drilling region. Analysts say Permian producers might have to scale back drilling until new pipelines come online in 2019.

U.S. shale companies now have some breathing room, said R.T. Dukes, a director at the energy consulting firm Wood Mackenzie.

"It leads to a little bit lower

price this year, but a little bit higher price next year because you have less spare capacity, less potential for OPEC to raise production," he said. "That'll be great timing for them as they'll be ramping up getting ready for those pipeline expansions to come online in the second half of the year."

OPEC's decision wasn't without drama, as Saudi Arabia pushed other member nations to agree to an increase after a contentious week of meetings. Members such as Iran, Venezuela and Libya ap-

proved the deal but have a limited ability to produce more oil themselves because of geopolitical concerns and production constraints.

Initially blindsided by the advent of fracking technology and U.S. production increases, OPEC allowed oil prices to nose-dive from more than \$100 a barrel in 2014 to less than \$30 a barrel two years later, an apparent attempt to force shale drillers out of business.

Hopes that falling prices would kill shale producers proved hollow. U.S. drilling dropped significantly, but oil production hasn't fallen below eight million barrels a day since November 2013, even as oil prices fell roughly 75% from 2014 to 2016. U.S. production had averaged about 5.5 million barrels a day from 2000 to 2012.

The tug of war over the global oil market left scars on both sides. Nearly 200,000 oil workers lost their jobs in the U.S., and OPEC eventually was forced to cut production. But U.S. producers used the downturn to become more efficient and have continued their production gains.

"The U.S. has broken OPEC's ability to totally control the market," said Ben "Bud" Brigham, who has made hundreds of millions of dollars as an oilman in shale plays in North Dakota and Texas. "We're their most significant competitor in terms of production."

—Benoit Faucon contributed to this article.

AT&T Met With CBS Before Time Warner

BY JOE FLINT
AND DREW FITZGERALD

Before AT&T Inc. Chief Executive Randall Stephenson set his sights on Time Warner Inc., he expressed interest in acquiring CBS Corp. and met with Shari Redstone, the executive whose family controls the media company, according to people familiar with the situation.

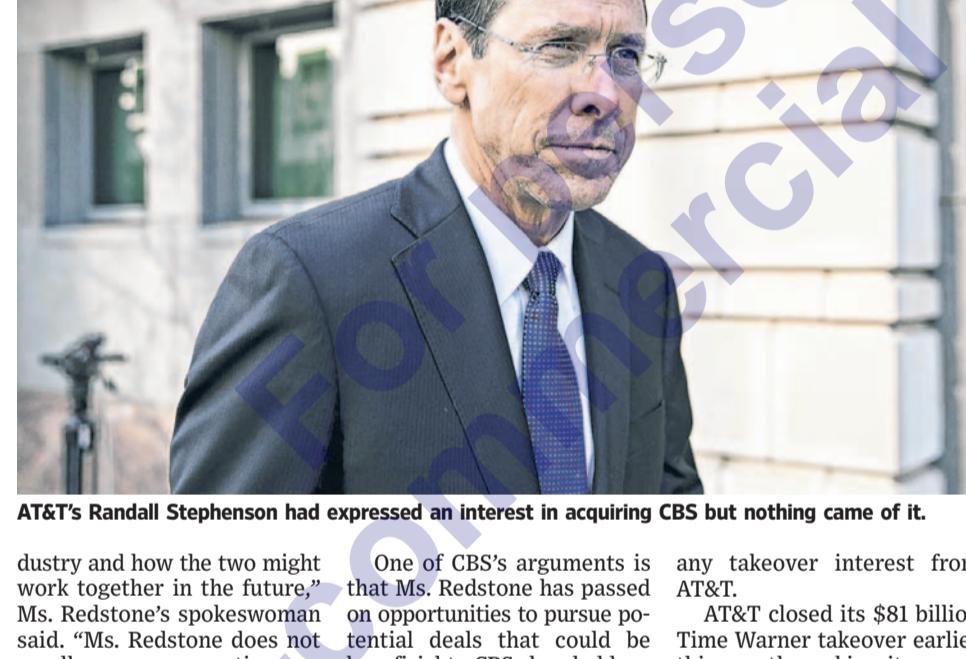
At the New York meeting in 2016, Ms. Redstone, president of National Amusements Inc., which controls about 80% of the voting stock of CBS and its sister media company Viacom Inc., told Mr. Stephenson she wasn't interested in a deal, the people said.

Ms. Redstone didn't inform the CBS board or its chairman and chief executive, Leslie Moonves, of Mr. Stephenson's approach, people close to CBS said.

Mr. Moonves learned of AT&T's interest a few weeks later from Mr. Stephenson after AT&T made its bid for Time Warner, people familiar with the discussion said. Mr. Moonves was upset Ms. Redstone had kept him out of the loop, the people said.

In a written statement, Ms. Redstone's spokeswoman acknowledged that Ms. Redstone and Mr. Stephenson had a "brief introductory meeting" in 2016, but denied there was any expression of interest from Mr. Stephenson.

"Their discussion focused on changes in the media in-



AT&T's Randall Stephenson had expressed an interest in acquiring CBS but nothing came of it.

dstry and how the two might work together in the future," Ms. Redstone's spokeswoman said. "Ms. Redstone does not recall any conversation regarding the potential sale of either CBS or Viacom. However, as NAI stated publicly in 2016—and as is its right as a shareholder—it had no interest in selling its controlling stake in either company at that time."

CBS has resisted Ms. Redstone's efforts to recombine the company with Viacom for almost two years, and now CBS and National Amusements are in a legal battle over control of the entertainment company.

One of CBS's arguments is that Ms. Redstone has passed on opportunities to pursue potential deals that could be beneficial to CBS shareholders.

Last year, Verizon Communications Inc. made multiple approaches about a possible CBS deal and was told by Ms. Redstone that she wanted to put CBS and Viacom together before considering any offers, The Wall Street Journal reported.

National Amusements disclosed the approach by Verizon in a legal filing and affirmed it wasn't interested in giving up control of either CBS or Viacom.

The filing didn't mention

any takeover interest from AT&T.

AT&T closed its \$81 billion Time Warner takeover earlier this month, making it among the most indebted corporate-bond issuers in the world.

The debt burden means the company will be busy paying down its obligations and supporting its dividend, though Mr. Stephenson still considers some CBS assets attractive, people close to both companies said.

The initial CBS approach in 2016 was part of AT&T's broader review of media assets as it was contemplating possible deals; its main interest quickly became Time War-

ner, people familiar with the company said.

Testifying in April in the antitrust case the Justice Department brought against the AT&T-Time Warner deal, Mr. Stephenson said the telecom giant considered large-scale opportunities, but found "a lot of the companies in the media industry...have large family ownership and they're very difficult to get a transaction done with. Some of them just were not for sale."

For years, Wall Street considered CBS and Time Warner natural merger partners—putting them together would unite CBS's broadcast network with a prominent set of cable networks. Acquiring CBS would give AT&T a collection of media assets very similar to Comcast Corp.'s NBCUniversal.

CBS is attempting to break free of National Amusements' control and chart its own course. Last month, the company said it approved a dividend that, if successful, would dilute National Amusements' voting power to about 20%. But before the board acted on that measure, National Amusements had amended the bylaws to require 90% of directors to support such a move. The vote didn't meet that threshold.

Now a Delaware court will decide that battle. A trial is set for October. The AT&T approach could become a topic as the two sides joust.

—Keach Hagey contributed to this article.

AT&T-AppNexus Talks Stir Interest

News of AT&T Inc.'s talks to acquire advertising technology firm AppNexus was welcomed by marketers, who are eager to have more options in the online ad sector beyond Google Inc. and Facebook Inc., the dominant players.

AT&T, which is fresh off its acquisition of Time Warner Inc., has a treasure trove of television and digital content from brands such as CNN and TNT. Now the telecom giant is in talks to buy AppNexus for \$1.6 billion, a deal that would help it monetize that content better, using data from wireless customers to serve highly targeted ads.

"It's a lightning bolt across the industry," said Bob Rupecky, McDonald's global vice president of media and customer relationship management, on the sidelines of the ad industry's annual Cannes Lions festival on the French Riviera. Mr. Rupecky said the deal would give AT&T immediate infrastructure and more data and could give marketers "more leverage" in dealing with Google and Facebook.

"The more options we have available, the better it's going to be for the market," said Antonio Lucio, chief marketing officer at Hewlett-Packard Co.

AT&T declined to comment.

—Lara O'Reilly and Alexandra Bruell

BUSINESS WATCH

JOHNSON & JOHNSON

Deputy's Exit Leads To a Reshuffling

Johnson & Johnson announced a new lineup of executives Friday as the health-products company's No. 2 leader prepares to depart.

Sandra Peterson, J&J's No. 2 past six years, plans to retire Oct. 1. Ms. Peterson, 59 years old, had led J&J's efforts to turn around its consumer-health business struggling with recalls. More recently, she had overseen a rejiggering of J&J's medical-device business.

Sharing her deputy chairman role will be Joaquin Duato, 56, who has led the company's pharmaceuticals business, and Chief Scientific Officer Paul Stoffels, 56. Their deputy jobs put them next in line behind Chief Executive Alex Gorsky, 58, who took the helm in 2012.

Jennifer Taubert, who had run the company's pharmaceuticals business in the Americas, will succeed Mr. Duato running

the group world-wide. Ashley McEvoy, whom officials credited with reviving the eye-care business, will manage J&J's group of medical-device companies.

—Jonathan D. Rockoff and Waverly Colville

NASPIRS

Tencent Helps Earnings Surge

Naspers Ltd. reported another surge in earnings on Friday, thanks to an investment that keeps on giving: A \$34 million bet in 2001 on Chinese internet giant Tencent Holdings Ltd., a wager now worth about \$150 billion.

Naspers sold 2% of its 33.2% stake in Tencent in March, giving the company a \$9.8 billion windfall. Tencent, best known in China for its WeChat messaging app, is one of the top-10 most valuable companies in the world.

The South African media and internet firm's core headline

earnings per share—which strip out certain exceptional and one-

off items—for the year ended March 31 were \$2.5 billion, up 72% from the previous year.

Net profit was \$1.36 billion, up nearly fourfold from the previous 12-month period. Consolidated revenue grew 9.2% to \$6.66 billion, exceeding analysts' expectations.

—Alexandra Wexler

CURRENCIES

Yuan Loses Gain As Dollar Rebounds

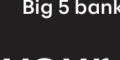
The dollar's rebound claimed its latest victim Monday after the Chinese yuan erased its gain for the year.

The U.S. currency rose 0.4% to 6.5221 yuan shortly after mainland Chinese trading began on Monday, compared with 6.5120 yuan at the end of 2017, according to Wind Info. That means the yuan has now slipped 0.2% against the dollar so far this year.

China's economy is slowing and the central bank is likely to loosen monetary policy, which should weigh on the yuan.

—Saumya Vaishampayan

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TECHNOLOGY

WSJ.com/Tech

Web Shoppers Lose an Advantage

Consumers have escaped sales taxes online when retailer wasn't in a state

BY LAURA STEVENS

Savvy shoppers who buy big-ticket items online to avoid state sales taxes will be losing that advantage.

The U.S. Supreme Court's ruling Thursday enables states to collect sales tax from all online purchases. But such a change will take time: States still need to decide if and how they want to collect sales tax from out-of-state merchants, and then it may take months or even years to enact laws.

For decades, retailers have only been required to collect and remit sales tax if they had a physical presence in the state: a warehouse, store or office, in most cases. So consumers have escaped sales taxes online as long as that retailer wasn't in a state.

Sales taxes can stack up, especially on big-ticket items. Take a \$3,099 Canon camera sold by New York retailer B&H. The website shows a Manhattan resident would pay \$275.04 in sales tax, while a San Francisco resident pays no tax.

The difference online has evaporated over time, thanks in large part to Amazon.com, where more than 40% of all U.S. online sales take place.



Amazon said last year it would collect taxes on its direct sales in all of the 45 states that have the tax.

Shelley Browning, said the addition of sales taxes could change her shopping habits. "It's going to be something I watch for," the 54-year-old Land O' Lakes, Fla., resident said.

Ms. Browning pays taxes on all items she purchases sold by Amazon directly. If she buys a product from independent sellers on the site, sales tax is typically only triggered if they have a warehouse or office in Florida.

But that will change for Ms. Browning and other shoppers as the states they live in pass more legislation like South Dakota's, the law presented before the high court that requires remote sellers to collect taxes involving sales in the state but allows exemptions for some smaller businesses.

Shoppers who visit [Walmart](http://Walmart.com) Inc. or [Target](http://Target.com) Corp.'s websites already pay taxes on most purchases, thanks to those retail chains' huge physical presence.

For other online-only retailers, it's a mixed bag. [Wayfair](http://Wayfair.com) Inc., a company test-case for the Supreme Court, said it already charges sales taxes for 80% of its orders. Much like Amazon, the online furniture retailer has had to build out its logistics footprint, giving it a physical presence in many states. And for a marketplace like [eBay](http://eBay.com) Inc. that doesn't sell its own goods, a large portion of the items sold by smaller merchants who are scattered across the U.S. will be affected.

Founded in 1994, the online retailer used the law to its advantage, limiting itself to warehouses in its home state of Washington and tax-free Delaware, and then building in more rural states like Kansas, Kentucky and Nevada, according to MWPVL International, which has tracked the company's expansion. As the company grew from an online bookstore to a retailer that sold everything from shoes to pool tables, it decided to trade in its tax advantage for faster delivery.

Its two-day Prime unlimited delivery for members meant building more warehouses closer to population centers.

That, in turn, triggered the need for it to collect sales taxes in those states. Last year, the company said it would collect tax on its direct sales in all 45 states that have them.

Amazon's rule, however, doesn't apply to independent merchants who collectively sell more than half of units on its site annually. So many Amazon purchases still exclude the tax. That would change under the court's ruling.

"In this new world, the ability to comparison shop at the store versus online will no longer mean that you'll be able to save appreciable amounts" when it comes to sales tax, said Charles Maniace, global

head of regulatory analysis at tax software company Sovos. "Over time, you will see more of your charges containing a line for sales tax."

Kimberly Lin, a 29-year-old Manhattan resident, said she does about 90% of her shopping online, mostly for convenience, but she goes out of her way to find items sold by merchants on Amazon or other retailers that don't charge sales tax. Recently, while looking to buy a bulletin board, she filtered her search results on Amazon to help her exclude both tax and shipping costs. "I purposefully chose a vendor that did not charge me either one," Ms. Lin said.

Another Amazon shopper,

for its Beats 1 radio station, which frequently offers exclusive interviews and guest DJ sets from famous artists. Apple also lets you combine your local library with its streaming selection.

YouTube Music does even better: It not only hosts all the songs you're looking for, but countless music videos, remixes, covers and live performances that already live on YouTube. YouTube Music doesn't integrate that stuff into the app especially well, but no other service can touch its overall library.

The Curation

An effectively infinite library seems a bit time-consuming to comb through, so all four services attempt to help you find something to listen to. All four have workout playlists and songs for singing in the car, and often suggest them at exactly the right time. Apple has an excellent playlist of personalized weekly new releases called New Music Mix, but Spotify takes it to another level: Its algorithmically generated playlists such as Discover Weekly and Daily Mix offer hours of music new and old curated just for you.

The Apps

It must be hard to build a great music app because nobody seems able to do it. Spotify is slow to load and complicated to use, burying basic features deep inside menus. YouTube Music has a great web app, but doesn't offer features as simple as alphabetically sorting your library. Apple Music looks great on the iPhone (and An-

The Playlists

The top four streaming-music services offer unlimited access to millions of tracks for about \$10 a month.

Amazon Music

amazon Availability: Personalization: Ease of use:

FEATURE EVERYONE SHOULD COPY

Price options

PROS	CONS
Alexa integration; lyrics everywhere	Not much personalization; bad on desktop

Apple Music

j Availability: Personalization: Ease of use:

FEATURE EVERYONE SHOULD COPY

Beats 1 radio

PROS	CONS
Siri integration; integrates your own music	Mac requires iTunes; no free listening

Spotify

Spotify Availability: Personalization: Ease of use:

FEATURE EVERYONE SHOULD COPY

Discover Weekly playlists

PROS	CONS
Nearly ubiquitous; unmatched discovery	Clunky, slow apps; hard to save and find offline music

YouTube Music

YouTube Availability: Personalization: Ease of use:

FEATURE EVERYONE SHOULD COPY

Downloadable Offline mixtape

PROS	CONS
Great web app; lots of music videos	Confusing YouTube integration; missing basic features

Source: the companies (logos); WSJ analysis of the services

After weeks of testing all four services side by side, I'm still a Spotify user. In part, though, that's because I've been a Spotify user for the better part of a decade. I've made hundreds of playlists, spent thousands of hours telling the service what I like and dislike. Spotify knows my music taste better than I do. I'm not in love with the product so much as I am inextricably grafted to it.

If you're already a music streamer, there's little to entice you to switch allegiances. YouTube Music, the newest entrant, has a couple of neat features, such as a constantly updated "Offline mixtape" that makes sure you always have fresh tracks available for car or subway rides. Still, nothing about it makes me want to leave my current setup.

If you're looking for a way to get into the streaming world, though, Spotify is the obvious and best choice. It's the Netflix of music; available almost everywhere, filled with great content, endlessly clever in the ways it helps you find stuff to watch.

I wish that it worked with Siri, but the in-app voice search works OK when I'm in the car.

This race among music services is far from over, though. It won't be decided by the largest library or the most exclusive content—or even the best app. It's a battle of intelligence: curation and personalization, voice recognition and search. It's a battle to be the one who responds when you turn to your speakers and shout, "Play me some music!"

Uber Goes To Court To Remain In London

BY SAM SCHECHNER

Uber Technologies Inc. has spent much of the past year repenting for a string of scandals. Now the company must prove it has changed—or risk being locked out of one of its largest markets.

Uber executives and lawyers were scheduled to appear in a London court on Monday to appeal a decision by regulators last September that the ride-hailing firm was unfit to operate in the British capital.

Uber's strategy won't be to rebut regulators' complaints, which included a "lack of corporate responsibility" in such areas as reporting serious crimes, people familiar with the case say. Instead, executives plan to acknowledge mistakes and argue the company has made significant strides to address them by changing its governance, policies and top leaders.

Uber is expected to suggest the court issue it an 18-month car-service license, instead of the typical five-year license, one of these people said. The company will also endorse a series of yet-to-be-disclosed conditions that it has discussed with London's main transportation regulator, as the court previously requested. Both measures are an effort to show the firm is willing to accept close oversight.

The decision carries high stakes for Uber but also for London. The city's residents have embraced the ride-hailing app, which has become a user-

ful transportation option for many of them. Uber has been allowed to operate in London as normal pending the appeal.

If Uber loses its appeal, it will have to stop operating in a city where it claims 3.6 million riders are active each month—roughly 5% of Uber's global total of 75 million. That would be inopportune for the San Francisco-based company, which is planning an initial public offering in 2019.

The court is expected to hear arguments for this week. The presiding judge will have leeway to decide whether to grant Uber a license and what conditions to place on it. Any decision could come a couple of weeks after the hearing, a court official said.

Uber's conciliatory approach underscores the shift for a company that only a couple of years ago promoted a philosophy its former chief executive, Travis Kalanick, called "principled confrontation" with regulators and others. That approach, at times, led the company to resist local officials it said were bound by antiquated laws and beholden to local taxi monopolies.

The Ecosystem

A music service only

works when you can use it.

In that sense, your choice might already be made for you. Got an iPhone and thinking about a HomePod? Get Apple Music and use Siri to control it. If you're an Alexa household, Amazon Music works best. If you're starting from scratch, Spotify is the way to go: It's practically ubiquitous across devices including Amazon's Echo speakers, and the Spotify Connect feature makes it easy to control what's playing—and where—from within the app.

droid!), but on a Mac, it only works inside the bloated iTunes app.

Amazon's mobile app is my favorite, thanks to its clean interface and simple layout, but it's awful on the web. Voice assistants have made these apps less important, because you can just ask for whatever you want, but services should spend more time improving their apps.

The Apps

It must be hard to build a great music app because nobody seems able to do it. Spotify is slow to load and complicated to use, burying basic features deep inside menus. YouTube Music has a great web app, but doesn't offer features as simple as alphabetically sorting your library. Apple Music looks great on the iPhone (and An-

The Content

I know, I said they all have roughly the same song library. But each service does offer some exclusive content.

Apple Music scores points

The Apps

It must be hard to build a great music app because nobody seems able to do it. Spotify is slow to load and complicated to use, burying basic features deep inside menus. YouTube Music has a great web app, but doesn't offer features as simple as alphabetically sorting your library. Apple Music looks great on the iPhone (and An-

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Intel Slips, And Rivals Get a Lift

Continued from page B1

broad market with comparable chip-making technology, several analysts said. TSMC has said it expects 20% of its revenue to come from its own next generation in the fourth quarter.

The delays left some Intel engineers unhappy with Mr. Krzanich's leadership, a person familiar with the situation said. The problems not only delayed the manufacturing upgrade but they also could force Intel to scrap new products based on it, the person said. Every day, "we have to start thinking about, does this part fall off the road map?" the person said.

"Our continued strong performance is the result of very competitive products," Intel said, noting its ability to optimize its current manufac-

turing process and improve its designs and assembly techniques. "We intend to lead in all of these areas as we expand into new opportunities."

Along with TSMC's new manufacturing capability, Intel faces a resurgent Advanced Micro Devices Inc. and improved processor designs from Qualcomm Inc. and others, according to Handel Jones, who monitors the chip-sup

MEDIA



The sequel's \$150 million opening in the U.S. and Canada was 28% below the \$208.8 million start for the first 'Jurassic World.'

'Jurassic World' Roars to No. 1

By BEN FRITZ

Another Hollywood franchise has lost a bit of its bite. "Jurassic World: Fallen Kingdom" opened to an estimated \$150 million in the U.S. and Canada over the weekend. That is a healthy debut by most measures, but 28% below the massive \$208.8 million start for the first "Jurassic World," which relaunched the 25-year-old dinosaur franchise in 2015.

The new movies, which star Bryce Dallas Howard and Chris Pratt, continue the big-screen story started with Steven Spielberg's "Jurassic Park" in 1993.

Since debuting two weeks ago in some foreign markets, "Fallen Kingdom" has grossed \$561.5 million overseas. Its global total is \$711.5 million.

The second "Jurassic World" could surpass \$1 billion world-wide but is unlikely to come close to the \$1.67 billion global total of its predecessor.

A number of big-budget

Estimated Box-Office Figures, Through Sunday

FILM	DISTRIBUTOR	SALES, IN MILLIONS	WEEKEND [*]	CUMULATIVE	% CHANGE
1. Jurassic World: Fallen Kingdom	Universal	\$150	\$150	--	
2. Incredibles 2	Disney	\$80.9	\$350.4	-56	
3. Ocean's 8	Warner Bros.	\$11.7	\$100.4	-39	
4. Tag	Warner Bros.	\$8.2	\$30.4	-45	
5. Deadpool 2	Twentieth Century Fox	\$5.3	\$304.2	-40	

^{*}Friday, Saturday and Sunday. Source: comScore

cinematic series have, like "Jurassic World," slowed down at the box office in the past year, reflecting the fierce competition for a relatively stable pool of box-office dollars and audiences' fickle tastes. Among franchises that have recently seen sequels or spinoffs that grossed significantly less than prior entries are Star Wars, Pitch Perfect, Lego, Pirates of the Caribbean, Cars and Transformers.

In the case of "Fallen Kingdom," a sequel to a three-year-old film may have been less special to many moviegoers than the launch of "Jurassic World" 14 years after the last series entry, the poorly received "Jurassic Park III."

"We had realistic but aggressive expectations for this movie and it came in at the high end of them," said Universal Pictures' president of domestic distribution, Jim Orr.

The big-budget release from Comcast Corp.-owned Universal posted the fourth-highest opening for any film

this year.

It comes just a week after "Incredibles 2," from Walt Disney Co.'s Pixar Animation Studios, made its debut to \$182.7 million. This was the first time ever that movies opened one after another to more than \$100 million on nonholiday weekends, according to the National Association of Theatre Owners.

This weekend "Incredibles 2" grossed \$80.9 million, bringing its domestic total to \$350.4 million. That is already higher than the entire run of "The Incredibles" in 2004.

The other two top openers this year were "Avengers: Infinity War," with \$257.7 million in April, and "Black Panther," with \$202 million in February, both from Disney's Marvel Studios.

Reviews for "Fallen Kingdom" were mixed, as they were for "Jurassic World" three years ago. The PG-13 movie drew an array of audiences, including families, despite competition from "Incredibles 2," said Mr. Orr.

AMC's MoviePass Rival Has Studios Nervous

By BEN FRITZ

Hollywood studios may seek changes to a new MoviePass rival because of concerns about how the subscription service determines their cut of ticket sales, according to people with knowledge of their thinking.

The service announced last week by **AMC Entertainment Holdings** Inc., the nation's largest cinema chain, would calculate studios' share of sales based on a price that is lower than what the tickets cost in most major cities—and lower even than the average charged nationwide by AMC.

"If admissions go up [substantially], then I will see an uplift," said one major studio executive briefed on the plan. "But right now I'm going to be taking a haircut."

As a result, the executives said they would be closely monitoring results of the new offering, called AMC Stubs A-List, and could push for it to be changed if they see revenue declines from it. Right now, no studio is considering what one executive described as the "nuclear option" of withholding movies from AMC.

The executives said they have had little time to consider a response, as AMC informed them of the new service with little to no advance notice before its public announcement last Wednesday.

An AMC spokesman pointed to comments made by Chief Executive Adam Aron on a conference call with Wall Street analysts on Wednesday, when Mr. Aron said the service was being offered "at a sustainable price point where we can be very confident that we will be profitable across the membership base and in turn can share that profitability with our studio and premium-format partners."

Stubs A-list costs \$19.95 a month and lets subscribers see up to three films a week at any AMC theater in the U.S. It is a response to MoviePass, which for its owner than the new AMC program.

Each time a user of Stubs A-List sees a film, the exhibitor will give studios their normal share of the box office based on a price of \$8.99 for a standard, 2-D film, said people briefed on the financial details. Typically, major studios get around 60% of domestic box office for their films.

AMC's average U.S. ticket price in the quarter ended March 31 was nearly a dollar higher, \$9.78. In cities like New York and Los Angeles, ticket prices can be \$15 or higher. If more consumers in big cities use Stubs A-list, the studio executives said their box-office revenue could fall significantly.

"That's one of the things that's going to have to be worked out," said another studio executive.

Executives said their box-office revenue could fall under the offering.

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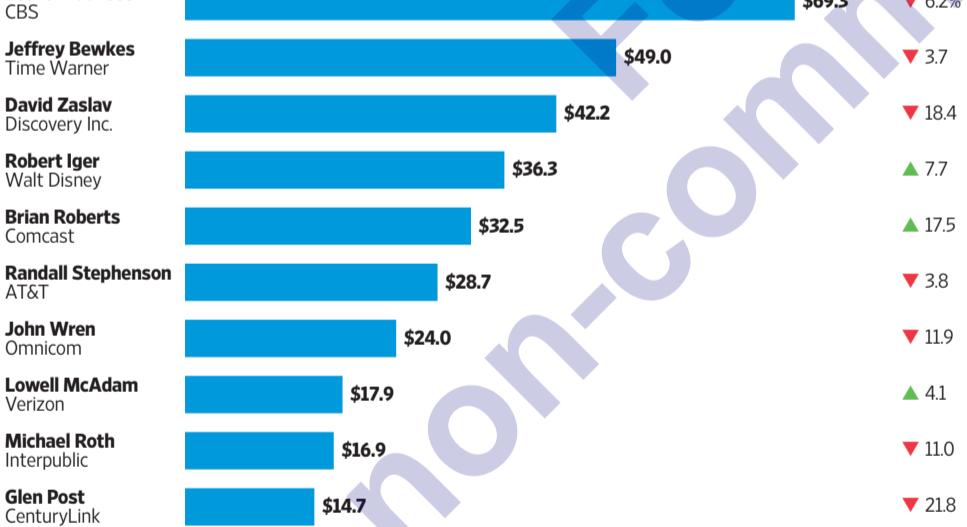
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"That's one of the things that's going to have to be worked out," said another studio executive.

Pay Disparity

Median pay for media and telecom CEOs dwarfed that of their peers even though their companies posted median total returns of -3.8%.

Highest-paid media and telecom executives



Notes: Industry groups defined by Standard & Poor's. Shareholder return reflects 1-year total shareholder return through the month-end closest to each company's fiscal-year end.

Sources: MyLogIQ LLC (pay); Institutional Shareholder Services (performance)

THE WALL STREET JOURNAL.

Media CEOs Get Big Paydays

By PATRICK THOMAS

It pays to be a media titan. Chief executives in the media and telecom industries made twice as much as their peers in the S&P 500 last year, even though the group's performance came up short.

The median pay for industry CEOs was \$28.7 million in 2017, more than double the overall median pay of \$12.1 million for the heads of all S&P 500 companies, according to a Wall Street Journal analysis of pay data from MyLogIQ LLC.

Media and telecom companies posted a median total negative return of 3.8%, compared with a positive return of around 19% for all S&P 500 companies. Total returns reflect share-price appreciation and dividends.

Out of the 11 media and telecom companies that had the same CEO for all of 2017, only four of them—Walt Disney Co., Comcast Corp., Verizon Communications Inc. and Charter Communications Inc.—had positive shareholder returns in 2017.

The sector's fortunes are in flux now that AT&T Inc. has acquired Time Warner Inc., and Disney and Comcast are in a bidding war for most of 21st Century Fox.

Leslie Moonves, 68 years old, who has headed CBS Corp. since 1998, was the sector's highest-paid CEO by a long shot.

Mr. Moonves made \$69.3 million in 2017, \$20 million more than the next-highest-paid chief, Jeffrey Bewkes of Time Warner, with about \$48 million. CBS returned a negative 6.2% to shareholders last year.

Mr. Moonves's pay is almost identical to his prior-year income of \$69.6 million.

The CEO's compensation is linked to performance, such as bonus and stock and option awards, according to regulatory filings. CBS had no additional comment beyond its annual filings.

David Zaslav of Discovery Inc. was the third-highest-paid CEO in the group last year. Mr. Zaslav made about \$42 million in 2017, outearning Disney's Robert Iger at \$36 million; Brian Roberts of Comcast at

\$32.5 million; and Randall Stephenson of AT&T at \$28.7 million.

Each of those three companies reported at least \$50 billion in 2017 revenue, compared with Discovery's \$7.5 billion.

Discovery posted a negative shareholder return of 18.4%. Discovery declined to comment beyond its proxy statement.

Messrs. Moonves, Bewkes, Iger and Zaslav often rank among the highest-paid media-company CEOs in the S&P 500.

Thomas Rutledge, CEO of Charter, was the lowest paid in the group at \$7.8 million. The cable and satellite company posted the second-highest shareholder returns at 16.7%, behind Comcast's 17.5%.

The Journal analysis used S&P's industry group for media and telecom companies, which includes broadcasting giants like CBS and telecommunications services such as Verizon and AT&T.

The Journal's analysis excludes CEOs who changed jobs or served less than a full year.



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CLOSED-END FUNDS

Listed are the 300 largest closed-end funds as measured by assets. Closed-end funds sell a limited number of shares and invest the proceeds in securities. Unlike open-end funds, closed-end generally do not buy their shares back from investors who wish to cash in their holdings. Instead, fund shares trade on a stock exchange. **W**hile it is the information available or not applicable, **N**S signifies fund not in existence of entire period. 12 month yield is computed by dividing income dividends paid (during the previous twelve months for periods ending at month-end or during the previous fifty-two weeks for periods ending at any time other than month-end) by the latest month-end market price adjusted for capital gains distributions.

Source: Lipper

Friday, June 22, 2018

52 wk Fund (SYM) NAV Close/Disc Ret Prem Ttl

General Equity Funds

Adams Divers Equity Fd	AIR	18.19	15.64	-14.0	19.3
Boulder Growth & Income BIF	12.37	10.48	-15.3	13.9	
Central Securities CET	33.91	27.83	-17.9	14.5	
CohSteer OptPrty Fd FOF	13.56	12.52	-5.2	8.9	
Cornerstone Strategic CLM	12.67	14.15	+11.7	15.8	
Cornerstone TR Fd CRF	12.31	14.25	+15.8	17.8	
EtrVnc TaxAdv Div ETV	23.07	23.50	+1.9	15.8	
Gabelli Dividend & Incm GDV	12.33	13.02	-5.4	11.7	
Gabelli Equity Tr GUT	4.96	5.84	+17.7	-5.4	
GenAmerican Investors GAM	41.41	35.06	-15.3	13.9	
Hnck John TaxAdv HTD	24.61	23.00	-6.5	-1.2	
First Tr EnrgyInfr Fd FFF	16.15	16.15	0.0	17.8	
First Tr EnrgyInfr Fd FEI	16.83	16.31	-3.1	-4.6	
First Tr MLP & EngIncm FEE	12.95	12.95	0.0	3.9	
Gabelli Hlthcr & Well GRX	12.10	10.14	-16.2	-0.6	
Gabelli Utility Tr GUT	4.96	5.84	+17.7	-5.4	
Gdn American Inv GAC	8.91	5.11	+1.0	2.9	
Goldman Sachs MktIncrp GMZ	NA	9.10	NA	8.0	
Goldman Sachs MktIncrp GER	NA	6.27	NA	0.5	
Goldman Sachs MktIncrp JDD	9.92	8.96	-9.7	11.1	
Galonos GlbInfrctr Inc CHW	8.92	9.13	+2.4	18.4	
Gdn Inst Inv CIG	37.04	25.80	-30.3	25.2	
China Fund CHN	23.63	21.28	-9.9	18.0	
Clough Global Edt GLO	NA	11.18	NA	16.9	
EtrVnc TxAdv GbDiv ETG	18.09	17.20	-4.9	8.9	
Macquarie GlbInfrctr MGT	25.83	22.23	-13.9	-3.7	
Eaton Vance DivOppt EOT	24.17	24.63	+1.9	10.5	
First Trust Dynamic Eq FDE	NA	16.35	NA	7.1	
Gabelli GlbMultimedia GGT	9.11	9.55	+4.8	19.8	
Eaton Vance DivOppt EOT	24.17	24.63	+1.9	10.5	
Neuberger Berman PlIncm NML	9.62	8.96	-6.9	8.4	
Neubrg Brm RlEst Sec FDO	NRA	5.10	NA	2.7	
Virtus Dom 30 Dynamic DIAK	18.21	19.06	+4.7	23.2	
Nuveen Core Eq Alpha JOF	14.00	14.99	+0.6	20.1	
Nuveen Diversified Div JDD	11.91	11.63	-2.4	3.4	
Eaton Vance Engy MLP BXM	13.89	14.19	+2.2	8.6	
Morgan Stanley Asia-Pac APF	20.17	17.41	-9.7	5.8	
Nasdaq 100 DnyOver QQQ	23.42	27.31	+16.6	31.8	
New Rel Est Hcm Fd JRS	10.79	9.82	-9.0	-4.4	
Nuveen Real Asset Income JRI	18.14	16.49	-12.2	0.0	
Nuveen S&P 500 Div Overwrite SPXX	NA	16.91	NA	16.7	
Nuveen S&P 500 Buy-Write SPXW	13.89	14.19	+2.2	8.6	
Nuveen S&P 500 Buy-Write SPXW	13.89	14.19	+2.2	8.6	
Reaves Utility Fund UTG	31.18	28.56	-8.4	-11.5	
BlackRock Rlcs Comm Str BCX	10.12	9.99	-8.2	25.5	
BlackRock & Strat BST	32.09	34.52	+7.6	59.9	
Tortoise Energy TYG	26.32	27.30	+3.7	5.0	
BlackRock Utilities Infr BUI	19.96	19.93	-0.2	3.1	
GBRECAirGlbRlEstm IGR	8.53	7.52	-11.8	5.5	
ClearBridge Amer Engy CBA	8.21	7.68	-6.5	-0.7	
ClearBridge Engy MLP Fd CEM	14.81	14.29	-3.5	7.5	
Clearbridge Engy MLP Opp EMO	11.72	11.10	-5.3	0.7	

Specialized Equity Funds

Aberdeen GlbProp Prop AWP	6.90	6.35	-8.0	9.3
Adams Natural Rsrcs Fd PEQ	23.68	19.94	-15.8	14.6
AllznGl NJF Div Interst NJF	14.29	12.89	-10.9	6.0
Blkrk Enh Cns Incl CII	17.11	16.44	-3.9	17.4
Blkrk Engy Res Tr BGR	15.42	14.76	-4.3	22.3
FstTrEnrgy Res Tr BDJ	9.66	9.12	-5.6	10.7
BlackRock Engy Res Tr BDJ	9.66	9.12	-5.6	10.7
BlackRock Engy Res Tr BDJ	11.88	11.18	-5.9	0.0
Blkrk Intl Grth&Incr BGY	6.33	5.80	-8.4	-0.9
Blkrk Health Sc BME	36.96	38.58	+4.4	13.8
BlackRock Rlcs Comm Str BCX	10.12	9.99	-8.2	25.5
BlackRock & Strat BST	32.09	34.52	+7.6	59.9
Tortoise Energy TYG	26.32	27.30	+3.7	5.0
Tortoise MLP Fund NTG	16.83	17.31	+2.9	3.5
GBRECAirGlbRlEstm IGR	8.53	7.52	-11.8	5.5
ClearBridge Amer Engy CBA	8.21	7.68	-6.5	-0.7
ClearBridge Engy MLP Fd CEM	14.81	14.29	-3.5	7.5
Clearbridge Engy MLP Opp EMO	11.72	11.10	-5.3	0.7

Income & Preferred Stock Funds

Calamos Strat Fd CSQ

Cohen & Steers Dur Pfd LDP

Calamos Global Dividend ZTR

Eaton Vance Eq Alpha JOF

Eaton Vance DivOppt EOT

Eaton Vance Engy MLP BXM

Eaton Vance Engy MLP BXM

Eaton Vance Eq Alpha JOF

Eaton Vance Engy MLP BXM

MARKETS DIGEST

Dow Jones Industrial Average

24580.89 ▼ 509.59, or 2.03% last week
 High, low, open and close for each of the past 52 weeks

Trailing P/E ratio 24.17 20.82
 P/E estimate * 16.18 18.17
 Dividend yield 2.22 2.32
 All-time high 26616.71, 01/26/18



Current divisor 0.14523396877348
 Bars measure the point change from Monday's open

J J A S O N D J F M A M J

18000 20400 21600 22800 24000 25200 26400

200-day moving average

Week's high

DOWN UP

Monday's open ▶ Friday's close

Friday's close ▶ Monday's open

Week's low

200-day moving average

Bars measure the point change from Monday's open

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18000 20400 21600 22800 24000 25200 26400

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Week's high

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200-day moving average

Week's high

MARKETS

Private Placements Carry Risk

Continued from page B1
among investor representatives about how the products are sold. More than 1,200 firms sold around \$710 billion of private placements last year, and sales for the first five months of this year are on track to top that record-setting tally, the Journal found.

Private placements, which could be stakes in anything from an apartment complex to a biotech company, can offer investors higher returns than publicly traded stocks and bonds. But there is typically less information available about the companies, increasing the risks for investors.

The clustering of higher-risk brokers underscores regulator worries about the largely unpoliced market.

"Sales of private placements are so lucrative to the brokerage firms that they are a perennial concern for regulators," said Brad Bennett, a former enforcement chief at brokerage watchdog the Financial Industry Regulatory Authority. Issues on the regulators' radar, he said, include whether the private placement offers a stake in a legitimate business, what selling perks or markups the brokers get, and how it is sold to investors.

Newbridge Securities Corp., in Boca Raton, Fla., was the biggest outlier among firms with more than 100 brokers, the Journal found: Investors have a 1-in-4 chance of getting a broker there with at least three red flags. Regulators sanctioned the firm 20 times—an average of twice a year—over the past decade, with fines of \$1.75 million.

Robert Abrams, general counsel at Newbridge, said that they assess each broker before hiring and added that the firm's 180 or so brokers are more likely to have red flags because they deal with investors more than many larger brokerages. "Firms like Newbridge become easy pickings for the lawyers," he said.

Most private placements are restricted to sophisticated investors, such as hedge funds

and insurers, seeking alternatives to public stocks and bonds. In some cases, relatively wealthy individuals can get in.

Regulators lean heavily on the hundreds of brokerages to monitor deals, but rich commissions create strong motivations to sell.

"Firms that permit brokers to peddle these products tend to put fee generation above what is good for their clients," said Andrew Stoltmann, a Chicago-based lawyer who represents investors in claims against brokers. "And brokers who want to generate fees at their clients' expense tend to flock to these firms."

Finra has warned in the past about "fraud and sales practice abuses" by firms and brokers in the market.

Lawyers representing investors say the red-flag firms identified by the Journal tend to hire troubled brokers for their track record in aggressively selling high-commission deals. Firms say their vetting of brokers goes much deeper than the number of red flags.

Most of these firms are small to midsized brokerages, with fewer than 500 brokers, and are spread throughout the country. The big Wall Street firms in general have proportionally fewer brokers dealing direct with investors, and also with multiple red flags. Only 2% of the more than 28,000 brokers at Merrill Lynch, for example, which is the brokerage arm of **Bank of America** Corp. and one of the biggest national firms, have three or more red flags.

Even though only around 4 out of 10 brokerages sell private placements, these brokerages account for more than half of the 94 firms that Finra expelled since 2013, the analysis found. For example, **Texas E&P Partners Inc.**, a brokerage in Richardson, Texas, was booted last year over its sale of interests in three oil wells.

Finra alleged that the firm falsified a document and its owner Mark Plummer failed to return money to investors for a well that was never drilled.

In 2016, the year the firm shuttered, more than half its 11 brokers had at least one red flag, the Journal found. Mr. Plummer said "all the Finra allegations were false" and his firm had left the industry before it was expelled.

other nonfinancial disclosures reported to the Financial Industry Regulatory Authority by the brokers and the firms on their public Finra BrokerCheck records. (This excludes disclosures of personal bankruptcies, tax liens and other financial issues reported on the filings, which may be less directly related to the broker's advice or conduct.)

A review of the percentage of brokers at each firm with three or more nonfinancial disclosures was based on brokerages with 10 or more brokers—about half of all current brokerage firms have at least 10 or more brokers.

To compare the red flags per broker at the typical firm selling private placements with the typical firm in the industry as a whole, the Journal used the median.

The analysis tallied customer complaints, regulatory investigations and actions, firings, criminal charges and



Quinnipiac University's \$530 million endowment, overseen by John Lahey, left, and Mark Varholak, has stuck to active stock picking.

University's Endowment Tops Class

By DAWN LIM

Quinnipiac University, a small school best known for political polls, is beating the biggest names in higher education at investing with the help of an unlikely force: the stock picker.

The private university tucked away in the Connecticut hills delivered annualized gains of 6.1% for the decade ended June 30, 2017. The returns are in the top 10% of U.S. schools ranked by the National Association of College and University Business Officers and Commonfund.

John Lahey and Mark Varholak, the two university administrators overseeing the roughly \$530 million endowment, say the school has steered clear of the crush of investors into index funds and big private-equity bets.

Instead, it achieved its stellar returns by investing 70% of its money with stock pickers and sticking with them.

Quinnipiac tapped one of its top managers, an obscure equities shop named **Greenhaven Associates**, in the 1990s. The Purchase, N.Y., firm manages nearly one-fifth of Quinnipiac's endowment. It delivered average annual returns of 17.1% before fees for the school between early 1999 and 2017, said people familiar with the matter, far in excess of the S&P 500.

"We know equities," said Mr. Lahey, the university's 71-year-old president. In contrast to more complex investments, in stocks "there's more transparency," he said.

The approach Mr. Lahey champions muddies the playbook for U.S. colleges seeking to increase their wealth and have more money to spend on attracting students.

Many investors have abandoned stock pickers as the U.S. stock market shrinks and money surges into low-cost indexes. The average actively managed fund focused on U.S. stocks trailed the S&P 500 in

High Marks

Quinnipiac University's endowment bested every Ivy League college in 2017.

School	Assets	One-year return
Quinnipiac University	\$0.58	20.9%
Dartmouth College	5.0	14.6
University of Pennsylvania	12.2	14.3
Columbia University	10.0	13.7
Brown University	3.5	13.4
Princeton University	23.8	12.5
Cornell University	6.8	12.5
Yale University	27.2	11.3
Harvard University	37.1	8.1

Note: Returns and asset values as of year ended June 30, 2017

Sources: the endowments; Cambridge Associates

THE WALL STREET JOURNAL.

the decade ended June 30, according to Morningstar data.

Quinnipiac, in contrast, has no money in index funds and stayed with stock pickers for the long haul.

Greenhaven began in the 1980s as an investment arm of a family office. Founded by value investor Edgar Wachenheim, the \$7 billion-plus firm is risk averse, deliberately aiming not to beat benchmarks. It seeks investments in companies with strong balance sheets that will benefit from changes the market overlooks.

Among Greenhaven's current investments are banks including **Citigroup Inc.**, auto makers such as **General Motors Co.** and home builders.

Many college endowments build complex portfolios managed by a swarm of managers. Greenhaven is one of the handful of equity managers investing Quinnipiac's money.

Unlike many of its peers, Quinnipiac doesn't rely on its endowment for any operating needs and plans not to spend from the pool until it hits \$1 billion. With no dedicated chief investment officer, Quinnipiac still bested every Ivy League college, with returns of 20.9% in fiscal 2017. Yale Uni-

versity posted returns of 11.3% and Harvard University 8.1%.

The university never felt the pressure to copy the model pioneered by Yale investment chief David Swensen

that pushed many college endowments to invest heavily in alternative and illiquid strategies such as private equity and venture capital.

The school, recognizing it doesn't have the same access to top buyout and venture managers as larger colleges, earmarks just 20% of assets split between hedge funds and private investments.

"They are aware of what other Ivies are doing and don't let others affect their thinking," said Peter Dunne, a managing director at a Bank of America Merrill Lynch institutional consulting group advising Quinnipiac.

The financial crisis vindicated its approach. Like other schools, Quinnipiac's endowment lost money in the 2008 credit crisis. But it recovered to its 2007 level by the end of 2009. Yale and Harvard took about seven years to return to their 2007 sizes partly because they were spending endowment money.

Currencies

U.S.-dollar foreign-exchange rates in late New York trading

Country/currency	Fri in US\$	Fri per US\$	US\$ vs YTD chg (%)	Country/currency	Fri in US\$	Fri per US\$	US\$ vs YTD chg (%)
Americas				Europe			
Argentina peso	.0370	27.0200	45.2	Czech Rep. koruna	.04519	22.128	4.0
Brazil real	.2644	3.7822	14.2	Denmark krone	.1564	6.3937	3.0
Canada dollar	.7538	1.3266	5.5	Euro area euro	1.1656	.8580	3.0
Chile peso	.001567	638.30	3.7	Hungary forint	.003588	278.69	7.6
Ecuador US dollar	1	1 unch		Iceland krona	.009237	108.26	4.6
Mexico peso	.0500	20.0095	1.7	Norway krone	.1235	8.0957	-1.4
Uruguay peso	.03152	31.7300	10.2	Poland zloty	.2696	3.7095	6.6
Venezuela b. fuerte	.00001379900.0001	77289.0		Russia ruble	.01588	62.959	9.2
Asia-Pacific				Sweden krona	.1129	8.8557	8.2
Australian dollar	.7440	1.3441	5.0	Switzerland franc	1.0124	.9878	1.4
China yuan	.1537	6.5059	0.04	Turkey lira	.2138	4.6773	23.3
Hong Kong dollar	.1275	7.8460	0.4	Ukraine hryvnia	.0381	26.2325	-6.8
India rupee	.01473	67.867	6.3	UK pound	.13264	.7539	1.9
Indonesia rupiah	.0000710	14080	4.4	Middle East/Africa			
Japan yen	.009093	109.97	-2.4	Bahrain dinar	.26379	.3791	0.5
Kazakhstan tenge	.02941	339.98	2.2	Egypt pound	.0560	17.8665	0.5
Macau pataca	.1238	8.0803	0.4	Israel shekel	.2775	3.6041	3.6
Malaysia ringgit	.2499	4.0020	-1.5	Kuwait dinar	.3307	.3027	0.4
New Zealand dollar	.6910	1.4472	2.6	Oman rial	.25973	.3850	0.02
Pakistan rupee	.00822	121.617	9.9	Qatar rial	.2745	3.643	-0.2
Philippines peso	.0188	53.285	6.6	Saudi Arabia riyal	.2667	3.7498	-0.02
Singapore dollar	.7361	1.3585	1.6	South Africa rand	.0744	13.4322	0.8
South Korea won	.0008993	1112.00	4.2				
Sri Lanka rupee	.0062897	158.99	3.6	Close			
Taiwan dollar	.03299	30.313	2.2	Net Chg			
Thailand baht	.03037	32.930	1.0	YTD Chg			
Vietnam dong	.00004369	22890	0.8	WSJ Dollar Index	87.83	-0.28-0.32	2.15

Sources: Tullett Prebon, WSJ Market Data Group

THE TICKER | Market events coming this week

Monday

New-home sales
April, previous 662,000
May, expected 668,000

Earnings expected*
Estimate/Year Ago(\$)
Carnival 0.59/0.52

Tuesday

Short-selling reports
Ratio, days of trading volume of current position, at May 31

NYSE 4.8
Nasdaq 4.2

Consumer Confidence
May, previous 128.0
June, expected 127.5

Earnings expected*
Estimate/Year Ago(\$)
FactSet 2.13/1.85
IHS Markit 0.57/0.52
Lennar 0.52/0.89

Wednesday

Mort. bankers indexes
Purch., previous up 4%
Refinan., prev. up 6%

GDP deflator
1st qtr. sec. est. up 1.9%
1st qtr., third est. up 1.9%

EIA status report

Previous change in stocks in millions of barrels

MARKETS

Index Funds Scurry as Russell Shuffles

By ASJYLYN LODER

A record 1.2 million shares worth more than \$39 billion traded in less than a second on Friday during Nasdaq's closing auction. The reason: the end of this year's rebalancing of FTSE Russell's widely followed stock indexes.

There is \$9.2 trillion pegged to Russell U.S. benchmarks, dwarfing the \$29.5 billion linked to the Dow Jones Industrial Average, which made headlines last week by ejecting General Electric Co. after more than a century.

When Russell adds and removes stocks each year to and from its indexes, stocks that are part of the revisions typically experience a trading spike 45 times the average volume, according to research from Keefe, Bruyette & Woods. This year, nearly 300 companies were added or dropped from the Russell 2000 alone.

Getting added to a prominent benchmark is akin to gliding past Wall Street's velvet ropes, a big boost for firms that otherwise hover beneath Wall Street's radar. Walgreens Boots Alliance Inc. climbed 4.6% following the June 19 announcement that it would replace GE in the Dow, even as the index remained flat. For lesser-known firms, winning a coveted spot in the Russell 2000, a popular index of small companies, helps them win the attention of investors.

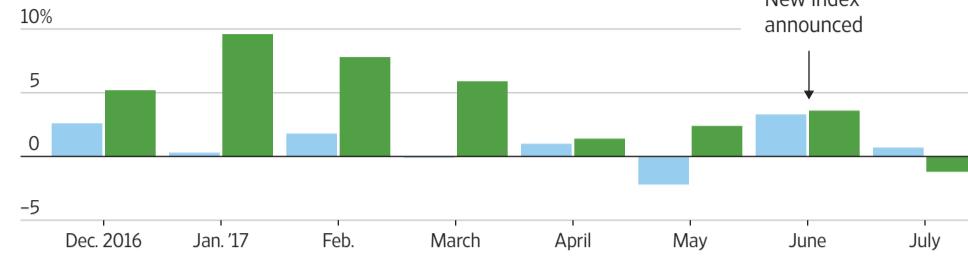
"You're suddenly attractive to all of these investors that couldn't buy your stock before because you weren't in their benchmark," said Melissa Roberts, head of quantitative research at Keefe, Bruyette, a New York investment bank.

The spike in trading activity underscores how index companies have morphed into some of Wall Street's most powerful stock pickers.

Investors have forsaken active money managers in favor

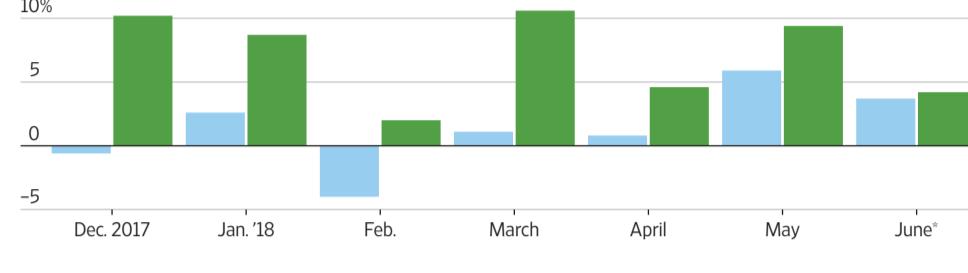
New additions to the Russell 2000 (green) beat the benchmark (blue) in the months leading up to the annual shuffling of the index but lagged behind afterward.

Monthly performance during the 2017 reconstitution cycle



The pattern appears to be repeating itself this year.

Monthly performance during the 2018 reconstitution cycle



It took a two-day surge in May to help First United earn a spot in the index.

Market capitalization, in billions

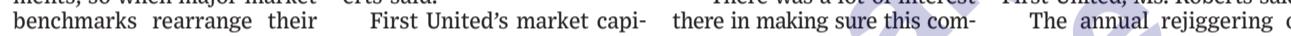
Trading volume, in thousands

*As of June 19

Sources: KBW Research, FTSE Russell, FactSet, all via KBW (performance of Russell 2000 additions); Bloomberg via KBW (market capitalization); FactSet (trading volume)

May 11 Cutoff date

June 8 Index lineup announced



THE WALL STREET JOURNAL.

of low-cost passive investments, so when major market benchmarks rearrange their lineups, those changes reverberate throughout the stock market.

The jockeying was evident last month as traders bid up shares of **First United** Corp., pushing its market value above the \$159.2 million threshold for inclusion in the Russell 2000, a popular index

of small companies, Ms. Roberts said.

First United's market capitalization was \$132 million on May 9, two days before the deadline to win a spot in the index. Over the next two days, its share price rocketed up 20%. By the time the closing bell rang on May 11, First United's market value had risen to \$159.37 million, making it one of the smallest new

entrants to the index.

"There was a lot of interest there in making sure this company made it in," Ms. Roberts said.

Investors say First United announced stellar first-quarter results on May 9. But professional traders build models designed to predict which companies will make the cut on deadline day, and the prospect of getting into the Russell

had an "accelerating effect" on First United, Ms. Roberts said.

The annual rejigging of the Russell indexes is unusually easy to predict, even in the world of plain-vanilla benchmarks, Ms. Roberts said. Firms such as **Barclays** PLC have become well-known Russell forecasters, and traders start placing their wagers on the changes months in advance.

"These are all signs of a transparent and efficient market, and it helps keep markets orderly as opposed to a surprise," said Rolf Agather, a managing director at FTSE Russell, a subsidiary of **London Stock Exchange Group**. He also pointed out that FTSE Russell has altered its methodology over the years to reduce turnover, which makes it tougher for traders to front-run their indexes.

Critics say all that speculation can inflate the prices of potential new additions and drag down the stocks that are being removed. Earlier this month, acclaimed investor Rob Arnott, founder of Research Affiliates, said fund managers who slavishly mimic their in-

\$39B

Value of stocks that traded in less than one second on Friday

dex end up buying high and selling low.

The picture isn't one-sided, Ms. Roberts said. Come rebalance day, passive investors need to buy and sell big blocks of thinly traded shares, and the traders who jumped ahead of the index, will supply much-needed inventory. Passive index-tracking funds had \$57 billion of trading to do after Friday's closing bell to get ready for Monday's changeover, she said.

Betting against the Russell also isn't a guaranteed win, said Jared Dillian, investment strategist with research firm Mauldin Economics. Traders aren't just wagering against the index. They also must outwit each other. "You're in this trade with a bunch of other banks and hedge funds," Mr. Dillian said. "But at some point you have to get out."

HEARD ON THE STREET

FINANCIAL ANALYSIS & COMMENTARY

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OVERHEARD

What's even smarter than smart beta?

Legendary investor Jim

Rogers

might have an answer.

His **Ocean Capital Advisors** rolled out the Rogers AI Global Macro ETF earlier last week.

His latest product might have been formed by a global voyage Mr. Rogers once took—a 22-month motorcycle trip that spanned 52 countries, which helped inform his 2003 book "Investment Biker: Around the World with Jim Rogers."

The new exchange-traded fund invests in other ETFs that track a particular country's stock market. The weighting of those underlying ETFs is determined by a "proprietary artificial intelligence-driven algorithm" that analyzes macroeconomic data to predict future stock-market moves. The algorithm uses that information to decide which country ETFs merit an investment, according to documents filed with the Securities and Exchange Commission.

Initial large allocations within the fund go to ETFs that mirror markets in Brazil, South Korea, Hong Kong and Mexico. Access to the artificial intelligence won't come cheap for investors: The fund's expense ratio weighs in at 1.18%.

Despite his international bona fides, the pricey ETF is surprising when one considers Mr. Rogers's vision for the future. In a 2012 interview with Steve Forbes, he predicted: "There's going to be a huge shift in American society, American culture, in the places where one is going to get rich. The stockbrokers are going to be driving taxis. The smart ones will learn to drive tractors so they can work for the smart farmers. The farmers are going to be driving Lamborghinis."

Maybe next year.

Home Delivery

Online grocery sales as a percentage of total



Sources: Planet Retail, Euromonitor, Bernstein (online sales); SIX (share price)

Ocado's share price

£12

10

8

6

4

2

0

£1=\$1.3241

THE WALL STREET JOURNAL.

Online Food War Builds

Amazon.com and **Wal-mart** have invested billions in e-commerce. Yet with one deal, **Kroger** took the lead in grocery delivery. Expect the two retail giants to fight back.

Americans currently buy just 2% of their food online. Those orders are dominated by packaged products with long shelf lives. Home delivery of fresh fruit and vegetables is much more developed in both Western Europe and China. In the U.K. roughly 6% of food sales are online.

The U.S. looks poised to catch up. Amazon's takeover of Whole Foods a year ago injected a new urgency into traditional supermarkets' efforts to sell goods online. They have since signed a flurry of deals with specialist tech companies. By far the most significant came last month when Kroger said it would work with U.K. online supermarket **Ocado**.

Ocado has invested heavily in the robotics and software necessary to automate fresh-food orders in its U.K. business. In its flagship warehouse, robots shuffle a "hive" of stacked boxes to expose the right groceries for human pickers to bag on behalf of customers. This high-tech approach is expensive but can achieve much

better picking rates than the solutions developed by the likes of **Tesco** in the U.K. and **Ahold Delhaize's Peapod** unit in the U.S.

Ocado is now focused on selling this technology outside its home market. The scale of its deal with Kroger, which involves building 20 automated warehouses over three years, took investors by surprise, and Ocado shares leapt 44% on the day.

Kroger plans to use the warehouses not just for home delivery, as Ocado uses them in the U.K., but also to fulfill online orders for collection in stores, and even to deliver some items to its regular store network. This is likely the only way it could justify such a large commitment.

The deal is likely to provoke responses from Walmart and Whole Foods, which haven't invested much in automating online grocery orders. "Amazon has every intention of re-engineering their supply chain. They just haven't done it yet," says Brittain Ladd, an industry consultant who has worked for both Amazon and Kroger.

try to rethink the online grocery supply chain. Mr. Ladd thinks one of the most promising is CommonSense Robotics, an Israeli-based company seeded by former Alphabet Chairman Eric Schmidt, among others.

The likely race among supermarkets into grocery tech will require additional capital. Brokerage Bernstein estimates that Kroger's new Ocado-designed warehouses will cost roughly \$400 million to build. Another problem for investors is that e-commerce is still hard to make profitable, so any growth in online sales at the expense of store sales will hit margins. Both pressures are manageable for the largest players, but will make it harder for them to increase cash flows.

If this doesn't sound appealing, neither does the status quo. For a reminder of what can happen when retail giants are late to e-commerce, investors need look no further than clothing chain H&M, whose shares have more than halved over three years, or Toys "R" Us, which went bust.

Groceries look set to follow low books, electronics and clothes online. Big supermarkets have no choice but to invest.

—Stephen Wilmot

Trade Fight Set to Squeeze Investors

With their escalating trade feud showing little evidence of hurting their economies, the U.S. and China aren't close to backing down.

Investors may get squeezed between the two giants before one of them cracks.

The U.S. already has put tariffs on steel and aluminum and will add a 25% tariff on \$50 billion in Chinese imports starting next month. China is matching the U.S. tariff for tariff. These actions have sent U.S. steel prices higher and U.S. soybean prices lower. But the broader economic effects so far appear negligible.

That could change soon. The administration is set to announce restrictions on Chinese investments in the U.S. next week, and President Donald Trump has threatened to retaliate against China's retaliation and put tariffs on more goods.

The administration thinks that China has more to lose in this dispute, since China runs a big trade surplus with the U.S. The real issue isn't who has more to lose but how long each side can bear the pain. This is where it could get dangerous for investors. Worries about what could come next weighed heavily on shares of companies that depend on China for business, such as Caterpillar and Boeing, last week.

The next round of tariffs against China, if it comes, will likely hit consumer goods. As a result, it won't affect just Chinese producers, but also U.S. retailers (if they absorb the cost increases) or U.S. consumers (if the price increases get passed on).

This is particularly true for the many goods dominated by Chinese production, such

as cellphones and footwear, where the ability to find other sources is limited. A lot of those China-made goods are produced by U.S. multinationals, so they, and their investors, will share in the pain.

China could also make things difficult for U.S. multinationals by stepping up regulations against them or encouraging Chinese consumers to avoid their products. And it has ways to blunt the impact of U.S. trade actions, such as supporting affected Chinese exporters and lowering the value of its currency.

China's leaders may not back down until there are serious economic or social consequences from the trade fight. The government has the ability to control the Chinese stock market, and leaders don't have to worry about elections. The White House does have to pay attention to the stock market, since sharp declines inevitably stoke economic fears. And it has midterm elections coming up.

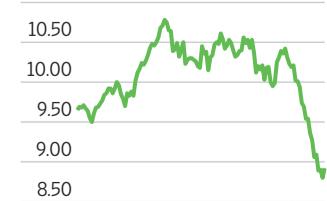
Until one of those tripwires gets hit, the trade fight could get more pitched, leaving investors to absorb the blows. It could be an interesting summer.

—Justin Lahart

Weak Harvest

Soybean near-month futures

\$11.00 a bushel



Source: FactSet

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HEALTH CARE

THE WALL STREET JOURNAL.

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Monday, June 25, 2018 | R1

SQUARING OFF

We invited advocates on each side of eight crucial health-care issues to make their best case. Read their debates here and join the conversation online.

Is There a Limit To The Human Lifespan?

Average life expectancy around the world has climbed steadily over the past 100 years. But longevity seems to have topped out at about 120 years.

Whether there is an absolute limit to how long humans can live is a hotly disputed topic. Here are the facts: The all-time verified age record was set by Jeanne Calment of France, who died in 1997 at age 122. No one has come closer than age 119 since. Yet the ranks of people older than 110 continues to grow.

To some researchers, this suggests there's a natural limit to how long humans can live—and we've pretty much reached it. Yes, average life expectancy has increased, thanks to things like clean water, improved living conditions and modern medicine. But these improvements can only do so much, and eventually the body wears out.

Others say, in effect, that past performance doesn't guarantee future results. New and emerging medical technologies, they say, might be able to slow aging to such an extent that not only will we live much longer, but we'll stay biologically "younger" well into what used to be old age.

YES

The Upper Limit Seems to Be 125

BY BRANDON MILHOLLAND



IN A NARROW sense, one could argue that there is no limit to human lifespan as there is no biological switch that triggers death after a certain period. However, mortality increases exponentially with age, with the odds of surviving getting smaller and smaller until they are effectively zero.

Even with modern medicine, a human will live past age 125 only once every 10,000 years, statistical modeling shows. Since that interval of time is longer than human civilization, we can be pretty confident in marking 125 years as the upper limit to human lifespan.

The probability of reaching the age of 125 isn't increasing either. Your chances of living to 80, 90 or even 100 are going up, but if you are lucky enough to celebrate your 110th birthday, your chances of living to 111 are the same as they were in the late 1960s.

This stagnation can be seen most clearly in the ages at death of the oldest verified people. Until the mid-1990s, the maximum reported age at death seemed to be going up at a steady clip, culminating with the death of Jeanne Calment in 1997 at age 122. In the intervening two decades, her record has remained unbroken. In fact, no one has even come close. Ultimately, nothing can disguise the fact that maximum longevity has remained flat for over 20 years.

This limit most likely reflects the exhaustion of the benefits accrued from the Industrial Revolution: greatly improved sanitation, clean water, improved living conditions and basic medical care. If human lifespan is to be extended, it isn't going to happen by incrementally advancing the current paradigm of health care.

The problem is, aging isn't activated or lifespan limited by a genetic switch or dial. If it were, extending human life would be as simple as flipping off that switch or turning the dial. Instead, lifespan is probably limited by multiple factors, and these factors may even be an inevitable consequence of the molecular mechanisms of life. Thus, extending lifespan will be a task of great complexity and difficulty.

Human aging is characterized by many things failing at the same time, which limits the effectiveness of most treatments at ex-

tending lifespan. For example, it has been estimated that even if a medical breakthrough cured all cancers, life expectancy would only increase by a few years because all those who were saved from death by cancer would die from other age-related causes not long after.

Alternatively, some researchers have suggested that boosting bioresilience, or the body's ability to bounce back from stress, is the key to extending longevity. While that may sound like a promising strategy, there is a good chance that human bioresilience is already close to the upper bound of what is biologically possible. Homeostasis, the tendency of organisms to maintain a relatively stable state in a changing environment, is one of the fundamental characteristics of life and has been honed by billions of years of evolution. Can a few years or even decades of technology hope to make a significant improvement?

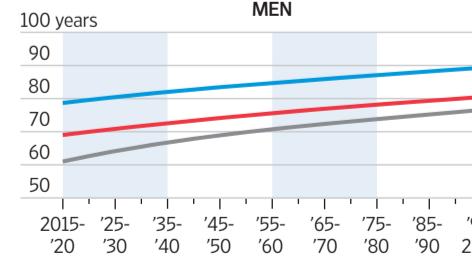
Neither the fixing-one-disease-at-a-time approach nor a transition to targeting bioresilience addresses the buildup of age-related damage, such as the accumulation of deleterious mutations within individual cells—which appears to progress at an exponential rate. Most antiaging treatments, even those that have shown promise in the lab, are usually met with diminishing returns as they move up to more complex animals. They have almost no effect when tested in humans, who are very genetically diverse compared with lab animals and live in a variety of environments.

To be able to not just understand the staggering complexity of human aging but effectively alter its course will require advances unlike anything seen before. There is no clear path to extending human lifespan. Those who wish to do so face a formidable challenge to prove their goal is even possible.

Dr. Milholland, co-author of several papers on aging and longevity, is a research associate at pharmaceutical-consulting firm Michael Allen Co. Email him at reports@wsj.com.

Growing Older

Average projected life expectancy at birth, in years, through 2100



Note: Countries are classified based on 2016 per-capita income figures from the World Bank

Source: United Nations, Department of Economic and Social Affairs, 2017 Revision of World Population Prospects THE WALL STREET JOURNAL

NO

The Key Is Bioresilience

BY JOON YUN

IT WILL TAKE a fundamental reinvention of biology to increase the maximum human lifespan, but I believe it is possible.

In 1907, mathematician Hermann Minkowski transformed physics by adding time to three-dimensional space. Doing the same to biology could transform our approach to solving aging. Specifically, it would represent a shift from promoting homeostasis (maintaining a stable internal environment) to promoting homeostatic capacity, or bioresilience (the body's ability to respond to stress).

Imagine bioresilience as a Weeble that self-centers when pushed. As we age, our Weeble handles stress—say, jet lag, injury or riding a rollercoaster—progressively less well. Our pupils respond inadequately to changes in light, so menus are harder to read. Our tolerance of temperature change weakens.

There also are changes that we can't feel. During youth, bioresilience returns elevated blood pressure, glucose and inflammation to baseline. As we age, those levels may no longer self-tune sufficiently. These seemingly unrelated features of senescence are manifestations of a common underlying phenomenon: declining bioresilience.

Many researchers say extending human lifespan beyond 125 years will be a difficult and complex task and won't be accomplished with modern medicine. But what if we radically changed our approach, by focusing on

boosting bioresilience, rather than using drugs to merely mask the symptoms of aging?

First, let's reimagine diagnostics. Science has largely relied on point-in-time static biomarkers to assess health. Yet, baseline heart rate changes little with age, while heart-rate recovery time after exercise correlates with age. Now imagine turning all current static tests into dynamic tests with capabilities for stress testing by adding a fourth dimension to diagnostics—time. By testing people's ability to recover, we would be measuring what really counts when it comes to functional longevity.

Next, let's reimagine therapeutics. We excel at acute care—restoring the body's equilibrium after infection or trauma. But treating chronic diseases such as aging using this model—propping up the Weeble—weakens bioresilience and induces addiction to drugs.

Shifting the focus to improving bioresilience has radical implications. Could intermittent low doses of prohypertensive interventions promote bioresilience and lower baseline blood pressure? Could safe levels of eustress—a positive form of stress—promote bioresilience to improve chronic disease? Such counterintuitive approaches are already validated by exercise and vaccination.

Third, let's reimagine lifestyle medicine. Instead of emphasizing fixed habits, we may want to encourage highly varied regimens to increase our dynamic range. By slowly exposing our bodies to variations in diet, exercise, temperature, stress levels, etc., we can strengthen our bioresilience to supernormal levels—similar to how an athlete trains.

These changes are a start, not a solution, to the longevity puzzle. I am also interested in editing genes and pathways involved in the intrinsic loss of bioresilience, particularly after reproductive maturation.

Scientists have long argued that there is no switch that controls aging, but what if they are wrong? If genes affecting bioresilience or senescence exist, I suspect they may be the ones that affect the regulation of molecular clocks, control systems and energy. I don't know if altering their functions would be possible, but I do know that every cell in our body carries genes for programmed cell death and that some of those cells are capable of self-deleting them. We call them cancer cells. There are some lessons to be learned here.

At age 40, the annual mortality rate in the U.S. is only around 0.2%. If science can maintain bioresilience and mortality rates at that level, potential lifespan would be determined by statistical risk of slings and arrows of life rather than term limits. You can do the math.

Dr. Yun is president of Palo Alto Investors and the \$2 million founding donor of the National Academy of Medicine's Grand Challenge for Healthy Longevity. Email him at reports@wsj.com.

INSIDE

Should the Government Limit a Physician's Ability to Prescribe Opioids? R2

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Is Robotic Prostate Surgery Better Than Traditional Surgery? R8

JOURNAL REPORT | BIG ISSUES

Should the Government Limit a Physician's Ability to Treat Patients With Opioids?

As the number of deaths from opioid overdoses continues to climb in the U.S., Congress is considering legislation aimed at reducing the number of prescriptions being written for the painkillers.

Overdoses of prescription opioids kill about 46 Americans a day on average, ac-

cording to the Centers for Disease Control and Prevention. That number has continued to rise despite a decline in recent years from a 2012 peak in the number of retail opioid prescriptions written in the U.S.

More than half of the states in the country already have passed laws governing how

YES

It Is the Only Way to Handle the Problem Of Overprescribing

BY RICHARD S. LARSON

 PRESCRIPTION opioids are a major contributor to the epidemic of opioid addiction and overdose deaths afflicting the U.S. The Centers for Disease Control and Prevention estimates that over 40% of opioid-related deaths involve a prescription opioid.

While many observers have noted the need to limit the aggressive marketing practices of drugmakers and lax controls on the distribution of opioids, they sometimes overlook another serious issue: the overprescribing of legal opioid drugs by physicians, dentists and other health-care providers. Without strict government regulation, that problem won't be solved.

Three personal experiences in the past two years have emphasized this point. About 18 months ago, my 17-year-old son had his wisdom teeth extracted. Without consultation with the dentist, he received a prescription, before the extraction, for three weeks of the opioid hydrocodone. Similarly, I had outpatient surgery, and later a periodontal procedure, for which I also received prescriptions for hydrocodone, before the procedures and without consultation with the providers.

In all three cases, we didn't fill the prescriptions. A few days of ibuprofen and Tylenol were more than adequate for our pain management. But our experiences aren't unique: Over 80% of patients receive opioids after low-risk outpatient surgeries—and too many of those prescriptions are filled.

Research shows that the seemingly compassionate use of opioids to minimize pain in minor medical procedures like these ultimately increases the number of chronic opioid users and overdoses. Once dependent, many users resort to cheaper illicit opioids, such as heroin and fentanyl.

More needs to be done

The challenge is to limit the number of new addictions without denying treatment to patients who suffer from debilitating chronic pain in situations like cancer or the nerve pain that can be caused by spinal-cord injuries, multiple sclerosis or other conditions.

For several years now, education and training of health-care providers to improve prescribing habits has been required, and it hasn't had enough of an impact. Moreover, the CDC could find no evidence demonstrating broad benefit from strategies such as health-care providers assessing the possible risk of each patient misusing prescription opioids, or the opioid management plans some providers have in place, or testing the urine of patients to determine if they're abusing opioids. Efforts on the part of individual health-care systems are inconsistent, and an external incentive is needed to motivate systems that have no such programs.

Although the steps already being taken are important, they aren't enough. To get significant results, they need to be augmented by the creation of regulations that encourage intelligent, safer prescribing practices.

A three-day limit

I believe—and these are my opinions and not those of my institution—that two key steps should be adopted immediately to limit overprescribing of opioids.

First, restrict prescribing practices in key situations. Specifically, we should limit outpatient prescriptions for acute pain (as opposed to chronic pain) to three days, and prohibit outpatient prescriptions to adolescents. Use of narcotic painkillers before high-school graduation strongly predicts later opioid misuse, as well as heroin use. Also require the lowest effective dose in the form of immediate-release tablets, which cut the risk of dependency.

To allow for opioid use when it's truly needed, these requirements could be modified after consultation with a pain specialist. But payments to health-care providers by the Centers for Medicare and Medicaid Services should be reduced or eliminated when opioids are prescribed in violation of these standards and others, including those of the CDC.

Second, health-care systems should be required to create opioid stewardship programs that monitor the prescribing habits of providers, with the results reported to state medical and dental licensing boards. Earlier experience with the standardization of antibiotic prescribing shows that such a system can be effective. Providers would risk losing their license if they prescribe inappropriately.

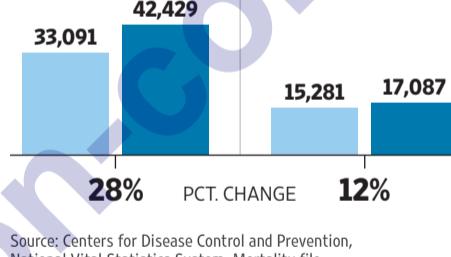
Improving access to a wider range of options for pain management, as some suggest, by boosting insurance coverage for alternative treatments is a step that should be taken. But it won't make a significant difference in overprescription of opioids, because physician and dentist behavior is too entrenched.

The only thing that will change prescribing behavior significantly is a new set of rules that are strictly enforced.

Dr. Larson is a professor at the University of New Mexico School of Medicine and executive vice chancellor and vice chancellor for research at the UNM Health Sciences Center. Email reports@wsj.com. Dr. Daniel Duhigg, program medical director for behavioral health at Presbyterian Health-care Services and clinical associate professor at the University of New Mexico School of Medicine, contributed to this article.

Opioids' Toll

Annual number of U.S. overdose deaths involving opioids



Source: Centers for Disease Control and Prevention, National Vital Statistics System, Mortality file

long patients can get opioids or how strong a daily dose can be, among other restrictions. On the federal level, several bills have been introduced that aim to limit opioid use, including a proposal to limit first-time opioid prescriptions to three days, but none of the legislation has yet come to a vote by the full

House or Senate.

Some people say legal limits aren't the best way to tackle the problem of overprescription. They worry that rules that limit physicians' ability to treat each patient as they see fit end up depriving many patients of the pain relief they need.

NO

Limits Will Deprive Suffering Patients Of Pain Relief

BY HALENA M. GAZELKA



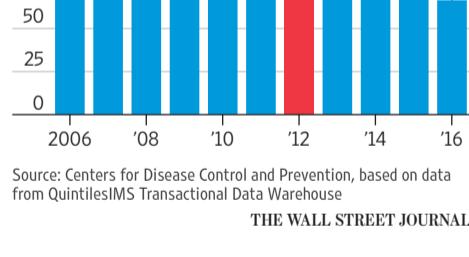
THE OPIOID epidemic is one of the most significant public health crises our nation has seen in decades, and there is no doubt that inconsistent prescribing behavior has played a role in this tragedy. It goes without saying that opioids should be prescribed in the smallest quantity necessary to address the clinical need, but government limits on the ability of physicians to decide the appropriate use of opioids for their patients aren't the answer. They could end up doing more harm than good, by depriving millions of people of the pain relief they desperately, and legitimately, need.

This isn't only a matter of the different needs of patients facing acute, or short-term pain, such as those recovering from surgery, but also patients in need of chronic pain management, like those with cancer or back pain. Regarding acute pain, for example, a patient recovering from the removal of wisdom teeth will have different pain-management needs than a patient recovering from a major orthopedic surgery or hernia repair. Two patients can also have very different needs in the same circumstances: Consider a 30-year-old athlete having knee surgery. She would require a different amount of medication than a frail 90-year-old recovering from the same procedure.

Because of such differences, absolute limits on opioid prescriptions will cause many people to suffer in pain. And allowing exceptions if a consultation with a pain specialist confirms the need for longer opioid use, as some suggest, is no solution to this problem. There are simply far too few pain specialists to handle all the legitimate requests that would be made for longer prescriptions. Many patients today wait months to see a pain specialist, and the additional demands on the specialists' time would only make that situation worse. That's a lot of pain for patients to endure.

Fewer Scripts

Number of retail opioid prescriptions dispensed, per 100 people in the U.S., is on the decline from a 2012 peak



Source: Centers for Disease Control and Prevention, based on data from QuintilesIMS Transactional Data Warehouse

THE WALL STREET JOURNAL.

A better way

Instead of imposing rigid prescribing rules, the emphasis of policy efforts should be on ensuring that providers are proficient in prescribing the right medication, in the right dose, for the right patient.

This responsibility lies not only with individual health-care providers but also with medical schools, health-care systems and state regulators.

Individuals and institutions must ensure compliance with standards of care: checking their state's prescription-drug monitoring system to be certain controlled substances aren't being obtained from multiple providers; keeping both acute and chronic prescribing within reasonable limits that vary by patient and situation; being certain that providers receive education on opioid management in medical school and thereafter, and more.

Providers can be highly effective in reducing the use of opioids by adopting thoughtful, evidence-based prescribing guidelines within their own organizations. As clinical leader of our Opioid Stewardship Program, I have seen tremendous results coming out of our efforts to identify the most appropriate prescribing behaviors to meet our specific patients' needs. Our first effort to apply suggested prescribing guidelines within our orthopedic surgery practice led to a 48% reduction in the amount of opioids prescribed, without significant impact on patient comfort or care.

Our success was achieved through active engagement and collaboration among our physicians, with no government intervention, and that effort could be replicated at organizations across the country. Combined with prescription-drug monitoring and ongoing public education, it is a solution that could be as effective as regulated prescribing limits, with significantly less risk of negatively impacting patient care.

A government role

Where government intervention is needed is in improving access to alternatives to opioids that can be equally effective but are less widely covered by insurance plans. Medicare and Medicaid coverage should be driven by clinical evidence demonstrating the effectiveness of treatment, and that isn't the case with some opioid alternatives. Examples include physical therapy, interventional therapies, cognitive behavioral therapy, and alternative medicines and therapies that aren't currently adequately covered.

Medicare and Medicaid should not be used as a tool to punish providers who step outside of prescribing limits for opioids, as has been suggested. Making insurance payments to providers dependent on limiting patients' access to these vital medications is likely to harm patients more than providers, because the patients won't be able to convince physicians to give them opioids they legitimately need if physicians are worried about scrutiny and compensation.

Dictating physicians' behavior should be limited to requiring education on the risks of long-term opioid use and proactive strategies for responsible prescribing.

Dr. Gazelka is an assistant professor of anesthesiology and perioperative medicine and practices pain medicine at the Mayo Clinic. She can be reached at reports@wsj.com.

Should States Be Allowed to Impose Medicaid Work Requirements?

Some states are looking to transform Medicaid.

New guidelines issued by the Centers for Medicare and Medicaid Services allow states to impose the first work requirements on the program's beneficiaries, one of the biggest changes in its 50-year history.

The move allows states to turn Medicaid from a guaranteed benefit based on income

into one that can deny aid to many adults if certain conditions aren't met.

Indiana and Kentucky are among states that have gotten approval to move forward with their efforts. Some Medicaid recipients must find jobs or undertake activities like training or community work to avoid being suspended from coverage.

Some states are also looking to make

other changes to Medicaid, including drug testing, premium payments and locking people out of coverage if they don't comply with requirements.

The different approaches reflect the complex political forces that surround safety-net programs. Many conservatives argue that people shouldn't receive government aid without working. Democrats and consumer

groups are decrying the Republican push, saying it is antithetical to Medicaid's goal of expanding health care.

As part of the pushback, advocacy groups have sued the Trump administration over the changes sought by Kentucky, asserting they go beyond the administration's authority. Oral arguments in the case begin this month.

YES

Many People Need An Incentive to Find Employment

BY ROBERT KAESTNER

HERE IS A no-brainer: It is good to work. There is ample evidence that working is associated with better health and greater economic security.

So, why is it controversial for states to encourage people on Medicaid to work? Because people ignore another piece of evidence: Many people on Medicaid won't work, although they almost

surely could, unless the government encourages them to do so.

Let's look at calculations I devised using statistics from the IPUMS Health Surveys: National Health Interview Survey. For 2015 and 2016, I crunched numbers for nonelderly adults with a high-school diploma or less, in good to excellent health, with no children. Among those not covered by Medicaid, 77% work. In contrast, among those receiving Medicaid, only 51% work. The inescapable fact is that the lower likelihood of working is partly due to being on Medicaid.

Similar results

Examining the survey data in different ways yields similar results. Among nonelderly adults on Medicaid in 2015-2016, 44% were in good to excellent health and had no children under age 17. Surely these people were able to work, but only 47% did so. Among a similar group of adults who weren't on Medicaid, 72% worked.

Please see MEDICAID YES page R4

NO

Work Requirements Are Unnecessary And Harmful to Users

BY SARA ROSENBAUM

VIRTUALLY AS soon as it took office, the Trump administration signaled its intention to roll back Medicaid. Four state work requirement programs have been approved, with more to come, under the logic that work improves health and restricting Medicaid readies people for the private sector.

Medicaid work requirements are wrong, for

three reasons. First, they are unnecessary. Second, they risk beneficiary health with virtually no gains. Third, they violate the both the letter and spirit of the Social Security Act.

Let's look at those reasons more closely.

Hitting the poor

Work requirements are unnecessary. Contrary to myth, 64% of nondisabled working-age beneficiaries already work or are seeking work. Seventy-nine percent of all working-age nondisabled adults in states that expanded Medicaid under the Affordable Care Act live in working families. Among working-age nondisabled adults who are themselves not employed, nearly all care for children or a family member or are themselves in poor health.

State requirements demand not only work, but a substantial minimum level of work. Poor adults who work less than required may be unable to secure more hours, or more than seasonal employment. Poor workers also report

Please see MEDICAID NO page R4

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JOURNAL REPORT | BIG ISSUES

Should Doctors Routinely Talk About Gun Use During Regular Patient Checkups?

Doctors have to know certain things about their patients to do their jobs well. But people disagree about what some of those things are.

Guns are a prime example.

With guns a leading cause of death, par-

ticularly among children, doctors are obligated to inquire about a patient or family's ownership and use of firearms at annual checkups, some advocates believe. The patient has the right to not answer or to lie, they say, but it is a physician's job to raise

tough issues. Strip away the politics, and guns are no different from any other health-risk factor.

Others disagree. They argue that asking patients about their use of guns, or their family's use of guns, is intrusive and none of

a doctor's business. What's more, some suspect political motives behind such questions. Some gun owners fear that if politically powerful forces were to succeed in restricting gun rights, information about guns in their medical records might not remain private.

YES

It Is the Doctor's Job To Keep Patients Safe From Harm

BY MEGAN L. RANNEY

 DOCTORS ABSOLUTELY should be routinely talking with patients about firearms. Doctors have conversations with patients every day about ways to prevent or reduce the risk of injury, disease and death. Some topics are broached with almost all patients: For instance, almost all doctors ask and counsel almost every patient about cigarette smoking. Other types of screening and counseling, such as about cancer prevention, depend on the patient and the reason for the visit.

We ask about signs of dementia, about child abuse, about suicidal thoughts, and about sexual orientation, even though some of these questions may be uncomfortable to our patients. We do this because it's our job to help patients to stay healthy and injury-free. Indeed, doctors are trained in how to ask sensitive questions and have sensitive discussions.

Similarly, discussing guns only becomes a controversial issue if we make it so.

Just as it is part of a doctor's obligation to talk about risk factors for heart disease, diabetes and domestic violence, we owe it to many of our patients (and their families) to talk about firearms.

So many deaths

More Americans die of firearm injuries than car crashes each year (38,000 deaths in 2016). About 100 people are killed, and 200 injured, each day in the U.S. by firearms. Gun injuries are the second-leading cause of death for children in the U.S. And almost two-thirds of U.S. gun-related deaths are suicides.

Most of these deaths and injuries are preventable. Research on gun-injury prevention has been stymied for years, but we do have evidence that for certain groups, discussing firearm access can reduce risk. Every patient with suicidal thoughts, for example, should be screened for access to firearms just as we also screen them for access to other lethal dangers.

Another high-risk group is children. Just as pediatricians talk about car seats, pool safety and bike helmets at every pediatric visit, they should be talking with parents about gun safety and proper gun storage.

Victims of domestic violence, and patients with dementia and their caregivers also should be engaged in discussions about gun safety. And youth at risk of homicide should be connected to programs and resources to help them get out of gangs or other dangerous situations.

Should gun access be discussed at every clinical visit? Probably not. There's no reason for, say, an emergency physician to ask a patient with pinkeye about guns—unless that patient happens to also be suicidal, or trying to leave an abusive relationship. Just as with every clinical discussion, context is important.

Some advocates of gun rights, claiming that doctors tend to ignore positive uses of firearms, have pointed to a report citing data that suggest widespread defensive use of guns. But the same report, from the National Academy

of Medicine, calls into question the reliability of the numbers the advocates cite, saying: "The variation in these numbers remains a controversy in the field. The estimate of 3 million defensive uses a year is based on an extrapolation from a small number of responses taken from more than 19 national surveys." The report points out that we also don't know whether the risk of injury is greater than the benefits gained by such uses. We clearly need better research to address this glaring lack of reliable data about defensive gun use.

Spreading fear

I strongly object to the idea that patient-doctor conversations are a governmental ruse to track people's firearms. Medical records are protected by the Health Insurance Portability and Accountability Act. The Affordable Care Act specifically forbids creation of databases related to firearm ownership. Suggesting otherwise amounts to fearmongering.

I agree that firearm-injury prevention is a complex topic. But doctors are accustomed to talking about all kinds of difficult subjects. And for doctors who are uncomfortable with or unused to talking about firearms, we have an increasing number of resources (such as the "What You Can Do" website) that help doctors have respectful and productive conversations about gun safety with their patients.

It's also worth noting that in an April 2015 online survey of more than 3,900 adults—including gun owners—a majority of those who responded agreed it was "at least sometimes appropriate" for doctors to discuss firearms with patients.

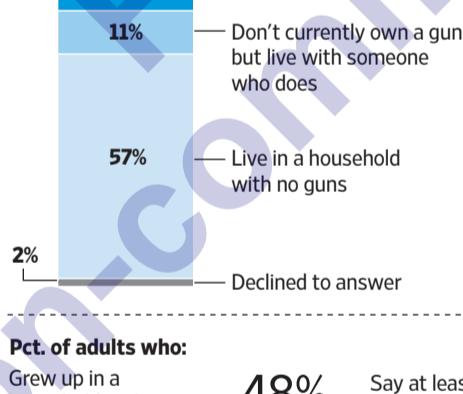
Doctors can and must talk with patients about firearms the same way that we talk about safe sex, smoking, or any other tough topic. We must do it with one purpose: to help keep them healthy and alive. Doing this is our job.

Dr. Ranney is an emergency physician at Rhode Island Hospital; an associate professor in the Department of Emergency Medicine, Alpert Medical School, Brown University; and chief research officer for the American Foundation for Firearm Injury Reduction in Medicine. She can be reached at reports@wsj.com.

Guns in America

U.S. adults report broad exposure to firearms, according to a Pew Research survey

Pct. of U.S. adults saying they:



NO

It Would Undermine The Trust Between Doctor and Patient

BY PAUL HSIEH

 AT FIRST GLANCE, asking patients whether they own or use guns might seem unobjectionable, like asking whether they smoke or wear seat belts.

However, when I asked several law-abiding, responsible gun owners, including other physicians, whether this was a good idea, their overwhelming response was, "No."

Most felt it was none of their doctor's business, and some said such a question might prompt them to lie or find another physician. One said, "It's annoying to be asked such an obviously politically motivated question." Even patients theoretically "at risk" told me they found the question intrusive. One mother of two small children said, "It's a hindrance to authentic conversation and crushes doctor-patient rapport."

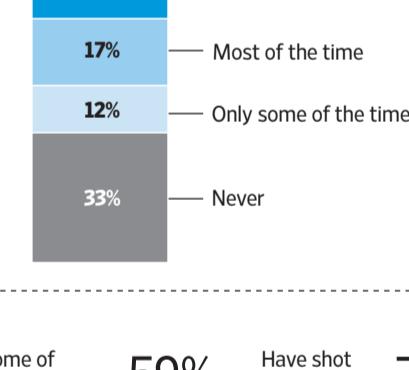
I agree with all these arguments. I also share the concerns of many gun owners I've spoken with, who were uncomfortable with the thought that their gun ownership could be noted and saved in their medical records.

Although the Health Insurance Portability and Accountability Act currently protects patient health information, laws can change and databases can be hacked. Given the politically powerful forces seeking to restrict Americans' gun rights, many gun owners are rightly concerned such sensitive data may not remain private.

Politically charged

Many medical societies aren't politically neutral in the gun-policy debate. The American Academy of Pediatrics supports "the strongest

Pct. of gun owners who say there is loaded gun easily accessible to them when they are home



Pct. of adults who:

Grew up in a household with guns . . . 48% Say at least some of their friends own guns . . . 59% Have shot a gun . . . 72%

Source: Pew Research Center survey of 3,930 U.S. adults, conducted March 13-27 and April 4-18, 2017; margin of error +/- 2.8 percentage points

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Medicaid Yes

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My opponent in this debate relies on different sources, and so comes up with different numbers. Some sources also make assertions that I strongly disagree with. On the other hand, I performed my calculations based on numbers drawn from the primary health surveys in the U.S., which cover over 30,000 households.

My opponent says large disenrollment is a terrible prospect for individuals and states. But many people will leave Medicaid voluntarily because of greater work and the availability of health benefits. And very few people will earn enough to be ineligible for Medicaid yet not have employer-sponsored insurance nor Obamacare. Children, it should be noted, aren't included under work requirements and will remain covered.

Moving forward

So, should everyone on Medicaid work? No. NHIS data indicate that about 18% of nonelderly adults on Medicaid in 2015-2016 were in poor health or had a limitation that prohibited work. Probably some share of the remaining 82% would be better served by not working.

What is a reasonable number? In 2015-2016, 42% of people on Medicaid worked. A reasonable goal would be to require at least 60% to work. This rate can incorporate work ex-

emptions for those in poor health or with a limitation that prohibits work.

This isn't a punitive plan. If people can't work because of illness or because they can't find child care, there is room in the target rate to allow them not to work. Nobody will be booted off the rolls involuntarily.

States can use work requirements, time-limited benefits, financial incentives and services to encourage a greater share of those on Medicaid to work. In addition, the employment-rate target can be linked to the national employment rate to allow for flexibility when macroeconomic forces make it hard to find work. To pay for costs associated with the program, and encourage states to meet the goal, Washington could link the federal matching rate for Medicaid financing to states' performance in encouraging enrollees to work.

The greater work effort among those on Medicaid will bring in additional tax revenue that will offset at least some of the costs. It is also likely that the greater work effort of those on Medicaid will allow a significant number to gain experience and skills that will help them earn their way off Medicaid.

Dr. Kaestner is a professor at the University of Illinois Institute of Government and Public Affairs and in the department of economics at the University of Illinois at Chicago. He can be reached at reports@wsj.com.

Transforming Medicaid

Several states are moving toward, or seeking to impose, work requirements on some Medicaid recipients

States cleared to pursue work requirements:

■ Arkansas ■ Indiana
■ Kentucky ■ New Hampshire

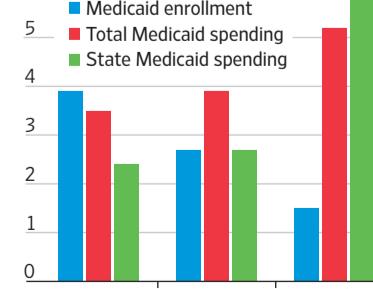
States with pending work-requirement applications:

■ Arizona ■ Kansas ■ Ohio ■ Maine
■ Mississippi ■ Utah ■ Wisconsin

Opposite Trends

Medicaid enrollment growth is slowing, but spending growth is accelerating as ranks of older, sicker recipients grow

Average annual rate of growth*



*Reflects percentage change from previous fiscal year

†Figures are based on projections in enacted budgets

Source: Kaiser Family Foundation

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Medicaid No

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that they can't get more hours because of barriers such as child-care obligations or poor health.

An exemption process is no answer; research has underscored the large number of people who lose benefits under work-requirement plans because of their complexity.

Work requirements carry enormous risk of harm. States' own proposals show their purpose is to reduce enrollment. But states' own estimates may pale compared with their true impact on poor people who struggle to find enough work and lack child care, job training or transportation. An expert brief filed in a federal lawsuit challenging the legality of work requirements estimates disenrollment could be as high as 85% in the first year alone, based on earlier work requirements for food stamps and cash welfare.

Losses, as experts note, could extend to entire community health systems as thousands lose coverage and depend on uncompensated care. States could see enormous costs, estimated by states themselves as high as hundreds of millions of dollars.

The administration claims that work improves health. But no empirical evidence supports this assertion.

I should point out that my opponent in this debate and I are using different sets of data. He also did

calculations himself, while I rely on research by experts in data analysis.

Of course, we draw vastly different conclusions. He says many working-age people on Medicaid could work. Why? Because the great majority of low-income people not on Medicaid do work. But there are big differences between the poor enrolled in Medicaid and those who are not; working-age adults on Medicaid are more likely to be older and/or in poorer health. Adults on Medicaid also may be more likely to live in pockets of high unemployment.

Nor do those numbers address the biggest question of all: Is it ethical to impose a model with the potential to cause enormous injury?

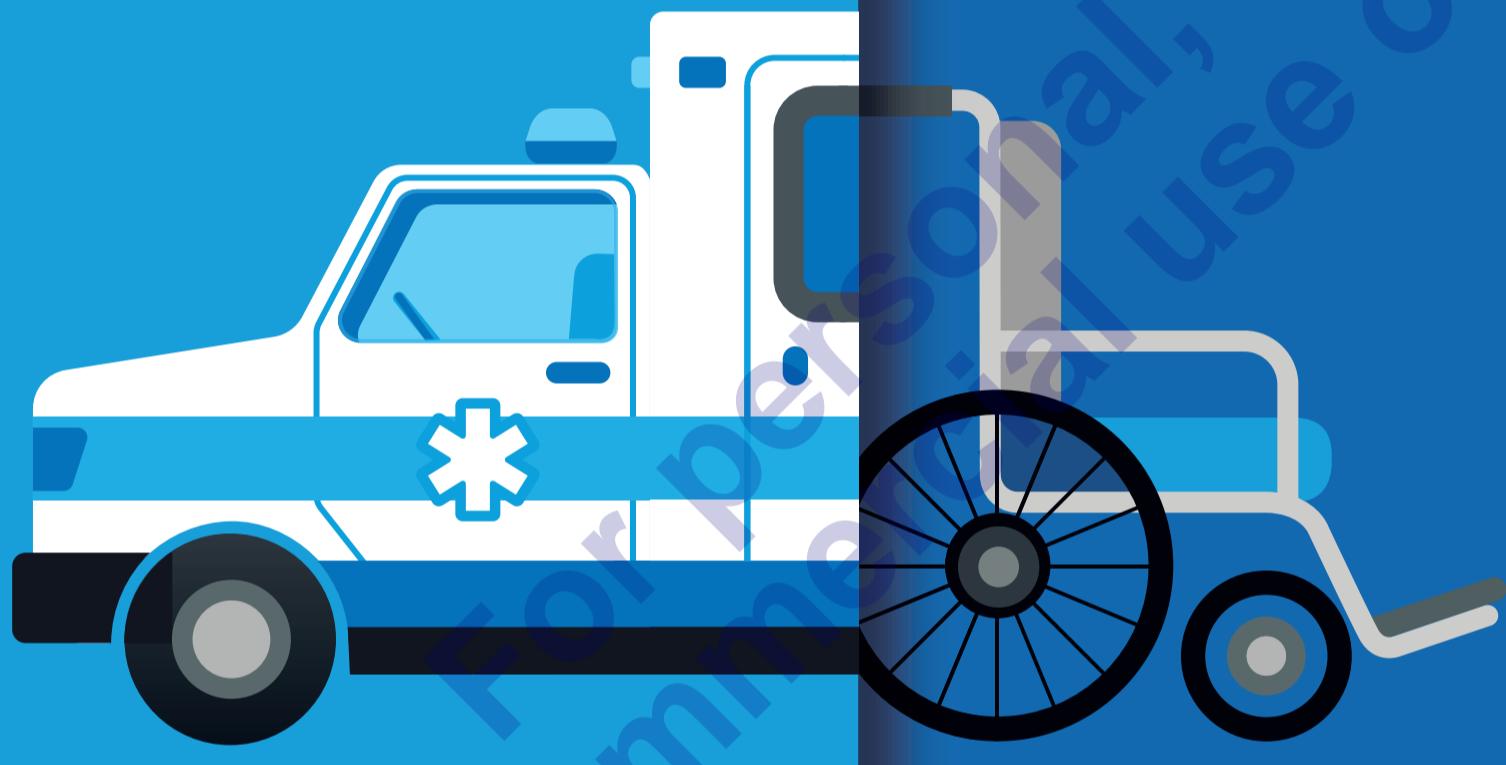
Violating the spirit

Work requirements violate the letter and spirit of the law. The Social Security Act was established to allow the government to test ways to improve the performance of programs for the poor. Medicaid work requirements that rest on flawed assumptions about work and health, while ignoring the potential for great harm, don't promote the purpose of Medicaid—they unravel it.

Ms. Rosenbaum is the Harold and Jane Hirsh Professor in Health Law and Policy at the Milken Institute School of Public Health, George Washington University. She can be reached at reports@wsj.com.

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JOURNAL REPORT | BIG ISSUES

How Can We Provide Better Incentives to Organ Donors?

BY AMY DOCKSER MARCUS

THE SHORTAGE OF organ donors is an urgent health crisis.

More than 114,000 people in the U.S. are currently listed as waiting for an organ transplant. Many will die before receiving one. Others endure long waits. In some places, waiting time for a kidney, the organ most in demand, can stretch for years, with prospective recipients continuing to suffer through debilitating dialysis treatments.

Organ transplantation in the U.S. is governed by the National Organ Transplant Act of 1984, which bars the sale of organs. The current system in the U.S. relies on convincing people to register as organ donors in case of death or serve as living donors. But altruism may not be enough to solve the shortage.

Some policy makers are starting to ask whether financial incentives or other types of inducements should be considered.

One policy idea that drew recent attention was to allow so-called imminent-death organ donation from people on life support before that support is withdrawn. Allowing such donations might increase the availability of organs that may not be viable for transplantation after a potential donor dies, but the ethical implications remain controversial.

We talked about options for increasing organ donation with Sally Satel, a doctor and fellow at the American Enterprise Institute and the beneficiary of two kidney donations; Alexandra Glazier, chief executive of New England Donor Services, which coordinates organ and tissue donation in six New England states and Bermuda; and Andrew Flescher, a professor of public health and English at the State University of New York at Stony Brook, and author of "The Organ Shortage Crisis in America." Edited excerpts of the conversation follow.

PROF. FLESCHER: The introduction of

WSJ: The gap between the number of people who need organs and the number of organs available continues to grow. Why is our current model failing to bridge that gap?

DR. SATEL: Having studied the issue for 12 years, since my first kidney transplant, I am convinced that the only solution—before technology makes donation from people obsolete, and it will—is to compensate potential organ donors.

PROF. FLESCHER: The way forward is living donation. Roughly 100,000 out of 120,000 folks who need an organ need a kidney, which can be procured from a living donor, as most of us are born with two kidneys. We need a way of getting everyone to care about the plight of folks on dialysis, not through any coercive measure, of course, but through simple exposure.

MS. GLAZIER: There is no question that need outpaces the supply significantly. That said, it's important to recognize that the number of deceased organ donors in the U.S. has increased 26% in the past five years (2012-2017) and the number of organs transplanted has increased 28% over the same period. In the New England region, the increase was more than double this rate over the same time period. This growth is attributable to systematic performance improvement in three areas: increased authorization through donor registries—there are now 141 million registered donors in the U.S., according to Donate Life America—and surrogate permission; expanding the pool of clinical suitable donors, for example, transplanting organs from HCV and HIV positive donors; and utilizing technologies such as ex vivo devices to repair and transplant previously nontransplantable organs.

While these efforts are working, we need to continue to leverage innovative strategies in each of the three key areas to meet the growing demand.

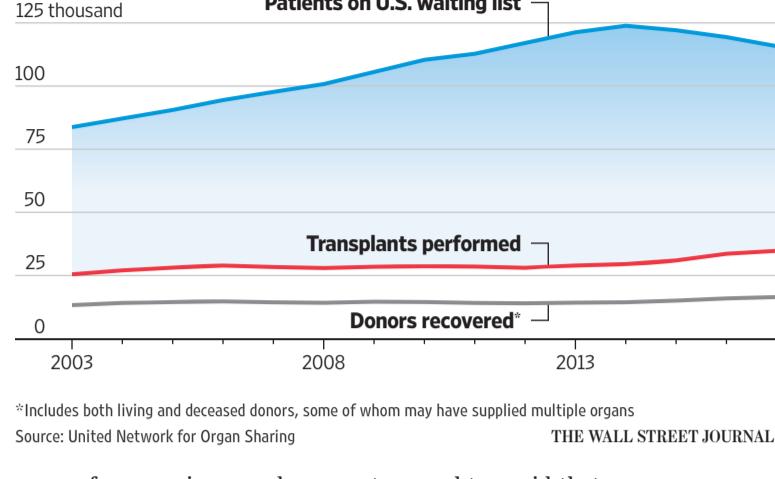
PROF. FLESCHER: I certainly do not think paying living donors is the way to go.

DR. SATEL: But what is left? I suppose the real question is what is so aversive about enrichment of some kind? Surely, we do it with plasma, egg, sperm, body, as in donations in medical schools, maternal surrogacy, breast milk, hair. We already pay for body products. And, of course, my colleagues and I do not recommend lump-sum cash, because we do not want to attract desperate, impulsive people who may regret acting. Instead, rewards could include things like tax credits, lifetime health insurance, a contribution to a 401(k) account or a tuition voucher.

PROF. FLESCHER: The introduction of

Organ Shortage

Gap in supply and demand persists, despite advances in medicine and increased awareness of organ donation and transplantation



*Includes both living and deceased donors, some of whom may have supplied multiple organs

Source: United Network for Organ Sharing

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money for a precious good comes at the cost of the ability for one to aspire to virtue, if not as hero, than as a civic-minded, socially conscious neighbor, free to act, and to be perceived as acting, out of the motive to offer help to one in need.

Once something is monetized, it is monetized for everyone.

DR. SATEL: Claiming commodification is usually a way to shut down the conversation about incentives. What exactly will happen? At its core, the charge of commodification centers on the issue of respect. And there are myriad ways to respect potential donors who would like to be enriched while saving someone's life.

MS. GLAZIER: Nonfinancial incentives should be considered, such as the idea of reciprocity—if you register as a donor you would receive priority as a transplant candidate if you ever needed a transplant.

Living donation should be a financially neutral act. Living donors should be paid for costs like travel and lost wages, and the federal law provides for that.

WSJ: Sally, can you please sum up the central tenets of how compensation for living donors would work?

DR. SATEL: The principles of a system of compensation are these: 1. Informed consent. 2. Ensuring health protection, before and after. 3. An ample reward—something trivial amounts to exploitation. 4. Respect for autonomy of people who know what is in their best interest. 5. Expression of gratitude for the lifesaving act they performed.

I suggest a waiting period of six to 12 months to ensure that the would-be donor is sure he or she wants to proceed. And a noncash reward, because a cash reward will appeal to impulsive decision makers, and we

need to avoid that.

PROF. FLESCHER: One pilot program occurring at UCLA of which I am in favor, utilizing the concept of a voucher, enables living donors to donate a kidney ahead of the time they expect a friend or family member of theirs to require a kidney transplant. In this case, "banking virtue" by keeping a record of what the donor has done allows the possibility that that donor's loved one will be a prioritized recipient later on, when the time is appropriate.

I do think a problem occurs if vouchers are allowed to be issued, not for the same good of a future transplanted kidney, but for another comparable benefit.

For example, if we determine that donating a kidney now confers upon me the ability to use this credit for premier health insurance coverage for a period of time, or indefinitely, then some questions begin to emerge. Am I unduly advantaged because I am in position to donate my kidney in contrast to someone who isn't? Should my ability to donate a kidney entitle me to comprehensive health insurance coverage? Something less? Something more? And who represent the legitimate authorities by which the relative value of comparable goods are fairly assessed? While it is easy to make the case that a kidney is worth a kidney, this case quickly gets complicated when we start to replace one sort of especially precious, valuable good with a different one.

MS. GLAZIER: I think innovative ideas like the future-voucher system need to be explored—a nonfinancial incentive. However, I would caution that the future-voucher idea may be problematic under the law because a future-gift promise is generally legally unenforceable by a third party.

WSJ: All three of you agree on the idea it is worth trying some new approaches, running small pilot trials to test novel concepts. Can pilots be done now?

MS. GLAZIER: I think imminent-death donation should be explored.

A patient with a nonsurvivable brain injury where the family and care team have decided to withdraw ventilator support and want donation, but donation after cardiac death is not an option for clinical factors—it is possible to recover a kidney prior to withdrawal and death. I think with appropriate consent for that unique type of living donation, there are paths forward that are ethically supportable to make such donation opportunities available.

DR. SATEL: Imminent death is acceptable to me. With tight protections, of course.

PROF. FLESCHER: I am worried about imminent death. People will be induced not to be careful if in a rush, which they will be in, and it will play miserably with the public and do little for the cause of advertising the larger cause. Bad idea.

Here's an innovative idea: We should facilitate the ability for folks who are already interested in the plight of patients getting dialysis to sit with those patients for one or a few of their infusions.

My sense, informed by interviews and other feedback I've acquired in my years as a living-donor advocate, is that if there is a way that dialysis centers can make this visitation possible, the patient getting the infusion would acquire the immediate solace of forming a connection with someone else who cared about what he or she was undergoing, a certain percentage of whom would choose to become living donors themselves out of compassion.

DR. SATEL: With all due respect, do you want your child to be wheeled into dialysis by a friendly neighbor, or saved from a stunted childhood and premature death by someone who gave a kidney in order to get some financial security for his family, knowing he would be saving someone like your child from a pretty lousy fate? Be realistic.

PROF. FLESCHER: I believe I am being realistic.

You have yet to explain how a paid stranger is more likely to step up to the plate. And you are underestimating the power of forming a selfless disposition, as well as the frailty of relying on opportunistic gain. And I say this with all due respect, Sally, as I know you lived it.

Ms. Dockser Marcus is a Wall Street Journal reporter in Boston. Email amy.marcus@wsj.com.

Is Screen Time Bad for Children's Mental Health?

BY ELIZABETH SEAY AND JEANNE WHALEN

MANY PARENTS are concerned about how much time their children spend on cellphones, Xboxes and other digital media. Some experts say they should be: There is a growing body of research showing an association between unhappiness and the time adolescents spend on digital media.

What is less clear is whether screen time is causing mental-health problems or if children with worse mental health spend more time with digital media.

To assess the research, we went to Jean Twenge, author of the book "iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy—and Completely Unprepared for Adulthood—and What That Means for the Rest of Us"; Michael Rich,

founder and director of the Center on Media and Child Health in Boston and an associate professor at Harvard Medical School; and Cara Booker, research fellow and acting graduate director at the University of Essex in the U.K., who has studied the effects of social-media use on children and adolescents. Edited excerpts follow:

WSJ: What does the evidence tell us about the links between screen time and children's mental health?

DR. RICH: Perhaps the question

should be whether screen use can be problematic for mental health. With one exception, screen time is less important to mental health than screen content and the context in which it is consumed and created. It is what children and adolescents are exposed to and encouraged to do with screens that helps or harms.

Where screen time becomes an issue is when it is displacing more productive or meaningful activities. For some, screen time can become compulsive, taking up more of their waking hours until they are functionally impaired. My colleagues and I describe this as Problematic Interactive Media Use, or PIMU, and over the past five years, we have seen a dramatic increase in young people whose gaming, social media, pornography or information-binging has resulted in sleep deprivation, school failure, relationship problems, anxiety and depression.

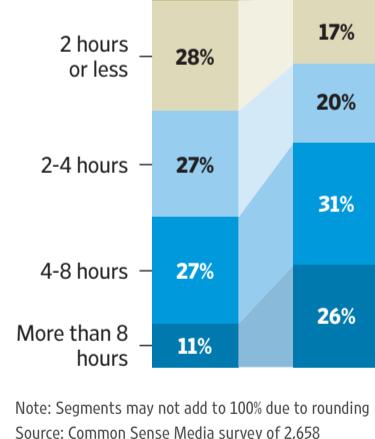
DR. BOOKER: Most of the research that I focus on looks at social-media use and mental health, and unfortunately the findings are mixed. There are some studies that find either positive or no effects of social media. Others find negative effects. Much of this debate surrounds the question of time versus content. Some studies look at time and find negative effects, while others examine content and find lesser effects.

DR. TWENGE: Several large studies show that use of digital media beyond two hours a day of free time, and especially beyond four hours a day, is correlated with more depression and unhappiness in teens. Several longitudinal studies show this, as well. Sheer amount of time with screens, not just content, does matter, probably because those higher levels of use are enough to displace time spent on more beneficial experiences such as face-to-face interaction. It also is well-documented that digital media can displace or disrupt sleep; that alone could explain the link with compromised well-being.

Many of the mixed findings in the field are explained by two factors. First, some find links between positive experiences online and positive

Steady Diet

The proportion of tweens and teens who spend the following amount of time with screen media on any given day:



Note: Segments may not add to 100% due to rounding

Source: Common Sense Media survey of 2,658 U.S. children age 8 to 18, conducted from Feb. 6 to March 9, 2015

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well-being, which isn't surprising and isn't the same thing as time spent online. Second, most studies don't control for level of face-to-face social interaction. The same teens who spend more time with their friends in person are often those who are active on social media, so if that isn't controlled for it can wash out the effect on well-being. We found, for example, that the most unhappy teens were those who spent more time than average with digital media and less time than average on face-to-face social interaction.

WSJ: What are the main weaknesses of the research so far?

DR. BOOKER: We haven't fully explored the mechanisms through which screen use and children's mental health are related. As has been mentioned, sleep is a large part of it. But there are other factors such as self-esteem, cyberbullying, body image, etc. that haven't been fully addressed. I also don't think that we have explored gender, cohort

or ethnic differences enough and whether those exist. For example, in my research we found a relationship between social-media use and mental health among girls but not boys. [Ten-year old girls who used more social media were at higher risk of poorer well-being by age 15.]

DR. RICH: Mental illnesses result from the influences of many factors from genetics to environment to events in the individual's life. If we don't measure many factors affecting the individual, we are missing many pieces of the puzzle. This is exactly why the data are mixed.

Jean is right, there are correlations between screen time and adverse mental-health outcomes. What we don't know is whether screen time or screen use contributes to those outcomes, whether they are the result of abnormal psychology, or are an indicator of dysfunction.

DR. TWENGE: We need more experimental random-assignment studies to determine causality (does screen time cause low well-being, or does low well-being cause screen time?). Overall, though, doing experiments will be difficult. I got interested in tech and well-being in the first place because iGen (those born after 1995) are the first generation to grow up with smartphones and are also much more likely than teens five to 10 years ago to be unhappy and depressed.

It isn't possible to show a connection between these two things experimentally because you can't randomly assign people to grow up at different times. Experiments can be done, but they don't capture the whole of the generation's experience.

WSJ: In terms of mental health, how does social-media use compare to playing computer games or, say, Instagram to Snapchat?

DR. BOOKER: Current evidence suggests there is a relationship between increased screen time and poorer mental health. However, this doesn't mean we can just say use less. This is a multifaceted issue that will need to be addressed through multiple avenues. What we can do now is increase digital literacy among young people and have parents model good practice.

DR. TWENGE: The research points to a limit of 2 hours a day or less of leisure time spent on digital media. Phones should be shut down at least 30 minutes before bedtime.

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JOURNAL REPORT | BIG ISSUES

Should States Allow Insurers to Offer Bare-Bones Health Plans With Fewer Mandated Benefits?

Last week, President Donald Trump issued a rule allowing access to health plans that don't meet certain requirements of the Affordable Care Act. These products—which don't have to offer the comprehensive benefits that ACA plans do—will be available to small businesses and the self-employed. And

Mr. Trump is expected next to lift limits on the duration of short-term insurance plans sold to individuals, which also circumvent some ACA rules.

Each state can decide how to regulate these types of insurance plans, which may exclude different types of coverage, including

maternity services, outpatient prescription drugs and mental-health care. If the plans have fewer benefits than ACA plans, they will cost less, and if they have a healthier pool of enrollees, their premiums could be sharply lower as well.

Advocates of these plans say they are a

welcome change and offer more choice.

But supporters of the ACA say that insurance with fewer benefits will come back to bite its buyers, and that drawing healthy people out of the ACA markets will cause premiums to rise further for sick people and others who remain in the system.

YES

Give Consumers the Insurance They Want But Can't Now Buy

BY DOUG BADGER



THE AFFORDABLE CARE Act's regime of regulations, penalties, mandates and subsidies has accomplished a remarkable feat: It has produced unaffordable insurance coverage that often doesn't finance care for those who need it most.

The federal government should therefore give states flexibility to permit the sale of alternative policies.

Let's start with premiums. A 40-year-old selecting the cheapest possible policy on the ACA marketplaces pays an average annual premium of more than \$4,000. For a family of three, premiums for the lowest-priced plans average more than \$10,600. The deductible for such coverage averages over \$12,000, meaning that the family would have to run up more than \$22,000 in medical bills before they broke even on their insurance outlays.

And those are the costs for in-network services. The costs involved in getting out-of-network care have rendered the "essential health benefits" an empty promise for many of the sickest patients. For example, MD Anderson Cancer Center in Houston is not part of any ACA network in Texas. For a patient with an ACA plan to be treated there and have the coverage be considered in-network, he or she must have a referral and convince their plan to grant a one-time exception. Lots of luck.

Getting treated by non-network providers is pretty much indistinguishable from being uninsured. Your ACA policy won't pay a dime. And the thousands—or tens of thousands—of dollars you spend on care won't count toward your deductible or out-of-pocket spending caps.

There should be fewer surprises for purchasers of the short-term plans. The administration's proposed rule requires insurers to include a disclaimer informing consumers that their plan isn't required to cover federal "essential health benefits."

ACA enthusiasts insist that consumers would be harmed if states were allowed to deviate from the fine-sounding benefit package and other regulations written by lobbyists and their friends in the Obama administration.

They fear that if states permit insurers to offer alternatives to ACA policies, many will choose the alternative. It is a telling admission. If ACA policies are as good as their advocates say they are, why do they fear that consumers, given the choice, will flee them?

ACA advocates also believe they must save consumers from themselves by restricting their choices. The ACA coerced state health-insurance regulators into enforcing federal regulations. Intoxicated by their own ideas, the architects argued that regulations that (allegedly) worked in Massachusetts would work in Mississippi and Montana. That has proved false.

Just as misguided is the criticism that the new short-term plans aren't really short term. The rule the Trump administration is considering merely reinstates the regulation that was in effect for 20 years—from 1996 until Jan. 1, 2017—and that defined short-term plans as coverage whose duration was "less than 12 months." No court enjoined that rule.

And let's not characterize short-term plans as unfair because they may appeal to healthy people. ACA policies have always attracted the sick and repelled the healthy, creating unstable risk pools and unaffordable premiums. Giving healthy people the option of affordable coverage will induce some to gain coverage who would otherwise have been uninsured.

The Affordable Care Act broke the insurance markets. Repairing them will require flexibility and choice—flexibility for states to deviate from the ACA's regulatory scheme and choice for individuals and families to select the coverage that is best for them.

Mr. Badger is Senior Fellow at the Galen Institute and Visiting Fellow at the Heritage Foundation. Email: reports@wsj.com.

NO

These Plans May Entice People Who Will Then Regret It

BY NICHOLAS BAGLEY

HEALTH INSURANCE is complicated. In many states, it's about to get worse.

Within weeks, the Trump administration is expected to release a rule giving insurers more freedom to sell "short-term" health plans

that don't comply with the Affordable Care Act's key protections. These plans can refuse to cover pre-existing conditions, maternity care, prescription drugs and mental-health treatment. And what if, God forbid, you're diagnosed with cancer? Better hope you don't burn through the dollar caps on coverage.

The impending rule seeks to exploit a loophole exempting "short-term limited duration insurance" from most ACA rules. These short-term plans were meant to fill temporary breaks in coverage, not to substitute for comprehensive insurance.

But the Trump administration wants to define a health plan offering coverage for 364 days in a year as "short-term" insurance. That's a legally dubious move: The courts may not stand for it.

And neither should the states. Even after the rule is adopted, they are free to prohibit sales of short-term plans, as five Northeastern states have already done. Failing that, the states can regulate the plans and limit their sale.

Where states allow short-term plans without restriction, the plans will be a lot cheaper than those sold on the exchanges because they don't have to comply with the ACA. But that low price comes with big trade-offs.

Short-term plans don't have to sell to all comers, nor do they have to cover pre-existing

conditions. Sick people will have no real choice but to buy insurance on the exchanges. To cover the medical costs of a relatively sicker group of people, exchange insurers will have to increase their premiums.

People who earn less than four times the poverty level will be shielded from the price increases because the ACA caps premiums at no more than about 10% of income. The federal government, however, has to pick up the rest of the tab—so as prices go up, federal outlays will, too, squandering an estimated \$38.7 billion over 10 years.

Hurt worst will be people who earn more than four times the poverty level. Federal actuaries estimate that they'll pay 6% more on account of the short-term rule by 2022. That will come on top of price increases associated with Congress's repeal of the individual mandate. In 2019 alone, the Urban Institute predicts that insurance prices will grow, on average, by about 18%.

Beyond that, people who buy short-term plans may be surprised to discover just how stingy they are. Insurance is complicated: people rarely read, much less understand, all the fine print. And there's a lot of fine print.

Short-term plans entice consumers by promising access to a wide range of physicians and hospitals. But these plans often cap outlays at \$250,000, and virtually no short-term plan pays more than \$2 million. Once you exceed coverage limits, the plans won't pay a dime for your medical care.

These plans also have big gaps in coverage. No short-term plan covers maternity care, according to an analysis by the Kaiser Family Foundation. More than two-thirds don't cover prescription drugs, and nearly half don't cover mental-health services.

States that don't restrict the sale of short-term plans will watch idly as their insurance markets deteriorate and their residents learn, to their dismay, that a cheap health plan doesn't cover them when they need it the most.

Sometimes you get what you pay for.

Mr. Bagley is a professor of law at University of Michigan Law School. He can be reached at reports@wsj.com.

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JOURNAL REPORT | BIG ISSUES

Is Robotic Prostate Surgery Better Than Traditional Surgery?

Men with prostate cancer face difficult choices. Among them: If they decide to have their prostate removed, how should it be done?

The traditional open surgery, in which a surgeon operates through a single long skin incision, is starting to be replaced by robotically assisted laparoscopy, with a surgeon

operating a robotic system that performs the surgery through smaller incisions. (A third option, laparoscopy performed by a surgeon without the robotic system, is available but has been overtaken by robotic surgery in the U.S.)

Although the robot-assisted surgery has become far more common, debate continues

on whether the procedure improves outcomes enough to justify its higher cost.

Advocates of robotically assisted prostatectomy argue that the procedure brings a number of advantages. Among them: less blood loss, shorter stays in the hospital and faster recovery times.

However, it isn't clear that the robotically

assisted procedures provide an advantage when it comes to survival rates and urinary and erection problems. And it costs significantly more.

Below, two surgeons make the case. Dr. Tewari regularly performs robotic-assisted prostatectomies, and Dr. Catalona performs the open surgery.

YES

Studies Show That Recovery Is Faster, And Results Better

BY ASHUTOSH TEWARI



TO ME, the question of robotic vs. traditional prostate surgery has a clear winner. With robotic surgery, patients have a shorter hospital stay and recover more quickly. Doctors have a better chance of not leaving behind parts of a malignant tumor. And this type of surgery is actually easier to master than the traditional open variety.

Precise work

Behind many of these advantages is precision. Robotic surgery uses smaller instruments, which allows for much more delicate and exact movements during procedures. That has a number of positive effects.

For one thing, shorter hospital stays. Robotic surgery allows us to make smaller incisions, and move the surgical instruments with virtually 360 degrees of freedom, versus the larger cuts made by traditional surgery. By not cutting deeply into a man's gut, healing will occur much faster. It also means less pain medication might be needed.

This also means that patients experience higher rates of erectile-function recovery and a faster return to urinary continence. During the operation, a surgeon is able to perform a delicate removal of the prostate from the top of the nerve hammock, preserving the nerves that support sexual function and urination.

Similarly, precision means surgeons are much less likely to leave parts of a malignant tumor in a patient's body.

Finally, robotic surgery has one advantage that might not be so obvious: It has a quicker

learning curve than traditional open procedures, because the robot is able to eliminate certain aspects of surgery, such as hands that vibrate or shake, that are otherwise tough to overcome.

What advantage?

Proponents of traditional surgery rest their case on a number of points. For one, they argue some studies that show advantages to robotic surgery aren't reliable because the methodology was flawed. But more recent studies support the conclusions of that research.

They also argue that some advantages attributed to robotic surgery are due to the skill of the surgeon. Yet surgeons report they like robotic surgery, and studies show better results.

Then there's the idea that open surgery offers advantages over robotic, including tactile feedback. Consider an analogy: Swiss watchmakers. When these experts start working in the dark, relying on tactile feedback and not magnifying glasses, then we'll believe that surgery should be done by touch and not direct visualization of anatomical structures.

Open-surgery proponents also cite studies that they say support their side. One, for instance, shows a massive survival rate in open-surgery patients. But it doesn't reflect the huge advances in diagnosis and performance for robot surgery since the study began.

Another study claims that robotic surgery offers relatively small benefits for the higher cost it brings. I disagree. Robotic surgery offers fewer blood transfusions, a shorter hospital stay and quicker recovery. These are hardly small benefits.

Of course, even in the most experienced hands (including mine), we are far from getting perfect outcomes in all patients. I remain dissatisfied with imperfect outcomes that can happen in a small proportion of patients, and try to do my job better. The robotic approach gives me better vision, much less bleeding and improved reconstruction ability. These are the key reasons I prefer robotic.

Dr. Tewari, system chairman of the department of Urology at Mount Sinai Health System, can be reached at reports@wsj.com.

NO

The Best Studies Still Show Traditional Is The Gold Standard

BY WILLIAM CATALONA



FOR MEN choosing prostate surgery, a key decision is whether it should be performed with robotic assistance or by the traditional open method. Largely because of aggressive marketing, most prostatectomies are performed robotically.

But it isn't the best choice. There is no quality evidence that robotic procedures deliver better outcomes than open ones.

Poor analysis?

Simply put, robotic prostatectomy advocates rely on studies with poor methodologies.

One widely quoted study compared open procedures performed before a new screening technique allowed for earlier detection of cancer with robotic ones performed after wide adoption of the technique. There's no legitimate way to compare techniques from the two eras, especially considering that difficult cases for many years were usually performed open; tumor volume can't be accurately measured; and surgeon expertise must be considered.

Consider also: Robotic prostatectomy was initially used preferentially in patients with early-stage, favorable tumors. What's more, those procedures tended to be performed during the screening era. So, robotic procedures were compared with open-surgery patients with worse tumors and whose surgeries were performed earlier—meaning more time for tumors to recur, metastasize and lead to death.

Robotic-prostatectomy advocates cite studies reporting that robotic surgery has less blood loss, fewer complications and lower perioperative mortality. But these variables depend on the skill and experience of the surgeon, as do other supposed pluses for robotic surgery such as removing more of the tumor and steady hands. As for the shorter hospital stay for robotic surgery, studies by several institutions show the recovery time is about the same for both types of surgery.

The best evidence

Or consider 20-year cancer-specific survival rates reported from the patients with clinically significant tumors operated upon, using open surgery, by Patrick Walsh of Johns Hopkins. Among men whose tumor was confined to the prostate with cancer-free surgical margins, the cancer-specific survival rate was nearly 100%. The highest level of evidence for open prostatectomy comes from randomized clinical trials showing that open surgery significantly reduces metastases and prostate-cancer deaths. They show tumor progression, metastases and cancer deaths are significantly lower in men treated with open surgery.

No such evidence exists for any other type of prostatectomy. The open technique remains the gold standard to which all other options should be compared.

Dr. Catalona is a professor of urology at Northwestern University's Feinberg School of Medicine. He can be reached at reports@wsj.com.

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