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What's News

Business & Finance

Equifax said Chairman and CEO Richard Smith will step down as the credit-reporting firm grapples with the aftershocks of its massive hack. **A1, A2**

◆ Britain's Dyson, known for its high-end appliances, said it was developing an electric car to hit the roads by 2020 or 2021. **B1**

◆ A small Uber shareholder sued the ride-hailing company and its former CEO for allegedly covering up "illicit business tactics." **B1**

◆ Germany's Siemens agreed to merge its rail operations with French train maker Alstom. **B1**

◆ GE is in danger of losing a \$2.5 billion contract to sell diesel locomotives to Indian Railways because of a political shake-up. **B1**

◆ The EU has begun an antitrust probe into the proposed merger between Ray-Ban maker Luxottica and optical-lens firm Essilor. **B2**

◆ Axovant said that its experimental Alzheimer's drug failed to meet the goals of a pivotal trial. **B3**

◆ Twitter said it would begin testing a new limit of 280 characters for tweets, double its current limit. **B4**

◆ U.S. oil prices returned to bull-market territory and the global benchmark hit a two-year high, on confidence OPEC will shrink a glut. **B10**

◆ The U.S. is the world's second most competitive economy, trailing Switzerland, according to the World Economic Forum index. **B3**

World-Wide

◆ The Senate won't vote this week on the latest Republican health bill, effectively ending the party's bid to topple the ACA before a key deadline. **A1**

◆ A new GOP tax plan will open the door to a top individual rate that is higher than the 35% that has been in previous plans. **A1**

◆ Mueller is set to begin interviews of current and former White House officials in his probe into Russian interference in the U.S. election. **WSJ.com**

◆ Iraqi Kurds are bracing for potential economic fallout from an independence vote opposed by neighboring Turkey and Iran. **A3**

◆ The U.S. plans to restrict Russian military flights over American territory in the latest sign of strain in U.S.-Russia relations. **A3**

◆ North Korea can better target U.S. aircraft with a new missile system than in the past, analysts said. **A4**

◆ The U.S. Treasury named eight North Korean banks and 26 individuals to its sanctions list. **A4**

◆ Trump plans to set the cap for refugee admissions to the U.S. for the coming fiscal year at 45,000, the lowest number in decades. **A6**

◆ U.S. lawmakers are pushing for quick approval of hurricane relief funding for Puerto Rico. **A7**

◆ French President Macron set out his vision of a more united Europe in a speech aimed at Germany. **A3**

CONTENTS Markets B10
Business News... B3 Opinion... A10-11
Crossword... A12 Property Report... B9
Heard on Street... B11 Technology... B4
Journal Report... RI-10 U.S. News... A5-7
Life & Arts... A9,12 Weather... A12
Management... B5 World News... A2-4

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39
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WORLD NEWS

If This Is a Trade War, China Is Beating U.S.



CHINA'S WORLD

By Andrew Browne

SHANGHAI—Steve Bannon, the recently departed White House chief strategist, asserts that, "We're at economic war with China."

If that's the case, Beijing seems supremely confident of victory.

Eight months into a Trump presidency, the Chinese leadership has offered a few gestures to placate the U.S.—lifting a ban on U.S.

beef was one—while pressing its advantages on all fronts in its competition with the West for industrial dominance.

Expect one or two more headline-grabbing concessions; Beijing is gearing up for a splashy announcement on electric vehicles, which may help Tesla. In Beijing this week, U.S. Commerce Secretary Wilbur Ross said he hoped for "very good deliverables," when Mr. Trump visits in November.

But China flaunts its indifference to the West's com-

plaints almost gratuitously. Foreign businesses are on notice that they are tolerated in China only for as long as they serve Chinese state goals.

Even as President Xi Jinping promises to "push forward market opening faster," his "Made in China 2025" plan has the overt aim of displacing foreign manufacturers in critical areas like robotics, medical equipment and driverless vehicles.

An evolving "social-credit" system will use intrusive monitoring and big data to ensure all companies—Chinese and foreign—align with five-year plans. As part of this effort, the Communist Party is accelerating its push to plant cells in private companies, including multinationals.

U.S. and European firms report they have rarely felt less welcome. Internet blocks make it increasingly hard for their executives to access business information in the cloud. Even email is difficult. Foreign investment is slowing this year.

This is the behavior of a government that senses it has the upper hand.

What emboldens China? Its sharpest trading practices fall outside the scope of World Trade Organization rules. The system wasn't set up with a secretive and centrally directed colossus like



Chinese Premier Li Keqiang, right, welcomed U.S. Secretary of Commerce Wilbur Ross in Beijing on Monday.

China Inc. in mind. Western economies, once optimistic that WTO membership would induce transparency and free-market overhauls in China, now have no good defense. Put crudely, China knows it can get away with it.

Consider the remarkably small number of cases brought against China since it joined the WTO in 2001, despite widespread complaints about forced technology transfers, rampant intellectual property theft and unfair competition from state firms. The total between 2002 and 2016: just 38. (During the same period, the U.S. was the target of 73 complaints.)

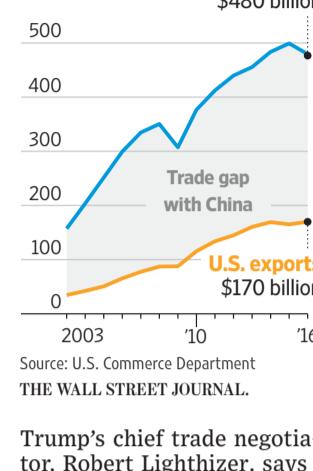
China looks at this data as affirmation that, by and large, it plays by the rules. Critics say it has gotten expert at going around them.

So far, the strategy is working. The economy is on an upswing, propped up by debt but also, for now, defying conventional theories that mercantilism will sap China's creative vigor. One in three of the world's "unicorns"—startups worth more than \$1 billion—is Chinese, according to McKinsey.

Success reinforces predatory habits. China will soon have more middle-class consumers than the entire U.S. population, giving Beijing huge market power. Donald

Not Minding the Gap

China shows scant concern for U.S. complaints over trade imbalances.



Source: U.S. Commerce Department

THE WALL STREET JOURNAL.

to enlist China's help on North Korea also played into that decision.

The same consideration may end up blunting Mr. Lighthizer's formal investigation into forced technology transfers.

For China, the message is Mr. Trump's threats won't be backed up with action.

From Washington to Berlin, the cry has gone up for "reciprocity"—equal market access—from Beijing.

It's a beguiling ideal to be sure. But to get there, says Scott Kennedy, an expert on Chinese industrial policy at the Center for Strategic and International Studies, would require not just long-term engagement with China, and support from the WTO and other world bodies, but also close cooperation among economies threatened by Chinese protectionism.

In other words, the Trump administration would have to inspire a coalition of countries that it is now trying to bully into submission over their trade surpluses with the U.S. South Korea is a prime example.

Mr. Kennedy is skeptical that it can. The Chinese, he says, "think they're in the driving seat."

He predicts a flurry of largely symbolic market-opening announcements. "Eventually," he says, "the U.S. will accept tokenism."

and often seemed slow to install patches.

Equifax's overall level of security was weak from at least the beginning of the year, according to a review by The Wall Street Journal of a cybersecurity score for the company issued by Fair Isaac Corp. At that point, Equifax's FICO enterprise security score hovered around 550 on a scale that ranges from 300 to 850.

The score began falling in mid-May. It hit a low of around 475 in mid-July.

Equifax has scored subpar grades in two areas that proved critical in the hack, according to a Sept. 8 report by BitSight Technologies Inc. that was reviewed by The Wall Street Journal. The company received a grade of "F" in application security and a "D" for software patching.

SecurityScorecard ranked Equifax as "middle of the pack," when compared with financial-services peers, said Alexander Heid, the security firm's chief research officer.

But Equifax used older software—such as the Apache Struts tool kit that hackers used to break into Equifax—

—Kate Fazzini contributed to this article.

Equifax Security Showed Signs of Trouble Before Hack

BY ANNA MARIA ANDRIOTIS
AND ROBERT McMILLAN

Weaknesses in Equifax Inc.'s security systems were apparent in the months before a massive hack exposed vital consumer information, according to several cyber-risk analysis companies.

Equifax's cybersecurity has become an issue in the wake of the breach that exposed information of potentially 143 million Americans. On Tuesday, the company said that Chairman and CEO Richard Smith would step aside.

The credit-reporting company was behind on basic maintenance of websites that could have been involved in transmitting sensitive consumer information and scored poorly in areas that would play a major role in the company's massive data breach. That was the finding of analyses done by

four companies that rank the security status of companies based on publicly available information.

Since disclosing the breach on Sept. 7, Equifax has faced questions in information-security circles about whether and when it patched a publicly identified software vulnerability. The company has acknowledged the questions and said that hackers exploited the software vulnerability to ransom its systems.

"We take seriously our responsibility to protect the security of the information in our possession," an Equifax spokeswoman said.

Meanwhile, a lawsuit filed by the Massachusetts attorney general against Equifax alleges a breakdown in minimum-required security standards. The suit claims that exposed consumer information wasn't encrypted on Equifax's systems

The Equifax Hack: Timeline of Events

March: Researchers report security flaw in software powering part of Equifax's website.

May 13: Hackers leverage flaw to break into Equifax's customer dispute portal.

July 29: Equifax notices suspicious traffic and blocks it.

Aug. 2: Equifax brings in outside cyber investigators.

Aug. 22: Equifax registers the new domain name equifaxsecurity2017.com.

Sept. 7: Equifax announces breach potentially affecting some 143 million U.S. consumers.

Sept. 15: Equifax says security intrusion ran from May 13 to July 30.

Sept. 21: A Senate committee schedules Oct. 4 hearing and calls CEO Richard Smith as a witness.

Sept. 26: Mr. Smith resigns

and that the company didn't have a written information-security program that met the minimum requirements set by the state's regulations. Equifax said it doesn't comment on pending litigation.

The findings from the four security-rating companies were compiled measuring a range of publicly available

data, not at Equifax's behest, using different methodologies. Such analyses don't represent a deep-dive into internal systems and cyberdefenses, but do give an overall view of a company's security posture. The companies conducting the reviews typically sell their reports to a company's current or potential customers.

In a statement, Mr. Feidler said, "The board remains deeply concerned about and totally focused on the cybersecurity incident. We are working intensely to support consumers and make the necessary changes to minimize the risk that something like this happens again."

"Speaking for everyone on the board, I sincerely apologize." He added that the board has formed a special committee to focus on "the issues arising from the incident and to ensure that all appropriate actions are taken."

This could include further action related to Mr. Smith. An agreement with the departing executive said that while he

would retire as of Tuesday, "all decisions relating to the characterization" of his departure will be deferred until the board completes a review. The agreement also stated Mr. Smith won't receive an annual bonus

opportunity for 2017 and that he "irrevocably" gives up any claims to such a payout.

The agreement is unusual due to its open-ended nature.

That, in turn, leaves open the possibility of compensation clawbacks.

An Equifax spokesman said that certain of Mr. Smith's pay awards "are still outstanding," and the disposition of those awards will await the outcome of the investigation. He did say that no matter how Mr. Smith's departure was characterized the executive wouldn't receive \$5.2 million in severance he could otherwise have been entitled to.

Mr. Smith's 2016 pay package totaled nearly \$15 million, and he has made about \$127 million in combined total compensation since he joined Equifax as CEO in 2005.

No matter how Mr. Smith's departure is ultimately characterized, he is likely to receive an estimated \$18.4 million due him under Equifax's pension and retirement plan.

Mr. Smith's compensation is likely to be a topic of discussion at the coming hearings. Sen. Elizabeth Warren (D. Mass.) said in a statement Tuesday, "It's not real accountability if the CEO resigns without giving back a nickel in

pay and without publicly answering questions."

Mr. Smith is expected to attend the hearings next week, one before the House Energy Committee, the other with the Senate Banking Committee.

Aside from hearings, Equifax faces other legal issues. The company is being investigated by regulators and faces legal action, including civil suits from the Massachusetts Attorney General and the City Attorney of San Francisco. The breach itself is being probed by the Federal Bureau of Investigation.

Equifax is also contending with investors who have shaved about \$4.5 billion, or about a quarter, from its market value since the breach was announced.

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CEO

Continued from Page One
move the company forward."

In acting before hearings, Equifax's board had in mind the experience of former Wells Fargo CEO John Stumpf, the people familiar with the matter said. That executive appeared almost exactly a year earlier before two congressional committees to answer for his bank's sales-practices scandal.

Mr. Stumpf was grilled by legislators and repeatedly refused to say whether his position or compensation would be affected by the bank's problems. Both Mr. Stumpf and the bank were attacked during and after the hearings for what many

perceived as a lack of accountability. Mr. Stumpf abruptly retired soon afterward.

The Equifax board was also mindful that there were calls among some legislators for both Mr. Smith and directors to be taken to task, person familiar with the matter said. Although Equifax's chief information and security officers retired a week after the hack was disclosed, those departures weren't viewed as significant enough, the person added.

Mr. Smith, CEO since 2005, is being succeeded as chairman by a current director, Mark Feidler, who will serve as nonexecutive chairman, Equifax's board said. It added that Paulino do Rego Barros, Jr., who was most recently Equifax's president for the

Asia-Pacific region, has been appointed interim CEO.

In a statement, Mr. Feidler said, "The board remains deeply concerned about and totally focused on the cybersecurity incident. We are working intensely to support consumers and make the necessary changes to minimize the risk that something like this happens again."

"Speaking for everyone on the board, I sincerely apologize." He added that the board has formed a special committee to focus on "the issues arising from the incident and to ensure that all appropriate actions are taken."

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Mr. Smith's 2016 pay package totaled nearly \$15 million,

WORLD NEWS

Macron Has Eye on Berlin in Euro Talk

French leader makes case for eurozone integration as German coalition talks loom

French President Emmanuel Macron set out his vision of a more united Europe in a speech aimed at persuading Germany, where Sunday's election results could reinforce doubts about deeper integration in the eurozone.

By William Horobin
in Paris and Marcus Walker in Berlin

Mr. Macron repeated his call for a common budget for euro members, an idea with little appeal for most of Germany's political class, but sweetened it with offers of cooperation in areas that could appeal more to Berlin, including migration, security and the environment.

The French leader timed his speech at the Sorbonne University in Paris to influence the postelection debate in Germany, where Chancellor Angela Merkel faces tricky talks to form a new governing coalition after a result that strengthened populist and EU-skeptical forces.

"The majority of the chancellor has accepted to build in the coming days and weeks will have to work with us for the next four years. I see this as an unprecedented opportunity," Mr. Macron said. "We won't agree on every-



UDOVIC MARIN/PRESSE POOL

French President Emmanuel Macron delivering a speech on his proposals for reforming the EU, on Tuesday at the Sorbonne in Paris.

thing, at least not immediately, but we will discuss everything."

The outcome of the dance between the EU's two dominant nations will be central to the eurozone's future. Although the bloc's economy is finally enjoying solid economic growth after years of slow recovery, officials in Paris and Berlin say the euro's members continue to diverge, leaving the region vulnerable to future turbulence like the debt crisis that pushed the bloc to the

brink of collapse in 2010-12.

Ms. Merkel's conservative Christian Democrats, who won the elections but received a reduced share of the vote, have begun sounding out the left-leaning Greens and the pro-business Free Democrats, or FDP, about a three-way coalition.

Before the election the FDP was vocally critical of France's push for a large, central budget for the eurozone. Ms. Merkel and her party also have strong

reservations, although the chancellor has avoided rebuffing the French leader.

The success of the populist Alternative for Germany party in winning 12.6% of the vote on Sunday could also turn Germany's political focus inward, as mainstream parties grapple with the antiestablishment, anti-immigration mood in part of the German electorate.

The 39-year-old French leader knows his ambitious

drive for a deeper union among the euro's 19 members was already a hard sell in Germany. He praised Ms. Merkel's commitment to Europe and said he was confident she wouldn't give in to nationalist pressures.

Mr. Macron began his speech with a call for wide-ranging overhauls of Europe's policies in defense procurement, corporate taxation, farm subsidies, digital infrastructure, carbon emissions, border protection and

Russian Military Flights to Be Curbed

BY BRETT FORREST

WASHINGTON—U.S. officials are preparing to announce restrictions to Russian military flights over American territory under the Treaty on Open Skies in the latest sign of strain in U.S.-Russia relations.

The treaty permits its 34 ratified member states to conduct observation flights over each other's territory while capturing aerial imagery of military personnel and materiel.

Treaty-related tensions intensified over two days in August, when a Russian plane operating under Open Skies flew over U.S. cities including Washington as well as Bedminster, N.J., where President Donald Trump was staying at the Trump National Golf Club.

Those flights, however, aren't the cause of the new restrictions, according to U.S. officials. Instead, they say Russia is in violation of the Open Skies treaty because the Kremlin imposed restrictions on flights over Kaliningrad, Russia's Baltic Sea exclave, which U.S. officials believe is host to a cache of sophisticated weaponry.

While the treaty allows for a per-flight range of 5,500 kilometers (3,418 miles), Russia has enforced a "sub-limit" of 500 kilometers for flights over Kaliningrad. Since it requires roughly 1,200 kilometers to cover the entirety of Kaliningrad during an Open Skies flight, according to Pentagon officials, this restriction compels treaty members to reallocate two flights that would otherwise be used to observe other portions of Russia.

Perhaps more important, this limitation enforces gaps between the flights needed to cross Kaliningrad, providing an incoherent picture of the territory, U.S. officials maintain. The treaty's U.S. delegation was scheduled to announce reciprocal countermeasures Tuesday.

"We want to induce Russia to come back into compliance with the treaty," said a State Department official, adding steps the U.S. takes that are reversible could prod Moscow.

Among options that U.S. officials have considered are limitations of Russian flights over Alaska and Hawaii, according to officials with knowledge of the matter.

For their part, Russian officials say that several countries that are party to Open Skies—including Canada, Georgia, Turkey and the U.S.—have placed limits on access to their territories under the treaty.

After Vote, Iraqi Kurds Gird for a Backlash

BY ISABEL COLES AND ALI A. NABHAN

ERBIL, Iraq—The landlocked Kurdish region of Iraq is bracing for potential economic fallout from a referendum on independence strongly opposed by neighboring Turkey and Iran, whose threats to close their borders could squeeze food imports and disrupt oil exports.

The concern is particularly immediate for Shukr Ali, a merchant who said he is waiting for 10 trucks of rice worth \$250,000 to arrive from the southern Iranian port of Bandar Abbas. Any delay will add to the costs of transporting the goods.

"We are worried," Mr. Ali, who is 56 years old, said Tuesday at a wholesale market in the Kurdish regional capital Erbil. "You don't know what will happen tomorrow."

Few traders said they expected the borders to be closed for long, if at all. They count on shared interests between the

Kurdish region and its neighbors to prevail over politics.

But their concerns highlight the economic vulnerability of the region Kurds are seeking to convert into an independent state, which produces little of its own besides oil.

Results of Monday's vote are expected by the end of the day on Thursday, and are seen as certain to be in favor of independence, which the overwhelming majority of Kurds favor.

Although the referendum wouldn't automatically deliver statehood, Kurdish leaders say it will give them a mandate to negotiate an amicable separation from the central government in Baghdad over the coming years.

But Iraqi Prime Minister Haider al-Abadi, who opposes the vote, has said there will be no talks between his government and Kurdish leaders after the referendum, which Baghdad said was unconstitutional.

The vote also was opposed by the U.S., which said it would un-

dermine the war against Islamic State.

The strongest warning came from Turkey's President Recep Tayyip Erdogan, who as Kurds cast their votes threatened to close his country's border with Iraq's semiautonomous Kurdish region and stop oil flows through an export pipeline on which it depends economically.

The shelves of any supermarket in the region illuminate the

buying more goods for import in case the borders are closed. Prices are stable, though customers are buying extra to store in case threats of isolation are carried out.

Despite those threats, Mr. Abdullah and other traders said they had voted "yes" to independence, which Kurds were deprived of when colonial powers carved up the Middle East after World War I.

In pursuit of economic independence from Baghdad, Iraq's Kurds have in recent years cultivated close ties with Turkey, signing energy deals and building a pipeline to the Mediterranean Sea which carries an average of more than 600,000 barrels of oil a day.

But critics say the Kurdistan Regional Government has merely shifted its dependency from Baghdad to Turkey. Strengthening the economy is a more important step toward statehood than holding off on a referendum, they say.

After a Decade, Brazil Lets In Big Oil Firms

BY PAUL KIERNAN

RIO DE JANEIRO—Brazil will on Wednesday begin reversing what industry officials say was a costly and ultimately disastrous decision a decade ago: setting aside billions of barrels from the Western Hemisphere's largest oil discovery in 30 years for its state-run oil firm at a time when deep-pocketed foreign companies were clamoring to invest.

Brazil removed key acreage from a 2007 auction that could have yielded \$100 billion in signing bonuses plus hundreds of billions more in spending commitments when the price of oil was near record highs, according to several former executives at Western oil companies.

Now, Brazil may generate just a fraction of what it could have as it looks to exploit its oil potential and revive its economy.

"We are trying to put the country back on track," Energy Minister Fernando Coelho told an oil conference in Houston earlier this year.

Wednesday's auction is the

first of nine bidding rounds planned through 2019 for areas that could hold roughly 10 billion barrels of recoverable oil, or enough to supply the U.S. for almost a year and a half.

Included in upcoming auc-

tions are areas that Brazil had originally intended to lease out in 2007, shortly after **Petróleo Brasileiro SA**, or Petrobras, discovered huge reservoirs of crude in an ultra-deep layer known as the sub-salt, off the

southeast coast.

At the time, the U.S. shale boom was still a dream, experts were worried that global production might peak and oil prices were en route to an all-time high. The size and timing of the find appeared so fortuitous, then-President Luiz Inácio Lula da Silva said God must be Brazilian.

Foreign oil companies were desperate for new reserves. "A lot of people were very excited about it," recalled Shafe Alexander, BP's country manager in Brazil.

But days before the auction, Mr. da Silva yanked 41 exploration blocks that were believed to contain sub-salt oil, after being convinced by Petrobras' former head of exploration and production that it would be a "crime against the fatherland" to open the reserves to other oil companies, according to a former official.

A spokesman for Mr. da Silva defended the former president's decision. "Any country would re-evaluate the situation of an auction when presented with

new information about the areas," the spokesman said.

Brazil's oil output today is less than half what industry officials say it should be.

And Petrobras, which produces the vast majority of Brazil's oil, has been hobbled by years of mismanagement and corruption that have forced it to slash jobs and production targets.

Given Petrobras' problems, Brazilian policy makers say the only solution is foreign capital. In the past year, they have relaxed restrictions on private investment in the sub-salt and eased requirements that oil companies source equipment and machinery in Brazil. But Brazil faces a very different market from 2007.

Crude prices have fallen to around \$55 a barrel from a peak of nearly \$150 in 2008. The shale boom allowed the U.S. to practically double its output and presents a quicker, cheaper alternative to deep water ventures like Brazil's, where a single well can cost \$100 million to develop.

Three Israelis Die in West Bank Shooting

A Palestinian gunman killed three members of Israel's security forces at a West Bank settlement, police and medics said, the latest burst of violence in the Israeli-controlled territory.

The attacker approached a

checkpoint at the settlement of Har Adar, northwest of Jerusalem on Tuesday morning, drew a pistol and fired at close range, police said. Israeli forces shot and killed the Palestinian attacker, they added.

Paramedics pronounced three dead—one border police officer and two security guards—at the scene and took one person who was wounded to a hospital out-

side Jerusalem. Authorities reported no other injuries.

—Rory Jones

SAUDI ARABIA

Riyadh Lifts Its Ban On Women Driving

Saudi Arabia lifted the ban on women driving, removing a restriction that had become a

symbol of women's oppression in the deeply conservative kingdom.

The announcement, made by King Salman through a royal decree, says women will be officially allowed to obtain driving licenses in Saudi Arabia, the only country in the world where women weren't allowed to drive. The decree will go into effect in June.

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tions of Sunni Islam, and the kingdom's religious establishment have long exercised extensive political sway.

But under the leadership of King Salman and his son, Crown Prince Mohammed bin Salman, the Saudi monarchy is pushing to relax social rules as part of an ambitious program focused on opening up the oil-dependent economy.

—Margherita Stancati

ISRAEL

Three Israelis Die in West Bank Shooting

A Palestinian gunman killed three members of Israel's security forces at a West Bank settlement, police and medics said, the latest burst of violence in the Israeli-controlled territory.

The attacker approached a

checkpoint at the settlement of Har Adar, northwest of Jerusalem on Tuesday morning, drew a pistol and fired at close range, police said. Israeli forces shot and killed the Palestinian attacker, they added.

Paramedics pronounced three dead—one border police officer and two security guards—at the scene and took one person who was wounded to a hospital out-

side Jerusalem. Authorities reported no other injuries.

—Rory Jones

SAUDI ARABIA

Riyadh Lifts Its Ban On Women Driving

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symbol of women's oppression in the deeply conservative kingdom.

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—Margherita Stancati

WORLD NEWS



President Donald Trump on Tuesday declared North Korea an 'outlaw regime' and called for Pyongyang's isolation on the world stage.

U.S. Expands Sanctions On North Korean Entities

By IAN TALLEY

WASHINGTON—The U.S. Treasury Department named eight North Korean banks and 26 individuals linked to the nation's financial networks to its sanctions list.

The move came as President Donald Trump declared North Korea an "outlaw regime" and thanked Chinese President Xi Jinping for breaking banking ties with his Asian neighbor, a move the U.S. president said was "unthinkable even two months ago."

Tuesday's expanded sanctions are part of a larger administration effort to constrict capital flows that U.S. officials and North Korean defectors say are used by Pyongyang to fund its banned nuclear-weapons and missile programs. Treasury said the banks and the individuals—largely North Koreans—were operating out of branches in China, Russia,

Libya and the United Arab Emirates.

"We are targeting North Korean banks and financial facilitators acting as representatives for North Korean banks across the globe," Treasury Secretary Steven Mnuchin said.

U.S.-based North Korea analysts say that key to the effectiveness of sanctions will be whether host countries will shut targeted banks and expel the individuals operating them.

Treasury officials said the latest action is consistent with United Nations Security Council resolutions. U.S. officials and analysts have complained that many U.N. member countries have failed to implement Security Council sanctions. A recent U.N. report said China and Malaysia had failed to adequately address sanctioned networks operating in their countries.

"It is time for all responsible nations to join forces to isolate the North Korean men-

ace," Mr. Trump said.

The president said North Korea's missile program threatens "the entire world with unthinkable loss of life." He said the U.S. is "totally prepared" for a military option, which he said would be "totally devastating" for North Korea.

The president said his tough words for North Korean dictator Kim Jong Un were a reply to the North Korean leader's own words.

As both sides hurled threats and insults at one another, the space available for a diplomatic resolution seemed to shrink.

On Saturday, the U.S. flew warplanes near North Korea in what U.S. officials said was international airspace but farther north than such aircraft had flown in some time. Pyongyang threatened to shoot down American jets the next time they flew there, regardless of whether they are in international airspace.

Still, Defense Secretary Jim Mattis said the effort to avert conflict on the Korean Peninsula remains a diplomatic one.

"We maintain the capability to deter North Korea's most dangerous threats but also to back up our diplomats in a manner that keeps this as long as possible in the diplomatic realm," he told reporters at India's Ministry of Defense on Tuesday. "That is our goal, to solve this diplomatically, and I believe President Trump has been very clear on this issue."

Mr. Mattis, in New Delhi for talks with his counterpart and Prime Minister Narendra Modi, didn't respond specifically to a question about how the rhetoric might be increasing the chances for miscalculation on either side and whether there was a risk of miscalculation.

—Michael C. Bender in Washington and Gordon Lubold in New Delhi contributed to this article.

U.S. Bombers Face Increasing Threat From Pyongyang

By ALASTAIR GALE

North Korea can better target nearby U.S. aircraft with a new missile system than in years past, military analysts said, raising the stakes of any confrontation after Pyongyang warned it might shoot down American bombers in international airspace.

As tensions escalate on the peninsula, North Korea has bolstered defenses on its east coast, closest to where U.S. bombers and fighters flew over the weekend, South Korea's spy agency said on Tuesday.

Whether North Korea will follow through on its threat to attack U.S. warplanes is hard to determine, though such action has historical precedent.

Under dictator Kim Jong Un, an acceleration of the nation's missile program has included a new weapon to target planes—a significant upgrade to North Korea's aging Soviet-

Bechtol, a professor of political science at Angelo State University in Texas, who has studied the North Korean military.

North Korea has fired at U.S. aircraft before. In 1981, North Korea launched a missile at a U.S. reconnaissance plane flying near the inter-Korean border, but missed. A U.S. helicopter was downed in 1994, killing one pilot, after it crossed into North Korean airspace.

Pyongyang has also used its aircraft to target U.S. planes. In 1969, a North Korean MiG 21 shot down an unescorted U.S. military surveillance aircraft over international waters, killing its entire crew of 30 sailors and one Marine. In 2003, four North Korean MiGs came within 50 feet of a U.S. reconnaissance plane in international airspace over the Sea of Japan.

On Tuesday, South Korea's spy agency said North Korea has relocated warplanes to its east coast as part of ramp-up of military hardware, raising the prospect that Pyongyang may send aircraft in response to future U.S. military flights.

While North Korea's old MiG fighters are no match for modern U.S. warplanes, military experts said they could still threaten nonstealth bombers.

The U.S. frequently holds military flyovers during periods of escalated tension on the Korean Peninsula. Generally, they stay south of the inter-Korean border.

A Pentagon spokesman said on Monday that the U.S. maintains the right to "fly, sail and operate" in international waters and airspace.

In one possible sign of caution on the North Korean side, South Korea's spy agency also said on Tuesday that Pyongyang has told its military not to take any action without first reporting up the chain of command.

The agency's assessment was given to lawmakers in a closed-door briefing. Details of the remarks were confirmed by an aide to ruling-party member Kim Byung-kee, who attended the event.

North Korea has fired at U.S. aircraft in a series of incidents over many decades.

era missile batteries. And the risks involved in any conflict are much greater now that North Korea can potentially deploy nuclear weapons.

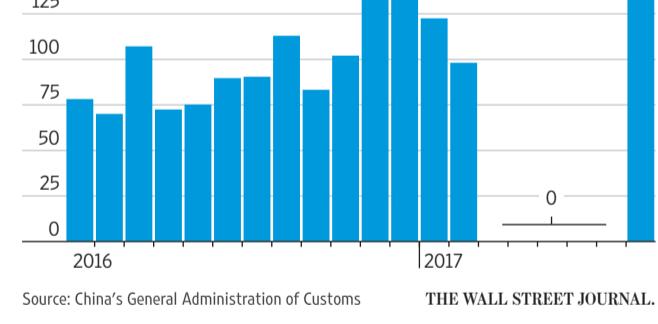
In May, Mr. Kim oversaw a test of a surface-to-air missile system known as KN-06 that was first seen in a military parade in 2010. Following the test, Mr. Kim ordered mass production of the system, state media reported.

The KN-06 has a range of around 90 miles, security scholars estimate. The U.S. said the bombers in the weekend flight remained inside international airspace, which begins around 12 nautical miles from the North Korean coast.

"It's easily the most modern system they have," said Bruce

Under the Wire

China suspended North Korean coal imports earlier this year, but imported \$138 million worth in August, before a total U.N. ban on such shipments took effect.



THE WALL STREET JOURNAL.

apply a degree of pressure closer to the minimum requirements stipulated by U.N. resolutions," he said, noting that Beijing's February suspension of its North Korean coal trade came while import totals remained well below the U.N. cap.

"As international sanctions against North Korea trend toward a comprehensive trade ban, China was likely worried about the impact on the North Korean economy," he said.

—Xiao Xiao contributed to this article.

China Buys Coal Before U.N. Cutoff

By CHUN HAN WONG

BEIJING—China resumed North Korean coal imports in August after a nearly half-year hiatus, just before a total United Nations ban on Pyongyang's coal trade took effect.

China had suspended purchases of North Korean coal in February, in response to a U.N.-set cap on Pyongyang's coal trade set in November 2016, part of sanctions to curb North Korea's nuclear ambitions.

Chinese coal imports from its neighbor this year remained below those limits after last month's shipments.

Chinese customs data released Tuesday shows China accepted about 1.64 million tons of North Korean coal valued at some \$138.1 million in August, when the U.N. Security Council expanded sanctions to a complete halt on coal shipments

and banned Pyongyang from exporting iron, lead and seafood.

China has been the sole importer of North Korean coal. Tuesday's data show Pyongyang earned more coal-export income in August than in either January or February, when China imported about \$122.5 million and \$98.1 million of North Korean coal, respectively.

China's customs agency reported no North Korean coal imports from March to July.

The latest coal shipments preceded a Sept. 5 deadline for U.N. members to implement the August sanctions. Beijing said on Aug. 14 it would comply with those sanctions while continuing to process imports of banned goods until the deadline if those shipments had already reached Chinese territory.

A spokesman for China's customs agency said Tuesday's

data reflect shipments that reached China before the deadline.

Asked if the August shipments meant China was compromising on its commitment to international sanctions, a Foreign Ministry spokesman said Beijing has "always strictly implemented" U.N. resolutions.

U.N. sanctions approved in November had capped Pyongyang's annual coal exports at about \$400 million or 7.5 million metric tons, whichever is lower. China imported 4.3 million tons of North Korean coal valued at \$358.8 million from January to August, according to Chinese customs data.

"In theory, China hasn't violated the U.N. sanctions," said Zhao Tong, a nuclear-policy specialist at the Carnegie-Tsinghua Center for Global Policy in Beijing. He said the

latest coal shipment will still anger the U.S., which has urged harsher economic curbs on North Korea.

As North Korea's chief trading partner and energy supplier, China plays a central role in international efforts to dissuade Pyongyang from its aggressive pursuit of nuclear-tipped long-range missiles. Beijing has resisted Washington's calls to support measures it fears could cause its neighbor's collapse—an event that could send a flood of refugees into northern China and upset the regional balance of power.

Mr. Zhao said Beijing may have allowed the August coal shipments to get ahead of further economic sanctions that it fears could destabilize the Pyongyang government.

"China may have decided to back away from an aggressive enforcement of sanctions, and

that is what makes WhatsApp a pain for institutions in the world that think end-to-end encryption is antithetical to their law-enforcement goals," said Nadim Ko-

beissi, founder of Paris-based cryptography consulting company Symbolic Software.

Several travel companies that arrange trips to Tibet said they received directives that foreigners can't visit Oct. 18 through Oct. 28.

A customer service representative at Explore Tibet, which runs private and group tours, said only travelers from Hong Kong or the mainland would be permitted to travel during that time. The Tibet Tourism Bureau couldn't be reached for comment.

Meanwhile, the Ironman triathlon series that was acquired by Dalian Wanda Group two years ago said on its website that its races in Chongqing on Sept. 24 and in Hefei on Oct. 22 had both been postponed. The website didn't give a reason, and Wanda didn't immediately return calls for comment.

—Xiao Xiao and Eva Dou in Beijing contributed to this article.

Beijing Tightens Up Ahead of Party's National Congress

China appears to be batten down the hatches ahead of the Communist Party's 19th National Congress next month, a time when party leaders hope to keep distractions to a minimum.

By Alyssa Abkowitz
in Beijing
and Georgia Wells
in San Francisco

At least, that's how some China observers are explaining the rationale behind the postponing of two Ironman athletic competitions, new restrictions on foreigners traveling to Tibet, and disruptions to the WhatsApp messaging service.

"All the crackdowns are to ensure there's no disturbance to stop what [President] Xi Jinping wants," said Shaun Rein, managing director of China Market Research Group.

"There can't be any surprises."

Although the government hasn't commented on the

postponements, restrictions and disruptions, they come as China prepares for its twice-a-decade Congress, which will determine new leaders for the next five years. Similar restrictions, including limits on online content, were put in place before the 18th Party Congress in 2012 that brought President Xi to power—but China watchers say this time it is more widespread.

In recent days, mainland users of Facebook Inc.'s WhatsApp service have experienced disruptions, ranging from being unable to send photos and conduct video chats to complete blockages. A person familiar with previous outages said service usually has returned within one to two days.

A spokeswoman from the Cyberspace Administration of China declined to say if the agency had blocked WhatsApp, although outages by users were widely reported.

Facebook doesn't say how

many WhatsApp users it has in China, where the WeChat messaging app by Tencent Holdings Ltd. is the dominant service with nearly 1 billion users.

Unlike WeChat, WhatsApp

uses end-to-end encryption that hides the content of the message from anyone except the sender and recipient, making it difficult for the government to intercept messages.

"That is what makes WhatsApp a pain for institutions in the world that think end-to-end encryption is antithetical to their law-enforcement goals," said Nadim Ko-

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—Xiao Xiao and Eva Dou in Beijing contributed to this article.



Students in Shandong province use scarfs to make a flag of the Communist Party of China.

U.S. NEWS

Trump Again Criticizes Attorney General

President knocks Jeff Sessions and says his feud with NFL players 'has really taken off'

By REBECCA BALLHAUS

WASHINGTON—President Donald Trump again indicated he was dissatisfied with his attorney general, following comments over the summer in which he criticized Jeff Sessions and suggested he might fire him.

The president also said at a White House dinner Monday that he had the upper hand in his dispute with the National Football League, according to guests at the gathering.

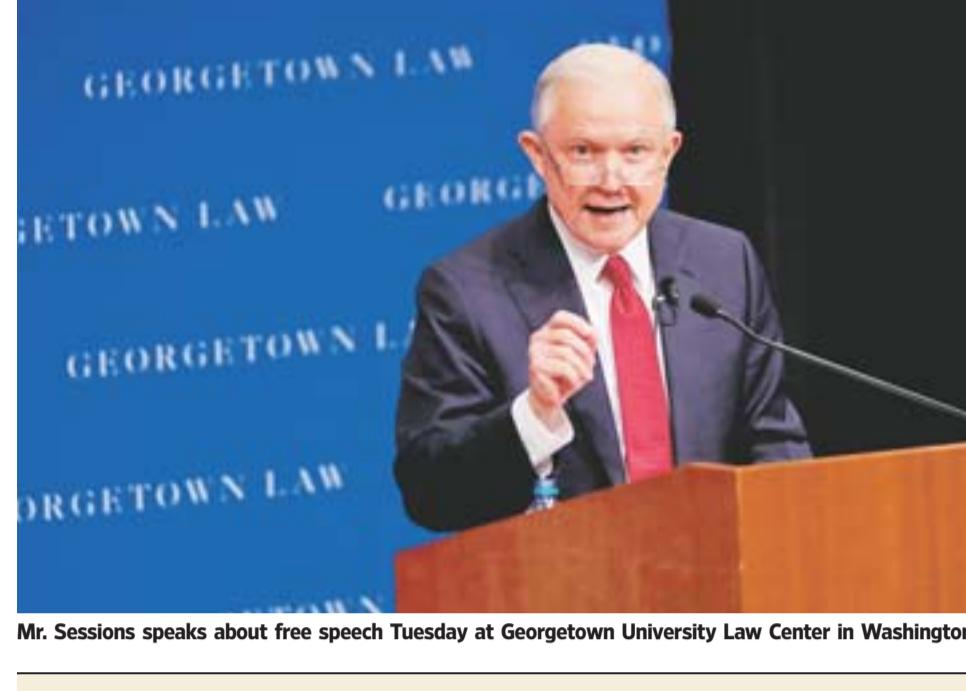
Mr. Trump expressed frustration with Mr. Sessions' March decision to recuse himself from the Justice Department's probe of Russian election meddling, according to three people at the dinner for conservative leaders.

"You could feel it dripping with venom," one dinner guest said of Mr. Trump's comment. "It was something else."

Others in the room characterized the conversation about Mr. Sessions as less tense. "He's candid, which shows respect for his guests," said American Conservative Union Chairman Matt Schlapp.

"It was friends getting together and dishing on politics and the state of the country," said Mr. Schlapp, whose wife, Mercedes Schlapp, works in the White House communications office. He called the dinner "cordial."

Mr. Trump was answering a guest's question on a policy technicality when his mood appeared to shift, the people



Mr. Sessions speaks about free speech Tuesday at Georgetown University Law Center in Washington.

Twitter Habit Gets Low Approval Rating From Both Parties

President Donald Trump stirred up controversy in recent days by saying that professional football players who decline to stand for the national anthem should be fired. Amid the debate over his remarks, polling suggests that most Americans have a negative view of how he went about making them: via Twitter.

Members of both major political parties take a dim view of Mr. Trump's use of tweets to talk to Americans, a Wall Street

Journal/NBC News poll this month found. Overall, 66% of Americans in the survey disapproved of the president's "use of Twitter to communicate with the American people," compared with 23% who approved.

Democrats and independents overwhelmingly disapproved of Mr. Trump's Twitter use as a communications tool. Among Republicans, a plurality of 46% disapproved, with 36% approving.

The survey tested opinion of Mr. Trump's use of tweets as a mode of communication, not of Twitter itself or the views he expresses on the social media platform, such as his criticism of athletes who kneel in protest rather than stand

during the national anthem.

Mr. Trump uses Twitter for fairly benign matters, such as welcoming foreign leaders to the White House, as well as to comment on contentious issues such as North Korea.

Among the president's base—Republicans who consider themselves to be supporters of Mr. Trump more than supporters of the party itself—the poll found that half approved of his use of Twitter as a communications tool, while just over a quarter disapproved. Among Republicans who say they support the party more than the president, about half disapproved, while about one-third approved.

—Dante Chinni

said. He advised the guest to reach out to the attorney general on the issue, then said of Mr. Sessions: "He recused

himself on Russia, which he should never have done."

Mr. Trump, a Republican, also suggested Mr. Sessions

was ineffective at his job. "He basically told everyone in the room to go tell Sessions to get moving" on various policy

fronts, one person said.

Other guests at the dinner included Penny Nance, the chief executive of antiabortion group Concerned Women for America; Ralph Reed, chairman of the Faith & Freedom Coalition; and Leonard Leo, executive vice president of the Federalist Society, who advised Mr. Trump earlier this year on selecting a Supreme Court justice.

Mr. Trump also said his feud with the NFL, some of whose players he has spent recent days attacking for kneeling in protest during the national anthem, had "really taken off," according to a person present for the conversation. Mr. Trump's comments in recent days have sparked protests that are unprecedented in NFL history.

"He was happy. He feels like he's clearly winning that exchange," the person said.

A White House spokeswoman said: "We aren't going to comment about rumors on private conversations." A Justice Department spokeswoman declined to comment.

In March, Mr. Sessions, a former U.S. senator from Alabama and early supporter of Mr. Trump's presidential effort, said he would remove himself from involvement in any Justice Department investigation related to the 2016 presidential race, following the disclosure that he had had conversations with the Russian ambassador while advising the Trump campaign.

In addition, Justice Department regulations required him to recuse himself from any investigations involving political campaigns to which he served as an adviser.

Mr. Trump has blamed Mr. Sessions' recusal from the

probe for the Justice Department's appointment of Robert Mueller as special counsel in charge of the investigation, which the president has called a "witch hunt." Mr. Mueller's appointment came days after Mr. Trump fired Federal Bureau of Investigation Director James Comey, who had been heading the probe.

In July, Mr. Trump criticized his attorney general's leadership of the FBI, called him "beleaguered" and declined to say in an interview with The Wall Street Journal whether he would fire him. He also told the New York Times he never would have hired Mr. Sessions had he known he would recuse himself from the Russia probe.

At a campaign rally Friday for Sen. Luther Strange of Alabama, Mr. Trump had kinder words for his attorney general, saying he was "doing a good job."

"We have him very busy watching the borders," Mr. Trump said of Mr. Sessions, whose Senate seat Mr. Strange is seeking to fill permanently after being appointed when Mr. Sessions became attorney general.

During Monday's dinner, Mr. Trump also discussed health-care and tax overhauls. He said the White House was still "very serious" about passing the Republicans' latest effort to repeal the Affordable Care Act, although the legislation suffered a likely death blow earlier in the day when Sen. Susan Collins's declared opposition left it without enough votes to pass.

Mr. Trump also called Sen. John McCain (R., Ariz.), who said last week he wouldn't support the health-care bill, "disgraceful."

Adviser Denies Ties With Russia

By BYRON TAU

WASHINGTON—Roger Stone, a longtime friend and adviser to Donald Trump, told members of the House Intelligence Committee on Tuesday that he had no involvement in what U.S. officials have called a Russian campaign of interference and disinformation during the 2016 presidential election.

Speaking to reporters after his closed-door interview on Capitol Hill, Mr. Stone said "a substantial amount" of the questioning focused on his interactions with entities and organizations that helped disseminate stolen emails aimed at embarrassing the Democratic Party, including the website WikiLeaks and a hacker entity called Guccifer 2.0.

In a lengthy statement released before his appearance, Mr. Stone disclosed his correspondence with Guccifer 2.0 and detailed his interactions with Julian Assange, the founder of WikiLeaks. During the 2016 campaign, both entities published stolen emails from Democratic Party organizations, an element of what U.S. intelligence agencies have described as a Russian effort to

tip the race toward Mr. Trump. Mr. Stone, a veteran Republican operative who worked for Mr. Trump briefly as a consultant and continues to serve as an informal adviser and confidant, said in prepared remarks that he resented "any allegation that I would collude with the oppressive Russian state to affect the outcome of the 2016 presidential election."

Emerging from the meeting after several hours of testimony, Mr. Stone called the House investigation into Russian activity during the 2016 election an "entirely political exercise." But he had some praise for committee members he faced: "The entire exchange was completely professional."

In his 47-page written statement, Mr. Stone described his interactions with Guccifer 2.0 as "limited" and "benign," and he released screenshots of what appeared to be messages exchanged privately on Twitter.

They show about a dozen messages Mr. Stone received from Guccifer 2.0 last August and September, as well as three messages he sent in response.

The material shows the conversation began after Mr. Stone wrote an article for the

right-wing website Breitbart News in which he argued that Guccifer 2.0 wasn't a Russian asset but instead acted independently. The U.S. intelligence community later assessed the material released by Guccifer 2.0 had been pilfered by Russia.

Guccifer 2.0 has denied it was working on behalf of Moscow, claiming Romanian nationality.

A few days after writing the article, Mr. Stone sent a private Twitter message to the Guccifer 2.0 account, saying he was "delighted" the entity was back on Twitter, according to the material he released. Twitter had briefly suspended the account.

"F—the state and their

MSM lackeys," Mr. Stone added,

using a common disparaging term for the mainstream media.

According to Mr. Stone's release, Guccifer 2.0 responded:

"thank u for writing back, and thank u for an article about me!!!"

The entity then asked if Mr. Stone found anything interesting in the documents posted—a question to which

Mr. Stone's release suggests he

didn't reply. Several days later,

Mr. Stone asked the account to

circulate an article he had written for the Hill newspaper with the title, "How the election can be rigged against Donald Trump."

The screenshots show Guccifer 2.0 attempted several other times to draw Mr. Stone into conversation. They appear to show Mr. Stone didn't answer until Sept. 9, 2016, when he replied to a query asking his opinion about stolen material concerning Democratic voter turnout. Mr. Stone said he found the material "pretty standard," according to his release.

Guccifer 2.0's interactions with U.S. political operatives have long been of interest to congressional investigators. A Republican political operative in Florida received 2.5 gigabytes of Democratic Party documents from Guccifer 2.0 and posted some of those on a blog called HelloFLA.com, The Wall Street Journal reported in May.

Concerning WikiLeaks, Mr.

Stone said his contact with Mr. Assange came through an "intermediary" he described as a journalist, whom he refused to name. Mr. Stone said he reached out to the unnamed journalist after Mr. Assange

announced publicly that he

was in possession of some Democratic emails and was preparing to publish them.

The U.S. intelligence agencies have concluded the material was likely stolen by Russian military intelligence, but many of Mr. Trump's allies and associates, including Mr. Stone, have questioned that conclusion.

According to a January report from the U.S. intelligence community, the highest levels of the Russian government were involved in directing the electoral interference to boost Mr. Trump at the expense of Mrs. Clinton. Russia's tactics included efforts to hack state election systems; infiltrating

and leaking information from party committees and political strategists; and disseminating through social media and other outlets negative stories about Mrs. Clinton and positive ones about the Mr. Trump, the report said.

The Kremlin has denied meddling in the election, and Mr. Trump has said he didn't collude with Russia.

The U.S. intelligence report specifically identified Guccifer 2.0 as a channel used by Russian military intelligence to distribute damaging information about Democrats.

—Rebecca Ballhaus contributed to this article.

Yellen Defends Fed's Rate-Increase Strategy

By DAVID HARRISON

CLEVELAND—Federal Reserve Chairwoman Janet Yellen defended on Tuesday the central bank's projection for a gradual path of rate increases over the next few years, despite the past few months of unexpectedly low inflation.

Ms. Yellen said the Fed could slow the pace of rate increases if low inflation persists and officials conclude it reflects long-term changes in the economy rather than transitory factors.

The chairwoman and her colleagues have been grappling with subdued inflation despite a growing economy and vigorous labor market. That has presented officials with a dilemma. From one point of view, the weak inflation readings could be a sign that interest rates should remain lower than anticipated. Yet keeping interest rates low for too long could cause inflation to grow too rapidly and inflate new financial bubbles.



Fed chief Janet Yellen has been grappling with subdued inflation.

preferred measure, has undershot the central bank's 2% target for much of the past five years. Although Ms. Yellen said she expects inflation to move up gradually to the target, she acknowledged the uncertainty surrounding that prediction. The Fed has raised rates four times since 2015 and has penciled in one more rate increase this year.

"How should policy be for-

increase at the Fed's December meeting. Investors pegged a 77.9% chance of a rate move Tuesday afternoon, up from 72.8% a day ago, according to CME Group data.

How to respond to weak price growth has been a burning topic among Fed officials. Some, such as New York Fed President William Dudley, argue that the strong economy will soon push up inflation, suggesting a need to continue raising interest rates.

"I expect inflation will rise and stabilize around [the Fed's] 2% objective over the medium term," he said Monday. "In response, the Federal Reserve will likely continue to remove monetary policy accommodation gradually."

Others, such as Charles Evans of the Chicago Fed, see no indication that inflation is about to turn higher.

Speaking in Michigan on Monday, Mr. Evans said he believed weaker inflation reflected structural changes in the economy, rather than a temporary phenomenon.

Confidence Among U.S. Consumers Decreases Slightly

Confidence among U.S. consumers fell only slightly in September after two major hurricanes struck the country.

U.S. consumer confidence fell to an index level of 119.8 in September from a revised 120.4 in August, the Conference Board said Tuesday. Economists surveyed by The Wall Street Journal had expected a September reading of 119.3.

The latest reading is below March's level of 124.9—the highest level since December 2000—but still above readings recorded this spring, suggesting confidence remains high nationally.

The small drop in confidence "is likely to be reversed in the coming months," said Michael Pearce, economist at Capital Economics. "The fact that confidence is still close to a 16-year high even after Charlottesville, the nuclear threat from North Korea, and two major hurricanes underlines just how resilient the house-

hold sector is."

Confidence in Texas and Florida, two states that were the most severely impacted by hurricanes Harvey and Irma, fell considerably, but the mood in the rest of the country remained fairly positive, said Lynn Franco, the Conference Board's director of economic indicators.

"Despite the slight downturn in confidence, consumers' assessment of current conditions remains quite favorable and their expectations for the short-term suggest the economy will continue expanding at its current pace," Ms. Franco said.

The view of the current labor market also weakened slightly, with fewer respondents saying jobs are "plentiful," though fewer also reported jobs are "hard to get."

Consumers' future outlook for the labor market was more favorable than in August. The share expecting more jobs in the months ahead increased to 19.5% from 16.8%. That matches with the unemployment rate trending near a 16-year low and job openings at a record high.

—Eric Morath

U.S. NEWS

McConnell Stature Bruised By ACA, Alabama Runoff

BY JANET HOOK
AND KRISTINA PETERSON

Senate Majority Leader Mitch McConnell's political clout and reputation as a master legislative strategist are being put to the test this week, and the Kentucky Republican is at risk of failing on both fronts.

His second attempt to pass legislation to repeal and replace the Affordable Care Act lacks enough support to pass and prospects for reviving the bill before a Sept. 30 legislative deadline are dim.

Meanwhile, Mr. McConnell's favored candidate to succeed Attorney General Jeff Sessions in an Alabama GOP runoff election on Tuesday is lagging in the polls. The majority leader has thrown the full weight of his prestige and political organization behind Sen. Luther Strange, who was temporarily appointed to fill the Sessions seat and is running behind evangelical former state judge Roy Moore.

To make matters worse for the 32-year Senate veteran, President Donald Trump—who is also backing Mr. Strange and the health-care bill—is poised to cast blame on Mr. McConnell for either loss.

Mr. Trump has repeatedly criticized Mr. McConnell and other congressional Republicans for failing to pass the health legislation that was the party's signature campaign promise for the past four election cycles.

Mr. Trump, who claims Mr. Strange's chances have improved since his endorsement, argues that the senator has been dragged down by association with Mr. McConnell.

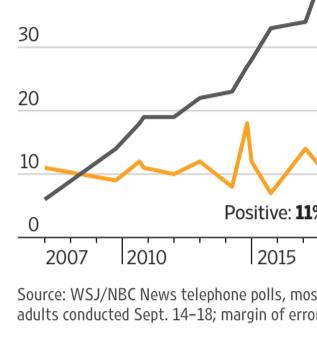
"Mitch is not, polling-wise,

Views of McConnell

Senate Majority Leader Mitch McConnell has seen his favorability drop, even among his own Republican Party members.

Sen. McConnell favorability

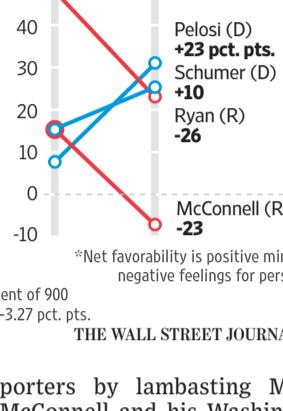
among all adults



Source: WSJ/NBC News telephone polls, most recent of 900 adults conducted Sept. 14-18; margin of error: +/-3.27 pct. pts.

Net favorability*

among those within own party



THE WALL STREET JOURNAL

the most popular guy in this country," Mr. Trump said Monday in an Alabama radio interview. "They like to label him as Mitch's best friend, and he's not. He hardly even knows him. He will be fighting Mitch."

Mr. McConnell's office declined to comment.

Indeed, after months of being berated by Mr. Trump for Congress's failure to enact his agenda, Mr. McConnell has seen his unpopularity soar, even among Republicans. The latest Wall Street Journal/NBC News poll found that 41% have a negative view of Mr. McConnell, including 25% of Republicans.

He has been a target of attack by Steve Bannon, a former Trump aide who has backed Mr. Moore in the Alabama contest since leaving the White House.

Speaking at a get-out-the-vote rally for Mr. Moore in Alabama on Monday night, Mr. Bannon fired up Moore sup-

porters by lambasting Mr. McConnell and his Washington allies. "Mitch McConnell and this permanent political class is the most corrupt, incompetent group of individuals in this country," he said. "You get to show them that this populist, nationalist, conservative movement is on the rise."

Shrugging off the fact that Mr. Trump had endorsed Mr. Strange, Mr. Bannon said, "A vote for Judge Roy Moore is a vote for Donald J. Trump."

Mr. McConnell has strongly fought for Mr. Strange throughout the special-election contest that began in an August GOP primary that winnowed the field. The winner of the Moore-Strange runoff will face Democrat Doug Jones, a former U.S. Attorney, in a Dec. 12 general election.

The Senate Leadership Fund, a super PAC associated with Mr. McConnell, has spent a record \$9 million in support

of Mr. Strange. That big financial and political commitment made it easy for Mr. Strange's opponents to portray him as a creature of the McConnell party establishment—a political albatross Mr. Strange tried to shed at Friday's rally with Mr. Trump when he said he would "stand up" to Mr. McConnell.

The stakes for Mr. McConnell in Alabama reach far beyond the potential for an embarrassing loss. A victory by Mr. Moore—if he goes on to win the general election in December—will send to the Senate a new member who has made a campaign commitment to fight the establishment when he gets to Washington.

"Roy Moore will make Rand Paul look like a member in good standing of the Republican caucus," said Chris Krueger, a political analyst at Cowen & Co., referring to the Kentucky Republican who often parts ways with the GOP leadership. "He's going to be a flame-throwing problem child of the first order. With Moore there, you basically have a one-vote margin."

Mr. Moore wears that description like a badge of honor in a campaign that has tried to turn the election into a referendum on Mr. McConnell.

"We understand that Luther Strange is desperate to win this election for Mitch McConnell," said Bill Armistead, former chairman of the Alabama Republican Party and chairman of the Moore campaign. "This is all about Mitch McConnell. Mitch McConnell is desperate to have a senator that he can control."



'We plan to move forward with our next priority,' Mr. McConnell says.

HEALTH

Continued from Page One

control over health care to the states. It also would have brought significant cuts to Medicaid.

The Congressional Budget Office released a partial analysis of the latest GOP bill late Monday, concluding the number of people with comprehensive health coverage would be "reduced by millions."

The CBO also estimated that by 2026, the bill would cut about \$1 trillion in Medicaid spending, resulting in millions of people being left out of the program.

"It's time to move on," said Sister Carol Keehan, president and chief executive of the Catholic Health Association of the United States, during a call held Tuesday by the American Hospital Association and other industry groups opposed to the bill. The Catholic group includes more than 2,000 Catholic hospitals and other health-care providers.

Health-care industry officials remain wary of future attempts by Republicans to pass ACA-repeal bills, and of the likelihood that health care will remain an area of sharp partisan debate.

Some Democrats are now backing the idea of a government health-care program for all people, long supported by Sen. Bernie Sanders of Vermont.

concerns with the sustainability of the market," she said.

Health-care companies also feared chaos if the Graham-Cassidy legislation passed, as states would have had to rush to come up with their own massive health-coverage revamps before 2020.

The bill also didn't include one of health insurers' top priorities, the repeal of an ACA tax on health plans, while it got rid of the ACA's coverage mandate, which insurers argue is important in prodding healthier people to sign up for coverage.

"It's time to move on," said Sister Carol Keehan, president and chief executive of the Catholic Health Association of the United States, during a call held Tuesday by the American Hospital Association and other industry groups opposed to the bill.

The failure of the Senate Republicans' bill relieves health companies, but hospitals and insurers will quickly pivot back to worries about implementation of the existing law as the crucial open-enrollment season looms.

"It's a momentary bit of a relief," said Gabriela Saenz, a vice president at Christus Health, a hospital system based in Irving, Texas, that opposed the bill.

But hospitals remain worried about the stability of the law's marketplaces because rising premiums or an exodus of insurers could leave more patients uninsured, she said.

"We absolutely do have

said.

Republicans do want to eliminate some deductions that largely benefit high-income households, namely the break for state and local taxes.

Mr. Trump said the plan would cut taxes for the middle class and for corporations.

Rep. Pat Meehan (R., Pa.), who was at the White House meeting, said the gathering was important and that there was common ground on looking for a better tax system.

But, he said, "We have to be realistic about what kind of bipartisanship we can ultimately expect."

Mr. Neal said he favored keeping the top rate at 39.6% and wanted to see distribution tables, or estimates of how each income group would fare in the plan.

The White House and the Treasury Department didn't respond to requests to comment.

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"Concentrated wealth in America is an issue that we've got to be concerned with," he



President Donald Trump with members of the House Ways and Means Committee at the White House on Tuesday.

lower tax rate on businesses that pay taxes on their owners' individual returns and the repeal of the estate and alternative minimum taxes.

Rep. Richard Neal of Massachusetts, the top Democrat on the Ways and Means Committee said Mr. Trump told the lawmakers Tuesday that the rich wouldn't benefit and that Mr. Mnuchin said they were willing to negotiate on the top rate.

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of any misconduct and will fully cooperate with authorities to understand more," Adidas isn't charged with wrongdoing.

Mr. Gatto is accused of getting \$100,000 to a player so that he would attend a university that has an outfitting contract with Adidas.

The description in the complaint of the university—a public research institution in Kentucky with 22,640 students—matches the University of Louisville.

A representative for the school said it was unaware of the allegations.

—Sara Germano contributed to this article.

TAXES

Continued from Page One

man Kevin Brady (R., Texas), Senate Finance Chairman Orrin Hatch (R., Utah), Treasury Secretary Steven Mnuchin, White House economic policy chief Gary Cohn, Senate Majority Leader Mitch McConnell (R., Ky.) and House Speaker Paul Ryan (R., Wis.).

It will be difficult to tell who gets the tax cuts under the plan until lawmakers release a complete tax bill and independent analysts examine how the distribution of the tax burden differs from today's tax system.

That full bill isn't likely to appear until after Congress adopts a budget resolution. The budget allows for the Senate to pass the tax bill on a

simple majority vote without Democratic support.

In a meeting at the White House on Tuesday with Republican and Democratic members of the House Ways and Means Committee, Mr. Trump said his administration's tax proposal to be unveiled on Wednesday would be "a very, very powerful document."

He said the proposal would call for simplifying the tax code, calling the current version "too complicated."

Mr. Trump also said the proposal would cut taxes for the middle class and for corporations.

"If we do this, we will create millions of new jobs for our people," he said. "We will become a competitive nation again."

Taxes on high-income households are one of the core issues that divide the parties

and most Democrats have insisted that the wealthiest Americans not get a tax cut. If Mr. Trump wants Democratic votes, that could require sig-

nificant changes in the GOP plan because it has many pieces that benefit high-income households, including a lower corporate tax rate, a

lower tax rate on businesses that pay taxes on their owners' individual returns and the repeal of the estate and alternative minimum taxes.

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U.S. Plans to Lower Refugee Admissions

BY LAURA MECKLER
AND FELICIA SCHWARTZ

WASHINGTON—President Donald Trump plans to set the cap for refugee admissions for the coming fiscal year at 45,000, the lowest in decades, according to people familiar with the discussions.

The number won't be officially settled until after senior administration officials consult with members of Congress, as required by law, on Wednesday. A decision is due by Saturday, before the next fiscal year begins.

The State Department had initially pushed for a cap of at least 50,000 but later revised its recommendation to the president to 45,000. The Department of Homeland Security recommended a figure closer to 40,000.

Mr. Trump has already lowered the cap once. A year ago, former President Barack Obama said the U.S. would accept as many as 110,000 refugees in 2017, responding to pressure from a mounting Syrian refugee crisis. After taking office, Mr. Trump lowered the 2017 cap to 50,000 and sought to suspend refugee admissions altogether for 120 days in order to review vetting procedures.

Since 1980, the president has had sole authority to set

NCAA

Continued from Page One

The complaints provide a window into the "dark underbelly of college basketball," acting U.S. attorney Joon H. Kim said in a news conference in New York. College basketball has long been troubled by rumors of corruption and whispers that underground intermediaries have gained outside power to steer high-school recruits to colleges in exchange for kickbacks from agents, financial advisers and powerful sneaker companies.

The NCAA, the governing body of college athletics, has the broad jurisdiction to investigate such alleged pay-for-play activity, which is illegal under its rules of amateurism. But the fraud allegations unsealed Tuesday are unlike any violations the NCAA has ever uncovered.

Mr. Kim said that the association wasn't aware of the investigation, which he called "covert," until Tuesday, as arrests were taking place. A spokeswoman for the NCAA didn't respond to requests to comment.

William F. Sweeney, the assistant director in charge of the FBI's New York field office, said the investigation—which according to the complaints began in 2015—was ongoing.

Auburn has suspended Mr. Person without pay, school President Steven Leath said on Twitter. "We are committed to

playing by the rules, and that's what we expect from our coaches," he said in a series of messages on Twitter.

Among the schools implicated are the country's top college-basketball teams with expectations to compete for the national championship every season.

In one alleged scheme, Emanuel Richardson, an assistant coach at the University of Arizona, Anthony Bland, a coach at the University of Southern California, and Lamont Evans, an associate coach at Oklahoma State University, were charged with accepting cash bribes from a sports agent and a financial adviser.

Mr. Evans, until March, coached at the University of South Carolina, and the charges stem from his work there.

A spokesman for Oklahoma State said the school was surprised by the allegations. "We are cooperating fully with the officials," he said. "Let it be clear we take very seriously the high standards of conduct expected in our athletic department. We will not tolerate any deviation from those standards."

In a statement, USC athletic director Lynn Swann said he was "shocked" by the developments. "We will cooperate fully with the investigation and will assist authorities as needed, and if these allegations are true, we will take the necessary actions," he said.

Representatives from Arizona and South Carolina

didn't respond to requests to comment.

In another alleged scheme, James "Jim" Gatto, director of basketball global sports marketing at Adidas, worked with another sports-marketing executive to funnel hundreds of thousands of dollars from Adidas to high-school players and/or their families in exchange for the players' commitment to play for NCAA schools sponsored by the company.

"Today, we became aware that federal investigators arrested an Adidas employee," an Adidas spokeswoman said. "We are learning more about the situation. We're unaware

of any misconduct and will fully cooperate with authorities to understand more," Adidas isn't charged with wrongdoing.

Mr. Gatto is accused of getting \$100,000 to a player so that he would attend a university that has an outfitting contract with Adidas.

The description in the complaint of the university—a public research institution in Kentucky with 22,

U.S. NEWS



Justice Department Seeks to Combat Disaster-Aid Fraud

The Justice Department is directing U.S. attorney's offices around the country to improve efforts to target fraud in the disaster-relief efforts that arose after a series of devastating hurricanes pummeled the U.S.

Deputy Attorney General Rod Rosenstein, in a memo dated Sept. 22, directed each office to log and track all disaster-fraud cases relating to major national disasters. He asked the offices to direct all complaints to an office within the Justice Department's criminal division called the National Cen-

IN DEPTH

ORANGE

Continued from Page One

"We're a bunch of scientists sitting on 12,000 acres and a giant orange juice plant we need to use," said Tim Eyrich, vice president of research and commercialization at Southern Gardens Citrus, the company developing the engineered fruit.

"If this collapses, all your orange juice comes from Brazil."

Greening—which also hurts grapefruit, limes, lemons and other citrus—has cut Florida's output in half over the past decade, according to the U.S. Department of Agriculture.

Revenue and jobs in the citrus sector are each down by about a third in the past three years. The state's industry notched revenue of \$9 billion in 2016.

The cut in production of Florida oranges—95% of which are used for juice—has helped drive the beverage's price at the grocery store up more than 50% since 2004, just before the disease was found in the state, according to measurement firm Nielsen.

Making matters worse, Hurricane Irma this month hit a direct blow on Florida's citrus groves, knocking 50% of developing oranges off trees across the state, according to the University of Florida Institute of Food and Agricultural Sciences. Trees with roots already weakened by greening were sitting in 4 feet of water in some of Florida's southern areas earlier this month.

During the storm, nurseries quarantined to keep out the disease lost roofs, and scientific laboratories working on anti-greening projects lost power, potentially compromising research years in the making.

Southern Gardens, based in Clewiston, Fla., is one of the largest producers of orange juice in the U.S., supplying juice to nearly every major brand and private label. It said that its engineered groves didn't suffer hurricane damage but that its other groves around the state lost large amounts of fruit.

California oranges, which are mostly grown for eating, haven't been widely affected by greening, and noncitrus crops aren't affected.

The disease's carrier is the Asian citrus psyllid, a non-native insect so tiny it can be mistaken for a speck of pollen.

It travels from grove to grove with little more than a light breeze and is undeterred by pesticides that can't eradicate it entirely. It spreads the *Candidatus Liberibacter asiaticus* bacteria as it sucks sap from the plants.

Some growers blame trees shipped to the U.S. from Asia for bringing in the bug. A series of hurricanes in 2004 helped spread the disease throughout Florida.

Since 2009, the USDA has invested more than \$400 million to study resistant plants, pesticides and other chemicals to attack the disease.

The technology Southern Gardens is using, developed by Texas A&M University, inserts a gene that is a part of the immune system of spinach into the genetic structure of an orange. The modified cells grown in a lab eventually shoot out roots and are planted in soil and develop into trees. The project is among Florida's most promising efforts for a cure, even though the trees are still five years away from producing fruit.

'God only made one type of orange. We don't have a magic tree.'

The company is also experimenting with adding a spinach gene to a harmless virus naturally living inside the "phloem"—the vascular system of the tree—without affecting the genes of the tree itself.

It's a yearslong process. Scientists wait for psyllids to come to the grove naturally to infect the trees, and then see if they are resistant to greening. "All it takes is one hurricane and you're back to square one," said Michael Rogers, director of the Citrus Research and Education Center at the University of Florida Institute of Food and Agricultural Sciences.

Other gene therapies scientists are researching, including attempting to turn off the citrus genes that aid the disease, aren't as far along as Southern Gardens' engineered fruit project, he said. Ideas such as testing penicillin in oranges, heating trees to kill the bacteria, and growing citrus under protective screening have been

impractical for juice fruit or unsuccessful.

"It's just a race against the clock," Mr. Rogers said. "We need to get these trees to growers that are still in the business."

Within the industry and among consumers, there are questions about the use of genetically modified foods, which are widely found in grain crops such as corn and soybeans but are less common in fruit. With consumers moving away from the products, there is a risk that food companies won't be willing to buy genetically modified juice, no matter how successful the science.

"God only made one type of orange," said David Crews, a small orange grower in Lake Wales, Fla. "We don't have a magic tree."

Southern Gardens said regulators require its experimental trees be tested in real-life conditions to ensure that the crops aren't harmful to the environment, and that officials from the USDA's Animal and Plant Health Inspection Service regularly visit.

Brazil has stepped up orange production, threatening to deliver the final blow to the U.S. industry. Brazil's larger groves and different practices have helped control the spread of greening. Psyllids, the disease-carrying insects, are attracted to new shoots, which sprout more frequently in Florida than in Brazil because trees are grown in warmer, more humid areas.

The USDA estimates that Brazil's total output of orange juice will rise 55% this year from last year, with exports rising 28%. Brazil's production lead over the U.S. has doubled since around 2003.

Juice labels that once boasted 100% Florida juice have been altered to read 100% juice. The majority of concentrated orange juice is already imported.

In Frostproof, Fla., Phillip Rucks, owner of Phillip Rucks Citrus Nursery, drove past an emaciated grove in one of Florida's largest citrus areas. It was July and fruit was just starting to develop on trees.

"We call this bad neighbor syndrome," Mr. Rucks said. The grove, abandoned to greening, sat directly across the street from a neighbor still attempting to maintain trees.

Rucks is the largest citrus nursery in the U.S., with



Healthy orange trees in a grove at Southern Gardens Citrus, top, and blackened fruit in an abandoned grove near Labelle, Fla., above. Disease is said to have cut Florida's output in half over the past decade.

850,000 young budlings and rootstock. The high-tech compound is designed to keep trees quarantined, with growth taking place completely under cover.

Inspectors visit regularly to check for the presence of psyllids. Visitors coming in the building are sprayed down with an antibacterial agent, and the entire compound is surrounded by giant trees designed to block the wind from transporting insects. An un-

marked laboratory is filled with a refrigerator full of cloned tissue samples.

Mr. Rucks tests different varieties and different growing methods to find plants resistant to greening.

"Early on there was hope that the research would lead to a silver bullet," said Adam Putnam, Florida's commissioner of agriculture. "Now the hope is there will be incremental solutions. Expectations are more realistic now."

Brant Schirard, a citrus grower along Florida's eastern belt, said growers are doing everything they can to diversify, with farmers moving into peaches, blueberries, hops and pineapples, among other crops. Approximately 130,000 acres of citrus have been abandoned across the state, according to the USDA.

An added factor is shifting tastes. Americans are drinking 48% less orange juice than they were in 2005, according to Nielsen, as fewer people sit down to breakfast and more people try to avoid sugar, or are tempted by more exotic beverages.

Southern Gardens has been fighting greening since 2005, when the disease first reached its groves, which at that time amounted to 15,000 acres. The company's president, Dan Cas-

per, said that it has planted about 750,000 new trees in the past four years alone to replace diseased ones, and that it is spending millions on new tree plantings, grove research and citrus greening research.

"I've been working on plant diseases since 1981," said Mike Irey, director of research at Southern Gardens. "It's the most miserable disease I've ever worked with."

The bacteria causing the disease is "fastidious," meaning scientists haven't been able to figure out what nutrients it needs to grow in a petri dish. That makes it nearly impossible to research remedies in a laboratory setting. Each time scientists want to try a new treatment, they need to test it on an actual tree, wait for it to produce fruit, then see if it becomes infected with the disease.

In the past, healthy trees produced fruit for an average of 20 to 30 years or longer. These days they must be replanted, at best, in 12 to 15 years.

"We're putting \$54 in each tree by the time we pick the first fruit off the tree, and that crop won't give you back \$54," said Jim Snively, vice president of groves at the firm. "You'll get \$9 back the first year. And then the clock starts ticking."

a goal of doubling the rolls to 1,000 by 2019, parking be damned. Suddenly, the bar—a classic speakeasy—opened more than one night a week. There was karaoke, comedy and live music. Members formed a shooting club, a motorcycle club, a running club. They held barbecues on the plaza in front of the building, where passing vets could see signs of life and inquire about membership.

In January, the new management put up a website allowing vets to join by clicking and paying dues by credit card. So far this year, more than 260 have signed up, compared with 19 inducted in 2011.

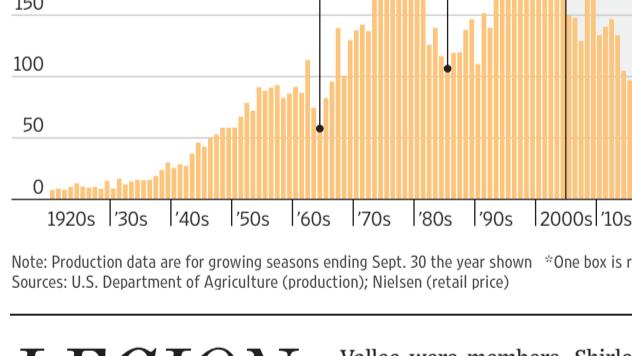
The new-generation leaders try to show respect for the old ways. Mr. Weldon still wraps up the monthly business meeting with the words, "Let us close with Irving Berlin's 'God Bless America.'"

It is, old timers admit, the way things have always worked at Post 43. "The Vietnam vets, much as we wanted to make changes, were dragged down by the WWII vets, who were dragged down by the WWI vets," recalls Mr. Shaner. At one point, the WWII vets—who sometimes treated the Vietnam vets with you-lost-your-war scorn—refused to disclose the full membership roster to the Vietnam vets, he says.

Sour Market

Florida's orange juice industry—decimated by a pernicious disease and recently clobbered by Hurricane Irma—has been suffering, pushing prices higher for consumers and providing an opening for Brazil to become more dominant.

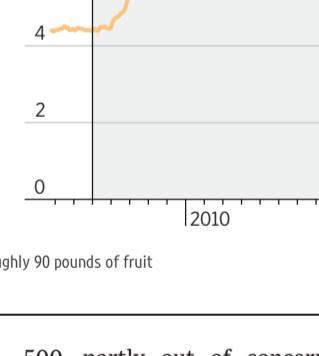
Florida orange production



Note: Production data are for growing seasons ending Sept. 30. The year shown is the year ending Sept. 30. *One box is roughly 90 pounds of fruit.

Sources: U.S. Department of Agriculture (production); Nielsen (retail price)

U.S. retail price for orange juice



Orange juice production



THE WALL STREET JOURNAL.

LEGION

Continued from Page One

for hospices and cemeteries. He waved the booklet in frustration. "You realize your advertisers are branding you?" he said. "Welcome to the American Legion—prepare to die."

The organization also has a demographic problem. World War II and Korea vets are indeed dying at a rapid clip, with the Vietnam generation next in line. Despite constant war since the Sept. 11 attacks, the country's veteran population is expected to fall to 13.6 million in two decades, from 20 million today, according to the Department of Veterans Affairs.

The Hollywood post, which opened in 1929, has in its new incarnation managed to prosper and attract vets for whom hip isn't necessarily a prelude to replacement.

"I never thought in a million years that I'd be so into this," says Second Vice Commander Jennifer Campbell, 35, a former Army truck driver turned personal trainer. "I'm as surprised as anybody."

Down the road from the Hollywood Bowl, Post 43 has long ties to the entertainment industry. Clark Gable, Charlton Heston, Ronald Reagan and Rudy

Vallee were members. Shirley Temple was an honorary colonel, and photos of her curls stand out in the Post museum amid the machine guns, a dog-tag stamping machine and an Adolf Hitler pin cushion. (Suffice it to say he's bent over.)

In recent decades the Post business model provided ample money for good works, from Boys State to patriotic oratory contests to projects to help veterans navigate the VA. The legionnaires rent their parking lot during events at the Hollywood Bowl. Movie and TV producers film at the Post; a young Jim Kirk lost a fight in the Art Deco bar in the 2009 movie "Star Trek."

But there was little effort to make the Post a social center for new vets.

"We appreciate the generation that came before us," says Ms. Campbell. "But we don't want to hang out with 80-year-old men all night."

To join, vets previously had to show up in person when the Post was open, find their way past the locked side gate and pay the \$33.50 annual fee with a check. "The only way to communicate with the office in 2011 other than phone was with a fax—it was like 1986 in there," says Mr. Rivero, a Navy lieutenant commander who served in Afghanistan.

Membership was limited to

500, partly out of concern that, if more joined, there would neither be enough parking nor enough food at the twice-monthly free dinners.

In 2014, Mr. Rivero and seven other members—mostly post-9/11 vets—met secretly at a Burbank steak house to devise a plan to take control of Post 43 and make it more fun.

They drew up a party ticket and challenged the old guard in elections for leadership positions. "We thought we'd be

run out of town," recalls Mr. Rivero, who produces trailers for "American Horror Story," a show on FX Networks, which shares common ownership with The Wall Street Journal.

It turned out the old guard was no match for the high-tech electoral prowess of the young guns, who used email and text messages to round up votes. Mr. Rivero softened his own image by putting a photo of himself with his mother on a campaign flier.

The cabaret room went silent when it was announced that three Future 43 candidates had won spots on the executive committee, enough to form a ruling junta with some sympathetic old timers.

Subsequent elections secured the Future 43 party a majority of seats, with post-Sept. 11 vets now holding the posts of commander, first vice commander and second vice commander.

Their first move was to set



Members of American Legion Post 43 in Hollywood, Calif. Movie and TV producers film there.

824 729 a goal of doubling the rolls to 1,000 by 2019, parking be damned. Suddenly, the bar—a classic speakeasy—opened more than one night a week. There was karaoke, comedy and live music. Members formed a shooting club, a motorcycle club, a running club. They held barbecues on the plaza in front of the building, where passing vets could see signs of life and inquire about membership.

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LIFE & ARTS

WORK & FAMILY | By Sue Shellenbarger

How to Land a 'Stretch' Job

Good leaders recognize untapped potential and steer employees to new challenges

SMART LEADERS have a knack for spotting hidden potential in their employees and suggesting jobs to draw it out.

Pushing people into jobs they don't feel qualified for can be a hard sell. It can be just as difficult, however, for employees to sit back and allow the invisible hand of management chart their careers.

DowDuPont Inc. Chief Financial Officer Howard Ungerleider wants to advance employees who collaborate with colleagues in different departments and look beyond their own jobs toward improving the company's overall results. Several years ago Beth Nicholas stood out when he visited the chemical giant's Shanghai operations, where she was an accounting director, he says. He watched her give presentations and talked shop with her over dinner.

In 2014, Mr. Ungerleider advocated for Ms. Nicholas's promotion to global finance director for Dow's agricultural-products unit, where she would report to him. The unit posted record earnings last year. He recently offered Ms. Nicholas another stretch assignment, to become the company's chief tax officer, effective in January. The job will require especially strong collaboration skills as the company, formed by the merger last month of Dow Chemical Co. and DuPont Co., proceeds with a plan to break up into three companies.

Ms. Nicholas lacks credentials common among corporate tax chiefs—a master's or law degree in taxation. Mr. Ungerleider says DowDuPont has other executives with deep expertise in tax law. What he sees in Ms. Nicholas is the ability to collaborate with them on a company-wide goal of improving global tax strategy.

When Mr. Ungerleider offered her the promotion, Ms. Nicholas says, "it was one of those moments where you pause and the tummy turns a little bit." After taking about a week to think it over, she said yes. "You should feel uncomfortable when you take a new job," she says, "because the opportunity to grow is so vast."

Spotting untapped potential is especially important in advancing women, who tend not to apply for jobs they aren't already highly qualified to do. Executive coach Joel Garfinkle of Oakland, Calif., also sees this tendency in "the introvert who may be intimidated by the extroverts around him or her, the talented but shy person who is afraid of self-promotion, or the person of a different race or culture who has been taught not to put himself forward."

Bosses also need to reassure employees: "I care about you, I'll support you with mentoring and coaching, and there's an exciting



JON KRAUSE

path forward if you take the stretch assignments and succeed," says Suzanne Bates, a Wellesley, Mass., leadership and executive coach whose firm, Bates Communications, has worked with executives at Dow.

"You've got to be kidding me!" was Jennifer Roseman's response when her boss Dan Frank, chief executive of Three Wire Systems, a Falls Church, Va., government contractor, suggested three years ago that she take over financial management of the unit where she was supervising client-service staff. Ms. Roseman trained as a social worker and had no interest in adding profit-and-loss accounting to her role at the unit, VetAdvisor, she says. She reluctantly agreed.

Mr. Frank, a former Navy pilot, says he trusted Ms. Roseman to learn the job and excel at it. "What I saw in her was somebody who

loved the mission" of providing housing, health, career and other support to veterans, he says.

After a few months of managing VetAdvisor's revenue and expenses from her Ebensburg, Pa., office, she realized meeting targets gives

Spotting untapped potential is especially important in advancing women.

her a sense of teamwork and pride. She has since been promoted to executive vice president. Looking back, Ms. Roseman says, "Dan had a knack for understanding what I could do—for seeing things in me that I didn't necessarily see."

People who want to work for a leader who nurtures talent should look for executives who spend time with employees and take an interest in them, asking questions and welcoming honest answers, says Jessica Bigazzi Foster, a senior partner at the management-psychology consulting firm RHR International in Chicago.

Motivating many, Ms. Foster says, is a desire to pay it forward. When these leaders tell stories about their own careers, a consistent theme is that somebody took a chance on them and helped them make a significant leap—without checking all the boxes.

Catherine Zelenofske was thriving as a program manager at WegoWise Inc., a Boston maker of software for building owners, when tech entrepreneur Laila Partridge became the company's chief executive last year. Ms. Partridge noticed how smoothly Ms.

Zelenofske worked with others. During her performance review, the CEO asked, "So, what do you like doing?" Ms. Zelenofske talked about mentoring employees and building customer relationships.

Ms. Zelenofske was surprised when Ms. Partridge offered her a job she'd never considered, as head of "people ops" or human resources. Ms. Partridge explained that she'd still be doing what she enjoyed, but with all 50 of the company's employees rather than a smaller team. She promised to provide mentors, training and guidance. Ms. Zelenofske took the job. In her first nine months, she set up two programs for employees, one to improve the performance-review process and another to help them with career planning.

"She was a good performer on her previous job," Ms. Partridge says, "but on this one she's a rock star."

MY RIDE | By A.J. Baime

THE SPIRIT OF '55 IN A RESTORED DESOTO

Scott McQueen, 71, a retired owner of radio stations from Boca Raton, Fla., on his 1955 DeSoto Fireflite, as told to A.J. Baime.

You could call me the king of nostalgia. I spent much of my career running oldies radio stations, celebrating the music of my youth. And later in life, I put together a collection of cars that reflect my early years of driving.

When I was in college at Dartmouth, I sold everything I owned to buy a 1965 Corvette. Now I own one of those, in the same color: Nassau blue. In my senior year of college, I bought a 1965 Pontiac Catalina. Now I own one of those. When I first saw some success in radio, I got a 1976 Designer Series Bill Blass Lincoln Continental Mark IV. It was pretty over the top, but that's what I wanted at the time. Now I own one of those.

The most important car to me is the 1955 DeSoto. I got my driver's license in 1963, and the first car I drove was a friend's 1955 DeSoto Fireflite, in red and white, on the

streets of Cape Cod, where my family has been summering since I was 10. It was the perfect beach car, and those were life-defining memories.

In the late 1980s, I went looking for a Fireflite, and found one in the exact color scheme in South Dakota. I bought it for \$14,000, and I have always kept it at our house in Cape Cod. Every summer, one of the first things I would do when I got up here was figure out how to get that car running.

A few years ago, I realized that this car had become pretty valuable. DeSoto was a division of Chrysler up until model year 1961. The Fireflite was the flagship DeSoto, and a brand new model for 1955. Only 775 convertibles were made. I asked a friend—Corvette specialist Ronald Garrett of Fort



The 1955 DeSoto Fireflite belonging to Scott McQueen in Cape Cod, Mass. The car's back end, above left, includes a V-8 logo. A view of the steering wheel, left.

Wayne, Ind.—to restore my DeSoto and its original 291 V-8. He agreed, however long it would take. It took three years, and I got the car back this July.

Now it drives like a brand new 1955 DeSoto. Motoring around this summer, all of my

passions came together: the streets and beaches of Cape Cod, the first car I ever drove, and of course, oldies on the radio.

Contact A.J. Baime at Facebook.com/ajbaime.

OPINION

REVIEW & OUTLOOK

Cuba's Sonic Attacks

U.S. Secretary of State Rex Tillerson told CBS's "Face the Nation" recently that the U.S. is thinking about closing its Embassy in Havana in response to mysterious acoustic attacks on U.S. personnel that have injured at least 21 Americans.

Here's a better idea: Keep the Embassy in Havana open but expel from the U.S. 19 Cubans working at its embassy in Washington. Since the U.S. already expelled two Cuban diplomats in August in response to the attacks, the new round of expulsions would bring the number of Castro personnel asked to leave to the same number of U.S. personnel that have been medically confirmed to have suffered injuries.

The U.S. can tell Cuba that things will return to normal when Raúl Castro explains to the U.S. State Department how the Embassy employees were harmed. As of now, all we know is that the State Department believes some sort of sonic harassment has left them with "a variety of physical symptoms."

That's an understatement. The American Foreign Service Association, a union for U.S. diplomats, said earlier this month that it has spoken with 10 of the affected and that "diagnoses include mild traumatic brain injury and permanent hearing loss, with such additional symptoms as loss of balance, severe headaches, cognitive disruption and brain swelling."

Mr. Castro says he is shocked to hear this news and claims he has no idea how it could have happened. That would be easier to believe if Cuba weren't a police state with a long record of harassing U.S. government employees on the island.

According to retired ambassador James Cason, who ran the U.S. Interests Section in Havana from 2002 to 2005, leaving feces on a din-

How to respond to the harm done to 21 Americans in Havana.

ing-room table or a car door-handle and poisoning pets are a few ways that Castro's boys have shown hospitality toward Americans over the years. Embassy personnel engaged on human-rights issues and with dissidents were among the most likely targets because the regime wanted to send a message, Mr. Cason told us.

The sonic attacks are different because the Americans didn't know they were being harmed until after the fact. One theory is that one of Cuba's allies, such as North Korea or Iran, decided to test a new assault device from its embassy on the island. Another theory is that a rogue wing of the regime wants to undermine the U.S. rapprochement. But a regime that specializes in spying on its own people isn't often surprised by local developments. As Mr. Cason puts it, "nothing happens [in Cuba] without the government knowing about it."

On the odd chance that the attacks aren't regime-approved, a one-party state that learned from the Soviets certainly has the power to investigate. Yet these incidents began in November, the U.S. first complained in February and as recently as August they continued. Notwithstanding Mr. Castro's bafflement, his government has done nothing about the attacks. Perhaps Raúl figured he could simply get away with it after he won normal relations with the U.S. without making any concessions.

Mr. Tillerson said "it's a very serious issue with respect to the harm that certain individuals have suffered." Expelling Cuban embassy personnel will anger Cuba because it will weaken its espionage ability here. But the U.S. has a responsibility to protect its diplomats and a failure to respond will encourage other regimes to do the same.

An American Comeback Story

As Washington begins to debate tax reform in earnest, states can provide instructive policy lessons for better and sometimes worse—see the fiscal crack-ups in Connecticut and Illinois. Michigan, on the other hand, offers a case study in the pro-growth potential of business tax reform.

Former Michigan Democratic Gov. Jennifer Granholm was a progressive specialist in using the tax code to politically allocate capital, which depressed and distorted business investment. Between 2002 and 2007, Michigan was the only state to experience zero economic growth.

Ms. Granholm's Republican successor, Rick Snyder, recharged growth with tax and regulatory reforms. While Michigan's GDP has been expanding at roughly the national average since 2011, it has led the Great Lakes region.

Michigan slipped into recession in 2003 as manufacturing contracted, which unions blamed on China and free-trade agreements. But misguided policies were arguably bigger contributors to Michigan's slump. Between 2002 and 2007, Michigan's manufacturing grew at a third of the rate of the Great Lakes region. During this period, motor-vehicle and parts manufacturing in Indiana increased five times as much as in Michigan. And Indiana's economy is nearly as dependent on vehicle production as Michigan's.

Democrats in Lansing responded by raising taxes with dispensations for politically favored constituents. In 2007 Democrats increased the state income tax to 4.35% from 3.9%. They also enacted a new business tax with a 4.95% tax on income, a 0.8% gross-receipts tax, plus a 21.99% surcharge on business tax liability.

The three-layered business tax replaced a value-added tax, but retained its flaws—namely, its pyramid structure and myriad carve-outs. New credits were created for Nascar, car dealers, film-production companies, large food retailers and warehouses. Businesses could even pocket \$100,000 for contributing to zoos. Care to sponsor a giraffe?

None of the tax gimmicks revived growth, and Michigan's economy plunged amid the national recession with unemployment hitting 14.9% in June 2009. The auto bailout helped stanch job losses at GM and Chrysler while pension reforms and a two-tier wage scale for new workers made Detroit's auto makers more economically competitive.

By 2011 when Mr. Snyder assumed office, auto manufacturing had rebounded, but other industries remained limp. Michigan still hadn't posted annual net job growth since 2005. Its 10.9% unemployment rate was the fourth highest after California, Nevada and Rhode Island.

Mr. Snyder's first major undertaking with his Republican legislature was to replace the cumbersome state business tax with a 6% corporate tax and trim the individual rate to 4.25%. Michigan's corporate-tax ranking jumped to seventh

How business-tax reform helped revive Michigan's economy.

from 49th in the Tax Foundation's business tax climate rankings.

Republicans financed the tax cuts by eliminating most business handouts along with individual income-tax preferences for public pensions and jobless benefits. Credits for children, automobile donations, city income taxes, college tuition and charitable contributions were axed. They also reformed state-worker pensions.

After the 2012 midterm elections, Republicans passed right-to-work legislation that lets workers choose whether to join unions. In 2014 state voters approved a ballot measure backed by the governor to repeal the personal-property tax for small businesses and manufacturers, which was levied on the value of machines and other tangible equipment.

Capital investment and hiring have increased sharply. Two months after Mr. Snyder signed the tax reforms, job growth turned positive. In 2011 Michigan added jobs for the first time in six years, and it has since led the Great Lakes region in manufacturing growth.

Unemployment has fallen below the national average to 3.9% even as the labor-force participation rate has ticked up. The jobless rate is still 5% in Illinois and 5.4% in Ohio, and labor-force participation has declined in both states. Ohio and Illinois are non-right-to-work states with larger individual and business tax burdens. Ohio imposes a gross-receipts tax.

Liberals may want to credit the auto bailout, but auto manufacturing isn't driving Michigan's growth. Between 2011 and 2015 (the last year with available disaggregated data), Michigan's motor-vehicle and parts production increased by 2.3%—half as much as in Indiana and the U.S. During the first quarter of this year, when car sales stalled, overall manufacturing in Michigan still grew by a healthy 7.4%. The Mackinac Center notes that fabricated metals and machinery are doing particularly well, but growth has been broad-based. Since 2011, professional and business services have expanded at an annual 3.6% and IT by 2.7%.

Downtown Detroit is drawing tech firms and young entrepreneurs. Unemployment in the Detroit metro area has fallen to 3.2% from 11.4% six years ago. Businesses in Ann Arbor and Grand Rapids say they can't find enough workers. Perhaps they should try recruiting in Chicago or New Haven.

The left loves to flog the political revolt against Kansas Gov. Sam Brownback's tax cuts, which they blame for yawning deficits. But the bigger deficit drivers were court-mandated increases in school spending and a slump in farm commodity prices. Republicans also erred by retaining major tax breaks and repealing the income tax for small businesses, which caused some individuals to change their filing status. Caveat, Senators.

While progressives may continue to deny that taxes matter, Michigan's economic comeback shows otherwise.

For Venezuela's Sake, Dismantle the OAS

By Benjamin N. Gedan

For a moment, all eyes were on the Organization of American States. The horrors in Venezuela had galvanized the world's oldest regional body, and hemispheric heavyweights sought solutions in its marble halls. Prodded by a crusading secretary general, U.S. and Latin American diplomats urgently debated ways to rescue Venezuela's crumbling democracy.

Today, it is the OAS that needs rescuing. The organization failed to address the crisis in Venezuela—in the process, becoming worse than irrelevant. It is a zombie forum that serves only to sap diplomatic energy.

Fortunately, there is still a way to salvage a regional response to the Venezuela nightmare: Disband the OAS and replace it with a body no longer dominated by small Caribbean countries.

For the past two years, Caribbean governments, in return for Venezuelan assistance, have held the OAS hostage. These countries, most of which are less populous than Staten Island, N.Y., control 14 of the organization's 34 votes. They have wielded their influence to thwart all attempts at defending human rights and democratic institutions.

In doing so, Caribbean governments have paralyzed the OAS even as President Nicolás Maduro imprisoned rivals and usurped the power of the opposition-controlled National Assembly, and as Venezuelans suffered food and medicine shortages.

This pattern predates the Trump administration. Beginning under President Obama, most Caribbean countries—from Dominica to St. Vincent and the Grenadines—joined Venezuela's dwindling ideological allies to obstruct measures addressing the crisis. Worse still, they championed any proposal for political dialogue, no matter how far-fetched, simply in order to filibuster OAS action.

There are exceptions, such as the Bahamas, Barbados and Jamaica. But by and large, Caribbean solidarity, and Venezuelan bullying, prevailed.

No amount of American aid balanced the scales. The U.S. shoveled billions of dollars into Port-au-Prince, for example, but Haiti still voted with Venezuela at every turn. U.S. investments to strengthen the Caribbean energy sector were similarly irrelevant to Caribbean leaders.

Nevertheless, diplomats held out hope that Caribbean governments would eventually adopt a principled stand. Conditions in Venezuela were deteriorating quickly, and falling oil prices had lessened the Caribbean reliance on subsidized Venezuelan crude. For the first time in a decade, the largest countries in the region, including Argentina and Brazil, had begun criticizing the erosion of Venezuela's democracy. But nothing would loosen Mr. Maduro's stranglehold on the Caribbean.

Given the stakes for the OAS and Venezuela, it's time for a new approach. OAS members should immediately dissolve the organization and replace it with a body that assigns Caribbean members a single, collective vote. The Caribbeans should be encouraged not to boycott the new organization. Though the Caribbean Community secretariat would cast the sole vote for its members, Caribbean states would retain all other membership privileges. The new organization could also help with hurricane relief and preparedness.

If this measure seems extreme, the alternative is more so: The OAS collapses, or at best, slowly fades away. That's a real possibility. The White House is poised to slash U.S. support for the OAS, which makes up 60% of its budget.

Tiny Caribbean states have outsize power, and many are in thrall to the Caracas regime.

In another sign that U.S. patience has reached its limits, the White House is considering destabilizing economic sanctions on Venezuela's oil sector. Last month, President Trump even declined to rule out a "military option."

Many are already looking past the OAS, the only regional body that includes the U.S. On Aug. 8, for example, OAS fatigue prompted Peru to host foreign ministers to discuss Venezuela; it did not invite U.S. Secretary of State Rex Tillerson.

Since last year, governments in this hemisphere have been celebrating the 15th anniversary of the OAS Inter-American Democratic Charter, which proclaims that "the peoples of the Americas have a right to democracy and their governments have an obligation to promote and defend it."

The charter, approved in 2001 in the wake of democratic breakdowns in Haiti and Peru, is considered the greatest OAS achievement since its birth in 1948. Though imperfect, it has been applied in Bolivia, Ecuador, Guatemala, Honduras and Nicaragua. Mr. Maduro has clearly failed to satisfy its conditions and earned a suspension from the OAS.

Sadly, the democratic charter has become an empty threat. It could be revived only by dissolving the OAS and building an alternative organization no longer controlled by its smallest and least productive members—one that would restrict Caribbean members to a single vote. Those nations deserve nothing more, and the suffering people of Venezuela deserve nothing less.

Mr. Gedan is a former Venezuela director for the National Security Council and a fellow at the Woodrow Wilson International Center for Scholars.

LETTERS TO THE EDITOR

Maybe the Fed's Staffers Could Get a 2% Cut

William M. Isaac and Richard M. Kovacevich ("The Fed Should Stop Worrying and Learn to Love Low Inflation," op-ed, Sept. 19) are correct in suggesting the Federal Reserve should stop worrying about getting inflation up to its 2% target noting, among other things, that "inflation does not create greater economic growth."

However, there are two even stronger economic reasons the Fed should stop worrying about inflation. First, there is no compelling theoretical case for any inflation rate other than zero. The idea that the economy will do better with "moderate inflation" is based on conjecture, not strong economic theory. If inflation reduces output growth even a little, it is very difficult to argue that the best rate of inflation is something other than zero. At the July 1996 FOMC meeting, Fed Chairman Alan Greenspan stated his preferred rate of inflation was zero, "if inflation is properly measured."

Second, it isn't clear that the Federal Open Market Committee can do much about inflation. There are two theories of inflation. One is that inflation is the consequence of excess growth of the money supply. The other is that inflation is the consequence of the gap between actual and potential output. The problem is neither theory works in practice. Neither can account for the behavior of inflation over at least the past 50 years. Perhaps Messrs. Isaac and Kovacevich should have said the Fed should stop trying to do what it cannot do.

DAN THORNTON, PH.D.

Valley Park, Mo.

Mr. Thornton is a retired vice president of the Federal Reserve Bank of St. Louis.

The Fed should certainly be vigilant against inflation. But too-low inflation also imposes costs and dangers. A lack of inflation means that real-wage cuts in a recession cannot be achieved through keeping nominal wages constant, and thus employers are more likely to fire workers. And given that no central bank can target inflation

with perfect accuracy, persistently low inflation raises the chances of falling into deflation, which the authors recognize as harmful.

Even if the Fed has successfully avoided the deflation threat for now, keeping inflation at around 2% when the economy is growing is insurance against deflation in a future recession.

The authors also cite low levels of business investment over the past eight years and point to a lack of confidence in monetary policy as a factor. A more likely cause is a lack of confidence in growth. Tighter monetary policy would raise borrowing costs and exacerbate rather than relieve this problem.

WILLIAM MILES
Wichita State University
Wichita, Kan.

I was hoping the powers to be had finally decided to include energy and food in the inflation computations. Until these two categories, which are so much a part of the average citizen's life and expenditures, are included, I find discussions or data on inflation useless.

KEN FAULHABER
Ocala, Fla.

Low interest rates means that average consumers get close to zero interest on their savings accounts. One might wonder if low interest rates inhibit inflation. If interest rates were normal for the past 10 years, there would be considerably more money in savings and retirement accounts to power consumer spending. This would increase demand for products, which can require more workers and higher wages that raise inflation.

RON MINARIK
Mystic, Conn.

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OPINION

How Trump Can Improve the Iran Deal

By **Mark Dubowitz**
And **David Albright**

Powerful voices at home and abroad are pressuring President Trump to give his blessing to his predecessor's nuclear agreement with Iran. Mr. Trump has repeatedly pledged to renegotiate the deal, known as the Joint Comprehensive Plan of Action, or scrap it altogether. There is a way for him to highlight the agreement's egregious deficiencies while showing his determination to improve the deal or leave it. We call this strategy "decertify, waive, slap and fix."

He can call out Tehran for its noncompliance as a prelude to renegotiating the accord's worst aspects.

The president should follow through on his commitments by refusing to certify the JCPOA under the 2015 Iran Nuclear Agreement Review Act. That law requires Mr. Trump to certify every 90 days that Iran is fully implementing the nuclear deal and hasn't significantly advanced its nuclear-weapons program. Additionally he must certify whether the suspension of sanctions remains vital to U.S. national-security interests and proportionate to Iran's efforts to terminate its illicit nuclear programs. The next 90-day deadline is Oct. 15.

If the president continues to certify the JCPOA, inertia and the status quo will probably capture him the way a policy of "strategic patience"

on North Korea got Mr. Obama. This will effectively guarantee the clerical regime pathways to missile-delivered nuclear weapons.

The JCPOA is a prelude to a Middle Eastern version of the North Korean mess. It gives the clerical regime sunset-expiring restrictions, advanced centrifuges, intercontinental ballistic missiles, the ability to frustrate U.N. inspectors' access to military sites where Tehran has conducted secret nuclear-weapons and uranium-enrichment work in the past, and tens of billions of dollars in sanctions relief, with hundreds of billions to follow. The Iranians will continue to run amok in the Middle East, using foreign cash to pay for their imperialism.

The president should refuse to certify for another reason: The nuclear deal's fundamentally flawed architecture—not just how it is enforced—makes it too dangerous to continue. By patiently following the deal the Islamic Republic can gain nuclear weapons, as well as a nuclear-capable arsenal of missiles giving it regional hegemony and the ability to threaten the U.S. It also will have a powerful economy immunized against sanctions pressure by the time the JCPOA restrictions expire. Allowing this isn't in the "vital national security interests of the United States."

Decertifying doesn't mean breaking the deal. That happens only if the U.S. reimposes sanctions that have been lifted or suspended under the JCPOA. On Sept. 14, as required by the JCPOA, the president again waived nuclear-related sanctions, this time on Iran's central bank and oil exports. He accompanied this "waive" with a "slap" imposing new sanctions on companies and individuals con-



ATTILA KHAN/AFP/GETTY IMAGES

Ballistic missiles next to a portrait of Iran's supreme leader in Tehran, Sept. 25.

nected to Iran's ballistic missile program and recent cyberattacks. An engineering company working with Iran's Islamic Revolutionary Guard Corps was also targeted.

These sanctions, which are fully compliant with the JCPOA, are a decent start. But Mr. Trump must do more. He should designate the Revolutionary Guards a terrorist organization, as Congress has required he do by Oct. 31. He should also instruct U.S. Treasury to blacklist companies with Revolutionary Guard and military ownership, which represent about 20% of the total market capitalization of the Tehran Stock Exchange. He should redesignate Iran Air (which is buying planes from Boeing and Airbus) as a terrorist entity for airlifting weapons and fighters to Syria. All these measures are consistent with the JCPOA.

We propose the president "fix" U.S. policy by making it clear he

doesn't accept the Iran deal's dangerous flaws. He should insist on conditions making permanent the current restrictions on Iran's nuclear program and the testing of advanced centrifuges and nuclear-capable ballistic missiles, as well as the buying and transferring of conventional weaponry. He must insist on unfettered access for U.N. weapons inspectors to Iranian military sites.

Congress should do its part to help fix the deal. Reinstating the JCPOA sanctions after decertification would ruin the "decertify, waive, slap and fix" approach. To persuade Republicans, who are the most likely to vote to reinstate JCPOA sanctions that have been waived or lifted, the administration needs to demonstrate a comprehensive strategy to fix the deal and use all instruments of American power to neutralize and roll back Iranian aggression. Democrats should help

fix the deal or explain to Americans why a brutally repressive and aggressive Iranian regime should have a North Korean-style glide path to dozens of nuclear weapons and ICBMs.

The Europeans are already responding to Mr. Trump's threats to walk away from the deal. French President Emmanuel Macron has said he's willing to consider supplementing the agreement to address the sunset provisions and missiles. European leaders who want to preserve the accord are now working on a U.S.-EU consensus on ways to fix it. They should outline conditions under which trans-Atlantic sanctions would be reinstated if Iran doesn't play ball. Otherwise, they can watch Mr. Trump exit the deal and use the considerable financial power of the U.S. to force European banks and companies to choose between America's \$19 trillion market and Iran's \$400 billion one.

Decertification is the critical first step of a strategy to prevent the Islamic Republic of Iran from becoming a nuclear state. The famously blunt Mr. Trump must send an unambiguous message to Tehran's clerics: His administration will not tolerate a nuclear Iran, nor can it abide by the agreement as it stands.

But the strategy doesn't depend on Iranian acquiescence. It gives the Europeans a chance to come on board to fix the deal in order to save it.

If they don't, the consequences could be severe.

Mr. Dubowitz is chief executive of the Foundation for Defense of Democracies. Mr. Albright is president of the Institute for Science and International Security.

A New, Old Path to Fiscal Union for Europe

By **Marcello Minenna**

Eurozone reform is back on the agenda. French President Emmanuel Macron has made greater integration—especially on fiscal matters—a cornerstone of his agenda. And German Chancellor Angela Merkel may be in a position to take more steps in that direction now that she has won re-election. But what can or should they do to strengthen the currency bloc?

Some European leaders talk about a much closer fiscal union. The creation of a European Union finance minister with power to distribute taxpayer money could serve as a buffer in recessions. Such a mechanism, the thinking goes, would reduce the risk that a sovereign default in one euro country would trigger a financial crisis somewhere else.

This new model isn't politically feasible right now. But the EU already possesses an institution that, if reformed appropriately, could bolster the eurozone's ability to prevent sovereign crises.

The European Stability Mechanism, or ESM, was established in 2012 to provide financial assistance to distressed countries, and became the primary conduit for EU financing during bailouts in Cyprus and

Greece. Its only other outing to date has been a rescue of some Spanish banks, and its total disbursements so far have been less than €100 billion (\$118.86 billion).

The ESM represents the outline of a form of fiscal cooperation on which the eurozone could agree. It has a maximum lending volume of €500 billion and subscribed capital of €704 billion, of which €80.5 billion is already paid in; the remainder is callable shares.

The ESM is also able to issue supranational bonds, eligible for purchase under the European Central Bank's asset-purchase program, or quantitative easing. Its low leverage and explicit government backing guarantees a low funding cost.

But the fund is currently too small to rescue a government such as Italy—the eurozone's third-largest and highly indebted economy, which the German Council of Economic Experts in 2016 called "too big to save."

The ESM's existing decision-making process is also too inefficient for these purposes. Most of the fund's important decisions must be made unanimously or, in case of emergency, with the approval of 85% of the votes cast. Germany, the largest shareholder with a 26.9% stake, holds a veto.

I'm on record, in a 2000 paper, as arguing that the Card-Krueger

These limitations can be remedied by making the ESM an automatic guarantor of all sovereign debt in the eurozone and requiring governments to pay their fair share for this protection.

Governments would start by including risk-sharing clauses in new bond issues, under which the ESM

Leaders can use an existing fund as the basis for the risk-sharing the eurozone needs in order to survive.

would guarantee that maturing bonds in the new issue would benefit from the joint liability of all ESM member countries. Within eight to 10 years, all government bond issues would include such clauses.

In exchange for this guarantee, countries would be required to compensate the ESM by making cash contributions to ESM capital. The formula for these contributions would take into account the net balance of the protection sold by a country to other participants in the fund and received from others.

Stable governments such as Germany would pay little or no addi-

tion contribution relative to today since they would bear a disproportionate share of the risks. Conversely, more-indebted and riskier governments, such as Italy, would pay more than others.

In effect, the ESM would be selling to its members a credit-default swap on whatever sovereign risk exceeds the weighted average of all sovereign risk in eurozone bonds. To preserve the ESM's investment-grade rating, the maximum expected loss cannot exceed paid-in capital. So ESM guarantees would expand to cover all sovereign debt only gradually as members fulfilled their contribution duties.

The introduction of risk-sharing clauses would restore markets' confidence in the resilience of the eurozone and fuel the convergence of sovereign yield curves, reducing the overall riskiness of eurozone public debt and aligning the default probabilities for all eurozone members.

Meanwhile, ESM reform should be combined with a revision to existing fiscal compact rules that excludes fruitful public-works investments from deficit limits. The amount of allowable public-works spending would be equal to the amount of capital each member country paid each year for its bond

guarantees from the ESM. The ESM would then be able to help finance that public-works spending by offering guarantees for the bond issues to pay for it.

An ESM 2.0 based on risk-sharing and convergence of sovereign yield curves and the reboot of public-works investments with a higher degree of flexibility than today could be the skeleton of a future federal budget that can rely on the possibility of issuing supranational bonds of the eurozone. Importantly, it would be more flexible than the German proposal to transform the ESM into a monetary fund while inserting clauses into new bond issues making default or re-denomination into a potential local currency harder.

Europe needs to find a way to make its unique monetary experiment—the euro—work better. The important question will be whether Europeans are prepared to move toward an eventual break-up of the euro, which would be driven by stringent limits on credit issuance, or whether they want to create institutions such as a new ESM that can finally allow the euro to work.

Mr. Minenna is a doctoral lecturer at the London Graduate School of Mathematical Finance.

America's Minimum-Wage Crowd Tries a Bait and Switch

By **David Neumark**

Does the minimum wage destroy jobs? The debate over that question often reduces to dueling economic studies. One side cites analyses showing that employers respond to a wage floor by cutting hours or jobs. The other side pulls out studies saying the minimum wage is a free lunch for workers. To really understand what's going on, you need to get under the hood.

The main challenge in estimating the effects of a rising minimum wage is identifying a good control group. Generally economists want to find a set of workers who weren't subject to the policy change, but who other-

wise experienced similar economic trends. Still, that leaves a lot of leeway for choice.

Researchers who support raising the minimum wage often advocate a "close comparison"—using an area geographically nearby. The classic in this genre is the 1994 study of the fast-food industry by David Card and Alan Krueger. The minimum wage had been raised in New Jersey to \$5.05 from \$4.25, but had stayed flat in Pennsylvania. The two economists surveyed fast-food restaurants on either side of the state border and actually found sharp job gains in New Jersey.

I'm on record, in a 2000 paper, as arguing that the Card-Krueger

study was based on flawed data. But other researchers using the "close comparison" method, such as Michael Reich at Berkeley, also have generally found that a higher minimum wage doesn't cause job losses. Those studies have fed into rosy policy reports saying that a \$15 minimum wage would help workers with little downside.

Critics say these studies don't convincingly control for shocks to the low-skill labor market. Moreover, comparing across state borders is inherently difficult. Perhaps politicians in one state felt comfortable raising the minimum wage because the labor market there was already strong, while the other state was struggling. In that case, job losses from the higher minimum wage could be masked by the broader trend.

Alternative research strategies do show job losses. Consider a 2014 study by Jeffrey Clemens and Michael Witten on what happened when the federal minimum wage was raised to \$7.25 from \$5.15 in the late 2000s. Rather than crossing a border, they compared groups of workers within each of the affected states. The first group included those who were paid the very lowest wage, on whom the new minimum was "binding." The control group included workers earning slightly above the minimum. The study estimated that the new federal minimum had eliminated about 80,000 jobs.

The dispute over methodology explains the importance of this summer's research on Seattle's minimum-wage experiment. The city's wage floor, previously about \$9.50

an hour, has been raised to \$13 and is on its way to \$15. A comprehensive study by academics at the University of Washington estimated that the higher minimum "reduced hours worked in low-wage jobs by around 9 percent." Consequently, earnings for these employees dropped "by an average of \$125 per month."

A recent study used an approach favored by boosters—but still showed negative effects for workers.

when it delivers evidence against minimum wages suggests the motivations here may be ideological rather than empirical.

The Seattle study won't settle the debate—or should it. It is one analysis, and it examines one city's experience over a short period. In my view, more of the evidence, and the best evidence, points to job losses from higher minimum wages. But additional research will refine the academic consensus. The trouble is that the debate will suffer if researchers use their influence to attack results they don't like, as seems to be happening with the Seattle study.

There is also a more general lesson for the public. Although politicians and the media are right to rely on research to understand the effects of public policy, it's important to keep a skeptical eye. Research often comes from a mix of sources, and it can be difficult for those reporting on it to separate the wheat from the chaff. Perhaps it's even unreasonable to expect them to do so.

This problem of research-as-advocacy isn't confined to one side. There is plenty of it on the right and the left. Yet it would be wrong, too, to think that any study from an organization with a point of view is flawed or biased. The trick is trying to understand not only what the research says about public policy, but also who the messenger is.

Mr. Neumark is a professor of economics and director of the Economic Self-Sufficiency Policy Research Institute at the University of California, Irvine.

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THE WALL STREET JOURNAL.

Wednesday, September 27, 2017 | B1

Euro vs. Dollar 1.1772 ▼ 0.66%

FTSE 100 7285.74 ▼ 0.21%

Gold 1297.00 ▼ 0.75%

WTI crude 51.88 ▼ 0.65%

German Bund yield 0.410%

10-Year Treasury yield 2.229%

Dyson Tries Hand at Electric Cars

Innovative designer of everyday appliances started project more than two years ago

BY STU WOO
AND WILLIAM BOSTON

LONDON—**Dyson** Ltd., the British technology company known for its high-end vacuum cleaners and ubiquitous hand dryers, said Tuesday that it is developing an electric car to hit roads as early as 2020.

The closely held company's founder, James Dyson, revealed few details about the vehicle, which would compete against those of electric-car pioneer **Tesla** Inc., during a news conference at his company's London store. He said it



The firm's offices. Dyson is known for hair dryers and vacuums.

and design house that successfully fused innovative engineering and design to provide fresh takes on everyday appliances such as vacuum cleaners and hair and hand dryers, for which consumers have paid high prices. The company's founder promised to pour £2 billion (\$2.69 billion) into his car effort.

Mr. Dyson said his company wouldn't collaborate with other car makers and hoped to make an automobile distinctive in design and technology. "We want to do it ourselves," he said. "There's no point in doing one that looks like everyone else's."

Mr. Dyson said the company had been working on the electric-car project for 2½ years and has 400 employees dedicated to it so far. "We're not a

Johnny-come-lately," he said.

He said he wanted to go public with the project Tuesday in part to make it easier to recruit engineers.

Even with a popular brand, Dyson will be entering a crowded field. When Tesla introduced its now iconic Model S luxury sedan in 2012, global car makers were asleep at the wheel. Now most major car makers are on track to launch new-generation electric vehicles—from compact city cars and luxury sedans to sport-utility vehicles—in 2020, Dyson's target year. That puts pressure on Dyson to come up with a car that sets itself apart from the world's biggest and best-known auto makers.

The company will develop the car in Britain, though it

Please see DYSON page B2



The suit also targets former Uber CEO Travis Kalanick.

Uber Faces Investor Lawsuit

BY GREG BENSINGER

A small shareholder of **Uber Technologies** Inc. on Tuesday sued the ride-hailing company and its former chief executive for allegedly covering up "illicit business tactics," the latest legal challenge following months of scandals at the highflying startup.

The lawsuit from the Irving Firemen's Relief & Retirement Fund in Texas claims Uber and former CEO Travis Kalanick knowingly misled investors while raising capital by failing to reveal the company had potentially broken laws, revelations that allegedly cost investors billions of dollars in losses on investments. The complaint, filed in the U.S. District Court for the Northern District of California, seeks class-action status on behalf of Uber's myriad investors, and asks for unspecified damages.

The small retirement fund invested about \$2 million in Uber in February 2016 through a Morgan Stanley fund at a \$62.5 billion valuation.

"The company's vaunted corporate culture was revealed in truth to consist of a toxic hotbed of misogyny, sexual discrimination, and disregard for the law that threatened the company's reputation, business and prospects," according to the complaint. Uber, which is privately held but was valued at \$68 billion in its most recent fundraising round in June 2016, has lost at least \$18 billion in market capitalization, the fund alleges, citing media reports.

Representatives for Mr. Kalanick, Uber and Morgan Stanley declined to comment. Representatives for the firemen's fund declined to comment beyond the complaint.

The lawsuit adds to mounting legal issues faced by Uber as its new CEO Dara Khosrowshahi takes over for Mr. Kalanick, who resigned under pressure from investors

Please see UBER page B2

Alstom, Siemens Set Rail Merger

BY MATTHEW DALTON

PARIS—German industrial company **Siemens** AG on Tuesday agreed to merge its rail operations with French train maker **Alstom** SA, aiming to create a European giant with the scale to fight growing competitive threats from state-backed Chinese rivals.

Under the deal, Siemens will be issued 50% of the shares in the new company. Alstom shareholders will receive two special dividends totaling €8 (\$9.48) a share, or €1.8 billion (\$2.1 billion), the companies said.

The proposed merger marks a major test of Europe's ability to overcome national economic rivalries and establish a European champion, akin to **Airbus** SE in aviation. The deal faces the risk of political backlash in France, where Alstom's factories have been a symbol of national industry for more than a century.

Yet the merger has strong backing from French President Emmanuel Macron, who has argued that Europe needs to cooperate across borders to compete better against economic powers in China, the U.S. and elsewhere. The deal echoes the political overtures Mr. Macron is making to German Chancellor Angela Merkel to bolster the eurozone economy by establishing a shared budget for the currency bloc.

"We put the European idea to work and together with our friends at Alstom, we are creating a new European champion in the rail industry for the long term," said Siemens Chief Executive Joe Kaeser.

The deal would dilute French control over Alstom, which shrank dramatically in 2015 when the company sold its electric-turbine division to U.S. industrial conglomerate General Electric Co. That deal handed an important piece of France's nuclear-power business to GE, outraging members of France's socialist government at the time. The labor minister called it a "breach of national ethics."

To ease French concerns, the current chief executive of Alstom, Frenchman Henri Poupart-Lafarge, will lead the new business. Its headquarters will remain in France.

A combination would create a European transportation business with about \$18 billion in annual sales.

Alstom had sales of €7.3 billion in the financial year ended March 31. Siemens's mobility unit had €7.8 billion in revenue last year.

The deal is intended to help Europe's rail industry confront an increasingly serious threat: CRRC Corp., the world's biggest rail supplier, and other companies in China's government-run train industry.

Jacquie McNish contributed to this article.



General Electric in 2015 won a \$2.5 billion contract to supply 1,000 diesel locomotives to Indian Railways over 11 years.

GE's India Train Deal in Jeopardy

General Electric Co. is in danger of losing one of its largest industrial contracts after a political shake-up in India, highlighting the risk of

By Thomas Gryta,
Ted Mann
and Rajesh Roy

the conglomerate's chase to win business in far-flung markets by investing heavily in local operations.

GE won a \$2.5 billion deal in 2015 to sell diesel locomotives to **Indian Railways**—delivering 1,000 of the machines

over 11 years—using a structure the company said would be a model for the future. In exchange for a massive order from one of Asia's biggest economies, GE would agree to build the locomotives in a remote corner of the Indian countryside, boosting employment and the local economy.

But a new railways minister, Piyush Goyal, stunned GE leaders earlier this month by declaring that India would pull out of the deal and instead seek to transform its massive rail network to use electric locomotives exclusively.

"We continue to meet our targets and execute on the project," said Karan Bhatia,

vice president of government affairs at GE. "The idea that the rail transportation needs of India can be met by pure electrification strains credulity."

"We are optimistic that reality will prevail and the government will move forward with this critical project," he added.

GE doesn't make electric locomotives.

In his public remarks, Mr. Goyal said the ministry would double its plans to electrify tracks, from 17,000 kilometers (nearly 10,600 miles) to 35,000 kilometers of track, obviating

Please see TRAIN page B2

Please see UBER page B2

INSIDE



LUXOTTICA'S ESSILOR DEAL FACES REVIEW

BUSINESS, B2



ALIBABA TAKES CONTROL OF LOGISTICS FIRM

TECHNOLOGY, B4

European Banks Back in Merger Mind-Set

By MAX COLCHESTER
AND BEN DUMMETT

The freeze in European bank mergers is finally showing signs of thawing.

After being whipped by scandals and losses, Europe's banks retreated to their domestic markets to patch up their balance sheets.

Now, some are starting to look outward again. Merger-and-acquisition bankers, who were once shooed out of European bank boardrooms, say they are getting a warmer reception. Fears that the eurozone will collapse have receded, and bank valuations have rallied.

Meanwhile, the eurozone's banking regulator wants deals to create more pan-European banks and to boost the sector's meager profits.

For European bank deals, "the pendulum has started to move away from a hard no," said Peter Mason, **Barclays** PLC's co-head of financial institutions for Europe and the

Middle East.

So far, deals have largely involved big banks snapping up weaker domestic competitors, often at the urging of regulators. This year, Spain's failing **Banco Popular** **Espanol** SA was taken over by **Banco Santander** SA. Three smaller Italian banks were swept up by **UBI Banca** SpA.

The most often cited targets by bankers as possible cross-border tie-ups are partially nationalized banks like Germany's **Commerzbank** AG, **Bankia** SA in Spain or the Netherlands' **ABN Amro Group** NV. Among the potential acquirers, analysts say, are France's **BNP Paribas** SA and Sweden's **Nordea Bank** AB.

Europe still has too many unprofitable banks, analysts say. A survey in June showed that only 50% of European banks believe their current earnings cover their cost of equity, according to the European Banking Authority. Raising the pressure are new rules that force banks to issue debt

that can be written off if the lender founders. The cost of this pricey issuance could leave smaller banks with little option but to embrace a partner, bankers say.

Meanwhile, bankers are betting on a political push to create a tighter-knit eurozone that will help see the creation of European banking champions.

'The pendulum has started to move away from a hard no,' says Peter Mason.

ons. The election of French President Emmanuel Macron and the victory this week of German Chancellor Angela Merkel's conservative alliance are expected to drive financial integration further.

But a series of regulatory hurdles remain.

The lack of a single Euro-

pean deposit-insurance system is hampering deals. The European Central Bank is reviewing banks' risk models, a move that might force them to hold more capital.

The eurozone's chief banking regulator, Danièle Nouy, has said she doesn't want weak banks to collapse into each others' arms. Bankers say deals could still be a year or so away.

European authorities want that stance to change. It is "important for supervisors and policy makers to identify and address potential structural impediments for bank sector consolidation," the Joint Committee of the European Supervisory Authorities said in a recent paper.

Past pan-European mergers haven't been that successful. From 2006 to 2016, only 44% of European cross-border bank deals generated value, according to consulting firm **Oliver Wyman**. That compares with 60% for domestically focused takeovers.

INDEX TO BUSINESSES

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

A	Deutsche Post.....B2
ABN AMRO Group.....B1	Delphi Automotive.....B2
Airbnb.....B9	Dyson.....B1
Alibaba Group.....B4,B6	
Alibaba Group Holding.....B10	E
Allianz.....B3	Equifax.....A1,A2,B6
Alphabet.....B2,B4,B6	Exxon Mobil.....B10
Amazon.com.....B4,B6,B9	F
AMC Entertainment Holdings.....B4	Facebook.....B4,B6
Apple.....B4,B6	Fannie Mae.....B9
Avalonbay Communities.....B5	FedEx.....B9
Axis Capital.....B3	Fidelis.....B3
Axovant Sciences.....B3	G
Baidu.....A2,B6	Gazprom.....B10
Banco Popular Español.....B1	General Electric.....B1
Banco Santander.....B1	General Motors.....R4
Barclays.....B1	Greenhill.....B6
Benchmark Capital.....B2	Green Street Advisors.....B5
BlackRock.....B5	I
BNP Paribas.....B1	Indian Railways.....B1
Boeing.....B3	Intercontinental Exchange.....B6
C	K
Cainiao Smart Logistics Network.....B4,B10	Kohl's.....B2
California Resources.....B5	Kraft Heinz.....B1
CME Group.....B6	L
Commerzbank.....B1	Lennar.....B9
D	London Stock Exchange Group.....B6
DCT Industrial Trust.....B9	L'Oréal.....B1
	Luxottica Group.....B2
	Lyft.....B2

INDEX TO PEOPLE

A	Fehr, Joy.....R2
Agrawala, Banmali.....B2	Frank, Dan.....A9
B	Frankel, Eric.....B9
Barrowman, Carole.....R4	Freitag, Jan.....B9
Baty, Phil.....R1	Fuchs, Kent.....R4
Beckman, John.....R3	G
Bettencourt, Liliane.....B1,B3	Gass, Michelle.....B2
Bhatia, Karan.....B1	Giglio, Elisabeth.....R4
Boom, Steve.....B4	Gottlieb, Scott.....B3
Brown, Gregory.....R2	H
Busteed, Brandon.....R2	Harra, Alice.....R4
C	Coate, Jeri.....B9
Campbell, Mary.....R4	Havner, Ronald.....B5
Chowen, Jodi.....R2	Hawkins, Phil.....B9
Clark, Emily.....R4	Hu, Ken.....B7
Clayton, Jay.....B6	I
Clinton, Hillary.....B10	Ihara, Ikuhiro.....B4
Coate, Jeri.....B9	Immergluck, Dan.....B9
K	Kalanick, Travis.....B1
Kuh, George.....R4	K
Lapin, Lisa.....R3	Kuh, George.....R4
Lawless, Jonathan.....B9	L
Loeb, Dan.....B1,B3	Lapin, Lisa.....R3
M	Lawless, Jonathan.....B9
Mansell, Kevin.....B2	M
Mason, Peter.....R4	Y - Z
Eisgruber, Christopher.....R3,R4	Young, Michael K.....R4

UBER

Continued from the prior page June. Uber faces three possible federal probes, including a preliminary investigation by the Justice Department into alleged violations of the Foreign Corrupt Practices Act. Uber has said it is cooperating with the investigations.

Tuesday's shareholder allegations echo a lawsuit filed last month by one of Uber's directors and largest investors, Benchmark Capital, which is seeking the ouster of Mr. Kalanick as a director through the return to the board of three seats he controls. Though the case has been moved to private arbitration, it has overhung Uber's board and divided its investors.

Like Benchmark, the firemen's fund specifically pointed to news reports detailing Uber's use of software to evade regulators, known as Greyball, a program called Hell used to gather intelligence about rival Lyft Inc.'s operations, a lawsuit from Google parent Alphabet Inc. over allegedly stolen trade secrets, and charges of widespread workplace discrimination.

Class-action shareholder suits targeting private companies are relatively uncommon, said Kevin LaCroix, an attorney who advises companies on directors and officers insurance. Unlike with publicly traded companies, small investors in privately held startups typically receive limited financial information and other disclosures.

"It's been these 'unicorn' companies that have attracted these suits," he said. "The potential range of damages could be very high for a company of this magnitude and valuation."

Robbins Geller Rudman & Dowd LLP, which is representing the firemen's fund in the suit, is also involved in a continuing proposed class-action shareholder suit against privately held biotech firm Theranos Inc., which was valued by investors at \$9 billion in 2014. Theranos has disputed the allegations of securities fraud.

The firemen's fund invested in Uber through a somewhat unusual arrangement with Morgan Stanley, which offered clients an opportunity to invest in a fund known as New Riders LP, while promising limited financial disclosure.

Investors in the New Riders fund hoped to profit from an eventual Uber IPO, which Mr. Khosrowshahi has said won't come for at least 18 months.

Mr. Dyson said his company is working on batteries that don't contain liquid, which virtually all car batteries have today. He said all-solid ones would be safer, quicker to charge and more powerful. The batteries would be similar to the ones it hopes to use in its vacuum cleaners and other gadgets.

Dyson's go-it-alone approach likely would still rely

on close cooperation with suppliers, many of which have taken on some of the heavy lifting of electric-car development. For example, **Robert Bosch** GmbH, the big German supplier, built an electric delivery van for Deutsche Post,

invested heavily in electric-vehicle technology in recent years.

In doing so, they have morphed from mechanical engineering companies that supply individual parts for auto makers into high-tech opera-

ting technology into cars, making it easier for new players to enter the industry. The barrier to entry for electric cars is also lower because the costs of developing an electric vehicle are lower than a conventional vehicle.

Dyson wouldn't be the first auto outsider to break through.

Through a combination of its own development and close cooperation with suppliers, Tesla came out of nowhere and managed to design and produce electric vehicles that have become the gold standard for the industry.

Likewise, in China, the world's biggest market for electric vehicles, a handful of new car companies have emerged in the field.

which it is using in its own fleet and as well selling to third parties.

Major auto suppliers, including **Bosch**, **ZF Friedrichshafen AG**, **Continental AG**, **Delphi Automotive PLC** and **Valeo Group SA**, have

tions employing thousands of software programmers and selling complete systems that unify a wide range of components in the car.

The emergence of the supplier as systems provider is simplifying the job of integrat-

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BUSINESS NEWS

U.S. Rises in Global Business Ranking

Switzerland is ranked most competitive economy; U.S. reaches highest spot in years

BY LAUREN WEBER

The United States is the second most competitive economy in the world in 2017, trailing only Switzerland, according to a closely watched index from the World Economic Forum.

The U.S. climbed one spot since last year's rankings, reaching its highest spot in eight years, possibly reflecting executives' early optimism that a new administration would enact business-friendly

policies and do away with regulations limiting corporations' behavior.

The index, from the organization that produces the annual Davos conference on global politics and economics, assesses 137 companies on 12 factors that attract business investment and help determine productivity. The factors include nations' institutions, infrastructure, education systems and innovation.

For the ninth year in a row, Switzerland topped the list. Rounding out the top five were Singapore, the Netherlands and Germany. The Global Competitiveness Report relies on public data on measures such as inflation and debt levels along with a survey of

chief executives.

That CEO survey took place mostly in the spring, soon after the inauguration of President Donald Trump, amid hopes among business leaders

Singapore, the Netherlands and Germany rounded out the index's top five.

that his administration would quickly press for deregulation and lower corporate taxes. Since that time, "there's been a lot of talk but not a lot of actual change," says Daniel

Gomez Gaviria, who leads the competitiveness research for the WEF.

Tax reform has been held up by efforts, unsuccessful so far, to repeal the Affordable Care Act and by intraparty divisions over the size of tax cuts and how they should be distributed.

The administration has halted or delayed a number of Obama-era regulations unloved by businesses but seen by many as beneficial to workers or consumers. For example, the Labor Department delayed for 18 months implementation of the fiduciary rule, which requires brokers to act in the best interests of retirement savers when selling investment products.

The U.S. also scores high in the index on measures related to market efficiency, such as technological readiness and the country's capacity to attract and retain talent. America ranks relatively poorly on measures of health and primary education and the macroeconomic environment, including government debt levels.

Ten years after the worst global financial crisis since the Great Depression, economic systems around the world "remain at risk from further shock and are ill-prepared for the next wave of innovation and automation," according to the report.

Perceptions of the soundness of financial institutions

and the availability of capital haven't returned to pre-2007 levels, says Mr. Gomez.

And as automation displaces workers and companies seek out greater flexibility in their labor arrangements, employers and policy makers must attend to the impact on workers, the authors note.

By and large, "those economies that have flexible labor markets but combine them with protection for worker rights are also the most competitive in our sample," says Mr. Gomez.

Flexibility allows workers to move among firms and sectors in response to innovation but workers need some income protection to facilitate those transitions, he adds.

Washington Attempts to Take Out Nicotine

BY JENNIFER MALONEY

Scott Gottlieb was once a critic of the Food and Drug Administration, arguing it should move faster. Now as its leader, he has taken an idea that had been discussed inside the agency for years—removing almost all the nicotine from cigarettes—and is running with it.

About two months after Dr. Gottlieb took over as commissioner, the FDA announced it wanted tobacco companies to make all cigarettes with such low levels of nicotine that they are no longer addictive. It plans to start the process by the end of the year.

Dr. Gottlieb's surprise July 28 announcement on the tobacco-policy shift—dubbed "FDA Friday" by industry analysts—sent shares of Marlboro maker Altria Group Inc., British American Tobacco PLC and other tobacco stocks plummeting.

The move reflected a two-pronged policy that Dr. Gottlieb hopes will win broad support: making cigarettes less appealing, while offering smokers safer alternatives. If tackled separately, the two pieces would have faced more opposition, Dr. Gottlieb said in an interview.

As part of the announcement, the FDA also said it would give makers of e-cigarettes already on the U.S. market—over which the agency asserted control last year—more time to apply for regulatory approval.

The moves could dramatically reduce the smoking rate in the U.S. Nicotine itself doesn't cause disease but it hooks people on cigarettes, which kill 480,000 people in the country each year.

Dr. Gottlieb said his experience working at hospitals in New York and Connecticut of-



Food and Drug Administration chief Scott Gottlieb, who is a cancer survivor, wants to remove nearly all the nicotine from cigarettes.

fered "visceral" lessons in smoking's toll. "A lot of what you see in hospitals is smoking-related illness," the 45-year-old physician said. "It's not just cancer, but it's heart disease, it's diabetes, it's lung diseases."

Tobacco executives have applauded the FDA's pledge to encourage the launch of less harmful products—an area in which they have invested aggressively. They also noted that any change in cigarette nicotine levels must be backed up by scientific research and must take into consideration potential consequences such as a black market.

Research funded by the FDA and National Institutes of Health has shown that when nicotine was nearly eliminated

in cigarettes, smokers were more likely to quit or seek their nicotine fix from less harmful alternatives such as e-cigarettes or gum compared with smokers who continued using cigarettes with normal nicotine levels.

Lowering nicotine in cigarettes has been a subject of discussion inside the FDA since the 1990s, according to current and former agency officials. It can be done in different ways, such as genetically modifying tobacco plants or stripping nicotine from the leaf in the manufacturing process. In 2009 the Tobacco Control Act authorized the FDA to mandate such a change—with the stipulation that the policy be based on scientific evidence, a caveat that slowed the process for years.

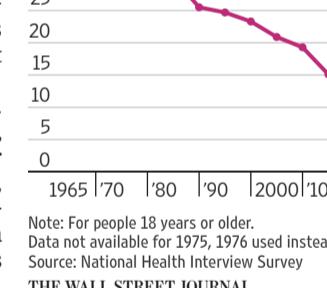
"If it works, it will save more lives than anything else the FDA could do," said Robert Califf, an Obama nominee who took the helm of the FDA in 2016.

Dr. Gottlieb, himself a cancer survivor, served as deputy FDA commissioner for two years under the George W. Bush administration, and more recently he was a fellow at the American Enterprise Institute, a conservative think tank, writing essays and op-eds for The Wall Street Journal and other outlets.

For the past decade, Dr. Gottlieb has been an investor, consultant and board member for cancer-therapy startups, drug giants such as Bristol-Myers Squibb Inc. and Kure, a startup retailer of vape pens and liquids.

Changing Habits

The share of adult smokers in the U.S. population over the past 50 years



Note: For people 18 years or older.
Data not available for 1975, 1976 used instead
Source: National Health Interview Survey
THE WALL STREET JOURNAL.

Axovant Says Drug Fails Crucial Study

BY JONATHAN D. ROCKOFF

Axovant Sciences Inc. said Tuesday that the company's experimental Alzheimer's drug failed to meet the goals of a pivotal trial, the latest setback for efforts to find new treatments for the memory-robbing disease.

Subjects in the study didn't show signs of improved cognition or daily living, according to the drug company. The company will stop pursuing the drug's use for the treatment of Alzheimer's.

"We are really, really disappointed. We hoped for the best, but this is a difficult disease area," Axovant Chief Executive David Hung said in an interview.

The performance for the drug, known as intepirdine, was watched closely on Wall Street because, even if the benefit was modest, analysts expected the drug to have more than \$2 billion in sales.

Axovant, of Basel, Switzerland, had built up a \$2.6 billion market cap before announcing the trial failure. Shares were down 74% at \$6.28 on the Nasdaq Stock Market late Tuesday.

Dr. Hung said Axovant will now focus on other programs in development, including using intepirdine to treat another neurodegenerative condition known as dementia with Lewy bodies. Axovant expects

those trial results by the end of the year.

Alzheimer's disease has proven to be an especially tough target for developing treatments. Just a handful of drugs have been approved to treat the disease, and they are indicated for relief of symptoms, not an underlying cause.

Meanwhile, experimental therapies from Eli Lilly & Co., Pfizer Inc. and Johnson & Johnson that aimed to slow the disease have failed during testing.

Yet companies have kept looking for a breakthrough, because the need is so high and commercial potential so huge. About 5.5 million Americans have the disease, and the numbers are expected to rise as the population ages.

The intepirdine study of 1,315 subjects, known as Mindset, examined whether learning and memory improved in patients getting a combination of intepirdine and the widely used therapy, Aricept, compared with subjects who took Aricept alone. But the phase 3 study failed to show a numerical improvement and the results didn't reach statistical significance for the primary endpoints, Axovant said.

The results represented the bare outline of how intepirdine performed in the trial. Axovant plans to present the full results at a medical meeting in November.

Insurers to Finance Jet Orders

BY DOUG CAMERON

Boeing Co. has found a new source of financing for jetliner orders that are expected to approach \$200 billion a year by the end of the decade: insurance companies.

The aerospace company has helped form an alliance of insurers to provide lenders with loan or bond guarantees for jet sales. The new partnership could fill a gap in aircraft financing created by the extended closure of export credit agencies in the U.S. and Europe. Those agencies provide less creditworthy airlines with guarantees that make their aircraft purchases cheaper.

"This could be the industry's biggest new source of finance," said Robert Morin, a former U.S. Export-Import

Bank official hired in June by insurance broker Marsh McLennan to develop the product under the banner of the Aircraft Finance Insurance Consortium.

Only one-quarter of new aircraft are paid for in cash, with the balance financed through bank loans and the capital markets. More financing from insurers could attract fresh investors and draw back others who have pulled back from the market, industry experts say.

An initial consortium of four insurers—Allianz AG, Axis Capital, Sompo International and Fidelis SA—has been assembled to provide guarantees that loans or bonds are paid, replicating the role of the export credit agencies.

"It's credit insurance on steroids," said Jon Byron, se-

nior vice president at Apple Bank Inc., which co-arranged the purchase of a Boeing 747-8 freighter using the structure for lessor Intrepid Aviation, which is renting the plane to Russia-based AirBridgeCargo.

Intrepid Chief Financial Officer Mike Lungariello said the new program isn't a replacement for export credit financing. Boeing has lobbied fiercely for the return of U.S. export credit guarantees, which have been suspended since July 2015 because of a fight over the program in Congress.

Airbus SE customers have also been unable to tap export credit funding, with agencies in the U.K., France and Germany closed to large aircraft orders because of a probe into alleged corruption.



Boeing's plant in North Charleston, S.C. Only one-quarter of new aircraft are paid for in cash.

Nestlé Bends Under Pressure

BY SAABIRA CHAUDHURI

LONDON—Nestlé SA on Tuesday introduced a profit-margin target and said it would accelerate share buybacks amid pressure from activist investor Dan Loeb, while remaining firm on retaining a stake in cosmetics giant L'Oréal SA.

The consumer-goods company's strategy has been in the spotlight since Mr. Loeb's Third Point LLC hedge fund built a 1.3% stake in Nestlé and in June advocated steps to improve its performance, including the sale of its stake in L'Oréal and the setting of a margin target.

Nestlé on Tuesday said it would strive for a trading operating profit margin of 17.5% to 18.5% by 2020 on an "underlying" basis, which among other things strips out one-time charges. Its margin in the first half was 15.8%.

The company also plans to tweak the \$20.8 billion share-buyback program it set in June. It will now purchase shares evenly in each of the three years to 2020, rather than back load them in 2019 and 2020.

Nestlé said about 10% of its portfolio by sales is ripe for a shuffling as it looks to shed slow-growth assets and invest in more promising ventures.

Shares in the company rose 1.8% on Tuesday.

The raft of announcements accompanying a closely watched investor day in London are the latest moves by the Swiss company to improve its performance under a new chief executive and pressure from Mr. Loeb.

Since Mark Schneider took the reins in January, Nestlé has said it would sell its U.S. confectionery arm and announced investments in Blue Bottle coffee, food-delivery startup Freshly and plant-based-foods brand Sweet Earth. Mr. Schneider in February also scrapped a key internal sales target, which the company had repeatedly missed.

After Mr. Loeb in June publicly disclosed his \$3.5 billion stake in Nestlé and listed his demands, Mr. Schneider announced the share-buyback program and laid out the company's investment priorities. He said Nestlé will focus on the high-growth areas of petcare, coffee, infant nutrition and bottled water, while also pursuing opportunities in consumer health care.

With Tuesday's announcement, Nestlé has largely met three of Mr. Loeb's demands—setting a margin target, launching buybacks and using acquisitions and divestitures to drive growth—but is resisting a fourth. Mr. Schneider said Nestlé isn't planning to change its 23.29% stake in L'Oréal, which has been in focus following the death last week of Liliane Bettencourt, heiress to the L'Oréal fortune.

"The investment is not diluting anything," Mr. Schneider said Tuesday, adding that the L'Oréal stake has delivered a 12% annual return on investment over the 42 years Nestlé has held it. "Our approach to this investment is currently not changing."

Third Point declined to comment.

TECHNOLOGY

WSJ.com/Tech



The Chinese company raised its stake in affiliate Cainiao to 51% from 47%, part of a push to create a 'seamless experience for shoppers.'

Alibaba Targets Logistics

E-commerce giant plans to invest about \$15 billion to build up global infrastructure

BY ALYSSA ABKOWITZ

BEIJING—**Alibaba Group Holding** Ltd. has become the majority owner of its logistics affiliate, a move that could allay concerns about financial transparency that drew the attention of U.S. securities regulators last year.

Alibaba is investing 5.3 billion yuan (\$800.8 million) to raise its stake to 51% from 47% in **Cainiao Smart Logistics Network** Ltd. It also will invest 100 billion yuan (\$15.11 billion) during the next five years to build up its global-logistics infrastructure and development of robots sorting and fulfilling merchandise.

Cainiao helps online merchants choose from among 15 delivery firms by providing information on cost and delivery

time. About 70% of Cainiao shipments are routed by algorithms to ensure the network's 2 million couriers get packages to customers as efficiently as possible.

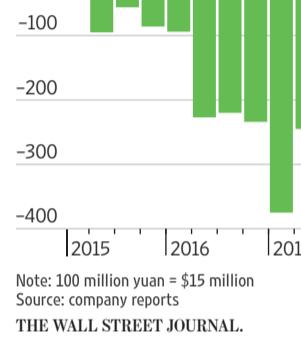
Alibaba said the additional investment is part of its strategy to create a "seamless experience for shoppers." The company said it aims to fulfill orders in China within 24 hours, and within 72 hours anywhere in the world.

A person familiar with Alibaba's move said an inquiry by the **Securities and Exchange Commission** had no bearing on the company's action. Alibaba disclosed the inquiry in May 2016 and said it was cooperating with authorities. The SEC doesn't comment on individual companies it is examining.

Alibaba is profitable but doesn't count Cainiao losses as part of its own results, which critics have said obscures its financial picture. In a regulatory filing this year, Alibaba said its net loss from Cainiao was \$153 million in

Heavier Burden

Alibaba's quarterly losses from Cainiao



Note: 100 million yuan = \$15 million
Source: company reports

THE WALL STREET JOURNAL.

fiscal year 2017, up from \$46 million in fiscal year 2016.

The accounting change means there will be more assets on the balance sheet, but this likely won't hurt Alibaba's net income because of its outsize earnings, said Paul Gillis, a professor at Peking University's Guanghua School of Management. During its most

recent quarter, Alibaba reported earnings of \$2.2 billion, nearly doubling from the year-earlier period.

"I don't think it will have a significant effect on the company, but it may help them put the SEC issue behind them," Mr. Gillis said. "It basically takes the wind out of the SEC's sails."

The transaction, which is expected to be completed in October, means financial results will be consolidated under Alibaba and reported as part of the business's core commerce segment. It also will give Alibaba an additional Cainiao board seat, or four out of seven directors.

The increased stake will give Alibaba more control over logistics and customer data that offer valuable insight into people's buying habits. Analysts say that data is important as Alibaba looks to expand abroad, particularly in Southeast Asia where it has invested \$2 billion in e-commerce giant Lazada Group.

Your Tweets May Not Need to Be Short Anymore

BY GEORGIA WELLS

On Twitter, 280 is the new 140.

Twitter Inc. on Tuesday said it would begin testing a new limit of 280 characters, double its current limit, as a concession to users who have been clamoring for changes to the short-messaging service.

The new longer limit will be tested on a small portion of users—a percentage in the single digits, according to a Twitter spokeswoman—and Twitter will be monitoring the experiment for several weeks before making a decision.

"We want every person around the world to easily express themselves on Twitter, so we're doing something new," Twitter product manager Aliza Rosen and senior software engineer Ikuhiro Ihara wrote in a statement.

The 140-character limit was a barrier to some people using Twitter, Ms. Rosen and Mr. Ihara realized, particularly users tweeting in languages like English that use more words to express meaning. Users sometimes abandoned their tweets when they bumped up against the 140-character limit, they said.

The change in tweet length is significant for a company that has long shied away from making bold changes to its product.

The brevity of tweets is a defining feature of Twitter, underpinning how the real-time network differentiates itself from social-media rivals such as **Facebook** Inc. and **Snap** Inc.'s Snapchat.

But users have come up with workarounds to the limits—such as tweetstorms and screenshots of longer text—or jumped to other networks.

Chief Executive Jack Dorsey has teased the possibility of longer tweets since he returned to the helm two years ago of the company he co-

founded to revive its stagnating growth. Internally, the question of whether to boost the character limit is debated frequently, according to former employees.

In early 2016, in response to reports that Twitter was considering extending its limit to as many as 10,000 characters, Mr. Dorsey tweeted a 1,317-character statement in defense of why Twitter might make a change.

"We're not going to be shy about building more utility and power into Twitter for people. As long as it's consistent with what people want to do, we're going to explore it," Mr. Dorsey said in the tweet.

Months later, however, he reaffirmed the value of 140 characters in an interview on the "Today" show when asked if the limit would change. "It's staying," he responded. "It's a good constraint for us."

Mr. Dorsey's doubling of tweet length could be met with criticism and praise.

Twitter's users are vocal on the company's messaging service when they don't like something or want to suggest a change. The 140-character limit dates back more than a decade to when people sent tweets via SMS messages.

Text messages then were limited to 160 characters, and Twitter decided to save 20 characters for usernames, the spokeswoman said.

Twitter decided on the new character limit after observing that the 140-character limit is a major cause of frustration for people tweeting in English.

The test won't impact users who tweet in Japanese, Korean or simplified and traditional Chinese because those denser languages enable people to convey more information in fewer characters, Twitter said.

Nine percent of tweets in English hit the 140-character limit. But Twitter is unlikely to try 10,000 characters.

Amazon Brings Alexa to Its Music App

BY ANNE STEELE

Amazon.com Inc. hopes that the virtual assistant that has made its Echo smart speakers a hit will also attract more users to its mobile music app.

The online retailer said it would launch Alexa on its Amazon Music streaming apps on Tuesday, as it seeks to differentiate itself from rivals that have bigger shares of the competitive market. An on-screen button will let Amazon Music users access the various Alexa "play" commands that work on Echo.

Amazon envisions these capabilities as being useful for consumers on the move; for instance, they can request

"pop music for a cardio workout" during a run or "the new Taylor Swift song" while driving. **Apple** Inc. offers some similar functions for Apple Music, via the iPhone's Siri voice assistant.

Earlier this year, Alexa surpassed mobile as the No. 1 way Amazon Music users listen. Since starting its Prime Music streaming service in 2014, Amazon has tried to cater to a more mainstream audience than its competitors. Nonetheless, it remains No. 3 in the subscription-music market, behind **Spotify** and Apple Music, according to people at Peking University's Guanghua School of Management. During its most

familiar with the matter. Steve Boom, Amazon's vice president for music, says he hopes music will be a natural fit for the voice assistant. "We should let people know about it, but we shouldn't have to train them," he says.

Members of Amazon's \$99-a-year Prime program can subscribe to Amazon Music Unlimited, launched last October, for \$7.99 a month, though they already get access for no additional charge to the company's more limited Prime Music service. Amazon Music Unlimited as a stand-alone service costs \$9.99 a month, on par with Apple Music and Spotify's premium tier.

—Laura Stevens contributed to this article.



The chain will begin installing the technology at its cinemas.

Virtual Reality Headed For AMC's Theaters

BY BEN FRITZ

America's biggest movie theater chain is putting \$20 million behind a Hollywood virtual-reality startup and plans to begin installing its technology at cinemas starting next year.

AMC Entertainment Holdings Inc. is the lead investor in a \$20 million Series B round for Dreamscape Immersive, a location-based virtual reality company backed by Steven Spielberg.

AMC is investing \$10 million in the round and is giving Dreamscape an additional \$10 million to launch a content-development fund to help create VR experiences.

Dreamscape in February closed a Series A with \$11 million from a group of investors that included **Time Warner** Inc., **21st Century Fox** Inc., **Metro-Goldwyn-Mayer** Inc. and **IMAX** Corp. Its technology is designed to be used outside the home and allows up to six people to interact in a single VR environment.

AMC plans to install Dreamscape experiences at six of its theaters in the U.S. and U.K. over the next 18 months, with more to follow if the initial half-dozen are successful, said the cinema chain's chief executive, Adam Aron. AMC staff will sell tickets and man-

age the locations, while Dreamscape will provide the technology and content.

"In our minds this is just like the investment to put in IMAX [screens] or Dolby [sound systems] or reclining seats or better food and drink," Mr. Aron said. "It makes our theaters more compelling and attractive."

The VR locations may be in theater lobbies or auditoriums, or locations adjacent to cinemas, Mr. Aron said.

Dreamscape, whose executive team includes experienced film and live-event producers and a Disney theme-parks designer, is currently building VR experiences tied to major movie franchises and sporting events as well as original concepts.

Its first location will be at a Los Angeles mall run by **Westfield** Corp., a Series A investor. It is expected to launch there in the winter of 2018, said Dreamscape's CEO, Bruce Vaughn.

Following that and the initial AMC installations, Dreamscape's goal is "rapid global expansion," Chief Operating Officer Aaron Grosky said.

Dreamscape previously said it is building VR experiences that will last about 10 minutes and cost \$1 million each to produce. Tickets are expected to cost between \$15 and \$20.

Facebook Scores in Video Deal With National Football League

The National Football League plans to put game highlights and recaps on Facebook, as the social network works to increase premium video content for its "Watch" platform.

While trying to build a video platform rivaling **Alphabet** Inc.'s YouTube, **Facebook** Inc. has been paying producers to offset production costs, offering to license or buy content outright and offering some a share of revenue generated from planned video ads.

Financial terms of the multi-year deal announced Tuesday weren't disclosed. NFL highlights of all regular-season games, the playoffs and the Super Bowl will be available to people globally on Facebook.

The NFL's media division also will distribute uniquely packaged content for Watch, including NFL Turning Point, which documents the drama and strategy on specific games, and Sound FX, which provides highlights from in-game, player audio.

The agreement doesn't include live-streaming games, such as Monday night's contest pitting the Arizona Cardinals and Dallas Cowboys, right.

In April, the league and **Facebook** Inc. reached a deal to stream 10 Thursday night games.

—Austen Hufford



JENNIFER STEWART/GETTY IMAGES

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*Alpha indicates the performance, positive or negative, of an investment when compared against an appropriate standard, typically a group of investments known as a market index.

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¹ Fuller, B./Romer, P., "Urbanization as Opportunity," 6 February 2014. ² Data as of 31 March 2017.

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MANAGEMENT

Directors Urged to Sit on Fewer Boards

Big institutional investors like BlackRock and State Street are raising concerns, saying some members are stretched thin

By SARAH KROUSE
AND JOANN S. LUBLIN

Giant money managers voted against the re-election of Ronald Havner Jr. in May to the board of a real-estate company. Their reason: He runs a different company and sits on two other boards.

After about 56% of voting shares were cast against Mr. Havner remaining an

AvalonBay Communities Inc. director, he said he would resign, an offer rejected by the rest of the AvalonBay board. **BlackRock** Inc. and **State Street Corp.**'s money-management unit were among the large investors that voted against his re-election.

Mr. Havner, who is chief executive of Public Storage, also decided not to stand for re-election at **California Resources** Corp.'s 2018 annual meeting "due to concerns raised by investors relating to the time commitment required" for those roles, the company said in a regulatory filing.

Mr. Havner "has taken steps to reduce the number of boards upon which he serves," said a lawyer for Public Storage and **PS Business Parks** Inc., a related company.

Major institutional investors, governance advisers and boards themselves are cracking down on so-called overboarding, trying to ensure that directors don't spread themselves too thin. Overstretched directors lack time to adequately monitor management, these critics contend.

"There is no good reason for having an overboarded director," said Charles Elson, head of the Weinberg Center for Corporate Governance at the University of Delaware. He expects institutional-investor pressure will make S&P 500 board members with at least five seats a dying breed.

Many directors who serve multiple boards contend that they adequately manage their time and can handle their board responsibilities.



Zach Oleksiuk of BlackRock, above, says the issue isn't performance, but rather the time it takes to serve. At right, Ronald Havner Jr. has acted to reduce the number of boards on which he sits.

more power over shareholder votes because they own growing stakes in so many publicly held corporations. Both voted against Mr. Havner's AvalonBay re-election in each of the past two years.

BlackRock, the world's largest asset manager, cast 168 votes against directors this year because of overboarding concerns. It fought the re-election of directors at companies such as Charter Communications Inc., Pfizer Inc. and PayPal Holdings, Inc., according to filings and a spokesman for the money manager.

"The directors that serve on many boards tend to be very strong directors," said Zach Oleksiuk, head of BlackRock's Americas corporate governance and responsible investment team. "The issue is not necessarily their performance, but rather the time that it takes to serve."

Being a director is lucrative, time-consuming and often comes with a high profile. Median total compensation for U.S. public board members was \$191,440 last year, according to the National Association of Corporate Directors and pay consultants Pearl Meyer & Partners LLC, up about 3% from the prior year.

Board members at public companies spend an average of 245 hours a year for each position, up from 191 hours in 2005, according to surveys by the NACD.

Influential proxy advisers Institutional Shareholder Services Inc. and Glass, Lewis & Co. now recommend investors vote against or withhold support from directors who sit on more than five public-company boards. ISS lowered that threshold to five in February from six. Each firm also favors limits on the number of outside directorships CEOs can hold.

American corporations increasingly have imposed their own restrictions. About 77% of S&P 500 companies now curb board members'

outside directorships in some fashion, up from 71% in 2010, according to Spencer Stuart, an executive-search firm. Among those with limits for all directors, 36% now impose a cap of three seats—up from 29% in 2010.

Overall, 63 S&P 500 directors now serve on five or more public boards, as of Sept. 10, down from 83 in 2012, according to ISS Analytics, the data arm of Institutional Shareholder Services.

Some directors were re-elected this year despite opposition from some large shareholders. For example, BlackRock withheld support for the re-election of Ann Mather at Shutterfly Inc. and Alphabet Inc., but she was re-elected at both companies.

Ms. Mather also serves on the board of three other West Coast public companies: Arista Networks Inc.; Netflix Inc.; and Glu Mobile Inc. She deliberately chose businesses in the same or related industries with headquarters near each other, one person familiar with the matter said.

The person said this week that the businesses are "all connected and relevant," which means Ms. Mather "can easily add value and [has] a strategic understanding of what's going on."

Another big index-fund manager, Vanguard Group, doesn't explicitly put a limit on the number of boards on which someone can serve but looks at factors such as board members' "attendance, engagement and effectiveness," a spokeswoman said.

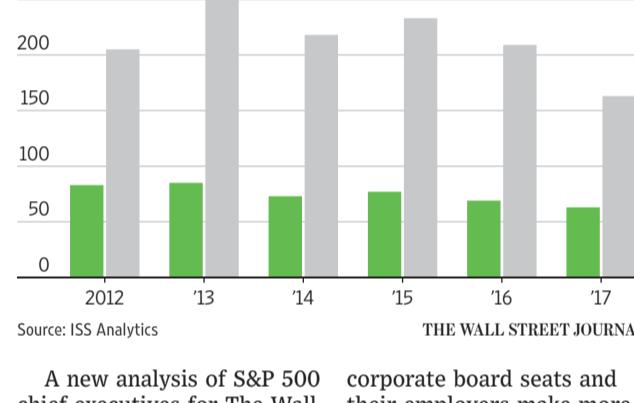
Rival State Street Global Advisors in 2016 cast votes against 69 chief executives who served on more than three boards and against 22 non-CEO directors who each sat on more than six public boards. Despite setting overboarding limits, it wants companies to "do more than manage to a number," Rakhi Kumar, head of environmental, social and governance and asset stewardship at the firm said in an email.



JIN LEE/BLOOMBERG NEWS; ANDREW KELLY/REUTERS (TOP)

Lightening the Load

The number of directors on five or more corporate boards has declined in recent years.



A new analysis of S&P 500 chief executives for The Wall Street Journal by Equilar, a research firm, suggests that leaders with multiple outside

corporate board seats and their employers make more money, but their shareholders see lower returns than those with one or zero outside

directorships.

Money managers such as BlackRock and State Street, with large index-tracking fund businesses, are gaining

Who Wins When CEOs Sit on Multiple Boards? Not Investors

By JOANN S. LUBLIN

Chief executives make a lot of money when they hold board seats at other companies. Their employers benefit, too.

But investors don't fare so well.

These disparate outcomes, which emerge from an analysis of chief executives of S&P 500 companies for The Wall Street Journal by research firm Equilar, may intensify concerns about "overboarding." Critics contend that executives on numerous boards are too busy to adequately oversee management.

Chief executives with at least two outside directorships earned a median compensation of \$13.6 million for leading their employer in 2016,

while CEOs on one and on no external board made 5.6% and 12.9% less, respectively, Equilar reported. Businesses run by the busiest top bosses also had higher median net profit, revenue and market capitalization last year.

Shareholders saw median one-year total return—which tracks stock performance plus reinvested dividends—of 8.2%

at the 37 companies with CEOs who serve on multiple boards, compared with a total return of more than 15% for chief executives with a single or zero outside directorship. It was 14.4% for all S&P 500 firms.

Equilar uncovered smaller differences for three-year total shareholder return. The study covered 349 companies with

the same leader for three years. Subpar shareholder results at companies with multibored chiefs "could be a red flag," prompting institutional investors to oppose their board reelections elsewhere, said Equilar spokesman Dan Marcec.

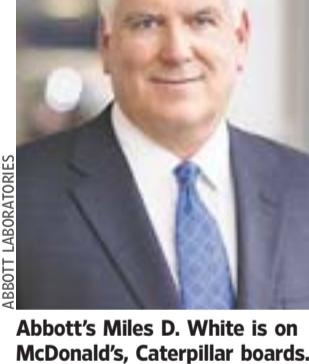
About 22% of S&P 500 company boards already limit their CEO's outside directorships, according to Spencer Stuart, an executive-recruitment firm.

The most common maximum is two outside seats. Based on Equilar's analysis, some boards now may "tighten restrictions a little bit more," predicted Patrick McGurn, special counsel at Institutional Shareholder Services, a proxy-advisory firm.

Highly regarded chief exec-

utives often command higher pay and get wooed for external board service, said Irv Becker, vice chairman of executive pay and governance for a unit of recruiters Korn/Ferry International. Recent investor returns may not reflect CEO reputations built over long careers, he added.

Miles D. White, head of Abbott Laboratories, is typical. He has run the global health-care company since 1999 and earned \$20.3 million in 2016. He is a board member at McDonald's Corp. and Caterpillar Inc. Last year, Mr. White presided over Abbott's total return of negative 12.2%, lower than any other current CEO tracked by Equilar with several outside directorships. However, as a



Abbott's Miles D. White is on McDonald's, Caterpillar boards.

spokesman noted, "the value of one Abbott share bought when Mr. White became CEO has since quadrupled."

Stretched Thin?

Total shareholder return for companies with CEOs serving on at least two outside boards compared with the S&P 500

S&P 500 companies with multibored CEOs

All S&P companies

One-year return

8.2% 14.4%

Three-year return

10.2% 10.4%

Note: For period ending fiscal year 2016
Source: Equilar Inc.

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FINANCE & MARKETS

SEC Gets Flak On Hack Response

By DAVE MICHAELS
AND ANDREW ACKERMAN

WASHINGTON—U.S. senators, already facing distress calls from constituents over the Equifax Inc. hack, criticized the Securities and Exchange Commission's new leader for how the agency handled a 2016 breach of its cornerstone system for storing market-moving information.

"I was disturbed to learn that the SEC suffered a cyber-breach of its Edgar system in 2016, but did not notify the public, or even all of its commissioners, until it was discovered during your recent review," Sen. Mike Crapo (R., Idaho), chairman of the Senate Banking Committee, said at a hearing Tuesday. "It is critical that the SEC safeguards the data it collects and maintains."

Facing his first crisis as the SEC's chairman, Jay Clayton suggested that the agency may have mishandled how it initially responded to the breach. Sen.



SEC Chairman Jay Clayton

Sherrod Brown (D., Ohio) was even more critical of Mr. Clayton, saying "it raises questions about why the SEC seems to have swept this under the rug."

"This breach took place under your predecessor, but the disclosure, or lack thereof, is all yours," Mr. Brown said. "How are Main Street investors expected to have confidence that the SEC can hold big companies accountable when the SEC is not forthcoming?"

The corporate-filing system that was breached, known as Edgar, is the SEC's cornerstone system for storing and disseminating earnings announcements and other news that often moves stock prices. Edgar stands for Electronic Data Gathering, Analysis, and Retrieval System.

The SEC has invested tens of millions of dollars in recent years to upgrade Edgar, which was introduced in the early 1990s to equalize access to information between Wall Street and Main Street.

Mr. Clayton, a former Wall Street lawyer who kept a low profile in the private sector, faced a series of tough questions over the SEC's cybersecurity, including the agency's plans for a massive database that will keep track of billions of daily trades and orders in U.S. stock and option markets.

Mr. Clayton, a former partner at Sullivan & Cromwell LLP, took office calling for deregulatory measures to make it easier for companies to go public.

"Companies should be providing sooner disclosure about intrusions that may affect shareholder investment decisions," Mr. Clayton said. "Across the landscape of our markets, there should be better disclosure as to the cyberisks we face."

The SEC chairman disclosed the Edgar breach last week in a single paragraph within a five-page statement on the agency's approach to cybersecurity. Facing stern questions from Mr. Brown about the Equifax breach and whether shareholders were told soon enough after the company knew, Mr. Clayton said he decided to disclose the SEC's own breach as soon as he had enough information to accurately inform market participants and investors. He said the SEC has hired outside consultants to test the vulnerability of its systems.

"One of the worries in a situation like this is that when you make a disclosure, other people try to test and probe," Mr. Clayton said. "We are under constant attack from nefarious actors."

Greenhill Makes Play for Survival

Robert Greenhill, CEO Scott Bok give firm a \$20 million lifeline amid a deal slump

By LIZ HOFFMAN

A Wall Street rainmaker is fighting for his legacy.

Greenhill & Co., the investment bank founded 21 years ago by star merger banker Robert Greenhill, has fallen into a prolonged deal-making slump and this week sought a financial lifeline from its founder.

Mr. Greenhill, who remains the firm's chairman, and Scott Bok, its chief executive, said Monday they would invest \$20 million as part of a reorganization that amounts to a partial leveraged buyout.

In all, as much as half of Greenhill's shares will be held by its employees. Also, tens of millions of dollars a year that had supported Greenhill's hefty dividend will be rerouted to creditors.

Greenhill was one of Wall Street's first merger boutiques, small firms that advise on high-stakes corporate transactions. Mr. Greenhill, an 81-year-old banking veteran who built his Rolodex at **Morgan Stanley** and Smith Barney, pioneered a model that dozens of top deal makers have followed.

Yet his firm has missed the recent M&A boom, slipping in the rankings and all but disappearing from marquee deals. Greenhill ranks 49th among global merger advisers this year, down from 16th in 2012, according to data provider Dealogic.

"They've had no momentum for some time," said Steven Chubak, an analyst at Nomura. The latest financial moves "buy some time," he added, but change little if revenue doesn't pick up.



Greenhill CEO Scott Bok blamed a slowdown in Europe, where the firm once generated about half its revenue.

Greenhill shares through Monday had fallen 48% this year and 73% over the last five, though shares were up 16% Tuesday afternoon following the reorganization announcement. Over the same five-year period, shares of rival Evercore Inc. have nearly tripled. Moelis & Co., another boutique, is up 61% since its 2014 initial public offering. Both have benefited from a growing preference among corporate clients for less conflicted advice.

Greenhill, though, has missed out, showing the challenge in building a firm that can outlast star founders—especially when his name is on the door. Advisory revenue has lurched sideways since 2010, even as the firm has added

bankers and expanded into new markets.

A tireless deal maker who once snowmobiled 15 miles on a vacation in rural Maine in search of cellphone reception, Mr. Greenhill has stepped back from the business in recent years, friends and employees say. Relationships that drove business in the firm's early years have gone quiet as key contacts retire.

The job of finding the firm's mojo falls to Mr. Bok, a former lawyer who trained under Mr. Greenhill at Morgan Stanley.

Mr. Bok has brushed off concerns in recent months, noting that investment banking can be lumpy and blaming a slowdown in Europe, where Greenhill once generated about half its revenue.

"Our business mix is one that has served investors well over the long term and will, I believe, do so again," he said in an interview Monday.

In recent weeks, analysts had questioned whether Greenhill could keep paying its dividend. Set at \$1.80 a share annually, it costs about \$60 million, twice what analysts expect Greenhill to earn this year.

Top executives had fiercely guarded the payout. Mr. Bok, who received \$1.4 million in dividends last year, more than twice his \$600,000 salary, said in 2011 that "you'd have to waterboard me" before he'd consider cutting it.

On Monday, he said investors were no longer giving the firm credit for the payout,

which Greenhill plans to slash or, more likely, eliminate entirely.

Instead, it will borrow \$300 million from Goldman Sachs Group Inc. to finance a buyback of more than one-third of its stock. Cash that once went to stockholders will go to pay down debt.

Goldman plans this week to start marketing the loan, which is expected to carry a below-investment-grade credit rating, according to people familiar with the matter. With the spike Tuesday, Greenhill shares were approaching the \$17-a-share buyback level announced Monday. Analysts expect the price to move higher as investors cover previous "short" bets that the stock would decline.

CFTC to Offer Firms More for Cooperation

By GABRIEL T. RUBIN

A top U.S. markets regulator unveiled a new enforcement framework that relies more heavily on firms to self-report wrongdoing and gives them new incentives to cooperate with probes.

James McDonald, the Commodity Futures Trading Commission's enforcement director, announced the strategy during a speech at New York University on Monday. Though the agency already has incentives to encourage firms to cooperate with investigations, the new framework says that penalties will be reduced by a "substantial" amount in cases where the firm fully cooperates.

The emphasis on rewarding cooperation was already evident toward the end of the Obama administration. In January, the CFTC adopted a set of policies for nonprosecution agreements to clarify what type of cooperation from individuals and companies the regulator could reward as part of an enforcement investigation.

"No matter how much corporate leaders may want to foster compliance within the company, when they detect misconduct their decision whether to voluntarily report it often comes down to their perception of whether they'll be treated fairly," said Aitan Goelman, Mr. McDonald's predecessor as the CFTC's director of enforcement who is now a partner at Washington law firm Zuckerman Spaeder.

McDonald said, according to his prepared remarks.

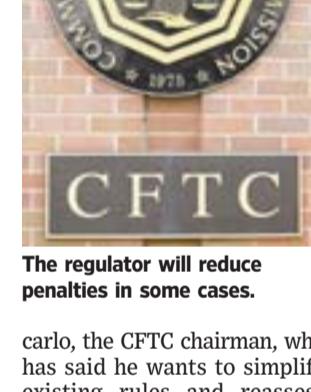
The CFTC's move comes as Trump regulatory appointees take a more industry-friendly approach. Mr. Trump has appointed several top regulators with Wall Street pedigrees, including J. Christopher Gian-

The CFTC's move comes as Trump regulatory appointees take a more industry-friendly approach. Mr. Trump has appointed several top regulators with Wall Street pedigrees, including J. Christopher Gian-

whether regulators went too far in their implementation of the 2010 Dodd-Frank Act.

Perhaps anticipating the criticism that the guidelines could be seen in line with a more industry-friendly approach, Mr. McDonald said the policy change "should not be interpreted as giving a pass to companies or individuals."

To qualify for the incentives that accompany self-reporting, the company must voluntarily report wrongdoing to the CFTC, and not be under the threat of investigation. The disclosure of wrongdoing must also be explicit and not "tucked away in the depths of some compliance report," Mr. McDonald added.



The regulator will reduce penalties in some cases.

carlo, the CFTC chairman, who has said he wants to simplify existing rules and reassess

A Way to Magnify Tech-Stock Bets

By ALEXANDER OSIPOVICH

There will soon be a new, riskier way to trade one of the buzziest acronyms in the world of technology stocks.

Intercontinental Exchange Inc., the parent company of the New York Stock Exchange, said Tuesday it will launch a futures contract based on its new NYSE FANG+ Index.

The term "FANG" refers to the quartet of **Facebook** Inc., **Amazon.com** Inc., **Netflix** Inc., and Google, whose parent company is **Alphabet** Inc.

A new futures contract highlights ICE's effort to hang on to retail traders.

ICE's contract will be a bit broader than that.

It also will include **Apple** Inc.—often bundled together with the FANG foursome—as well as **Alibaba Group Holding** Ltd., **Baidu** Inc., **Nvidia** Corp., **Tesla** Inc. and **Twitter** Inc.

The contract will start trading on Nov. 8, ICE said in a statement.

There already is an exchange-traded fund with the

ticker "FNG" that aims to track the FANG stocks and their close relatives in the tech and new-media sectors.

Investors also can get exposure to the FANG bunch by simply buying shares in the four companies directly, but ICE's new contract would be the first futures contract tied to the FANG concept, according to an ICE spokesman.

Ready to jump in? Think carefully. By buying equity futures contracts instead of ETFs, traders can leverage their bets in a bid to magnify gains when the underlying shares rise. Doing so also can amplify losses if the shares drop—and traders can even find themselves in the hole, owing more cash than they put down in the first place.

The launch shows ICE's effort to hang on to retail traders even as its rival, **CME Group** Inc., has been making inroads in that market.

CME recently has run television commercials touting futures for day traders, and in July, it began listing futures based on the Russell 2000 index—a popular product for retail investors—after buying the rights to the index from the **London Stock Exchange**'s FTSE Russell unit.

For the 10 years before that, Russell 2000 futures were listed on ICE.

There already is an exchange-traded fund with the

Bank of America

Merchant-Services Venture Cuts Staff

Bank of America Corp.'s merchant-services joint-venture has laid off about 10% of its staff, according to a person familiar with the matter.

Bank of America Merchant Services let go about 250 employees last week, the person said. The business, operated in conjunction with **First Data** Corp. since 2009, earlier this year employed about 2,200 people.

On Sept. 20, "we announced to employees a restructuring designed to accelerate our business strategy and better meet merchants' evolving expectations in this increasingly digital era," a firm spokesman said. The unit is trying to bolster the digital services it provides to merchants either through its own technology or partnerships.

Merchant services involves helping businesses handle debit- and credit-card transactions.

—Rachel Louise Ensign

HURRICANE MARIA

Insured Loss Is Seen At Up to \$85 Million

Hurricane Maria caused an estimated \$40 billion to \$85 billion in insured losses, mostly in Puerto Rico, the catastrophe-modeling firm AIR Worldwide said.

Maria was the worst storm to hit Puerto Rico since 1928. More than 85% of the insured loss took place there, AIR said on Monday. The preliminary esti-

mate is higher than for Hurricane Harvey, which made landfall in Texas in August, and Hurricane Irma, which passed through the Caribbean before reaching Florida this month.

Harvey caused more than \$10 billion in insured losses, AIR said, not including losses borne by the National Flood Insurance Program, which provides most residential flood insurance. Irma caused \$32 billion to \$50 billion in insured losses in the U.S. and the Caribbean, according to AIR.

—Nicole Friedman



Bank of America operates the business with First Data Corp.

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Smartphone factory in Indonesia last year. Investors have embraced the country's debt amid optimism about the economy.

Sond Darlings: India, Indonesia

BYUMYA VAISHAMPAYAN

Investors are rushing into bond markets of India and Indonesia, drawn by rich yields and the rosy growth prospects of countries that a few years were considered among the most vulnerable emerging markets.

The two countries have to date captured almost one-third of emerging-market bond inflows this year through August, according to data from the Institute of International Finance, a trade group.

Yields of government bonds in both countries have rallied in recent months. That has brought yields down, though they remain higher than those of equivalent bonds in the U.S. and Europe. The yield on India's 10-year government bonds has risen to 6.619% from 6.711% six months ago, when more than \$1 billion in net flows started pouring into the country's debt market. Bond yields fall when bond prices

In Indonesia, the 10-year yield has fallen to 6.310%

from 7.094% in the past six months. That yield was nearly 8% at the end of 2016, following heavy outflows from emerging markets after Donald Trump won the U.S. election.

As with any popular trade, the worry is that the first sign of trouble could send investors running, especially in countries where they hold sizable bets. Such shocks could come from a faster-than-expected pace of U.S. interest-rate increases or a slowdown in Chinese growth, analysts say.

"When volatility in the market comes back, those are positions that are probably the first ones to be hit," said Roland Miett, emerging-markets portfolio manager at Pacific Investment Management Co. in Singapore.

Four years ago, foreign investors started dumping Indian and Indonesian debt after the U.S. Federal Reserve indicated it would gradually wind down its bond-buying program.

Signs that U.S. and European central banks are preparing to reverse loose monetary policy haven't triggered lasting routs

in Indian and Indonesian bonds. Indian bond yields rose last Thursday after the Fed said it would start shrinking its bond portfolio, as expected.

One reason for investor steadiness is that long-term institutional investors are increasingly investing in Indian and Indonesian debt, as opposed to shorter-term investors like hedge funds, said Rob Subbaraman, chief economist, Asia ex-Japan at Nomura.

Investors say they are also banking on the success of economic overhauls in both countries.

Nonresident investors bought a net \$2.72 billion of Indian sovereign and corporate debt in August—17% of total emerging-market bond inflows—according to the Institute of International Finance. Those investors plowed a net \$907 million into Indonesian bonds last month. For the year, investors have poured a net \$20.2 billion and \$9.1 billion into Indian and Indonesian debt markets, respectively.

With the influx of cash, for-

eign ownership of rupiah-denominated Indonesian government bonds rose to 39.5% at the end of the second quarter, the highest in two years, according to data from the Asian Development Bank.

Foreign ownership of Indian bonds is low—4.2% as of July, according to ANZ—because of limits imposed by the country's central bank.

Ken Hu, chief investment officer for Asia-Pacific fixed income at Invesco in Hong Kong, says he has been participating in Indian government-bond auctions almost every week as he tried to add to his holdings of local-currency debt in the country. He says efforts such as Indian Prime Minister Narendra Modi's goods-and-services tax, which replaced a complex system of state and local taxes with a type of value-added tax, and Indonesian President Joko Widodo's campaign to boost Indonesian manufacturing are reasons why he likes bonds in both countries.

—Jon Emont
contributed to this article.

Tech Stocks Regain Strength in the U.S.

BY MICHAEL WURSTHORN AND MARINA FORCE

Resurging shares of technology companies helped the Nasdaq Composite eke out a slight gain.

The tech-heavy Nasdaq Composite rose 9.57 points, or

0.2%, to 6380.16, while

TUESDAY'S MARKETS

the S&P 500 rose less than a point to 2496.84.

The Dow Jones Industrial Average slipped 11.77 points, or less than 0.1%, to 22284.32, its fourth straight session of declines.

Tensions that had flared up Monday between the U.S. and North Korea were put on pause Tuesday, giving investors confidence to take advantage of recent declines, analysts said.

"Investors are looking to pick up things that have fallen down a little bit," said Chris Wolfe, chief investment officer at First Republic Bank's wealth-management arm. With bond yields still relatively low, "you get into a place where equities are the only game in town," he added.

In Europe, the Stoxx Europe 600 was little changed at 384.03.

Shares of tech companies in the S&P 500, which have been big contributors to this year's gains in the U.S. stock market, climbed 0.6% in late trading.

Software maker Red Hat

rose 4.6% after it reported higher-than-expected profits and revenue for the first quarter. Chip maker NXP Semiconductors added 1.5% and shares of Apple, which have tumbled 10% this month, gained 2.1% in after-hours trading.

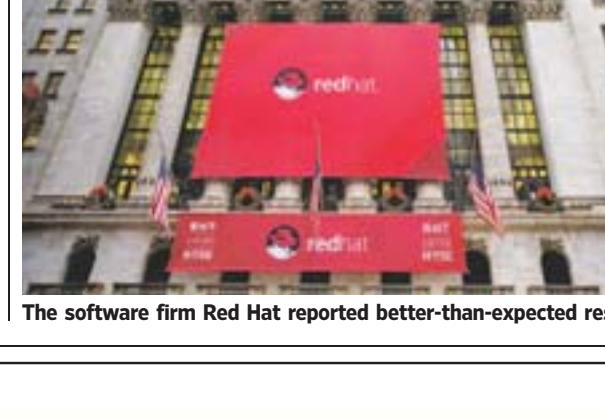
Investors pulled back from assets they consider to be relatively safe. Gold for September delivery fell 0.7% to \$1,290.50 an ounce, and the dollar rose against the Japanese yen, which tends to rise when markets slide.

Tensions with North Korea had ramped up Monday after the foreign minister warned the country would shoot down U.S. warplanes even if they were outside its airspace. The White House officials missed talk of war.

Meanwhile, Federal Reserve Chairwoman Janet Yellen defended the central bank's decision for a gradual path of interest-rate increases over the next few years, speaking at an economic conference in Cleveland on Tuesday. Officials last week had said the central bank would raise rates once more this year.

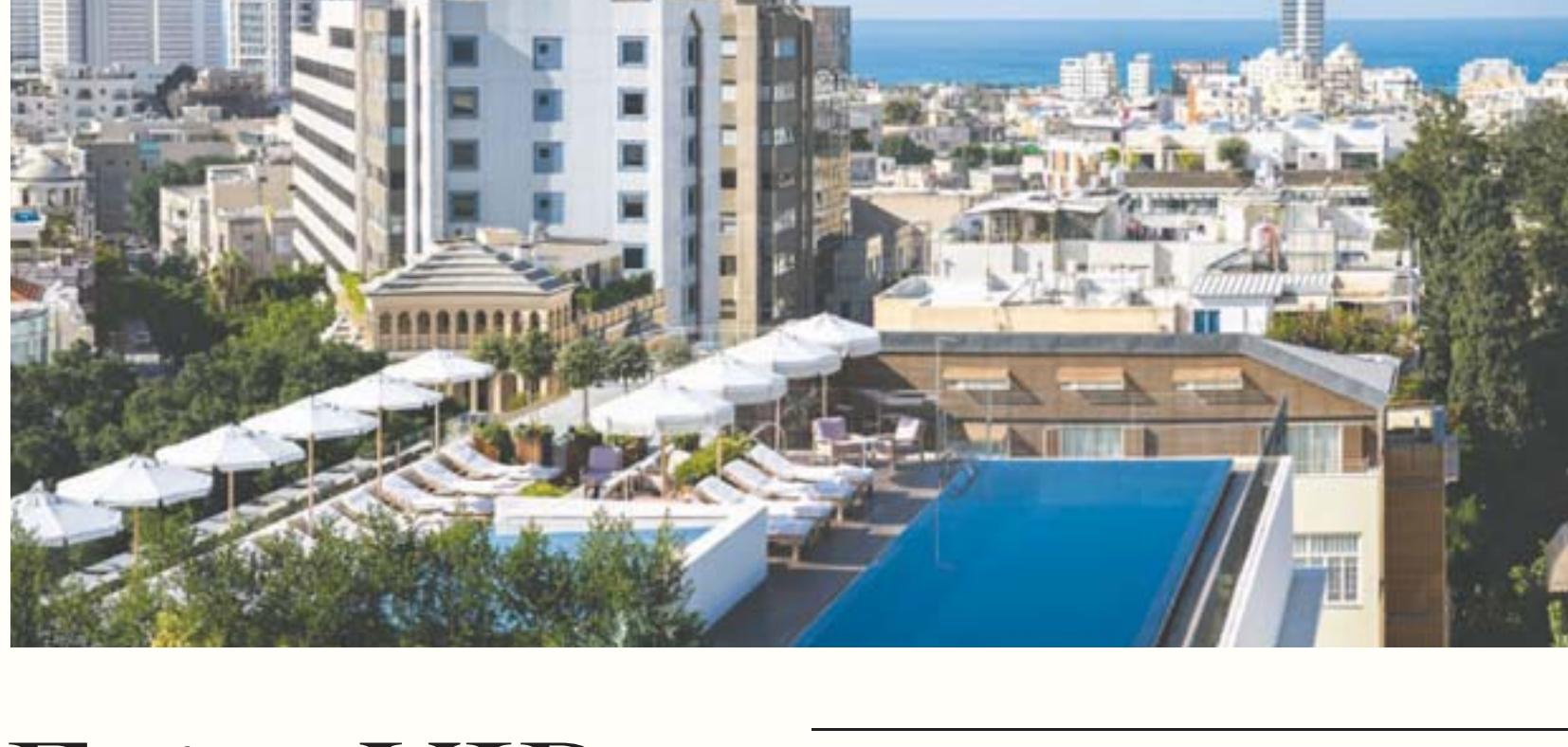
However, Ms. Yellen argued that if low inflation persists, it could lead to a slightly slower pace of rate rises.

The yield on the benchmark 10-year Treasury note rose to 2.229% Tuesday, according to Tradeweb, from 2.220% on Monday. Yields rise as bond prices fall.



The software firm Red Hat reported better-than-expected results.

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MARKETS DIGEST

Nikkei 225 Index

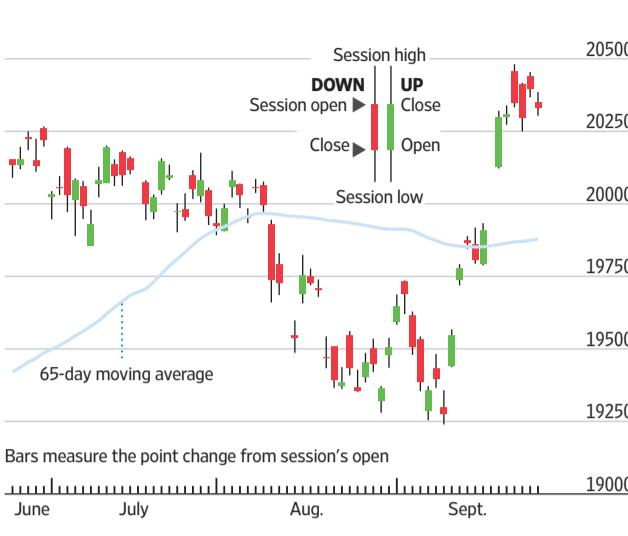
20330.19 ▼ 67.39, or 0.33%

High, low, open and close for each trading day of the past three months.

Year-to-date
52-wk high/low
All-time high

20397.58
16251.54
38915.87 12/29/89

▲ 6.36%



Bars measure the point change from session's open

June July Aug. Sept.

19000 19250 19500 19750 20000 20250 20500

STOXX 600 Index

384.03 ▲ 0.13, or 0.03%

High, low, open and close for each trading day of the past three months.



June July Aug. Sept.

360 370 375 380 385 390

S&P 500 Index

2496.84 ▲ 0.18, or 0.01%

High, low, open and close for each trading day of the past three months.

Year-to-date
52-wk high/low
All-time high

Data as of 4 p.m. New York time
Last Year ago
Trailing P/E ratio 24.25 24.81
P/E estimate * 19.14 18.43
Dividend yield 1.99 2.13
All-time high: 2508.24, 09/20/17

Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.



2375 2400 2425 2450 2475 2500 2525

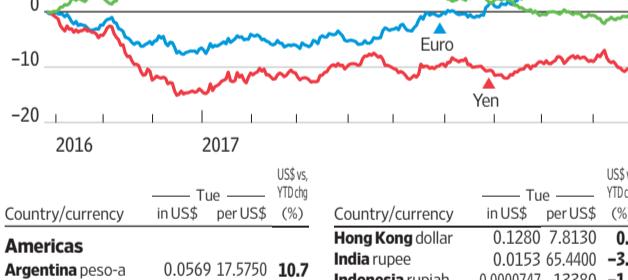
International Stock Indexes

Region/Country	Index	Data as of 4 p.m. New York time			
		Close	Net Chg	% chg	52-Week Range
World	The Global Dow	2891.73	-8.10	-0.28	2386.93 2910.53
	MSCI EAFE	1958.95	-11.27	-0.57	1614.17 1981.49
	MSCI EM USD	1079.89	-8.37	-0.77	838.96 1112.92
Americas	DJ Americas	603.19	-0.19	-0.03	503.44 606.05
Brazil	Sao Paulo Bovespa	74500.62	57.15	0.08	56828.56 76419.58
Canada	S&P/TSX Comp	15479.01	-37.22	-0.24	14468.03 15943.09
Mexico	IPC All-Share	50356.00	-12.17	-0.02	43998.98 51772.37
Chile	Santiago IPSA	3996.11	1.81	0.05	3120.87 4023.41
U.S.	DJIA	22284.32	-11.77	-0.05	17883.56 22419.51
	Nasdaq Composite	6380.16	9.57	0.15	5034.41 6477.77
	S&P 500	2496.84	0.18	0.01	2083.79 2508.85
	CBOE Volatility	10.12	-0.09	-0.88	8.84 23.01
EMEA	Stoxx Europe 600	384.03	0.13	0.03	328.80 396.45
	Stoxx Europe 50	3142.25	5.57	0.18	2720.66 3279.71
Austria	ATX	3291.55	-9.56	-0.29	2357.57 3312.67
Belgium	Bel-20	3968.48	5.28	0.13	3384.68 4055.96
France	CAC 40	5268.76	1.63	0.03	4342.64 5442.10
Germany	DAX	12605.20	10.39	0.08	10174.92 12951.54
Greece	ATG	740.37	-2.12	-0.29	559.92 859.78
Hungary	BUX	37319.24	-788.63	-2.07	27466.59 38554.44
Israel	Tel Aviv	1418.20	1.00	0.07	1346.71 1490.23
Italy	FTSE MIB	22430.65	41.08	0.18	15923.11 22613.48
Netherlands	AEX	528.50	0.72	0.14	436.28 537.84
Poland	WIG	63700.76	-195.08	-0.31	46674.28 56511.21
Russia	RTS Index	1127.26	-3.28	-0.29	956.36 1196.99
Spain	IBEX 35	10189.60	-26.90	-0.26	8512.40 11184.40
Sweden	SX All Share	576.03	1.21	0.21	489.12 598.42
Switzerland	Swiss Market	9113.65	-26.82	-0.29	7585.56 9198.45
South Africa	Johannesburg All Share	55070.38	-769.35	-1.38	48935.90 56896.89
Turkey	BIST 100	103929.33	1659.16	1.62	71792.96 110530.75
U.K.	FTSE 100	7285.74	-15.55	-0.21	6676.56 7598.99
Asia-Pacific	S&P/ASX 200	5671.00	-12.70	-0.22	5156.60 5956.50
China	Shanghai Composite	3343.58	2.03	0.06	2987.86 3385.39
Hong Kong	Hang Seng	27513.01	12.67	0.05	21574.76 28159.77
India	S&P BSE Sensex	31599.76	-26.87	-0.08	25765.14 32575.17
Japan	Nikkei Stock Avg	20330.19	-67.39	-0.33	16251.54 20397.58
Singapore	Straits Times	3212.04	-3.87	-0.12	2787.27 3354.71
South Korea	Kospi	2374.32	-6.08	-0.26	1958.38 2451.53
Taiwan	Weighted	10257.02	-78.87	-0.76	8931.03 10631.57

Source: SIX Financial Information/WSJ Market Data Group

Currencies

Yen, euro vs. dollar; dollar vs. major U.S. trading partners



US\$ vs. in US\$ per US\$ (%)

Country/currency in US\$ per US\$ (%)

THE PROPERTY REPORT

Warehouse Rents Get Online Boost

Rise of e-commerce gives landlords more pricing power as demand climbs

BY ESTHER FUNG

The growth of online shopping is setting off a scramble for industrial real estate near urban centers, giving landlords of once unglamorous properties a chance to push up rents to record levels.

Amazon.com Inc. and other online retailers, as well as fulfillment companies such as **FedEx** Corp., are seeking out "last-mile" locations in urban areas to feed consumer demand for ever-faster delivery of their purchases.

That, in turn, is giving landlords of such facilities pricing power they never have enjoyed before.

On average, U.S. industrial rents stood at a record \$5.35 a square foot in the second quarter, up from \$5.25 in the first quarter, according to data from real-estate services firm JLL.

A well-located last-mile facility "has the functional equivalent of a high-end retail store," said Hamid Moghadam, chairman and chief executive officer of industrial real-estate investment trust **Prologis** Inc.

Such facilities are produc-

tive for the tenant and reduce transportation and labor costs. But they also are scarce, prompting some landlords to get creative.

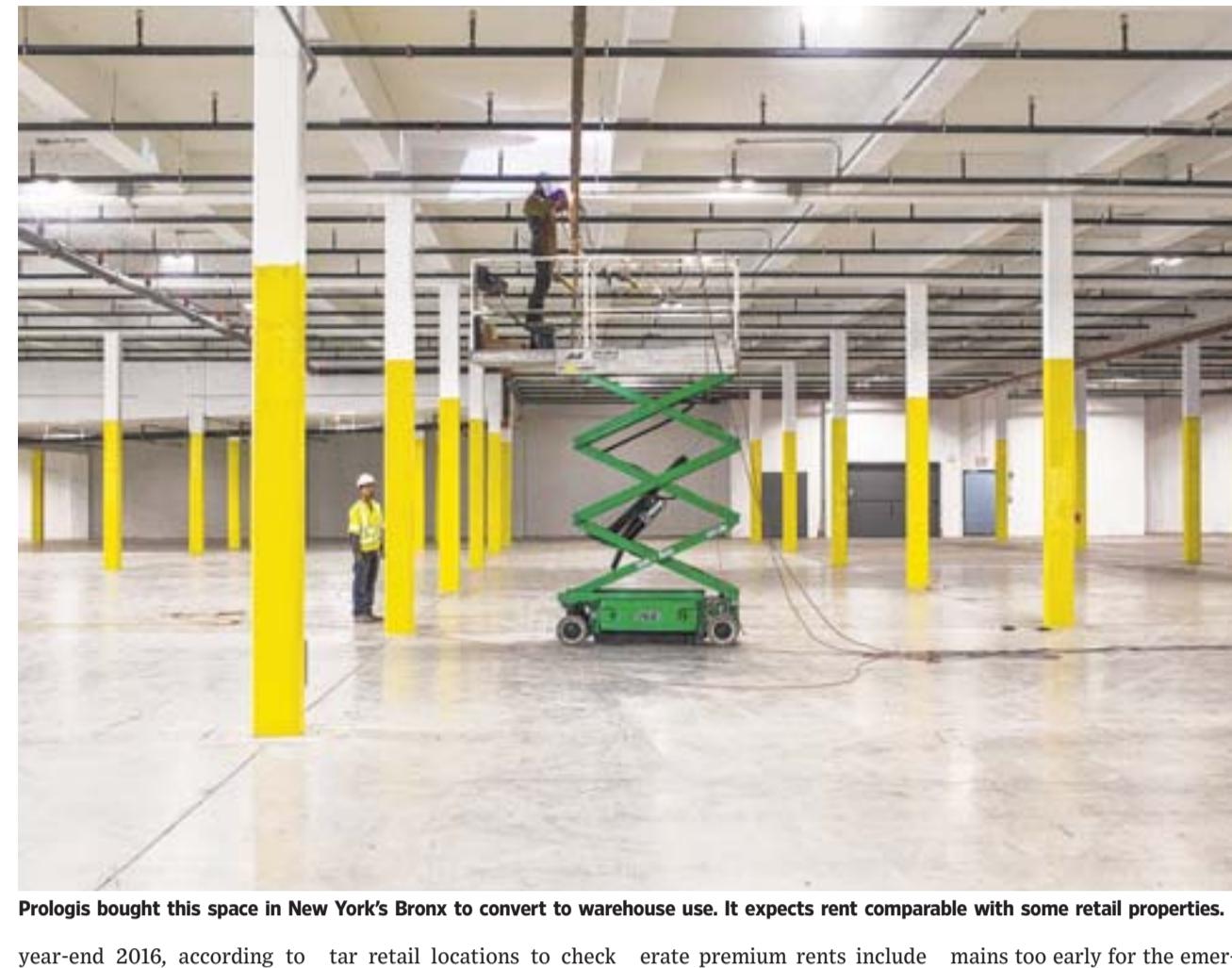
Prologis, a San Francisco-based REIT, purchased the old ABC Carpet building in the Bronx this year to convert to warehouse space. It expects to get rents in the low \$20 a square foot, which would be comparable with some office and retail asking rents in the area.

When a company is shipping to individual customers rather than in bulk to stores, most of their costs are in transportation and labor, and reducing them is a priority, said Eric Frankel, an analyst at real-estate research firm Green Street Advisors. Warehouse rent, by contrast, represents just 5% or so of costs in a supply chain.

"If you think about sales productivity across the entire supply chain, paying a high rent is not a big deal," said Mr. Frankel.

Modest levels of new warehouse supply are coming onto the market at a time when some e-commerce companies are expanding rapidly.

Amazon is now the largest tenant of Prologis, Duke Realty Corp., Jones Lang LaSalle Income Property Trust and **DCT Industrial Trust** by percentage of rental revenues at



Prologis bought this space in New York's Bronx to convert to warehouse use. It expects rent comparable with some retail properties.

year-end 2016, according to S&P Global Market Intelligence.

"Consumer purchasing behavior and the rise of e-commerce have shifted in a way that is extremely beneficial for industrial real estate. Proximity of warehouses is more important than ever, and we aim to own properties closest to transportation and consumers," said Phil Hawkins, president and CEO of DCT.

Some retailers, meanwhile, are embracing the practice of "showrooming," in which shoppers use bricks-and-mortar

retail locations to check out goods they later purchase online.

Nordstrom Inc. this month said it is opening a store in West Hollywood, Calif., where shoppers can try on clothes, but the store won't carry inventory. Instead, the merchandise would be retrieved from other nearby Nordstrom locations or through its website.

If the concept becomes more commonplace, it would fuel more demand for more logistics space and services, analysts said.

Other markets where warehouse space is poised to gen-

erate premium rents include Seattle, San Francisco, parts of Los Angeles, Chicago and possibly Miami, said Prologis's Mr. Moghadam, adding that the company might be able to lease 4 million or 5 million square feet of such premium space in each location. All told, Prologis owns about 381 million square feet of space in the U.S.

Warehouses commanding rents near those of office and retail space are highly profitable for landlords in part because the buildouts are cheaper than office or retail spaces, but analysts said it re-

mains too early for the emergence of a form of classification of warehouses akin to the different tiers of malls in the U.S. as such high-rent deals are not commonplace.

"It's too small a piece of the portfolio," said Steve Sakwa, an analyst at Evercore ISI, noting that such leasing deals are still few and are not going to redefine Prologis's large portfolio soon.

Mr. Sakwa said equity investors have already been assigning higher valuations to industrial REITs, with some of their stock prices up 30% in the past year.

Builder Lures Millennials With Student-Loan Help

BY LAURA KUSISTO

Student-loan debt has been an obstacle for many potential home buyers. Now, **Lennar** Corp. is trying to do something about it.

A subsidiary called Eagle Home Mortgage introduced on Tuesday a program under which it will pay off a significant chunk of the student loan of a borrower who purchases a home from Miami-based Lennar.

Housing observers said other builders are likely to look to mimic the program, which could help lure more of the critical first-time-buyer segment into home purchases.

Such programs come with the risk, however, that the incentive drives up the price of new homes.

"Obviously there's a benefit to bringing more people into the home buying market. We're trying to design something here that supports affordability and creates that path to homeownership," said Doug Cropsey, a senior vice president at Eagle.

Eagle will make a payment to a buyer's student loans of as much as 3% of the purchase price, up to \$13,000. The contribution doesn't directly increase the purchase price of the home or add to the balance of the loan.

Christopher Oquendo and



MIKE BLAKE/REUTERS

Jeri Coate are planning to use the program to virtually eliminate their student debt. The couple, who are in their mid-30s, wanted a bigger house but were reluctant to take on more debt. Ms. Coate, who works in a notary's office, still had outstanding student loans from training she had done to be a medical administrative assistant and the couple had other unpaid bills as well.

"We needed to get something bigger and upgrade but

it was kind of a rough decision to make considering our status with bills and all," Mr. Oquendo said.

The couple are now in the process of closing on a Lennar home in the city of La Marque, Texas, about 50 miles south of Houston, with two more bedrooms than they had before.

The evidence is mixed as to whether student debt is acting as a meaningful barrier to homeownership. Most research suggests there is a much higher barrier for people

who take out large loans and don't finish their degrees than there is for those with debt who earn a degree.

Housing observers say that at minimum Lennar's program could help eliminate the significant psychological barriers that many feel to buying a home and taking on hundreds of thousands of dollars of more debt if they are already deep in the hole after college.

A study released Tuesday by NeighborWorks America, a nonprofit that helps promote

access to homeownership, found that one in four millennials said they have had to delay buying a home because of student debt. Half of millennials said they worry about their student loans all or most of the time.

Consumer advocates are wary the program sounds too good to be true. They point to builder incentive programs during the last boom that helped inflate the price of new homes. Those programs allowed sellers to pay a portion of the buyers' down payment, which in turn tended to drive up the price that people could afford to pay for their homes.

"We've had bad experiences when home sellers get involved in mortgages, particularly innovative mortgages," said Dan Immergluck, a professor at the Urban Studies Institute at Georgia State University, who studies the housing market, mortgage finance and foreclosures. Mr. Immergluck said if the program drives up home prices, buyers without student loans will end up sharing the burden with those who do.

Mortgage-finance company **Fannie Mae** has agreed to back the loans and will monitor the program to ensure that the value of student-loan payment isn't included in appraisals of the home, which in turn can help drive up values.

"This is not without risk," said Jonathan Lawless, vice president of customer solutions at Fannie Mae. "Builders always want to provide more money and incentives for people to buy their homes. It has the potential to start distorting values."

Mr. Lawless said Fannie is cautiously embracing new mortgage products that aim to make homeownership accessible for millennials. Fannie is also backing loans with down-payment assistance from Loftium, a Seattle-based company that will pay for up to \$50,000 of the buyers' down payment if they agree to continuously rent out a room in their home on **Airbnb** for one to three years.

One other perk for borrowers: Student-loan debt can't be discharged in bankruptcy, so getting rid of it early is preferable to paying it back slowly.

But Mr. Lawless cautioned that efforts to make credit more easily available to millennials could end up exacerbating the shortage of homes if Fannie and others also can't come up with more ways to give builders incentives to build more starter homes.

"As we pivot to next year, I think the thing that the industry needs to be careful about is we can't increase access and demand without increasing supply," he said.

In Puerto Rico, Some Hotels Likely to Emerge Stronger

BY PETER GRANT
AND CHRIS KIRKHAM

In recent years, as Puerto Rico's debt woes have mounted, investors like hedge-fund manager John Paulson have made big bets on the U.S. territory's recovery by buying hotels at discounted prices.

Those investments now face an uncertain future in the wake of Hurricane Maria, which left Puerto Rico in ruins. The extent of the damage from the second major storm to hit the island this month may not be known for days and the recovery period could take months, if not years. Tourism, the lifeblood of the Puerto Rico lodging business, is likely to be moribund for the indefinite future. At this point, officials don't know how long it will take to restore electricity to the island.

But that doesn't mean the hotel investments can't be salvaged. Much will depend on insurance. Business policies

typically pay to repair storm damage as well as reimburse owners for lost revenue.

Because of the peculiar economics of the hotel industry, some properties might actually benefit from the devastation. Those that weren't damaged too badly and can reopen quickly could enjoy stronger-than-usual bookings thanks to high demand from displaced residents and the hurricane-related workforce.

Among those that have stayed open: Mr. Paulson's La Concha and the historic Condado Vanderbilt hotels in San Juan. The La Concha is being used by Federal Emergency Management Agency employees and other rescue officials, according to a spokeswoman for Mr. Paulson. The Vanderbilt sheltered guests in a bunker, she said in an email.

"Both hotels weathered the storm very well, with minor water damage which is currently being fixed," she said. "The hotels are open to all

guests and doing their best to provide services during this challenging time."

Hotels that are able to keep their doors open also will likely face less competition as many rivals that sustained more damage will likely be out of operation for months.

New hotels under construction were more likely destroyed by Maria than finished structures were, said Jan Freitag, senior vice president of STR Inc., a data company that tracks the hotel industry. Even if they did survive, construction is likely to be delayed because laborers will likely fix existing hotels before building new ones.

In other areas hit by hurricanes, hotels that survived or were able to reopen quickly saw higher occupancy rates. In the Houston area, which was hammered by Hurricane Harvey late August, occupancy was 87.8% in the week that ended Sept. 16, compared with 61.2% at the same time last

year, Mr. Freitag said.

"Certain hotels may even report stronger [third-quarter] performance than anticipated, as displaced residents and temporary relief workers boost occupancy during a seasonally slow period," said

Green Street Advisors in a report on the impact of the 2017 hurricane season on real-estate investment trusts with hotels in hard-hit areas.

Even before Maria hit, the hotel industry in Puerto Rico was having a lackluster 2017.

Occupancy through the end of August was 73.4%, down 1.2% from the same period in 2016, according to STR, which tracks 162 hotels with 16,265 rooms in Puerto Rico. The average daily room rate was down 2.9%, the firm said.



Workers clear debris from the Condado Palm hotel in San Juan following Hurricane Maria.

MARKETS

Oil in Bull Territory as OPEC Efforts Gain

U.S. crude prices have rebounded on growing confidence that glut of fuel will be reduced

By ALISON SIDER
AND CHRISTOPHER ALESSI

U.S. oil prices returned to bull-market territory this week while the global benchmark hit a two-year high, as investors gained faith that OPEC will successfully shrink a global supply glut.

A drumbeat of bullish data in September, including the International Energy Agency's upward revision to its demand outlook, has lifted prices. Investors have become more confident that the Organization of the Petroleum Exporting Countries will continue cutting production and that its efforts are helping bring oil's supply and demand into balance.

"It looks as though the market started to get convinced that the rebalancing is actually happening," Tamas Varga, an analyst at PVM Oil Associates Ltd. said in a note Monday.

U.S. crude prices settled Monday 23% above this year's low of \$42.53 a barrel on June 21, marking the sixth bull market for crude in four years and the first since February.

A bull market is typically defined as a gain of 20% or more from a recent trough, while a bear market is a decline of 20% or more from a recent peak.

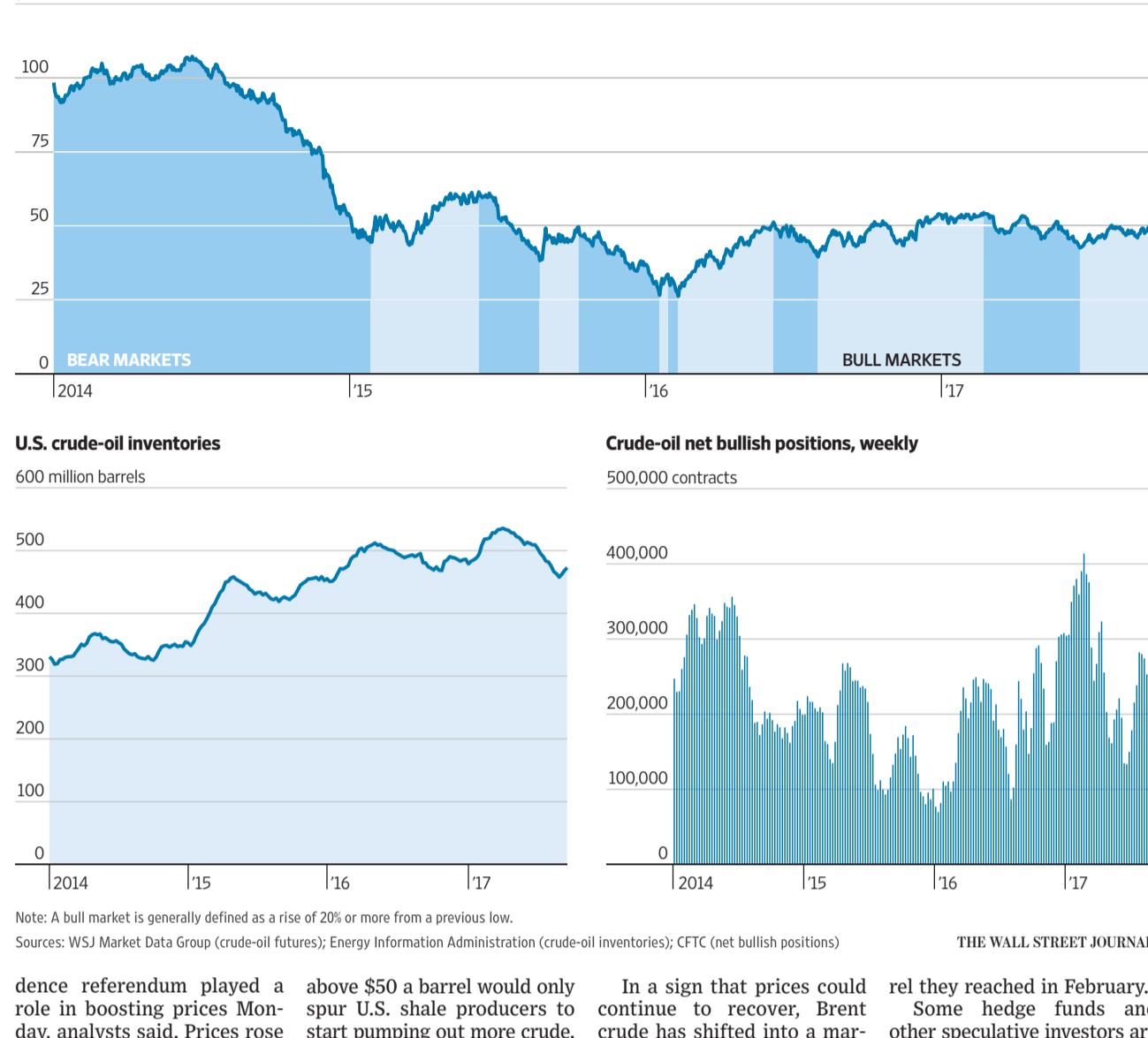
West Texas Intermediate, the U.S. benchmark, rose \$1.56, or 3.1%, to \$52.22 a barrel Monday on the New York Mercantile Exchange, its highest settlement since April. The price slipped to \$51.88 on Tuesday.

Brent, the global benchmark rose \$2.16, or 3.8% to \$59.02 a barrel Monday, its highest settlement since July 3, 2015, and its largest daily gain since December. It pulled back to \$58.44 on Tuesday.

Iraqi Kurdistan's indepen-

On the Mend

U.S. crude climbed back into a bull market after stockpiles fell and speculators maintained bullish bets on prices.



Note: A bull market is generally defined as a rise of 20% or more from a previous low.

Sources: WSJ Market Data Group (crude-oil futures); Energy Information Administration (crude-oil inventories); CFTC (net bullish positions)

Morton, senior vice president at Herbert J. Sims & Co., who oversees an energy trading desk. "Those bears who are entrenched remain entrenched—they're not convinced this is over."

OPEC's continued cooperation is still far from assured. The group hasn't committed to extending its production cuts past March of next year.

And U.S. producers are once again likely to lock in higher prices for their future output—something that has capped previous rallies and worked against OPEC's efforts, said Michael Tran, director of energy strategy at RBC Capital Markets.

Investors 'started to get convinced that the rebalancing is actually happening.'

OPEC and 10 producers outside the cartel, including Russia, first agreed in late 2016 to cap their production at around 1.8 million barrels a day lower than peak October 2016 levels. The deal was extended in May through March 2018. In recent weeks, a number of signatories to the deal have indicated a willingness to hold back production potentially through 2018.

The group is trying to restrain output from Nigeria and Libya, members that were initially left out of the deal because their oil industries were crippled by civil unrest that was expected to tamp down production there.

"Undeniably now, we're really seeing the fruits of OPEC's labor," Mr. Tran said. "But the key question is how much further can you go? This has given producers a key point to hedge. That could be troublesome; we've seen this movie before."

—Stephanie Yang
and Benoit Faucon
contributed to this article.

THE WALL STREET JOURNAL.

rel they reached in February.

Some hedge funds and other speculative investors are clinging to bearish bets on U.S. crude. Earlier this year, their bullish bets outnumbered bearish ones by more than 11 to 1, data from the Commodity Futures Trading Commission show. That has shifted to less than 3 to 1, according to the most recent data.

"The short sellers haven't capitulated yet," said Donald

In a sign that prices could

continue to recover, Brent crude has shifted into a market structure in which future prices are lower than near-term prices—an indication that supplies are tight and it isn't profitable to sock away more oil in storage.

U.S. oil has also rebounded as U.S. refineries come back online in the wake of Hurricane Harvey. Prices still remain below the high of \$54.45 a barrel.

Global demand has also been strong. The IEA earlier this month raised its forecast for demand growth this year and now expects an increase of 1.6 million barrels a day.

Markets have swung rapidly to reflect the brighter picture. But they have taken back only part of the downward move of recent years.

A hot market for new bond issues shows the strength of the search for yield. But many emerging-market countries are making greater use of domestic funding, meaning dollar-denominated funding isn't quite the harbinger of doom it was in the past: Even as government debt has risen,

the share of foreign-currency debt has fallen to 14% in 2016, from 32% at end-2001, according to the Bank for International Settlements.

The Fed's apparent desire to push on with tightening policy may give emerging markets a pause. But if global growth continues, then a

pause is all it should be.

—Richard Barley

HEARD ON THE STREET

FINANCIAL ANALYSIS & COMMENTARY

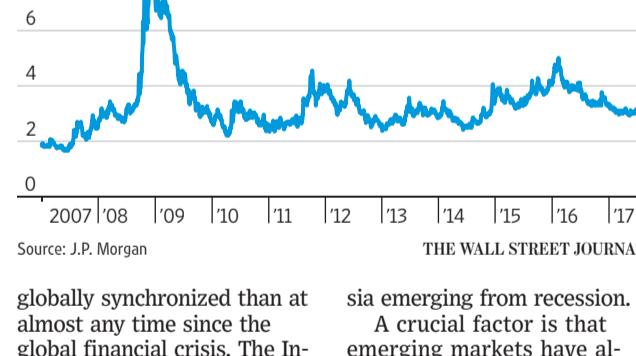
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Email: heard@wsj.com

Room to Run in Emerging Markets

Not Too Tight

Yield spread of J.P. Morgan EMBI Global Diversified index over U.S. Treasuries



Source: J.P. Morgan

start being eroded, Citigroup thinks, but for good reason: Renewed capital inflows should help support economies, making domestic demand more robust.

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pause is all it should be.

—Richard Barley

Alibaba Deal Accounts for Deliveries

Chinese e-commerce giant **Alibaba** has succeeded by avoiding being a full-blown e-commerce company. Now it may become more like one after all.

That is the takeaway from its \$807 million investment in its affiliate **Cainiao Smart Logistics Network**, announced Tuesday. Raising its stake to 51% from 47% will give Alibaba official control of Cainiao. It says it will invest a further \$15 billion over the next five years.

Cainiao has long been the secret sauce in the success of Alibaba, which doesn't own its delivery network. The company pools data from its logistics-service providers to recommend the best routes for Alibaba's merchants. It owns several warehouses and invests in new technology like robots.

Until now, though, U.S.-listed Alibaba has avoided consolidating Cainiao into its accounts. Treating Cainiao as an associate has helped Alibaba record higher profit margins than conventional e-commerce rivals.

But Alibaba needs to ensure goods are getting into the hands of customers faster. Its recent push into groceries will make timely and reliable deliveries even more important.

Still, consolidating Cainiao's results will drag on earnings, as Alibaba will shift from recognizing less than half of its losses to recognizing the whole lot. And Cainiao has been a consistent loser, last year dropping 2.2 billion yuan (\$332 million)—equal to around 6% of Alibaba's net income.

Consumers want better and faster deliveries. Alibaba is starting to count, and account for, the cost of that.

—Jacky Wong

Watch Out for Tax Reductions' Unintended Consequences

What a tax cut could give the economy, the Federal Reserve could take away.

Republican leaders on Wednesday are expected to release a tax plan that would lower tax rates on individuals and corporations and allow companies to repatriate earnings held overseas at a low rate.

Under a deal Senate Republicans reached last week, the overhaul may reduce tax revenue by as much \$1.5 trillion.

The tax plan will likely change and may not pass Congress. But if a significant tax cut becomes law, it would juice the economy at a time when the economic expansion is more than eight years old, the jobs market is

tight and the Federal Reserve is pushing the other way.

Tax cuts rarely come when the economy could really use them. The so-called Kennedy tax cuts, for example, were aimed at bolstering an economy weakened by the 1960-61 recession.

But by the time they took effect in 1962 and 1964 the economy was well on the road to recovery.

So the economy got a booster shot it didn't need, and the tax cuts, along with the increased spending from President Lyndon Johnson's Great Society programs and the escalating war in Vietnam, created an excess of demand pushing inflation higher.

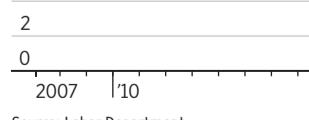
The current economic expansion has been marked by disappointing growth, but even so, the unemployment rate has fallen to 4.4% from a 2009 peak of 10%. That indicates there is little slack left in the economy. If the tax cut boosts growth and drives up wages, the resulting inflation could prompt the Fed to raise rates at a faster pace.

Of course, if a tax cut makes the economy more productive—one of its proponents' aims—it would help the economy grow more quickly without overheating. The problem is that the pickup in growth would likely come before productivity gains kicked in.

The same could be said

There and Back Again

The U.S. unemployment rate



Source: Labor Department

THE WALL STREET JOURNAL.

the picture for the stock market.

Earnings, particularly at domestically focused companies, would certainly benefit from a lower corporate rate, while multinationals would do better on the repatriation front.

Lower individual tax rates, particularly those aimed at the middle class, should increase sales at consumer-facing companies.

But interest rates would likely head higher as the Fed took a more hawkish turn, hurting many of the companies that would benefit from a tax cut.

Investors could struggle to find places to put their windfall to work.

—Justin Lahart

for the fiscal spending plans that would be under discussion in the alternative universe where Hillary Clinton won the presidential election.

The extra heat tax cuts would throw off complicates

U.S. COLLEGE RANKINGS

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THE WALL STREET JOURNAL.

Wednesday, September 27, 2017 | R1

Harvard Takes Top Honors



Harvard University got high marks for the financial success of its graduates and its academic resources.

BROOKS KRAFT/CORBIS/GETTY IMAGES

In the Wall Street Journal/Times Higher Education ranking of U.S. colleges, the Ivies snagged six of the top 10 spots

BY DOUGLAS BELKIN
AND MELISSA KORN

SILICON VALLEY IS RISING. Mobile Americans are flocking to the Sunbelt. But most of the best colleges and universities in the U.S. remain rooted in the Northeast.

Harvard University topped this year's Wall Street Journal/Times Higher Education College Rankings, and about a mile down the street in Cambridge, Mass., the Massachusetts Institute of Technology earned a tie for third place. Columbia, Yale, the University of Pennsylvania, Princeton and Cornell—all of which sit within 400 miles of Harvard Square—took five of the top 10 spots. Stanford, Duke and the California Institute of Technology rounded out the top 10.

"There are a lot of perceptions of Harvard you have before you arrive," says Chris Cruz, who left his home in California to attend school there and graduated last year. "At least for me Harvard exceeded all of my expectations."

The WSJ/THE rankings emphasize how well a college will prepare students for life after graduation. To that end, the overall ranking is based on 15 factors across four categories: Forty percent of each school's overall score comes from student outcomes, including a measure of graduate salaries, 30% from the school's academic resources, 20% from how well it engages its students and 10% from the diversity of its students and staff.

The rankings reveal the might of the Ivy League as well as some hidden gems. Who knew that—based on students' views on internships—students at Endicott College in Beverly, Mass., feel more prepared to enter the world of work than their peers at MIT?

The rankings also show that those schools at the top boast a range of solid scores. Har-

vard is Harvard not only because its graduates are among the nation's leaders in terms of their financial outcomes, but also because it has the wealth to support a fairly diverse student population and top-notch faculty. Mr. Cruz, who studied government and economics, says that at one point half of his professors had served in former presidential administrations.

The California Institute of Technology, seventh overall, was No. 1 in resources and boasts a student-to-faculty ratio of 3 to 1, tops in the nation alongside MIT. Stanford, which tied with MIT for third overall, was sixth in outcomes and 24th in how engaged students perceived themselves to be with their education.

State of state schools

The rankings also reveal some relative bargains at public universities.

A handful of elite public schools in the U.S. remain competitive despite receiving limited funds from their states. Still, the best private schools are simply wealthier, and they are spending that money to buy things that students value, such as more professors and academic support services.

The top-ranked public institution, the University of California, Los Angeles, came in at No. 25, between the University of Notre Dame and Pomona College. The University of Michigan reached No. 27, while the University of North Carolina-Chapel Hill rounded out the top three public universities at No. 33. On the other end of the spectrum, 80 of the 100 lowest-ranked schools overall were public institutions.

"The fact that there are only two publics in the top 30 is part of the narrative that there is a crisis in public higher education," says Phil Baty, Times Higher Education rankings editor. "We are seeing some real challenges in terms

of resources, and I think this kind of inequality, this defunding of great American public schools, is a serious issue."

That trend is particularly noteworthy because as the nation's collegiate student body is becoming more racially and socioeconomically diverse, it is the public schools—and the California state system in particular—that are absorbing most of those students. Seven of the top 12 schools in the country for diversity are public schools in California.

"It's an incredible story of access," says Mr. Baty. "But again, the schools with the greatest access are starved of funds. The privates are less inclusive."

Top-flight public schools still serve their students well. There were 27 public institutions in the top 100 in terms of student outcomes.

Earning power

The WSJ/THE rankings determine student outcomes in part by using data like family income and SAT scores to predict how much money a student would earn 10 years after he or she enters school. The rankings then compare those earnings to the actual salary of graduates. Only the salaries of stu-

dents who borrowed from the federal government are included in these calculations.

The Massachusetts College of Pharmacy and Health Sciences tops the list of schools that elevate their graduates to higher incomes than they might otherwise earn. The University of Colorado, Denver is second, with Georgetown University, Harvard, and Washington and Lee University rounding out the top five.

That same metric penalizes some of the nation's elite liberal-arts colleges, where the data indicate that an education actually bends earning trajectories downward.

For instance, recent graduates of Hampshire College, among many others, are earning less than they otherwise might have if not for their educational choices, the data show.

"Ranking colleges by alumni earnings penalizes colleges for alums who choose public service, the arts, nonprofits, education, social science and graduate school," says Hampshire spokesman John Courtmanche. It also discounts "the value of young entrepreneurs who take risks early in their ca-

Please turn to the next page



THE TOP 10

These schools achieved the highest overall scores in the Wall Street Journal/Times Higher Education College Rankings

1. Harvard University
2. Columbia University
3. Massachusetts Institute of Technology
4. Stanford University
5. Duke University
6. Yale University
7. California Institute of Technology
8. University of Pennsylvania
9. Princeton University
10. Cornell University

Source: Wall Street Journal/Times Higher Education College Rankings

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(CONS: PETER & MARIA HOY)

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Please turn to the next page

INSIDE

What Our Rankings Emphasize—and Why
How students fare after graduation carries the most weight

R2

What Counts in the End
Where schools rank on graduation rates, income and other outcomes

R2

When It Comes to Diversity, Public Schools Reign
Urban state schools attract racially and financially diverse students

R2



The Biggest Surprises
Smaller schools outdid top schools in some ranking categories

R3

Challenged in the Classroom—and Out
School size and prestige don't determine how engaged students feel

R4

Inspired by Their Peers
Students at these colleges said their experiences were strongly shaped by others

R4



Schools That Focus on Internships
The colleges that students feel do best at providing career preparation through internships

R4

The Rankings
How 500 U.S. colleges stack up

R5-10

State Schools Do Well Despite Budget Cuts
California boasts four campuses among the top 10 public colleges

R10

JOURNAL REPORT | U.S. COLLEGE RANKINGS

What Our Rankings Emphasize—and Why

BY DAVE PETTIT

Selecting the right college is hard work. There are so many factors to consider and so many schools from which to choose. The Wall Street Journal/Times Higher Education College Rankings are designed to organize all of that information and put it into perspective.

Parents and students set out to find schools that offer excellence, foster intellectual development, provide engaging teaching and leave graduates on a firm financial footing. Now in their second year, the WSJ/THE rankings are built on these criteria.

Some college rankings focus on the selectivity of schools or on just certain dimensions of the college search. The WSJ/THE rankings examine a broad range of considerations that confront parents and students, and put particular emphasis on financial considerations.

The outcomes graduates can expect—including the salaries they will earn—and the academic resources of institutions are given the most weight. This year, the rankings take into account the debt burden students may take on to finance their education by evaluating graduates' ability to repay their loans.

Beyond finances, the WSJ/THE rankings use a survey of students to evaluate how well schools create engagement, both with instructors and among students. The rankings also look at the campus environment, focusing on racial, ethnic and financial diversity. In all, 15 measures go into calculating the overall ranking. For a complete explanation of the methodology, go to on.wsj.com/college-ranking-methodology.

With all of that, the Journal and its partner, Times Higher Education, recognize that different people have different goals. For this year, the Journal has developed a tool that allows parents and students to create customized rankings by adjusting the weighting of the four main criteria that go into calculating the overall ranking: student outcomes, academic resources, student engagement and the academic environment.

So, for example, if one's primary goal is less about finding a top job and more about the quality of teaching and making connections with faculty and fellow students, the rankings can be adjusted. If one is most interested in a school with a wealth of academic resources and a highly diverse campus environment, the rankings can be recalculated for that, too. Go to WSJ.com/collegerrankings to use the tool.

Finding the college that is the best fit is a tricky, personal decision. The goal of the WSJ/THE college rankings is to help give you the perspective you need to weigh your options.

Mr. Pettit is a Wall Street Journal editor in New York. He can be reached at dave.pettit@wsj.com.

Harvard Takes the Top Spot

Continued from the prior page
reer that may ultimately lead to big rewards for them and society, maybe 15 years or 30 years after graduation."

Sense of engagement

A survey conducted as part of the rankings asked 109,000 students a series of seven questions to determine the extent to which they felt engaged in their education.

Topics included students' experiences with their professors, their level of collaboration with classmates, if they were pushed to think critically, and whether they would recommend their school to others.

Four of the top five schools for engagement have religious affiliations. Dordt College in Sioux Center, Iowa, came out on top.

Though small liberal-arts colleges like Dordt, with about 1,440 undergraduate students, generally scored well in engagement, size wasn't a proxy for performance. Texas Christian University came in at No. 2, with Texas A&M University, Cedarville University and Brigham Young University, Provo all tied for third. Those four schools' student bodies range from about 3,300 to 43,000 undergraduates.

The survey also asked students three questions that weren't taken into consideration in the rankings, including whether students would choose their school again. Highest marks again went to schools with a religious affiliation, including The Master's University in Santa Clara, Calif., Lancaster Bible College and Brigham Young, Hawaii.

Schools that specialize in science, technology, engineering and math also scored well, including Michigan Technological University and the Rose-Hulman Institute of Technology.

The WSJ/THE rankings aren't intended to be a definitive guide for all prospective students. The best school for an aspiring physicist who prefers intimate classes likely isn't the best one for a varsity athlete pursuing a business degree and interested in the Greek scene.

Rather, this list is best used as a jumping-off point for families as



TOP SCHOOLS FOR RESOURCES

The schools that ranked highest for resources, based on academic spending, student-faculty ratios and research output

1. California Institute of Technology
2. Harvard University
3. Massachusetts Institute of Technology
4. Princeton University
5. Northwestern University
6. Rice University
7. Columbia University
8. University of Pennsylvania
9. University of Chicago
10. Brown University

Source: Wall Street Journal/Times Higher Education College Rankings
THE WALL STREET JOURNAL.

they consider their options. The rankings offer insight into a number of elements that should be taken into account during the college search process, from tuition cost and schools' financial strength to opportunities for critical thinking and graduates' career outcomes.

Times Higher Education is a unit of TES Global Ltd., a London company owned by private-equity firm TPG Capital since 2013. Times Higher Education was sold in 2005 by News Corp, the parent of The Wall Street Journal owner Dow Jones & Co. Times Higher Education has a business relationship with The Wall Street Journal tied to development of these college rankings.

Mr. Belkin is a Wall Street Journal reporter in Chicago. He can be reached at doug.belkin@wsj.com. **Ms. Korn** is a Wall Street Journal reporter in New York. She can be reached at melissa.korn@wsj.com.

BEHIND THE RANKINGS

For a complete explanation of the methodology for the Wall Street Journal/Times Higher Education College Rankings, go to <http://on.wsj.com/college-ranking-methodology>.

The Journal Report welcomes your comments—by mail, fax or email. Letters should be addressed to Lawrence Rout, The Wall Street Journal, 4300 Route 1 North, South Brunswick, N.J. 08852. The fax number is 609-520-7256, and the email address is reports@wsj.com.



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This Is What Counts in the End

Where schools rank on graduation rates, income and more

BY DOUGLAS BELKIN

WHETHER STUDENTS go to school primarily to find a calling, read the Great Books or learn the skills to earn a lot of money, the degrees they earn have a substantial impact on their financial future.

The amount of debt accrued over the course of an education—and the student's ability to pay it off—affects everything from how healthy and happy graduates will be to what professional choices they make, says Brandon Busteed, executive director of education and workforce development at Gallup.

"There are two types of [college] consumers, those who care very much about the economic value add and those who say they are there to make a contribution to society," Mr. Busteed says. "Either way, your financial outcomes matter."

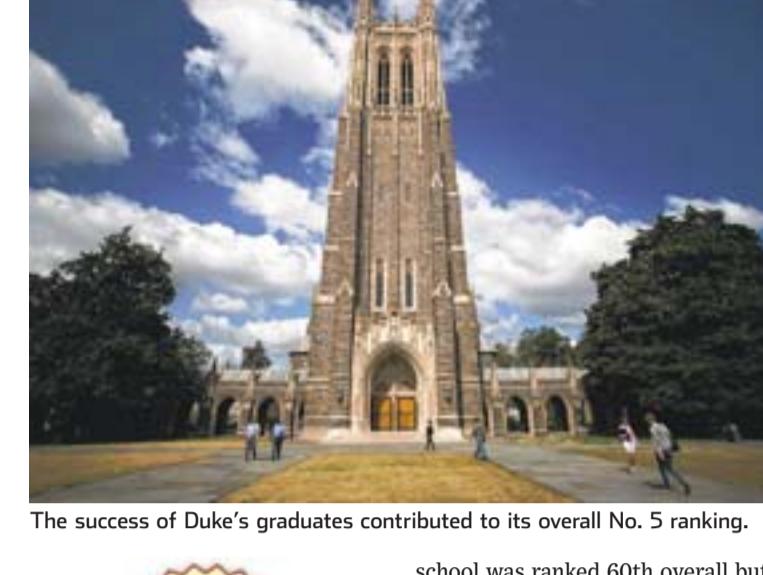
That's why the Wall Street Journal/Times Higher Education College Rankings weight outcomes as the most important factor in the overall ranking. Outcome scores are derived from graduation rates, income after graduation, debt repayment and academic reputation. The outcome evaluation is 40% of a school's total score.

Our value-added measure of salaries was calculated by comparing predicted salaries—based on factors including students' SAT scores, family income and an institution's population of first-generation college students—and the actual outcomes for recent graduates. We used a Brookings Institution analysis of value-added college outcomes as a guide on this measure, recognizing that high graduate salaries alone don't indicate school success.

Harvard University and Duke University, first and fifth, respectively, in the overall ranking, tied for the top spot in outcomes. And all of the schools ranked in the top 10 for outcomes were ranked in the top 11 overall except for one: Williams College, tied for ninth in outcomes and ranked 22nd overall. But several schools had outcome scores that were well above their overall rank.

One example is **Brigham Young University, Provo**. It was 113th in the overall ranking, but 40th in outcomes thanks to a high graduation rate and average annual earnings for recent graduates that are \$12,000 more than predicted.

Jodi Chowen, BYU's director of career services, says her students land jobs because of a range of skills. "The feedback we hear from employees is that they have developed



The success of Duke's graduates contributed to its overall No. 5 ranking.



TOP SCHOOLS FOR STUDENT OUTCOMES

The schools ranked highest for graduation rate, reputation and student financial outcomes

1. Duke University
2. Harvard University
3. Yale University
4. Princeton University
5. Columbia University
6. Stanford University
7. California Institute of Technology
8. University of Pennsylvania
9. Massachusetts Institute of Technology
10. University of Chicago

Source: Wall Street Journal/Times Higher Education College Rankings

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school was ranked 60th overall but 33rd on outcomes. Recent grads earned \$4,550 more a year than predicted.

"I think Jesuit values are great career values," says Joe DuPont, associate vice president for student affairs at BC. "Jesuits champion reflection, exploration and action. That fits well into any paradigm, including the world of work."

In contrast, rankings of some elite liberal-arts colleges were dragged down by their outcome scores.

Defenders of those institutions say the disproportionate number of students who attend graduate school, go into the arts or education or get government jobs work against them.

Swarthmore College graduates fell \$16,750 short of their predicted annual salary. The school ranked 30th overall, but the earnings shortfall was among the most severe in the country. Swarthmore ranked 52nd in outcomes.

Gregory Brown, Swarthmore's vice president for finance, says because his school's admissions are need-blind, the pool of students who take federal financial aid is very small. The predicted salaries used in the rankings take into account only the salaries of students who borrowed from the federal government.

"Because our sample size is very small, one deviation can really impact our numbers," he says. "I would caution parents that while these rankings offer some helpful information, not one of them is perfect."

Mr. Belkin is a Wall Street Journal reporter in Chicago. He can be reached at doug.belkin@wsj.com.

When It Comes to Diversity, Public Schools Reign

BY MELISSA KORN

PRESTIGIOUS PRIVATE colleges and universities have deep pockets, fancy buildings and renowned faculty. But public schools have something they dearly want: diversity.

Drawing students from their immediate areas and appealing to low-income and first-generation college students, state-backed institutions in major cities seem to be most successful at bringing in a racially and socioeconomically diverse student body.

As a result, they dominate the Wall Street Journal/Times Higher Education College Rankings on measures of diversity.

The WSJ/THE rankings measure school environment based on factors including the percentage of Pell Grant recipients—a proxy for those from low-income backgrounds—as well as the diversity of students and staff, how many students are the first in their families to attend college and the share of the student body that comes from abroad.

Academics say class discussions often become richer when students from different backgrounds engage on topics like religion and politics. And at a time of heightened political polarization and economic stratification, many say there could be long-term societal value in forcing those individuals to interact.

Nine of the top 11 schools in terms of environment in this year's rankings are in California or Florida; eight are public institutions. Two schools from the City University of New York, Baruch College and City College, are in that top echelon. Ten campuses from the California State University system made the top 27 on environment.

Outcomes lag behind

La Sierra University in Riverside, Calif., topped the diversity list

thanks to its location in one of the most diverse regions of the nation's most diverse state. More than 46% of the Seventh-day Adventist school's undergraduate students are Hispanic, one in nine come from overseas and about 43% receive Pell Grants.

La Sierra has such global appeal in part because of a large international network of Seventh-day Adventist schools. Graduates from those institutions flock to a similarly affiliated college setting, says provost Joy Fehr.

California State University, Northridge, took the No. 2 spot for environment. More than 40% of undergraduate students at CSU-Northridge identified as Hispanic in fall 2015, the latest figures available on the school's website, and more than half are low-income.

One challenge for schools with socioeconomically diverse student populations is that many of those students, especially those who are the first in their families to attend college, require additional academic and social support to get to the finish line. Whether it's because they weren't well prepared by their high schools, have constant money concerns or face obstacles in assimilating to college life, graduation rates for such students tend to lag behind those for wealthy, white students.

La Sierra didn't crack the top 900 on outcomes, which measure things like earnings, loan defaults and graduation rates. Federal data show that fewer than half of its full-time students graduate in six years or less.

Dr. Fehr says a number of students transfer out before graduation to pursue health-sciences degrees at other schools, which depresses La Sierra's published graduation rate. The school has been using money from a federal grant to offer academic bridge programs to incoming students and



TOP SCHOOLS FOR ENVIRONMENT

These schools achieved the highest scores for diversity

1. La Sierra University
2. California State University, Northridge
3. Johnson & Wales University, North Miami
4. University of California, Irvine
5. San Francisco State University
6. Barry University
7. California State University, East Bay

8. California State University, Long Beach

CUNY Bernard M. Baruch College
CUNY City College of New York
University of California, Los Angeles

Source: Wall Street Journal/Times Higher Education College Rankings
THE WALL STREET JOURNAL.

provide more robust advising services, she says.

Meanwhile, Cal State Northridge was No. 547 on outcomes, while the University of California, Irvine, tied for third in environment, was No. 203 on outcomes.

Battling perceptions

The wealthiest schools, as measured by the WSJ/THE resource ranking, often have less diverse student bodies—though they are

Please turn to the next page

JOURNAL REPORT | U.S. COLLEGE RANKINGS

Diversity

Continued from the prior page
trying to change that.

Thirty institutions banded together earlier this year to promote the American Talent Initiative, a collaborative effort to expand access for low-income students. The program has since expanded to include more than 80 schools, including public flagships, Ivy League institutions and elite liberal-arts schools such as Williams College and Swarthmore College. But many still have a long way to go.

Stanford, No. 3 in the overall ranking and No. 15 for resources, and a member of the American Talent Initiative, came in at 54th on environment. And New York University, also a member, came in at No. 29 overall and No. 42 on resources. It landed at No. 71 on environment.

"We are continually battling perceptions among the nation's brightest students that they don't think they can afford to come here," says Stanford spokeswoman Lisa Lapin, noting that she wasn't surprised by the school's environment ranking when marked alongside public universities.

She says Stanford's generous financial-aid policies—including free tuition, room and board for students with family income below \$65,000—actually make it more affordable than some public institutions.

Ms. Lapin says first-generation college students consistently make up between 15% and 18% of each undergraduate class, and the school has been working to diversify its faculty ranks in terms of gender, race and ethnicity, as well.

NYU spokesman John Beckman points out that the school fares well on environment among private colleges that are ranked in the top 30 overall, behind only Stanford, Columbia University and Pomona College.

The school's share of black and Hispanic degree-seeking undergraduates rose to 18.6% last fall from 14.3% in 2012, he says, and nearly one-quarter of first-year students receive Pell grants. He added that institutional aid for Pell recipients has increased significantly in recent years, and loan burdens have declined by about 30% for all NYU students since 2011.

Ms. Korn is a staff reporter for The Wall Street Journal in New York. Email her at melissa.korn@wsj.com.

The Rankings' Biggest Surprises

Smaller schools excelled in some areas where the top schools lagged behind

BY TAWNELL D. HOBBS

MANY FAMILIAR NAMES ended up at the top of the Wall Street Journal/Times Higher Education College Rankings, but some smaller schools outdid their better-known rivals in areas that might seem critical to some students shopping for a place to spend the next four years.

The top schools in our rankings—Harvard University, Columbia University, the Massachusetts Institute of Technology, Stanford University and Duke University—all did extremely well in the two areas that carry the most weight in the rankings: student outcomes and academic resources. Those areas consider measures such as graduation rates, academic reputation, funding spent per student and whether students exceed average-salary predictions.

But in other categories that don't carry as much weight overall, the big names didn't always fare as well.

Where small schools reign

Duke is the only one of the top five schools overall to come in with a top 10 ranking when students in a survey were asked if they would choose their school again.

The Master's University, a small Christian liberal-arts school in Santa Clarita, Calif., topped all comers in that category, despite not cracking the top 500 schools in the overall ranking.

"I don't think there's a better rating for us to be at the top of; it's how students feel their institution has prepared them for their lives," says Kory Welch, the school's chief marketing officer. "As a Christian university, our focus isn't only on academics but on a student's well-being."

None of the top five schools overall cracked the top 20 in the engagement category, which includes student interaction with faculty and whether the student would recommend the school. Dordt College, a small Christian university in Sioux Center, Iowa, ranked the highest for engagement, while coming in at No. 393 overall.

Similarly, none of the top five



The Master's University scored highest when students were asked if they would choose the same school again.

schools overall placed in the top 50 in the environment category. Environment includes measures of the diversity of students and staff and the proportion of international students.

La Sierra University, a small school in Riverside, Calif., affiliated with the Seventh-day Adventist church, garnered the top spot in the environment category, while ranking below 600th overall.

The rankings also considered a school's academic spending per student, adjusted for regional price differences. The top five overall schools were highly ranked in this area—ranging from \$57,430 at Harvard, 13th in this category, to \$100,730 at Stanford, in fifth place. But Washington University in St. Louis, ranked 11th overall, came in first in spending, at \$159,100 per student.

Provost Holden Thorp, the chief academic officer at Washington University in St. Louis, attributes some of the higher spending to small class sizes and an 8-to-1 student-to-faculty ratio.

"For generations, Washington University has shown that investing in our academics, in inspiring the leaders of tomorrow, is a most worthwhile endeavor and not just an 'expense' on a balance sheet," Dr. Thorp said in a statement.

Comparing rankings

In comparing the WSJ/THE listing to a recent ranking by U.S. News & World Report, similarities exist in the top 20 but also differences.

Princeton University is No. 1 in the U.S. News ranking of national universities but No. 9 in the WSJ/THE ranking, dragged down by its engagement rank of 533rd.

A Princeton spokesman says that at the university's opening exercises this month, university President Christopher Eisgruber encouraged the new class of students to engage with faculty and learn from them, but to also have their own views.

"We expect you to develop the ability to articulate your views clearly and cogently, to contend with and learn from competing

viewpoints, and to modify your opinions in light of new knowledge and understanding," Mr. Eisgruber told the students, according to a transcript.

Several schools, including Carnegie Mellon University, placed in the top 20 of the WSJ/THE list but not in the U.S. News ranking.

Carnegie Mellon, which came in at No. 20 in the WSJ/THE ranking and No. 25 on the U.S. News list, said in a statement that university rankings remain a subject of debate.

"Some rankings are designed purely for entertainment, little more than internet photo galleries. Others make a more serious effort at collecting information," the statement says. "Even where rankings do collect objective statistics such as test scores or costs, the choice of which factors to include in a ranking, and how those factors are weighted, remains subjective."

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JOURNAL REPORT | U.S. COLLEGE RANKINGS

Challenged in the Classroom—and Out

When it comes to feeling engaged, size and prestige don't really matter

BY MELISSA KORN

WHILE HIGH GRADUATE salaries and low loan-default rates are crucial measures of a school's value, so are less tangible outcomes such as how well students learn to challenge assumptions or whether they can tie abstract academic ideas to real-world applications.

That's why the Wall Street Journal/Times Higher Education College Rankings assign 20% of a school's total score to engagement, as measured by the breadth of academic options it offers and student insights on things such as whether they feel challenged in the classroom and would recommend the school.

What happens inside classrooms and libraries—how inspired students feel by their peers and professors, if they have opportunities to think critically—matters in the intellectual maturation of young adults.

"A great university should be educating students. They should be prepared with life skills, but not necessarily just skills for their first job," says **University of Florida** President Kent Fuchs. (That school came in at No. 91 on engagement, tied with Pennsylvania State University, Drexel University, Syracuse University and many others.)

The engagement ranking is derived mainly from survey responses from current college and university students, comprising a total of more than 209,000 responses received in the past two years. A minimum of 50

responses were received in 2017 for each ranked school, with an average of 179 respondents over the two years. This year, schools had the option of distributing the surveys on behalf of Times Higher Education, in addition to THE soliciting responses from students independently.

Size and prestige don't make much difference in a school's success on the rankings' engagement measure. The list is topped by institutions with religious affiliations, but that's where any pattern ends.

Dordt College in Sioux Center, Iowa, leads the pack for engagement. Most of the roughly 1,440 students at the Reformed Christian school live on campus, and are encouraged to bring classroom lessons off-campus. For example, last year a group of senior engineering majors designed and constructed a bridge for a Liberian farming community.

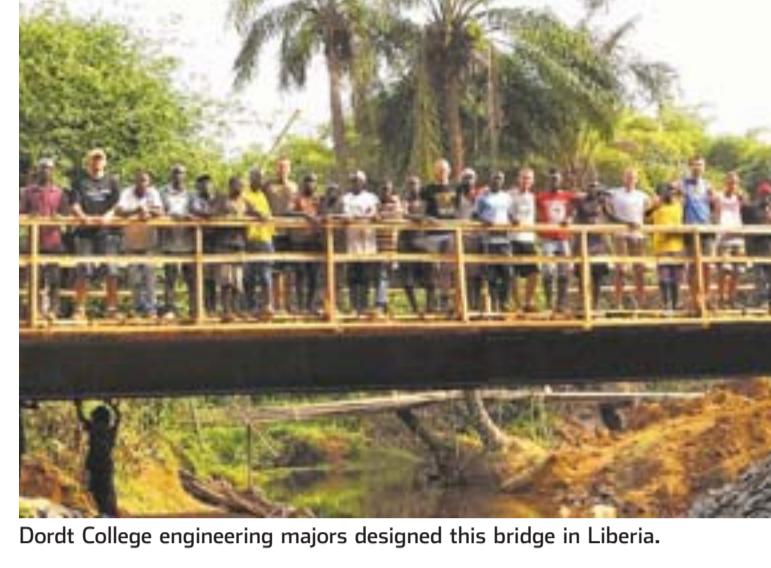
"It's not just about getting ready. Real life is right now," says associate provost Leah Zuidema of the school's interest in hands-on instruction.

Dordt holds a speaker series the first Monday of every month, with topics like reconciling science and faith or race and politics in America.

"You can't separate the curricular from the co-curricular," says Dean of Students Robert Taylor, referring to the optional extra lectures.

Texas Christian University, affiliated with the Disciples of Christ, came in at No. 2.

Texas A&M University in College Station, **Brigham Young University**



Dordt College engineering majors designed this bridge in Liberia.

AUSTIN LINDENHOLZER

in Provo, Utah, and **Cedarville University** in Ohio, with undergraduate populations ranging from about 3,300 to 43,000, all tied for third.

"We realize we are a research lossus. But we work very hard never to lose the focus on students," says Texas A&M President Michael K. Young. He cited a recent push for all students to have at least two "high impact" or "transformational" learning experiences by graduation, which can include research projects with faculty and study abroad.

The goal, says Mr. Young, is to ensure that "students are not simply passive receptacles of information."

Some of the nation's most elite institutions fell flat on student engagement, a reminder that just because a school has superstar faculty and smart students doesn't mean they interact in meaningful ways.

Harvard and Princeton, No. 1 and

No. 9 overall, tied with many other schools for 533rd on engagement.

A representative from Harvard didn't respond to a request for comment. A Princeton spokesman referred to President Christopher Eisgruber's opening speech for new students earlier this month, in which he highlighted the value of having students engage with faculty.

"I urge you to seek out...faculty members, hear what they have to say, and learn from them. Keep in mind, however, that what they offer are not authoritative pronouncements but arguments backed up by reasons. It is your responsibility to assess their views for yourselves," Mr. Eisgruber said in the address.

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TOP SCHOOLS FOR ENGAGEMENT

The colleges with the highest scores for how engaged students feel they are with their professors and their education

1. Dordt College
2. Texas Christian University
3. Brigham Young University, Provo
4. Cedarville University
5. Texas A&M University, College Station
6. Baylor University
7. Brown University
8. Auburn University
9. Bradley University
10. California Baptist University
11. California Polytechnic State University, San Luis Obispo
12. Concordia College at Moorhead
13. Harding University
14. Oral Roberts University
15. University of Southern California
16. Washington University in St. Louis

Source: Wall Street Journal/Times Higher Education College Rankings

THE WALL STREET JOURNAL.

Inspired by Their Peers

Fellow students are crucial in shaping experiences



KAT SCHLEICHER

At Alverno College in Milwaukee, studies are structured for students to learn from each other.

BY DOUGLAS BELKIN

ACADEMIC RIGOR, facilities and the quality of teaching are all big parts of college life, but one of the most important factors—and possibly most overlooked—is the student in the next study carrel.

"Peers are the single most important influential group on campus in terms of how students spend their time, what classes they take, how much they study and what habits they pick up," says George Kuh, a professor of educational policy at Indiana University. "Peers matter big time, they shape a student's experience."

To that end, a survey conducted in conjunction with the Wall Street Journal/Times Higher Education College Rankings asked students across the country: "Do you think your college provides an environment where you feel you are surrounded by exceptional students who inspire and motivate you?"

The answers weren't factored into the rankings but offer a fascinating insight into the range of student feelings toward their classmates. Schools that scored highest ran the gamut—from the Ivy League to religious schools and small liberal-arts colleges. But one theme jumped out: Women's colleges did very well.

Among the top 15 schools, three are women-only schools—even though the vast majority of schools are coed.

"One of the things that is fundamental to the Spelman culture is the concept of the Spelman sisterhood," says Mary Campbell, president of Spelman College, a historically black all-women's school in Atlanta, which finished third in this cate-



STUDENTS' TOP SCHOOLS FOR INSPIRATION

The schools ranked highest by students for inspiration

1. Alverno College
2. Master's University
3. Spelman College
4. Massachusetts Institute of Technology
5. Brown University
6. Dartmouth College
7. Missouri Baptist University
8. Harvard University
9. Harding University
10. Houghton College

Source: Wall Street Journal/Times Higher Education College Rankings

THE WALL STREET JOURNAL.



Students ranked Endicott College No. 2 for internships that prepare them for their careers.

ENDICOTT COLLEGE

To Prepare Students for Careers, These Schools Push Internships

BY KELSEY GEE

COLLEGES HAVE LONG dealt with a reputation as Ivory Towers with little connection to real life, but students generally give their schools at least some credit for trying to prepare them for the world of work.

In a survey asking students to rate how effective their colleges and universities have been in helping them secure internships that prepare them for careers, the 761 schools where at least 1% of the student population responded received a 7.9 rating out of 10 on average, the equivalent of about a C+ grade. The survey was conducted in conjunction with the Wall Street Journal/Times Higher Education College Rankings.

Topping the career-preparation category were schools that require students to participate in formal internships or cooperatives. Kettering University in Flint, Mich., which offers undergraduate degrees in science, technology and business, was first, followed by Endicott College in Beverly, Mass.

Opportunities to apply academic concepts in the real world are a "critical component" of a student's education, says Robert McMahan, president of Kettering, which earned a 9.74 rating on average from students.

Kettering students rotate each semester between taking classes and completing 12-week stints as full-time employees of large companies such as **General Motors** Co., which previously owned and funded the now-independent private university.

GM employs around 100 cooperative students from Kettering each year, and hires around 20 graduates full-time, according to Shawn Wylin, a talent specialist with the auto maker. Executives begin recruiting Kettering students for such roles as soon as

they accept their Kettering offer of admission, she adds.

Administrators at schools like Bard College in Annandale-on-Hudson, N.Y., which landed at the bottom of students' career-readiness ratings in the pool of 761 colleges, with a 6.09 average rating, say that a liberal-arts education can sharpen the soft communication and analytical skills needed on the job. "Our focus culturally is really on students meeting their academic requirements," says Elisabeth Giglio, the head of Bard's career-development office.

At Reed College, which also landed near the bottom with a 6.29 average rating, undergraduates are just as likely to spend summers writing screenplays or musical scores as they are in internships, says Alice Harra, director of the Portland, Ore., school's Center for Life Beyond Reed.

The benefit of such work may be less obvious but is just as likely to help students identify successful career paths, she says, pointing to the roughly 95% of Reed's graduates who either land jobs, enter graduate school or fellowship programs, or prepare to apply to advanced-degree programs within six months after receiving their degree.

Emily Clark, a senior studying environmental history at Reed, says the school offers plenty of internship options but doesn't force them on students.

She won a \$5,000 award for an internship this past summer where she wrote grants and maintained trails along the California coast. The experience helped solidify her passion for conservation, she says, and she now hopes to land a job doing similar work after graduation.



STUDENTS' TOP SCHOOLS FOR CAREER PREPARATION

The schools that students say prepare them best for their careers with internships

1. Kettering University
2. Endicott College
3. Lancaster Bible College
4. Northeastern University
5. Rose-Hulman Institute of Technology
6. Drexel University
7. Bentley University
8. Berea College
9. Dartmouth College
10. Hampden-Sydney College

Source: Wall Street Journal/Times Higher Education College Rankings

THE WALL STREET JOURNAL.

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JOURNAL REPORT | U.S. COLLEGE RANKINGS

The Wall Street Journal/Times Higher Education Ranking of U.S. Colleges

The Wall Street Journal/Times Higher Education College Rankings are based on 15 key indicators that assess colleges in four areas: Outcomes, Resources, Engagement and Environment. Outcomes comprise 40% of the weighting and measure things like the salary graduates earn and the debt burden they take on. Resources, with a 30% weighting, is mainly a proxy for the spending schools put into instruction and academic services. Engagement, drawn mostly from a student

survey and with a 20% weight, examines views on things like teaching and interactions with faculty and other students. Environment, at 10%, assesses the diversity of the university community. Among other questions, the survey asked students if they felt they made the right choice in picking their college; those results are listed in our table with a score of 0 to 10, with 10 representing the strongest agreement. The Salary column in our table is earnings 10 years after entering col-

lege, reflecting multiple years of data, while the Default Rate shows the percentage of people in default on their loans after their repayment period begins. These salary and debt data are available only for people who had federal loans. In our rankings, a value-added analysis is applied to salary and debt.

The full ranking of more than 1,000 schools is online, at WSJ.com/collegerankings. A detailed explanation of the methodology is at <http://on.wsj.com/college-ranking-methodology>.

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
1	Harvard University	Cambridge, MA	91.9	39.5	29.8	15.6	7.0	9.09	91,000	0.9	Private
2	Columbia University	New York, NY	90.6	39.0	27.0	16.7	7.8	8.06	74,000	1.4	Private
3	Massachusetts Institute of Technology	Cambridge, MA	90.4	38.2	29.2	15.8	7.2	9.11	90,000	1.1	Private
3	Stanford University	Stanford, CA	90.4	38.9	26.2	17.4	7.9	8.96	83,000	0.8	Private
5	Duke University	Durham, NC	90.2	39.5	26.7	17.2	6.8	9.19	77,000	0.4	Private
6	Yale University	New Haven, CT	90.0	39.3	26.8	16.9	7.2	8.74	70,000	0.6	Private
7	California Institute of Technology	Pasadena, CA	89.8	38.8	30.0	14.6	6.4	8.35	76,000	1.9	Private
8	University of Pennsylvania	Philadelphia, PA	89.6	38.4	27.0	17.3	6.9	7.99	79,000	1.5	Private
9	Princeton University	Princeton, NJ	89.5	39.1	28.1	15.6	6.8	8.66	76,000	1.0	Private
10	Cornell University	Ithaca, NY	88.9	38.1	26.8	17.5	6.6	8.73	72,000	0.7	Private
11	Brown University	Providence, RI	87.5	36.1	26.8	17.7	7.0	9.17	60,000	1.7	Private
11	University of Chicago	Chicago, IL	87.5	38.2	26.9	15.5	6.8	8.60	63,000	1.0	Private
11	Washington University in St Louis	Saint Louis, MO	87.5	37.6	26.2	17.6	6.2	8.65	63,000	0.8	Private
14	Rice University	Houston, TX	87.4	36.3	27.2	17.1	6.8	8.59	62,000	0.4	Private
15	Northwestern University	Evanston, IL	87.3	36.6	27.2	17.2	6.2	8.38	64,000	1.3	Private
15	University of Southern California	Los Angeles, CA	87.3	36.5	25.4	17.6	7.7	8.75	67,000	1.8	Private
17	Dartmouth College	Hanover, NH	86.8	37.0	26.6	17.3	5.9	9.05	67,000	0.9	Private
17	Johns Hopkins University	Baltimore, MD	86.8	37.7	25.7	16.2	7.1	8.49	68,000	1.1	Private
19	Emory University	Atlanta, GA	86.4	36.2	26.0	16.6	7.6	7.92	59,000	1.5	Private
20	Carnegie Mellon University	Pittsburgh, PA	86.1	36.8	25.4	17.3	6.7	7.99	74,000	0.6	Private
21	Vanderbilt University	Nashville, TN	85.3	37.4	25.5	17.4	5.0	8.91	61,000	1.2	Private
22	Williams College	Williamstown, MA	85.0	38.2	24.5	15.8	6.6	8.24	56,000	1.8	Private
23	Amherst College	Amherst, MA	84.4	37.5	24.1	15.4	7.4	7.97	57,000	2.4	Private
24	University of Notre Dame	Notre Dame, IN	83.1	37.0	24.4	17.1	4.6	8.68	70,000	0.4	Private
25	University of California, Los Angeles	Los Angeles, CA	82.2	36.7	19.8	16.9	8.8	8.83	59,000	2.0	Public
26	Pomona College	Clairemont, CA	82.1	33.1	24.9	16.3	7.8	8.63	52,000	1.8	Private
27	University of Michigan-Ann Arbor	Ann Arbor, MI	81.8	37.6	21.0	17.3	6.0	8.75	58,000	1.3	Public
28	Wellesley College	Wellesley, MA	81.1	33.0	24.3	16.6	7.1	8.59	57,000	1.8	Private
29	New York University	New York, NY	81.0	32.8	23.4	17.1	7.7	8.58	59,000	1.9	Private
30	Swarthmore College	Swarthmore, PA	80.9	32.2	24.2	17.3	7.2	7.76	49,000	0.0	Private

TOP SCHOOLS FOR RESOURCES

1. CALIFORNIA INSTITUTE OF TECHNOLOGY

Pasadena, Calif.

UNDERGRADUATE STUDENTS: 962

TUITION AND FEES: \$45,390

ROOM AND BOARD: \$13,371

2. HARVARD UNIVERSITY

Cambridge, Mass.

UNDERGRADUATE STUDENTS: 9,457

TUITION AND FEES: \$45,278

ROOM AND BOARD: \$15,381

3. MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Cambridge, Mass.

UNDERGRADUATE STUDENTS: 4,488

TUITION AND FEES: \$46,704

ROOM AND BOARD: \$13,730

31	Georgetown University	Washington, DC	80.8	35.3	23.1	16.1	6.3	8.61	84,000	0.8	Private
32	Tufts University	Medford, MA	80.6	32.5	25.8	16.4	5.9	8.03	66,000	1.0	Private
33	University of North Carolina at Chapel Hill	Chapel Hill, NC	80.2	37.6	20.7	16.5	5.3	8.25	51,000	1.5	Public
34	Case Western Reserve University	Cleveland, OH	79.6	32.6	24.2	16.5	6.3	7.97	68,000	1.2	Private
35	Claremont McKenna College	Claremont, CA	79.5	31.3	24.8	16.7	6.7	7.98	65,000	0.0	Private
36	Middlebury College	Middlebury, VT	79.0	33.9	23.7	16.5	4.8	7.98	54,000	1.5	Private
37	Smith College	Northampton, MA	78.9	31.5	23.7	16.9	6.9	8.05	44,000	0.9	Private
38	Carleton College	Northfield, MN	78.6	32.6	23.3	16.8	6.0	8.18	48,000	1.0	Private
39	Bowdoin College	Brunswick, ME	78.4	33.1	23.7	16.8	4.8	9.02	55,000	1.3	Private
40	Boston University	Boston, MA	78.2	33.6	21.3	16.9	6.4	7.72	60,000	1.5	Private
40	University of California, Berkeley	Berkeley, CA	78.2	34.6	18.6	16.6	8.4	8.36	62,000	2.0	Public
42	Haverford College	Haverford, PA	78.0	32.0	24.5	16.0	5.6	8.28	56,000	3.3	Private
43	Purdue University West Lafayette	West Lafayette, IN	77.1	34.0	20.2	17.1	5.7	8.09	53,000	2.8	Public
44	University of Miami	Coral Gables, FL	77.0	30.5	21.7	17.2	7.7	7.60	53,000	2.0	Private
45	Wesleyan University	Middletown, CT	76.9	30.5	23.8	16.0	6.5	8.48	50,000	1.6	Private
46	University of California, Davis	Davis, CA	76.8	33.2	18.1	17.0	8.4	8.28	57,000	2.6	Public
47	University of California, San Diego	La Jolla, CA	76.1	34.1	17.8	15.5	8.7	7.27	59,000	2.0	Public
48	University of Illinois at Urbana-Champaign	Champaign, IL	75.8	35.9	15.5	17.1	7.4	8.42	57,000	1.8	Public
49	Bryn Mawr College	Bryn Mawr, PA	75.5	28.3	24.2	15.6	7.3	8.20	52,000	1.7	Private
50	Lehigh University	Bethlehem, PA	75.4	29.5	23.5	16.9	5.5	8.20	77,000	1.0	Private
51	University of Rochester	Rochester, NY	74.6	28.0	24.2	16.5	5.8	7.80	56,000	1.2	Private
52	Wake Forest University	Winston-Salem, NC	74.5	30.8	23.0	16.1	4.5	8.65			

JOURNAL REPORT | U.S. COLLEGE RANKINGS

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
75	Grinnell College	Grinnell, IA	71.0	26.1	23.2	15.2	6.4	8.14	44,000	3.5	Private
75	University of Pittsburgh-Pittsburgh campus	Pittsburgh, PA	71.0	31.4	18.4	16.5	4.7	7.91	48,000	3.8	Public
77	Mount Holyoke College	South Hadley, MA	70.9	25.4	22.1	16.4	7.0	8.65	44,000	2.1	Private
78	Macalester College	Saint Paul, MN	70.8	27.3	22.1	15.8	5.6	8.05	46,000	0.3	Private
79	Trinity University	San Antonio, TX	70.6	24.8	22.5	17.0	6.3	7.58	54,000	1.8	Private
80	Michigan State University	East Lansing, MI	70.5	31.6	15.8	17.3	5.8	8.62	50,000	3.6	Public
81	Southern Methodist University	Dallas, TX	70.4	27.1	20.7	17.1	5.6	8.29	53,000	2.9	Private
82	University of Maryland, College Park	College Park, MD	70.3	34.0	13.1	16.7	6.5	7.85	60,000	2.1	Public
83	Worcester Polytechnic Institute	Worcester, MA	70.2	28.6	20.0	16.3	5.3	8.84	79,000	1.9	Private
84	Denison University	Granville, OH	70.0	26.7	21.6	16.2	5.5	8.17	49,000	1.3	Private
84	Drexel University	Philadelphia, PA	70.0	25.7	20.3	17.0	6.9	8.54	62,000	3.1	Private
84	College of the Holy Cross	Worcester, MA	70.0	29.3	21.3	15.8	3.6	9.15	63,000	0.5	Private
87	Brandeis University	Waltham, MA	69.9	26.4	21.8	15.7	5.9	7.89	58,000	1.5	Private
87	Rensselaer Polytechnic Institute	Troy, NY	69.9	29.5	18.8	15.0	6.6	7.22	81,000	0.9	Private
89	Franklin & Marshall College	Lancaster, PA	69.6	27.5	22.3	15.3	4.4	7.54	54,000	2.2	Private
89	University of Washington-Seattle	Seattle, WA	69.6	27.9	17.6	16.7	7.4	7.97	53,000	2.6	Public
91	Occidental College	Los Angeles, CA	69.5	27.3	20.4	14.9	6.9	6.55	49,000	0.0	Private
92	Union College	Schenectady, NY	69.3	28.8	21.6	15.2	3.7	8.24	63,000	0.9	Private
93	Scripps College	Claremont, CA	69.1	24.5	22.4	15.6	6.7	7.60	48,000	1.0	Private
93	Texas A&M University-College Station	College Station, TX	69.1	30.9	14.6	17.9	5.8	9.03	53,000	4.1	Public
93	Trinity College	Hartford, CT	69.1	26.2	22.2	15.5	5.2	7.12	55,000	3.4	Private
96	University of Denver	Denver, CO	68.6	27.3	19.8	16.3	5.2	7.61	52,000	1.6	Private
96	Kenyon College	Gambier, OH	68.6	27.3	22.0	15.7	3.6	8.91	44,000	1.5	Private
98	Bentley University	Waltham, MA	68.3	29.3	17.3	15.9	5.8	8.51	76,000	1.6	Private
99	University of California, Santa Barbara	Santa Barbara, CA	68.1	30.0	14.0	16.5	7.6	8.30	52,000	2.4	Public
100	William & Mary	Williamsburg, VA	68.0	30.1	17.8	15.6	4.5	8.40	56,000	0.9	Public
101	Spelman College	Atlanta, GA	67.9	28.4	17.8	15.9	5.8	8.98	46,000	7.7	Private
102	Connecticut College	New London, CT	67.8	25.9	22.1	15.4	4.4	7.46	51,000	2.1	Private
102	Rhode Island School of Design	Providence, RI	67.8	26.6	20.6	14.9	5.7	8.94	46,000	1.0	Private
104	Howard University	Washington, DC	67.5	23.8	21.5	16.2	6.1	7.92	46,000	6.1	Private
105	University of Connecticut	Storrs, CT	67.4	27.0	18.0	16.5	5.9	7.45	54,000	2.2	Public
105	Saint Louis University	Saint Louis, MO	67.4	25.7	20.7	16.2	4.8	8.14	54,000	3.9	Private
105	The College of Wooster	Wooster, OH	67.4	26.6	19.7	16.4	4.7	7.92	45,000	1.2	Private
108	Syracuse University	Syracuse, NY	67.2	28.5	15.7	17.0	6.0	8.51	57,000	3.1	Private
109	DePauw University	Greencastle, IN	67.1	25.0	21.0	15.9	5.2	6.85	48,000	2.9	Private
110	Gettysburg College	Gettysburg, PA	67.0	26.6	21.4	15.8	3.2	7.90	52,000	1.5	Private
111	University of Illinois at Chicago	Chicago, IL	66.7	24.8	17.7	16.0	8.1	7.30	51,000	2.8	Public
111	Rose-Hulman Institute of Technology	Terre Haute, IN	66.7	28.9	18.8	15.2	3.9	9.35	79,000	0.5	Private
113	Brigham Young University-Provo	Provo, UT	66.6	33.7	12.9	17.9	2.1	9.16	57,000	1.1	Private
113	Dickinson College	Carlisle, PA	66.6	27.1	20.6	15.2	3.7	7.13	53,000	0.9	Private
115	Pitzer College	Claremont, CA	66.5	22.6	20.2	16.7	7.0	8.05	45,000	1.5	Private
115	Wheaton College (Massachusetts)	Norton, MA	66.5	23.7	21.5	16.1	5.2	8.32	45,000	1.5	Private
117	University at Buffalo	Buffalo, NY	66.4	23.5	19.7	15.8	7.4	7.47	49,000	3.1	Public
117	University of the Pacific	Stockton, CA	66.4	24.5	18.3	15.9	7.7	7.21	67,000	1.4	Private
119	Yeshiva University	New York, NY	66.3	25.0	23.8	13.8	3.8	7.66	56,000	1.5	Private
120	Colorado College	Colorado Springs, CO	66.1	22.1	22.0	16.2	5.8	8.23	40,000	0.9	Private
120	Villanova University	Villanova, PA	66.1	27.9	18.8	16.2	3.3	7.94	74,000	1.1	Private

TOP SCHOOLS FOR OUTCOMES

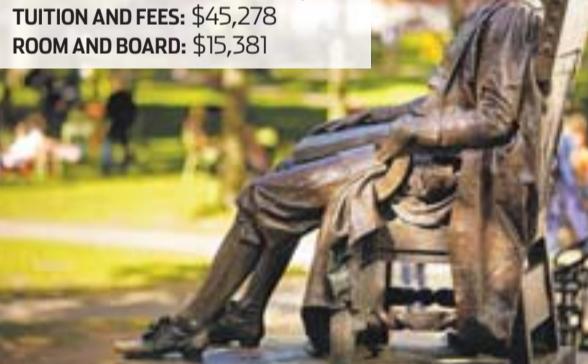
1. HARVARD UNIVERSITY

Cambridge, Mass.

UNDERGRADUATE STUDENTS: 9,457

TUITION AND FEES: \$45,278

ROOM AND BOARD: \$15,381



1. DUKE UNIVERSITY

Durham, N.C.

UNDERGRADUATE STUDENTS: 8,137

TUITION AND FEES: \$49,241

ROOM AND BOARD: \$14,032

3. YALE UNIVERSITY

New Haven, Conn.

UNDERGRADUATE STUDENTS: 7,078

TUITION AND FEES: \$47,600

ROOM AND BOARD: \$14,600

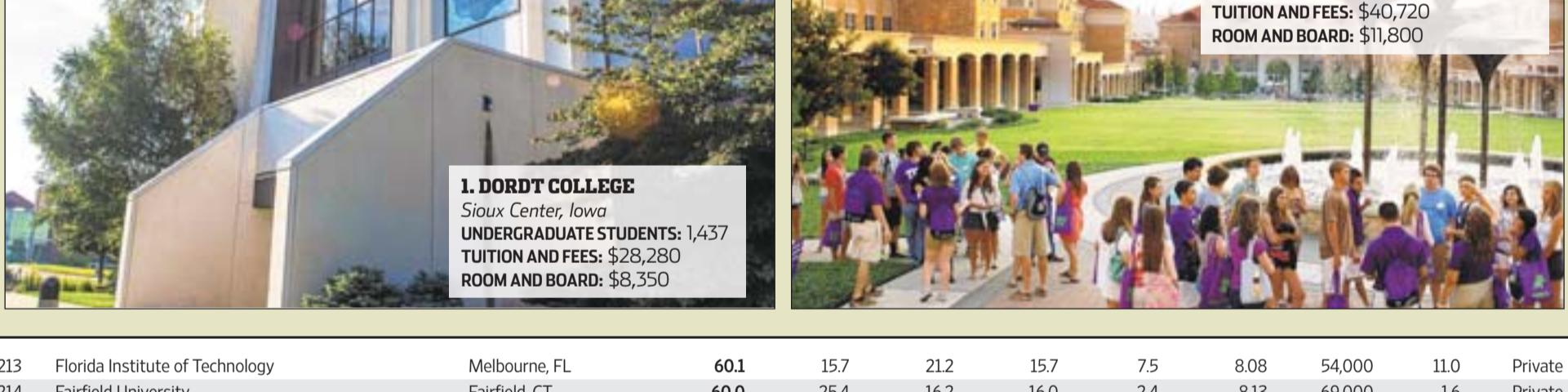


122	University of Minnesota Twin Cities	Minneapolis, MN	66.0	28.4	15.5	17.0	5.1	8.39	48,000	2.2	Public
123	Babson College	Wellesley, MA	65.8	28.7	15.7	15.2	6.2	8.17	86,000	0.5	Private
123	Virginia Polytechnic Institute and State University	Blacksburg, VA	65.8	29.9	14	17.3	4.6	9.09	58,000	1.7	Public
125	Illinois Institute of Technology	Chicago, IL	65.7	26.2	17.4	14.1	8.0	6.85	69,000	2.1	Private
125	Pennsylvania State University	University Park, PA	65.7	25.4	17.9	17.0	5.4	8.86	48,000	4.9	Public
127	Seattle University	Seattle, WA	65.6	23.5	18.5	16.4	7.3	7.70	56,000	1.7	Private

JOURNAL REPORT | U.S. COLLEGE RANKINGS

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
166	Linfield College - McMinnville campus	McMinnville, OR	62.7	24.2	18.3	15.2	5.0	7.53	52,000	1.9	Private
166	Whitman College	Walla Walla, WA	62.7	21.1	22.7	16.2	2.7	8.22	43,000	0.4	Private
168	Santa Clara University	Santa Clara, CA	62.6	23.4	16.8	16.1	6.4	7.46	68,000	1.7	Private
169	Simmons College	Boston, MA	62.4	22.7	18.9	15.6	5.1	7.22	51,000	1.4	Private
170	Berea College	Berea, KY	62.3	19.4	19.9	16.5	6.5	9.07	34,000	10.4	Private
170	University of Tulsa	Tulsa, OK	62.3	19.1	20.7	17.1	5.4	8.74	43,000	2.9	Private
172	Susquehanna University	Selinsgrove, PA	62.2	24.9	17.5	16.1	3.6	7.72	50,000	2.9	Private
172	Washington & Jefferson College	Washington, PA	62.2	25.7	18.1	15.3	3.3	8.10	49,000	2.1	Private
174	Butler University	Indianapolis, IN	62.1	24.5	18.3	17.3	1.9	8.84	54,000	1.5	Private
174	University of Colorado Boulder	Boulder, CO	62.1	27.1	13.7	16.6	4.6	8.34	48,000	3.1	Public
174	Ohio Wesleyan University	Delaware, OH	62.1	21.4	20.0	16.8	3.9	7.80	42,000	5.1	Private
177	Chapman University	Orange, CA	61.9	26.0	14.5	16.4	5.1	8.31	51,000	2.7	Private
177	Sewanee-The University of the South	Sewanee, TN	61.9	21.9	21.1	16.1	2.8	8.52	39,000	2.9	Private
179	University of Arizona	Tucson, AZ	61.7	25.8	11.9	17.0	7.1	7.69	44,000	5.7	Public
179	Knox College	Galesburg, IL	61.7	22.2	18.5	15.3	5.8	7.57	42,000	2.6	Private
179	Lawrence University	Appleton, WI	61.7	21.6	20.5	15.3	4.3	7.88	42,000	2.3	Private
179	Texas Christian University	Fort Worth, TX	61.7	23.1	16.8	18.1	3.6	8.54	50,000	3.7	Private
179	Wofford College	Spartanburg, SC	61.7	26.2	17.6	15.8	2.1	8.69	48,000	3.7	Private
184	Bryant University	Smithfield, RI	61.6	27.1	14.4	15.8	4.3	8.50	63,000	1.7	Private
184	Drake University	Des Moines, IA	61.6	24.2	17.1	16.8	3.5	7.45	56,000	2.1	Private
184	Loyola University Maryland	Baltimore, MD	61.6	25.5	16.9	15.6	3.6	7.88	63,000	0.8	Private
184	Missouri University of Science and Technology	Rolla, MO	61.6	25.7	15.9	14.9	5.0	8.26	65,000	4.3	Public
188	Baylor University	Waco, TX	61.5	22.4	17.1	17.7	4.3	8.57	49,000	4.1	Private
188	Clemson University	Clemson, SC	61.5	27.2	14.1	17.0	3.1	8.88	50,000	3.0	Public
188	University of Detroit Mercy	Detroit, MI	61.5	21.6	18.6	16.0	5.3	8.18	44,000	3.3	Private
191	Colorado School of Mines	Golden, CO	61.4	26.5	15.5	15.1	4.3	8.59	75,000	2.1	Public
191	Hampton University	Hampton, VA	61.4	21.8	18.5	15.4	5.6	6.86	42,000	7.0	Private
191	Ursinus College	Collegeville, PA	61.4	25.9	16.3	15.6	3.6	7.80	52,000	3.3	Private
194	Loyola University Chicago	Chicago, IL	61.3	24.3	15.4	16.1	5.5	6.23	51,000	3.2	Private
194	Virginia Military Institute	Lexington, VA	61.3	26.0	18.3	14.7	2.2	9.02	58,000	2.7	Public
196	Embry-Riddle Aeronautical University, Daytona Beach	Daytona Beach, FL	61.0	23.2	16.9	14.6	6.3	8.08	61,000	4.9	Private
196	SUNY Binghamton University	Vestal, NY	61.0	27.1	10.9	15.6	7.4	6.91	58,000	1.9	Public
198	American University	Washington, DC	60.9	22.5	16.8	15.4	6.2	7.59	56,000	1.5	Private
198	Catholic University of America	Washington, DC	60.9	17.1	22.8	16.3	4.7	7.31	54,000	2.6	Private
198	Rutgers University-Newark	Newark, NJ	60.9	20.3	18.4	14.4	7.8	7.16	55,000	3.4	Public
198	Saint Mary's College	Notre Dame, IN	60.9	23.8	18.9	15.5	2.7	8.12	46,000	0.9	Private
202	Muhlenberg College	Allentown, PA	60.8	25.6	18.0	15.5	1.8	7.52	56,000	3.1	Private
203	Quinnipiac University	Hamden, CT	60.6	24.9	16.1	16.0	3.6	7.97	57,000	1.5	Private
203	Saint Mary's College of California	Moraga, CA	60.6	22.0	15.8	16.4	6.5	7.48	59,000	3.2	Private
205	Beloit College	Beloit, WI	60.5	20.2	19.3	16.0	5.0	6.07	38,000	1.4	Private
205	Drew University	Madison, NJ	60.5	19.5	19.4	15.2	6.4	7.53	51,000	3.9	Private
205	Molloy College	Rockville Centre, NY	60.5	24.8	14.6	15.8	5.3	8.36	57,000	3.3	Private
205	Washington College	Chestertown, MD	60.5	23.6	18.6	15.4	2.9	8.11	46,000	1.7	Private
209	Juniata College	Huntingdon, PA	60.4	24.6	15.9	16.5	3.5	7.56	45,000	2.9	Private
209	Siena College	Loudonville, NY	60.4	26.2	16.2	15.0	3.0	7.65	55,000	1.8	Private
211	Ithaca College	Ithaca, NY	60.3	23.3	16.7	17.2	3.2	8.30	50,000	2.0	Private
212	Fordham University	Bronx, NY	60.2	23.6	15.3	15.8	5.5	7.51	56,000	2.8	Private

TOP SCHOOLS FOR ENGAGEMENT



1. DORDT COLLEGE
Sioux Center, Iowa
UNDERGRADUATE STUDENTS: 1,437
TUITION AND FEES: \$28,280
ROOM AND BOARD: \$8,350

2. TEXAS CHRISTIAN UNIVERSITY
Fort Worth, Texas
UNDERGRADUATE STUDENTS: 8,502
TUITION AND FEES: \$40,720
ROOM AND BOARD: \$11,800

213	Florida Institute of Technology	Melbourne, FL	60.1	15.7	21.2	15.7	7.5	8.08	54,000	11.0	Private
214	Fairfield University	Fairfield, CT	60.0	25.4	16.2	16.0	2.4	8.13	69,000	1.6	Private
214	University of Scranton	Scranton, PA	60.0	23.8	17.5	16.8	1.8	7.20	56,000	3.2	Private
216	Cornell College	Mount Vernon, IA	59.9	22.4	17.7	15.9	3.9	8.70	41,000	2.3	Private
216	Lake Forest College	Lake Forest, IL	59.9	22.6	15.8	15.1	6.5	8.03	48,000	4.1	Private
218	Saint John's University	Collegeville, MN	59.8	26.8	15.9	14.5	2.7	7.61	56,000	0.9	Private
218	University of the Sciences	Philadelphia, PA	59.8	18.5	21.9	13.9	5.5	7.57	91,000	2.9	Private
220	Mercer University	Macon, GA	59.7	19.2	16.7	16.9	6.9	8.25	47,000	4.4	Private
220	Otis College of Art and Design	Los Angeles, CA	59.7	19.4	18.0	14.5	7.8	7.45	44,000	3.4	Private
220	University of San Francisco	San Francisco, CA	59.7	20.7	14.8	15.7	8.4	7.31	61,000	2.4	Private
220	Xavier University	Cincinnati, OH	59.7	21.8	16.7	17.3	3.9				

JOURNAL REPORT | U.S. COLLEGE RANKINGS

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			(Out of a possible 100)								
257	Hofstra University	Hempstead, NY	57.5	17.9	17.2	16.7	5.7	7.51	53,000	3.3	Private
257	SUNY University at Albany	Albany, NY	57.5	22.4	13.0	14.6	7.5	7.19	50,000	4.5	Public
257	Valparaiso University	Valparaiso, IN	57.5	20.7	15.5	17.1	4.2	8.12	49,000	3.6	Private
257	Westmont College	Santa Barbara, CA	57.5	21.9	16.0	15.2	4.4	8.45	48,000	1.5	Private
261	University of Georgia	Athens, GA	57.3	25.3	10.3	17.1	4.7	8.35	47,000	2.3	Public
262	University of Kansas	Lawrence, KS	57.2	18.5	16.4	17.0	5.3	8.32	45,000	4.3	Public
262	Pratt Institute	Brooklyn, NY	57.2	17.2	18.9	14.6	6.5	8.06	40,000	4.1	Private
264	Alma College	Alma, MI	57.1	20.4	18.4	15.6	2.6	8.52	44,000	2.3	Private
264	John Carroll University	University Heights, OH	57.1	24.4	14.3	15.6	2.8	7.44	51,000	2.7	Private
264	Sarah Lawrence College	Bronxville, NY	57.1	16.2	20.5	14.6	5.8	8.06	38,000	2.2	Private
264	Transylvania University	Lexington, KY	57.1	22.2	17.1	15.6	2.1	8.82	40,000	2.6	Private
268	University of Alabama at Birmingham	Birmingham, AL	57.0	18.8	15.9	15.7	6.6	8.13	40,000	5.4	Public
268	Concordia College at Moorhead	Moorhead, MN	57.0	21.7	15.8	17.6	1.9	8.83	41,000	1.4	Private
268	University of South Carolina-Columbia	Columbia, SC	57.0	23.6	12.7	16.2	4.5	8.18	42,000	4.6	Public
271	CUNY Bernard M. Baruch College	New York, NY	56.9	25.8	8.2	14.1	8.8	7.04	54,000	2.5	Public
272	CUNY City College of New York	New York, NY	56.8	15.5	17.9	14.6	8.8	7.04	45,000	5.0	Public
272	University of California, Riverside	Riverside, CA	56.8	18.9	13.5	16.0	8.5	8.00	48,000	2.8	Public
274	Augustana College (South Dakota)	Sioux Falls, SD	56.7	21.6	16.6	16.1	2.3	7.92	42,000	2.3	Private
274	George Mason University	Fairfax, VA	56.7	23.7	11.0	15.7	6.4	7.39	57,000	2.1	Public
274	Houghton College	Houghton, NY	56.7	21.7	16.4	15.8	2.8	8.09	40,000	1.0	Private
274	Southwestern University	Georgetown, TX	56.7	19.1	17.0	15.9	4.8	8.63	47,000	4.1	Private
278	Adelphi University	Garden City, NY	56.6	18.8	16.0	15.0	6.8	6.75	51,000	3.5	Private
279	Bard College	Annandale-On-Hudson, NY	56.4	16.2	22.2	14.0	4.1	6.74	37,000	2.8	Private
279	Goucher College	Baltimore, MD	56.4	18.8	18.2	14.5	4.9	7.20	46,000	3.7	Private
281	DePaul University	Chicago, IL	56.3	21.5	11.4	16.8	6.7	7.49	51,000	3.4	Private
282	Hendrix College	Conway, AR	56.2	18.6	18.8	15.8	3.0	7.81	40,000	3.8	Private
283	Moravian College	Bethlehem, PA	55.9	22.0	15.1	15.5	3.3	8.29	49,000	4.2	Private
284	Oklahoma City University	Oklahoma City, OK	55.8	14.2	18.7	17.5	5.5	8.51	40,000	3.8	Private
284	Suffolk University	Boston, MA	55.8	18.1	14.8	15.8	7.1	6.60	51,000	3.2	Private
286	University of California, Santa Cruz	Santa Cruz, CA	55.7	21.8	11.2	14.9	7.7	7.40	44,000	3.1	Public
286	University of Oregon	Eugene, OR	55.7	21.9	11.5	16.2	6.2	7.95	42,000	3.1	Public
286	Pacific Lutheran University	Tacoma, WA	55.7	19.6	15.2	15.7	5.2	8.13	46,000	3.4	Private
289	California College of the Arts	San Francisco, CA	55.6	14.7	18.0	14.6	8.3	8.05	34,000	5.6	Private
289	Rutgers University-Camden	Camden, NJ	55.6	16.9	17.9	14.1	6.7	7.52	55,000	3.4	Public
289	Western New England University	Springfield, MA	55.6	18.7	16.3	16.0	4.6	8.33	56,000	4.1	Private
292	Iowa State University	Ames, IA	55.5	23.3	10.9	16.7	4.6	8.26	48,000	3.5	Public
292	La Salle University	Philadelphia, PA	55.5	21.1	13.2	15.9	5.4	7.89	52,000	3.7	Private
292	University of Saint Joseph	West Hartford, CT	55.5	18.0	16.3	14.7	6.5	7.79	50,000	3.2	Private
292	Seton Hall University	South Orange, NJ	55.5	20.8	12.8	15.7	6.1	7.63	54,000	3.6	Private
296	California Institute of the Arts	Valencia, CA	55.4	13.6	19.9	14.7	7.2	8.83	32,000	4.1	Private
296	Whittier College	Whittier, CA	55.4	16.1	17.0	14.9	7.4	8.29	45,000	3.0	Private
298	Coe College	Cedar Rapids, IA	55.3	20.7	15.7	16.0	2.9	8.29	43,000	1.3	Private
298	Mount Saint Mary's University	Los Angeles, CA	55.3	20.1	12.2	15.3	7.8	7.04	50,000	6.1	Private
298	University of Portland	Portland, OR	55.3	24.9	11.4	15.3	3.7	7.93	53,000	1.1	Private
301	University of Evansville	Evansville, IN	55.2	18.7	15.3	17.3	3.8	8.42	40,000	2.1	Private
301	Wayne State University	Detroit, MI	55.2	14.6	16.7	16.2	7.7	7.42	40,000	6.3	Public
303	Calvin College	Grand Rapids, MI	55.1	18.6	15.7	17.4	3.4	8.21	41,000	2.7	Private

TOP SCHOOLS FOR ENVIRONMENT

1. LA SIERRA UNIVERSITY
Riverside, Calif.
UNDERGRADUATE STUDENTS: 1,901
TUITION AND FEES: \$30,471
ROOM AND BOARD: \$7,800



2. CALIFORNIA STATE UNIVERSITY, NORTHRIDGE
Northridge, Calif.
UNDERGRADUATE STUDENTS: 28,397
TUITION AND FEES: \$6,569 (in-state)
\$17,729 (out-of-state)
ROOM AND BOARD: \$9,962



303	Hampshire College	Amherst, MA	55.1	13.6	19.9	16.3	5.3	7.92	32,000	3.6	Private
305	Lebanon Valley College	Annville, PA	54.9	20.9	16.6	15.3	2.2	8.21	46,000	3.2	Private
306	Auburn University	Auburn, AL	54.8	21.1	13.0	17.6	3.1	8.91	46,000	4.3	Public
306	Baldwin Wallace University	Berea, OH	54.8	20.8	13.6	17.2	3.2	7.99	44,000	4.1	Private
306	CUNY Hunter College	New York, NY	54.8	18.3	13.5	14.6	8.4	6.59	45,000	3.9	Public
306	Point Loma Nazarene University	San Diego, CA	54.8	21.6	11.0	17.4	4.9	9.10	49,000	2.3	Private
310	University of Hartford	West Hartford, CT	54.7	15.6	18.5	15.7	4.9	7.15	46,000	4.2	Private
310	Kettering University	Flint, MI	54.7	19.8	14.8	14.8	5.2	8.24	76,000	1.9	Private
312	Miami University	Oxford, OH	54.6	20.9	11.4	17.5	4.7	8.22	46,000	9.3	Public
312	Saint Michael's College	Colchester, VT	54.6	21.9	14.9	15.8					

JOURNAL REPORT | U.S. COLLEGE RANKINGS

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
348	Merrimack College	North Andover, MA	53.2	22.1	12.3	15.9	3.0	7.48	56,000	3.9	Private
348	Rider University	Lawrenceville, NJ	53.2	17.4	15.6	15.2	5.0	7.07	49,000	4.8	Private
348	Springfield College	Springfield, MA	53.2	21.5	13.8	15.2	2.7	8.19	44,000	7.1	Private
348	University of St Thomas	Saint Paul, MN	53.2	19.7	13.7	16.6	3.3	7.90	55,000	1.9	Private
348	University of Washington-Bothell	Bothell, WA	53.2	16.5	14.3	14.8	7.7	7.73	53,000	2.6	Public
353	St John Fisher College	Rochester, NY	53.1	18.8	15.4	16.0	2.9	8.48	45,000	3.0	Private
353	St Norbert College	De Pere, WI	53.1	21.8	12.6	17.0	1.7	8.54	45,000	1.3	Private
355	Kansas State University	Manhattan, KS	53.0	18.0	13.3	17.3	4.3	8.76	43,000	5.0	Public
355	MCPHS University	Boston, MA	53.0	23.8	9.4	13.0	6.8	6.36	115,000	1.6	Private
357	Lawrence Technological University	Southfield, MI	52.9	18.0	14.7	15.2	5.0	8.38	54,000	3.7	Private
357	University of Maryland, Baltimore County	Baltimore, MD	52.9	21.6	9.4	15.0	6.9	7.35	54,000	3.7	Public
357	Xavier University of Louisiana	New Orleans, LA	52.9	18.1	12.9	15.4	6.5	6.38	47,000	8.5	Private
360	Albright College	Reading, PA	52.8	21.3	11.0	14.9	5.5	6.47	47,000	4.6	Private
360	Assumption College	Worcester, MA	52.8	22.9	12.3	15.4	2.2	7.27	53,000	2.8	Private
360	Azusa Pacific University	Azusa, CA	52.8	16.2	13.8	15.6	7.2	8.33	50,000	3.0	Private
360	Elmhurst College	Elmhurst, IL	52.8	21.9	10.5	16.6	3.9	7.49	48,000	1.8	Private
360	Hartwick College	Oneonta, NY	52.8	17.8	17.3	14.4	3.2	6.90	44,000	6.2	Private
360	University of Kentucky	Lexington, KY	52.8	19.3	13.0	16.8	3.8	8.07	42,000	4.5	Public
366	SUNY College of Environmental Science and Forestry	Syracuse, NY	52.7	19.0	15.2	15.7	2.7	9.06	43,000	2.5	Public
367	CUNY Queens College	Queens, NY	52.6	19.9	9.4	15.5	7.9	7.28	48,000	3.5	Public
367	Canisius College	Buffalo, NY	52.6	18.0	15.5	15.9	3.1	7.11	46,000	3.5	Private
367	Cedarville University	Cedarville, OH	52.6	21.1	12.0	17.9	1.6	8.70	41,000	2.0	Private
367	Marian University (Indiana)	Indianapolis, IN	52.6	19.2	15.1	15.0	3.3	7.37	41,000	5.3	Private
371	Messiah College	Mechanicsburg, PA	52.5	19.2	13.9	17.5	1.9	8.37	42,000	2.6	Private
371	New Jersey Institute of Technology	Newark, NJ	52.5	21.0	10.3	13.4	7.9	7.58	65,000	3.9	Public
371	Wartburg College	Waverly, IA	52.5	17.8	16.4	15.6	2.6	8.11	43,000	5.8	Private
371	University of Wyoming	Laramie, WY	52.5	16.3	15.8	17.3	3.2	8.65	46,000	4.3	Public
375	King's College	Wilkes-Barre, PA	52.4	20.8	13.6	15.9	2.1	7.49	48,000	5.5	Private
375	Milwaukee School of Engineering	Milwaukee, WI	52.4	21.7	11.9	14.7	3.9	8.28	66,000	3.2	Private
377	California State University Maritime Academy	Vallejo, CA	52.3	17.9	14.9	14.0	5.5	8.25	80,000	3.8	Public
377	Campbell University	Buies Creek, NC	52.3	16.7	13.8	16.9	4.9	7.25	43,000	5.8	Private
377	The Citadel, The Military College of South Carolina	Charleston, SC	52.3	22.2	12.1	14.5	3.5	8.81	52,000	3.0	Public
377	Georgetown College	Georgetown, KY	52.3	17.6	16.7	15.5	2.6	8.08	42,000	6.3	Private
377	San Diego State University	San Diego, CA	52.3	21.5	6.5	16.3	8.0	8.59	48,000	3.5	Public
377	St Catherine University	Saint Paul, MN	52.3	17.0	14.3	16.9	4.1	7.51	45,000	3.9	Private
377	West Virginia University	Morgantown, WV	52.3	19.7	12.5	16.2	3.8	8.30	44,000	7.5	Public
384	School of the Art Institute of Chicago	Chicago, IL	52.2	13.0	18.6	14.2	6.4	7.21	32,000	7.4	Private
385	University of Mount Union	Alliance, OH	52.1	19.4	12.6	17.0	3.1	8.56	41,000	4.3	Private
385	Philadelphia University	Philadelphia, PA	52.1	19.3	11.8	15.9	5.1	7.97	48,000	4.4	Private
387	Roger Williams University	Bristol, RI	52.0	17.7	15.1	16.3	3.0	7.56	47,000	2.9	Private
387	Union University	Jackson, TN	52.0	15.4	15.9	17.2	3.4	7.94	38,000	3.6	Private
389	Eckerd College	Saint Petersburg, FL	51.9	15.9	16.3	16.1	3.5	9.07	41,000	7.1	Private
390	University of Houston	Houston, TX	51.8	19.3	8.1	16.3	8.1	7.53	49,000	5.2	Public
390	The New School	New York, NY	51.8	13.7	15.4	15.4	7.3	8.18	40,000	4.3	Private
390	Rockhurst University	Kansas City, MO	51.8	22.9	11.4	15.5	2.1	7.95	47,000	2.7	Private
393	Dordt College	Sioux Center, IA	51.7	19.3	12.0	18.2	2.1	8.21	38,000	2.0	Private
393	Illinois State University	Normal, IL	51.7	20.8	10.4	16.5	3.9	7.68	45,000	2.9	Public

TOP SCHOOLS FOR RIGHT CHOICE



395	Central College	Pella, IA	51.6	18.3	15.7	15.5	2.2	8.91	42,000	2.5	Private
396	Chatham University	Pittsburgh, PA	51.5	11.6	19.9	15.0	4.9	8.02	34,000	2.3	Private
396	University of Dallas	Irving, TX	51.5	16.4	16.3	15.2	3.6	8.72	45,000	1.6	Private
396	Wittenberg University	Springfield, OH	51.5	18.4	14.4	15.9	2.8	7.99	42,000	3.9	Private
399	Hiram College	Hiram, OH	51.4	14.9	16.6	15.5	4.4	7.10	38,000	8.0	Private
399	John Brown University	Siloam Springs, AR	51.4	22.0	9.5	16.7	3.2	9.29	46,000	3.9	Private
401	Capital University	Columbus, OH	51.3	17.4	14.2	16.6	3.1	8.01	41,000	4.7	Private
401	College of Idaho	Caldwell, ID	51.3	15.8	15.1	16.0	4.5	8.33	38,000	3.8	Private
401	University of Missouri-Kansas City	Kansas City, MO	51.3	13.8	16.3	14.8	6.4	7.57	43,000	7.7	Public
401	New York Institute of Technology	Old Westbury, NY	51.3	14.4	14.7	13.8	8.4	6.36	50,000	6.3	Private
401	Otterbein University	Westerville, OH	51.3	15.8	16.4	16.6	2.5	7.81	41,000	5.5	Private
406	University of Louisville	Louisville, KY	51.2	12.2	18.8	15.2	5.1	7.87	38,000	7.3	Public
406	University of Michigan-Dearborn	Dearborn, MI	51.2	17.4	11.3	15.7	6.8	8.12</td			

JOURNAL REPORT | U.S. COLLEGE RANKINGS

State Schools Do Well Despite Budget Cuts

California boasts four campuses among the top 10 public institutions

BY MELISSA KORN

DESPITE LIMITED STATE support and more crowded classrooms, nearly two dozen public schools cracked the top 100 in this year's Wall Street Journal/Times Higher Education College Rankings.

These institutions proved they could offer a lower-cost option, often to a more diverse student body, and provide comparable outcomes to the private schools that dominate the top of the charts.

The University of California, Los Angeles was the highest-ranked state school, coming in at No. 25. It was followed by the University of Michigan, Ann Arbor at No. 27 and University of North Carolina, Chapel Hill at No. 33.

Twenty-one public universities made it into the top 100 of the WSJ/THE rankings, and eight reached the top 50.

The University of California system has four campuses among the top 10 public schools. Besides first-place UCLA, Berkeley comes in at fourth, followed by Davis, sixth, and San Diego, seventh.

Public universities get relatively little funding from state coffers these days.

Nationwide, state educational appropriations per full-time-equivalent student fell 15% between fiscal 2008

and fiscal 2016, according to the State Higher Education Executive Officers Association. In that same period, enrollment rose 8.5% and net tuition revenue for public higher education jumped 35%.

Funding challenges often lead schools to hold larger classes. The best student-faculty ratio for any public university in the top 100 was 12 to 1, at the University of Michigan, Purdue University (No. 43 overall) and William & Mary (No. 100). That ratio is in the mid-single digits for many elite private institutions.

At the other end of the spectrum, 21 of the more than 1,000 schools in the WSJ/THE rankings had a student-faculty ratio of at least 25 to 1, and they were all public schools, including much of the California State University system.

With minimal state support and, in many cases, caps on tuition increases, public universities tend to spend far less on academics than their private, nonprofit counterparts.

UCLA spent \$42,510 per student on instruction and academic services, adjusting for regional price differences with data from the Bureau of Economic Analysis. That is less than half the adjusted per-student academic spending at private schools Stanford University, Yale University, Washington University in St. Louis or Vanderbilt University, all of which landed higher in the overall



UCLA, the top-ranked public school, came in at No. 25 overall.

MARK BOSTER/GTY IMAGES

WSJ/THE ranking.

UCLA's per-student academic spending is the highest of any public university in the top 100; the next highest is at the University of North Carolina, Chapel Hill, at \$34,760.

High spending doesn't necessarily lead to a strong education. Efficiency, the adoption of digital learning aids and online lectures can lower costs without hurting outcomes.

The University of Michigan spent \$26,840 per student on academics, but scored far better than UCLA on student engagement (No. 33 versus No. 119) and had a higher ranking for outcomes (No. 14 versus No. 22).

Several other top public universities also punch above their weight in terms of student outcomes, passing some exclusive private institutions.

The University of Florida, for instance, ranks 58th overall but notches the No. 30 spot for outcomes, thanks to a six-year graduation rate of 87% and low student-loan default rates.

The WSJ/THE ranking determines engagement by weighing the breadth of course offerings alongside student responses to survey questions about how challenging the curriculum is and real-world application of academic ideas.

Outcomes are calculated based on graduation rates, reputation, and salary and debt data for recent graduates.

Ms. Korn is a staff reporter for The Wall Street Journal in New York. Email her at melissa.korn@wsj.com.



THE TOP PUBLIC SCHOOLS

The state schools that achieved the highest overall ranking

1. University of California, Los Angeles
2. University of Michigan, Ann Arbor
3. University of North Carolina, Chapel Hill
4. University of California, Berkeley
5. Purdue University, West Lafayette
6. University of California, Davis
7. University of California, San Diego
8. University of Illinois, Urbana-Champaign
9. Georgia Institute of Technology
10. University of Texas, Austin

University of Virginia

Source: Wall Street Journal/Times Higher Education College Rankings

THE WALL STREET JOURNAL.

RANK	COLLEGE	CITY / STATE	OVERALL SCORE (Out of a possible 100)	OUTCOME (Out of 40)	RESOURCES (Out of 30)	ENGAGEMENT (Out of 20)	ENVIRONMENT (Out of 10)	RIGHT CHOICE (Out of 10)	SALARY	DEFAULT RATE	PRIVATE OR PUBLIC
437	East Carolina University	Greenville, NC	50.3	17.8	10.7	16.9	5.0	8.08	39,000	5.2	Public
437	Emerson College	Boston, MA	50.3	19.6	11.6	14.2	4.9	7.87	45,000	1.9	Private
437	Lincoln Memorial University	Harrogate, TN	50.3	15.5	16.5	15.0	3.3	8.26	37,000	4.0	Private
437	University of South Florida	Tampa, FL	50.3	18.3	8.0	16.4	7.6	7.98	41,000	5.2	Public
443	University of Indianapolis	Indianapolis, IN	50.1	14.6	14.4	16.7	4.3	7.78	42,000	6.7	Private
443	Louisiana State University	Baton Rouge, LA	50.1	18.7	10.5	16.3	4.6	8.20	46,000	5.0	Public
443	Loyola University New Orleans	New Orleans, LA	50.1	9.9	17.3	17.0	5.9	8.52	42,000	5.6	Private
443	University of New Hampshire	Durham, NH	50.1	21.1	9.8	16.5	2.7	8.53	47,000	2.1	Public
447	Eastern Illinois University	Charleston, IL	50.0	14.5	14.8	16.0	4.8	8.04	41,000	4.8	Public
447	Millikin University	Decatur, IL	50.0	15.4	15.1	16.1	3.3	8.24	42,000	6.8	Private
449	Southern Nazarene University	Bethany, OK	49.9	18.6	10.8	16.0	4.5	8.36	46,000	6.7	Private
449	Whitworth University	Spokane, WA	49.9	16.3	14.1	16.7	2.8	8.87	41,000	1.9	Private
451	Misericordia University	Dallas, PA	49.8	20.2	12.4	15.2	1.9	8.13	48,000	5.9	Private
451	Nebraska Wesleyan University	Lincoln, NE	49.8	19.5	12.1	16.5	1.8	8.24	45,000	2.2	Private
453	Gwynedd Mercy University	Gwynedd Valley, PA	49.7	19.1	12.2	14.3	4.1	7.82	52,000	5.3	Private
453	Martin Luther College	New Ulm, MN	49.7	21.1	12.4	15.0	1.3	8.83	40,000	0.6	Private
455	University of Alabama in Huntsville	Huntsville, AL	49.6	14.7	13.5	15.7	5.7	8.65	46,000	5.3	Public
455	McDaniel College	Westminster, MD	49.6	17.5	14.1	14.8	3.3	8.25	46,000	2.5	Private
455	Randolph-Macon College	Ashland, VA	49.6	15.7	16.4	14.9	2.6	7.22	45,000	4.4	Private
458	Hamline University	Saint Paul, MN	49.5	19.1	11.3	15.3	3.8	7.24	47,000	2.8	Private
458	University of New Mexico	Albuquerque, NM	49.5	14.0	12.3	15.6	7.6	7.08	35,000	12.7	Public
460	Clarke University	Dubuque, IA	49.4	15.5	16.7	15.3	1.9	7.60	41,000	3.3	Private
460	Maryland Institute College of Art	Baltimore, MD	49.4	13.5	15.8	14.6	5.5	7.20	32,000	3.9	Private
460	University of Massachusetts Boston	Boston, MA	49.4	14.7	11.9	14.2	8.6	6.52	46,000	5.4	Public
460	University of Texas at Dallas	Richardson, TX	49.4	17.2	9.9	14.9	7.4	7.23	50,000	4.7	Public
464	University of Alabama	Tuscaloosa, AL	49.3	18.0	11.0	16.3	3.9	8.79	42,000	5.2	Public
464	Christian Brothers University	Memphis, TN	49.3	16.9	10.3	16.3	5.7	7.72	46,000	7.2	Private
464	Hastings College	Hastings, NE	49.3	16.3	14.9	16.1	1.9	7.66	41,000	4.8	Private
467	University of Nebraska-Lincoln	Lincoln, NE	49.2	17.9	10.4	16.5	4.4	7.17	44,000	2.7	Public
468	Fairleigh Dickinson University	Teeaneck, NJ	49.1	12.3	15.3	14.3	7.2	7.32	47,000	5.0	Private
468	Maryville University	Saint Louis, MO	49.1	20.1	8.4	16.8	3.8	8.15	45,000	4.4	Private
470	The University of the Arts	Philadelphia, PA	49.0	11.5	17.3	15.1	5.2	7.99	30,000	8.4	Private
470	California State University, Chico	Chico, CA	49.0	21.9	3.8	16.7	6.6	8.05	45,000	3.9	Public
470	Western Illinois University	Macomb, IL	49.0	13.0	13.7	16.4	5.9	7.82	41,000	7.1	Public
473	California State University, Long Beach	Long Beach, CA	48.9	19.2	4.1	16.8	8.8	8.01	47,000	3.5	Public
473	Eastern Nazarene College	Quincy, MA	48.9	18.8	9.1	14.5	6.4	6.63	45,000	6.2	Private
473	University of Toledo	Toledo, OH	48.9	14.3	12.3	16.5	5.8	7.54	40,000	9.9	Public
476	Arcadia University	Glenside, PA	48.8	13.9	13.6	16.2	5.1	7.63	43,000	3.5	Private
476	Marymount University	Arlington, VA	48.8	16.8	11.0	14.7	6.3	7.22	50,000	2.8	Private
476	University of Minnesota Morris	Morris, MN	48.8	16.0	12.8	14.6	5.5	7.11	39,000	6.3	Public
476	Morehouse College	Atlanta, GA	48.8	13.3	14.4	15.2	5.8	8.37	41,000	16.2	Private
476	Salem College	Winston-Salem, NC	48.8	14.7	13.7	14.5	5.9	6.54	33,000	5.1	Private
476	Truman State University	Kirksville, MO	48.8	20.8	9.6	15.6	2.8	7.92	43,000	3.1	Public
482	University of Central Florida	Orlando, FL	48.7	19.7	5.6	16.6	6.8	8.22	43,000	4.8	Public
482	University of Charleston	Charleston, WV	48.7	19.6	10.6	14.4	4.2	6.07	42,000	10.7	Private
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