NEW WEEKEND SECTION
EXCHANGE
HOW AMAZON WINS

WSJ
THE WALL STREET JOURNAL WEEKEND.

DOW JONES | News Corp ******** SATURDAY/SUNDAY, JUNE 2 - 3, 2018 ~ VOL. CCLXXI NO. 128 WSJ.com ★★★★ $5.00

What's News

World-Wide

Trump said a summit with North Korean leader Kim will proceed on June 12 as first planned, after the president met with a top Kim aide. **A1**

◆ **The White House** is planning for a potential meeting between Trump and Russian President Putin. **A1**

◆ **U.S. trade negotiators** pressed China for long-term purchase pacts as they prepared for weekend talks. **A6**

◆ **The EU launched** a WTO challenge to U.S. steel and aluminum tariffs and vowed duties on U.S. exports. **A6**

◆ **Spanish lawmakers** voted to oust Prime Minister Rajoy, ushering in a center-left government. **A9**

◆ **A former CIA analyst's** appointment as Bolton's chief of staff has sparked criticism because of his controversial views of Islam. **A4**

◆ **U.S. strikes** against Syrian chemical-weapons sites this spring didn't need congressional approval, the Justice Department said. **A4**

◆ **The IRS plans** to spend $291 million updating computer systems to help it implement the new tax law. **A3**

◆ **The Energy Department** is proposing a new plan to bail out failing nuclear and coal-fired power plants. **A3**

Business & Finance

◆ **The jobless rate** in May fell to 3.8%, the lowest since April 2000, as the U.S. job expansion continued to a record 92 months. **A1**

◆ **The Dow added** 219.37 points to 24635.21 on the jobs report, recouping most of its losses for the week. **B1**

◆ **Apple is looking** to expand its digital-ad business as it shifts its growth strategy beyond selling devices toward pushing services on them. **A1**

◆ **Fiat Chrysler laid out** a five-year vision that focuses on meeting demand for SUVs and trucks and investing in future technologies. **B3**

◆ **U.S. auto sales** rose in May as demand for SUVs and pickup trucks continued to buoy results. **B3**

◆ **Consumers in parts** of the U.K. and Europe couldn't use Visa cards for much of Friday due to a system failure. **B12**

◆ **Sanofi said** the average price for its drugs fell 8.4% in the U.S. last year after accounting for rebates. **B3**

◆ **Deutsche Bank's** credit rating was downgraded one notch by S&P to BBB+. **B12**

◆ **Federal investigators** are examining stock trades tied to the ex-CEO of Heartland Payments ahead of its sale. **B12**

Inside

NOONAN A15
We Must Improve Our Trust

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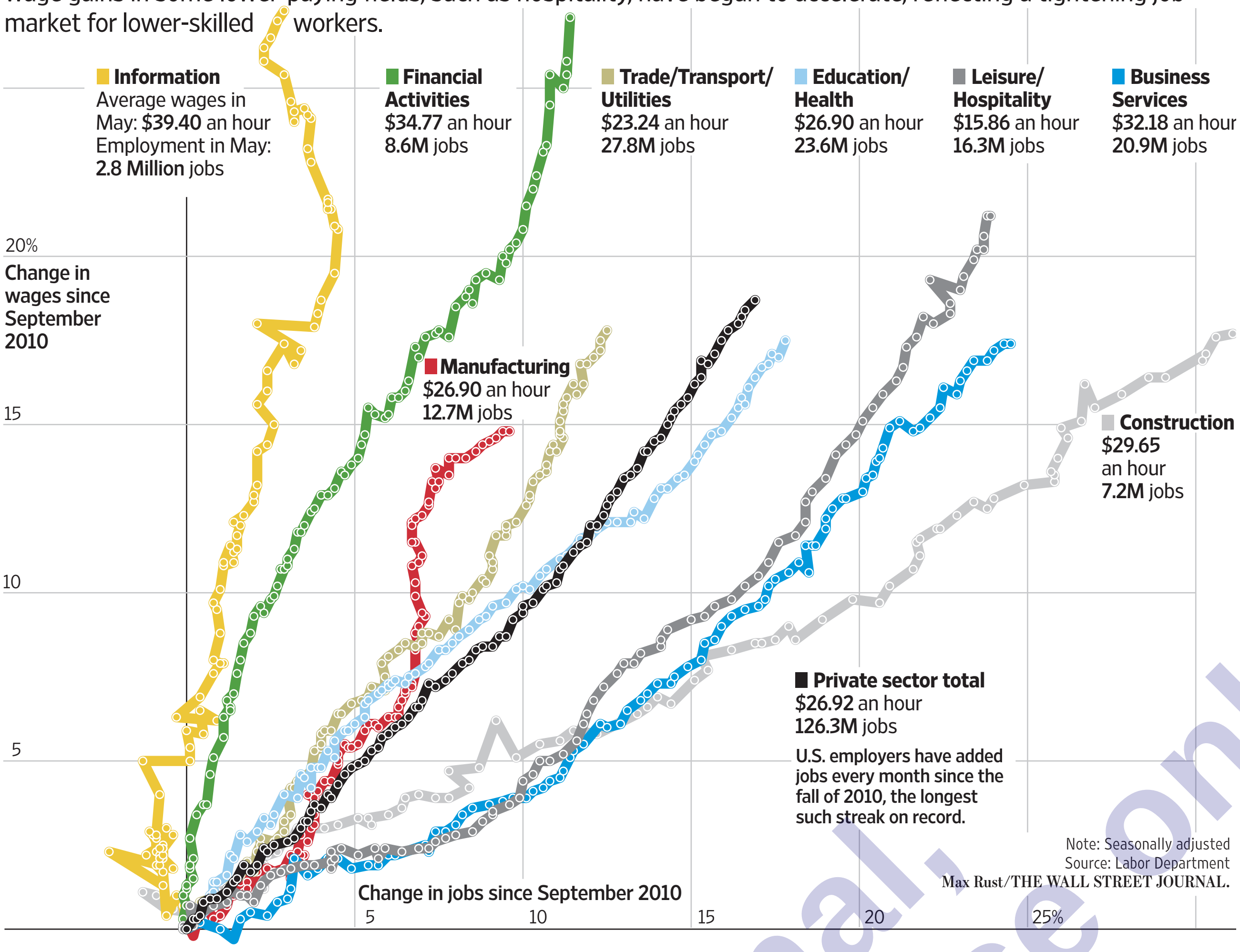
Upward Mobility

During much of the current expansion, job creation lagged behind in industries with the strongest wage growth. But wage gains in some lower-paying fields, such as hospitality, have begun to accelerate, reflecting a tightening job market for lower-skilled workers.



Max Rust/THE WALL STREET JOURNAL.

Jobs Engine Finds New Gear

By Eric Morath
And Sarah Chaney

WASHINGTON—Americans traditionally left behind as jobs and wages grow—high-school dropouts, blacks and Latinos—are reaping the benefits of a tightening labor market, with an unemployment rate that hasn't been lower in nearly half a century.

The jobless rate in May ticked down to a seasonally adjusted 3.8%, the lowest since April 2000, the Labor Department said. The last time the rate was lower was in 1969.

At the same time, U.S. employers added 223,000 jobs last month, extending the longest continuous job expansion on record to 92 months.

Average hourly earnings edged up 2.7% from a year earlier—and raises were even stronger for rank-and-file than managers.

"It's pretty hard to argue that the labor market is anything but right in the sweet spot," said Dan North, chief economist at business insurer Euler Hermes North America. "There is tremendous demand for labor right now."

And those gains are extending to all corners of the labor market. The unemployment rate for women, at 3.6% last month, was the lowest since 1953, when a far smaller share of women sought jobs.

The jobless rate for workers older than 24 without a high-school diploma fell in May to 5.4%—near a record low. The jobless rates for blacks and Latinos are also near record lows.

Jackie Brunka dropped out of high school in 2010, and even though she later earned a GED, she felt employers looked

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◆ Early Trump tweet about report is faulted.................. A2
◆ Heard: Jobs and trade make a bitter brew for business... B14

North Korea Summit Back On

By Michael C. Bender

WASHINGTON—President Donald Trump said his on-again, off-again summit with North Korean leader Kim Jong Un will proceed in Singapore on June 12 as initially planned, another dramatic turn in a diplomatic saga that has veered from threats of nuclear showdown to talk about peace over a matter of days.

Mr. Trump's reversal on Friday followed an extraordinary Oval Office meeting with North Korean Gen. Kim Yong Chol, one of Mr. Kim's top lieutenants and a former spymaster who has been sanctioned by the U.S. Treasury for his role in cyberattacks against American companies. Gen. Kim received a special exemption from the sanctions to travel to Washington to hand-deliver a letter to Mr. Trump.

The letter, from Kim Jong Un, expresses the North Korean leader's interest in meeting Mr. Trump without making any significant concessions or threats, according to a foreign government official briefed on the contents.

Speaking to reporters out-

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U.S. Plans For Trump Meeting With Putin

By Brett Forrest
And Peter Nicholas

WASHINGTON—The White House is planning for a potential summit between President Donald Trump and President Vladimir Putin of Russia, according to people familiar with the efforts, a meeting that would bring to the international stage one of the world's most enigmatic political relationships.

A senior administration official said Friday that Jon Huntsman, the U.S. ambassador to Russia, has been in Washington to help arrange a meeting between Messrs. Trump and Putin.

The planning is still at an early stage, the official said, with the two nations needing to agree on a date and location.

"This has been an ongoing project of Ambassador Huntsman, stretching back months, of getting a formal meeting between Putin and Trump," the official said.

Any meeting between the two presidents would be expected to include discussions on Syria, Ukraine and nuclear-arms control. The summit's purpose would be to resolve longstanding differences, people familiar with the matter said.

The summit would mark the third meeting between Messrs.

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Mideast Rivals Target New Regions

Billions are being invested in Horn of Africa ports and military bases

Cargo in Berbera, where U.A.E.'s DP World spent $442 million to take over the port.

By Matina Stevis-Gridneff

BERBERA, Somaliland—The battle for hegemony in the Middle East is playing out at an ancient African port where traditional dhow fishing boats now share space with giant, container ships loaded around the clock by men in yellow high-visibility vests.

Berbera, in the breakaway republic of Somaliland, is perched on a narrow shipping lane leading to the Suez Canal and is just 260 nautical miles from Yemen's civil war. Since antiquity, the town's strategic shore has been coveted by military and maritime powers. Described by colonial-era travelers as the "key to the Red Sea," the port became an Ottoman stronghold and later a British colonial outpost.

That explains why United Arab Emirates, Saudi Arabia's strongest ally, pledged close to $450 million to take

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Apple Eyes Push Into Digital Ads

By Tripp Mickle
And Georgia Wells

Apple Inc. prides itself on selling devices rather than relying on ads.

Now the iPhone maker is looking to expand its digital-advertising business, people familiar with the matter said, as it shifts its growth strategy beyond selling devices toward pushing services on them.

Over the past year, Apple has met with Snap Inc., Pinterest Inc. and other companies about participating in an Apple network that would dis-

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Fans Await 'Thriller' From Punning Judge

* * *

Tax ruling on Michael Jackson's estate is a literary event

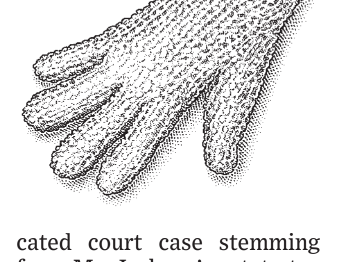
By Richard Rubin

WASHINGTON—Mark Holmes writes pithy tales of failed marriages and booming businesses, weaving in F. Scott Fitzgerald, historical digressions and groan-aloud puns.

Now he's working on a much-anticipated thriller (get it?) about the late pop superstar Michael Jackson.

Mr. Holmes is no best-selling author. In fact, his work is free. Mr. Holmes is a federal judge known for the clear, colloquial writing style he brings to arcane rulings on the U.S. Tax Court.

He's handling the final phases of the hugely compli-



cated court case stemming from Mr. Jackson's estate-tax return. An unusual combination of music fans and tax nerds is anticipating the end of the five-year court battle, and Mr. Holmes is poised to apply his distinctive voice to one of the most recognizable voices of the 20th century.

"The Jackson opinion could be his magnum opus," says Randy Herndon, a former clerk.

To close watchers of the Tax Court, a Holmes opinion is instantly recognizable, opening not with a recitation of relevant statutes and precedents but with a simple story.

"The tax law is so complex that anyone who tries to make it accessible should be lauded," said Andy Grewal, a University of Iowa law professor.

Here's how Judge Holmes began a 2016 opinion in a case revolving around the dwin-

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REVIEW

THE OVERPROTECTED AMERICAN CHILD

U.S. NEWS

THE NUMBERS | By Jo Craven McGinty

Williams Highlights Rankings Flaw

It's hard to imagine a list of the best tennis players in the world that doesn't include Serena Williams.

But the woman whose aggressive game has scared the bejeezus out of opponents for more than 20 years was ranked an abysmal 453 going into the French Open, where she is competing unseeded.

That lowly position means Ms. Williams might have to battle a top-ranked player in the early rounds of the tournament, making it more difficult for her—or, for that matter, her opponent—to advance.

Ms. Williams beat the 70th-ranked Kristyna Pliskova in straight sets on Tuesday and on Thursday, she knocked out 17th seed Ashleigh Barty. She next faces 11th seed Julia Goerges.

Furious fans called foul because before giving birth in September, Ms. Williams, who has won 23 Grand Slam singles titles, was ranked No. 1 and most recently had won the Australian Open while pregnant.

Theoretically, French Open officials could have seeded her based on that previous standing but instead opted to follow the convention of positioning players in the draw based on their WTA Tour rankings, as is its custom.

While fans are irked at the incongruity of Ms. Williams's ranking given her ability, to do otherwise would have created just as much turmoil.

If they were to make an exception for Ms. Williams, "it could be seen as unfair to others, particularly the player in the 32 spot, Alizé Cornet," said Stephanie Kovalchik, a senior data scientist with the Game Insight Group of Tennis Australia.

Rather than make an exception, Dr. Kovalchik and other sports data scientists believe the WTA ranking system should be completely overhauled, and for reasons other than pregnancy.

Currently, women earn WTA rankings by accumulating points in the preceding 52 weeks, counting only the 16 best results among tour-level events. (The men's Association of Tennis Professionals counts the 18 best results.)

The most points are offered by Wimbledon and the Australian, French and U.S. opens. A singles winner in one of those Grand Slam tournaments earns 2,000 points. A finalist captures 1,300 points. A semifinalist gets 780 points. Fewer points are awarded for lower-tier tournaments and for earlier eliminations.

Having been away from tennis for 14 months while on maternity leave, Ms. Williams had played in only two tournaments in the preceding 52 weeks, earning a total of 75 points.

In contrast, No. 1-ranked Simona Halep played 18 tournaments in the past 52 weeks, with her best 16 earning her 7,270 points.

The WTA ranking system rewards players for keeping up a regular schedule and doing well at the events they enter, Dr. Kovalchik said, but it ignores opponent difficulty when scoring a player's match results.

"A player would get the same number of points for beating the world No. 100 in the first round of a tournament as they would for beating the world No. 1, even though the latter is a much more impressive result," Dr. Kovalchik said.

Players with special circumstances, like Ms. Williams's childbirth or Roger Federer's skipping the clay court season to focus on other tournaments, are penalized, even though those choices may have no bearing on their ability.

And on occasion, the system has led to puzzling rankings, such as a 67-week period when Caroline Wozniacki was No. 1 despite at the time having never won a Grand Slam.

Dr. Kovalchik and other sports statisticians advocate switching to a ranking system that would account for difficulty and perhaps not punish players as harshly for taking a hiatus.

One popular option is Elo, a rating system originally developed to rate player strength in chess tournaments.

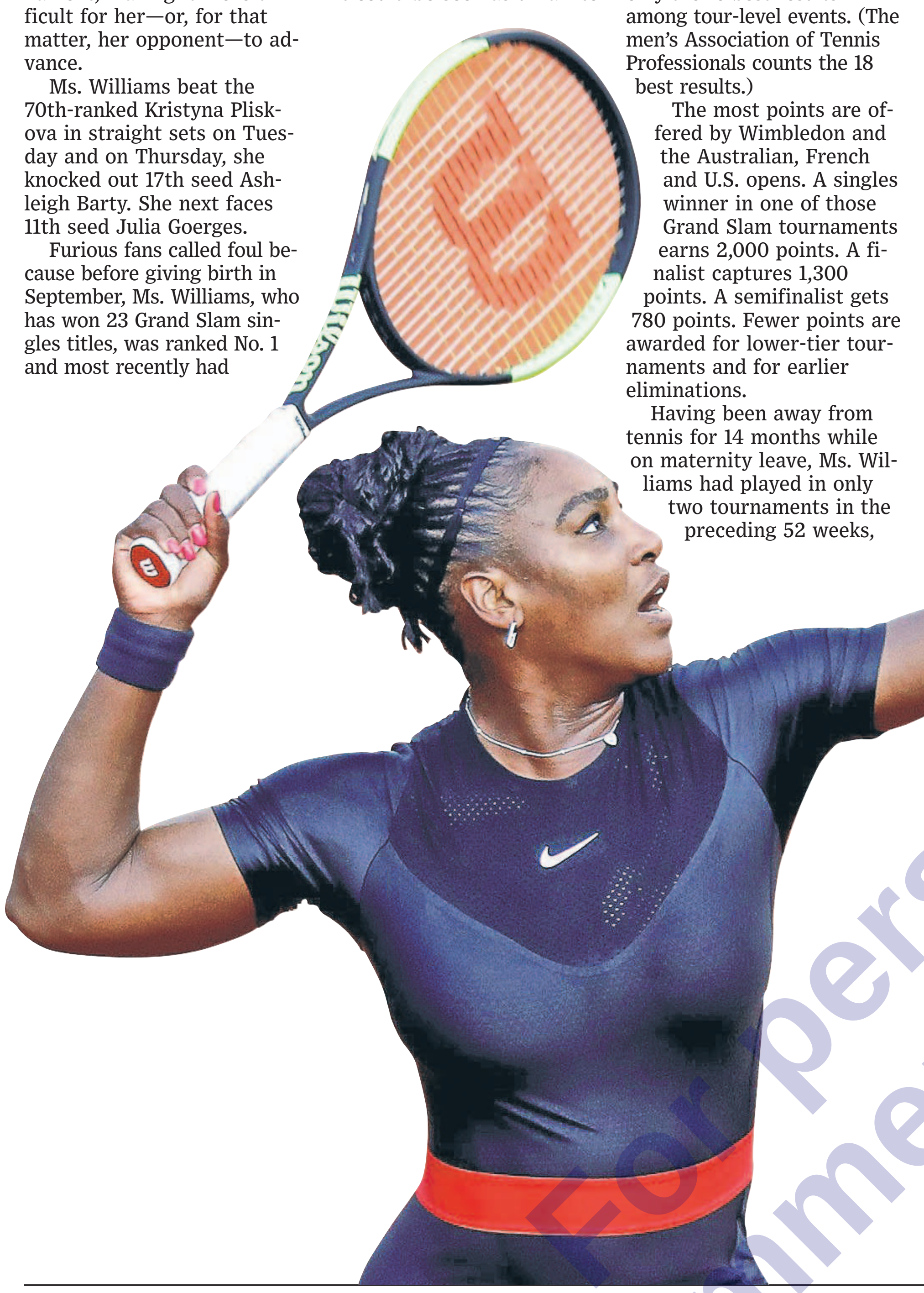
FiveThirtyEight has adapted Elo to calculate the skill level of tennis players based on career wins and losses with the ratings updated at the end of each match using a probability-based formula that gives more weight to recent performances and credits wins against more difficult opponents.

When Dr. Kovalchik applied a variation of the algorithm to the French Open, including an "absence" adjustment for players who hadn't competed for more than 90 days of the regular season, Ms. Williams placed 22nd in the world on clay—noticeably better than her 400-plus WTA ranking and a better reflection of her ability.

Ms. Williams isn't the only professional to return to tennis after giving birth. At least half a dozen other professionals have done so. Kim Clijsters came back in 2009, 18 months after giving birth, when she competed in the Cincinnati Masters as a wild card. A month later, still unranked, she won the U.S. Open.

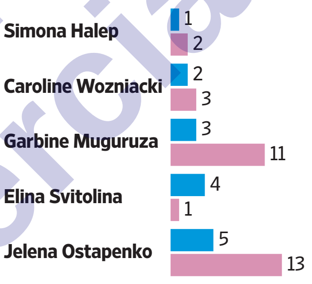
Evonne Goolagong won Wimbledon in 1980, three years after the birth of her first child. And Margaret Court won the Australian Open, French Open and U.S. Open in 1973, the year after her first child was born. Ms. Court didn't retire permanently until 1977, after becoming pregnant with her fourth.

The WTA didn't respond to questions about its ratings system other than to reiterate its existing rules. But given the outcry over Ms. Williams, the organization, after a pregnant pause, may feel compelled to at least reconsider how women should be ranked following childbirth.



Order on the Court

The top five ranked women on the WTA tour would have different positions under an Elo ranking system that takes absences into account.



Source: Stephanie Kovalchik, Tennis Australia's Game Insight Group
THE WALL STREET JOURNAL.

Dear Reader,

Today, The Wall Street Journal is launching a completely reimagined way for our readers to consume their business news by introducing an all-new weekend edition in print and online.

We know the weekend is an opportunity to deepen our bond with readers, who experience The Wall Street Journal in a different way: deeper, more wide-ranging, more for pleasure than obligation. Since 2010, we've met that need with our popular Review and Off Duty sections.

Now we are moving our core subject matter, business and finance, into that weekend mode. We're unveiling a new section called Exchange, with powerful visual presentation, addictive recurring features, agenda-setting regular columnists, and deep reporting that illuminates the behind-the-scenes stories and people of the week's biggest business and finance news.

At the same time, we are committed to our principal mission of covering the news. You'll continue to see national and international news in our A section, and business and finance news in our new Exchange section. While we're expanding our business coverage in Exchange, we aren't making any cuts to the depth, range or quantity of news we offer on Saturday.

WSJ Weekend is already the #1 weekend newspaper in America with coverage that our readers look forward to and enjoy. We hope our additional offerings today will make The Wall Street Journal even more valuable.

For more information, visit weekend.wsj.com, and please do share your thoughts at support@wsj.com.

Gerard Baker
Editor in Chief
The Wall Street Journal

Jobs Engine Finds New Gear

Continued from Page One

down upon her lack of a traditional diploma.

She worked at a fast-food restaurant and two different gas stations between long spells without a job. But in March, the 25-year-old landed a job as a front-office coordinator at an Express Employment Professionals branch in Buffalo, N.Y. She is earning the highest wages of her career.

"I'm able to take my daughter to places that we couldn't afford before, so we can go to the zoo on the weekend," Ms. Brunka said. "It's definitely opened up a lot of doors."

President Donald Trump, who had been briefed on the rosy employment figures Thursday night, moved markets Friday morning before the report's public release when he tweeted that he was "looking forward" to the data. Mr. Trump's tweet broke with decades of protocol by which White House officials refrained from publicly commenting on such market-sensitive data before their release.

The yield on the benchmark 10-year Treasury note and the WSJ Dollar Index both rose after the tweet and then moved higher after the report was released. Stock futures didn't move significantly on the president's tweet, but stocks rose Friday. The Dow industrials added 219 points, or 0.9%. The S&P 500 rose 1.1%, while the Nasdaq Composite added 1.5%.

The pace of overall wage gains has been modest. But wages for rank-and-file workers are improving. Nonsupervisor wages rose 2.8% in May from a year earlier, the best annual gain since mid-2009.

In the first quarter of this year, median weekly earnings for Americans without a high-school diploma rose by 10% from a year earlier, separate Labor Department data showed. That compared with 0.5% annual growth for college graduates.

"When employers run out of workers, that's when people with the weakest bargaining positions get put in the driver's seat and can negotiate for better pay and get themselves into roles," said Andrew Chamberlain, chief economist at recruiting site Glassdoor.

Strong hiring implies economic growth can accelerate this year, after increasing at a modest 2.2% annual pace in the first quarter. Forecasting firm Macroeconomic Advisers slightly raised its forecast for second-quarter output gains to a 4.1% rate after the jobs report.

The employment report bolsters the view of Federal Reserve officials who favor more increases in short-term interest rates in order to keep the economy from overheating.

The central bank is on track to next boost rates at its June 12-13 meeting. Inflation has firmed this year, and many officials believe falling unemployment will fuel faster wage and price increases.

The historically low unemployment rate, however, may overstate the strength of the labor market, said Diane Swonk, chief economist at accounting and consulting firm Grant Thornton LLP.

"This is not your father's 3.8% unemployment rate," she said, noting that economic conditions are different from the last time joblessness was so low. In the spring of 2000, wages and the economy were growing significantly faster. A broader measure of unemployment and underemployment that includes Americans stuck in part-time jobs or too discouraged to look was 6.9%. Last month, it was 7.6%.

And a smaller share of Americans are working or seeking work today than when the unemployment rate was last this low. That partly reflects that the share of women doing so—which grew for 50 years up until 2000—has declined in the past decade.

The tight labor market is causing Timberline Total Solutions, an Omaha, Neb., call center, to get more creative to attract workers without escalating wages: The company allows employees to largely pick their own schedule.

"We've gotten a lot of feedback that people need the flexibility to take a day off, or leave early to help their son with homework," said Mitch Kampbell, vice president of operations.

Mr. Kampbell said the flexibility helps attract workers for $11.50- to $14-an-hour jobs. Timberline has held starting wages steady in the past year, but it offers a bonus of as much as $2 an hour for employees who work 85% of their hours during the company's busiest periods.

Silent-Aire LP, which builds commercial air-conditioning systems in Gilbert, Ariz., has been losing workers to the booming construction industry in the Phoenix area. That has caused the company to modestly increase wages, about 3% from last year, and boost benefits, said Mario Scrivano, vice president of human resources.

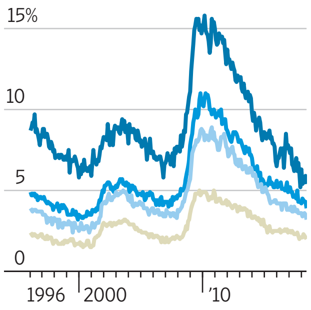
"Turnover numbers are higher than anticipated," Mr. Scrivano said.

To combat that, Silent-Aire is hiring lower-skilled, lower-paid workers and gradually training them for expanded roles, such as plumbers and electricians.

"We realized that every aspect of our work doesn't require someone to have a skill level of 10," he said.

School Work

Unemployment rate by educational attainment, age 25 and over



Note: Seasonally adjusted
Source: Labor Department
THE WALL STREET JOURNAL.

Early Trump Tweet On Report Is Faulted

President Donald Trump tweeted about the May jobs report before its release Friday, in an unusual break from decades of protocol.

About an hour before the Labor Department released a report showing the unemployment rate had fallen to its lowest level since April 2000, Mr. Trump said on Twitter he was "looking forward" to seeing the figures.

The president had been briefed on the numbers Thursday evening, but they hadn't yet been made public. Long-standing rules on sensitive economic data call for executive branch officials to withhold comment for at least an hour after figures are released.

While Mr. Trump didn't give any details on the data in his tweet, investors appeared to take his early comment as a signal that the data would be strong.

"The implication was certainly there that he was expecting a great number, and it affected the market," said Peter Hug, global trading director at Kitco Metals. "I can't believe he did that."

The White House receives the jobs report and other major economic indicators before their public release, but officials "are responsible for assuring that there is no release prior to the official release time," according to a White House Office of Management and Budget directive.

Lawrence Kudlow, director of the National Economic Council and the president's chief economic adviser, dismissed a furor in markets over the president's tweet. "All these things need to see a shrink," he said. "People are really overthinking this."

But former government officials and private-sector economists were critical of the tweet. "The advance info is sacrosanct—not to be shared," tweeted Ari Fleischer, former press secretary for President George W. Bush.

—Ben Leubsdorf and Nick Timiraos

CORRECTIONS & AMPLIFICATIONS

The number of pending cases in U.S. immigration courts has increased by nearly 150,000—a 26% jump—since President Donald Trump took office. A Page One article on May 24 about the courts incorrectly said the increase was more than 150,000 and a 25% jump.

The opening date of the Museum of Ice Cream's Pint Shop was changed to June 6 from June 3 after the June issue of WSJ. Magazine went to print.

JAB Holding Co.'s deal to buy **Dr Pepper Snapple Group** Inc. is expected to close this year. A Page One article on March 8 about JAB incorrectly implied in one reference that JAB already owns Dr Pepper.

Readers can alert The Wall Street Journal to any errors in news articles by emailing wsjcontact@wsj.com or by calling 888-410-2667.

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National Parties Watch California Race

Campaign to succeed Brown as governor looms over state's congressional races

BY ALEJANDRO LAZO

FRESNO, Calif.—Primary voters head to the polls in California on Tuesday to eliminate all but two of 27 contestants vying to succeed outgoing Democratic Gov. Jerry Brown, in a race that could have broader implications for congressional contests here.

Mr. Brown, 80 years old, will be termed out of office next year after eight years as governor of the nation's most populous state. He served two terms in the 1970s, as well. He is leaving the governorship at a moment when the state, under his leadership, has cast itself as one of the most vocal opponents to many of President Donald Trump's policies.

Given Democrats' overwhelming statewide advantage in voter registration, experts expect a Democrat to prevail in November. However, the state's quirky top-two primary system could send two Democrats to a runoff, leaving the GOP with no statewide standard-bearer. That, in turn, could damp Republican turnout as the GOP seeks to hold several U.S. House seats here, while setting the stage for a battle between different factions of California Democrats.

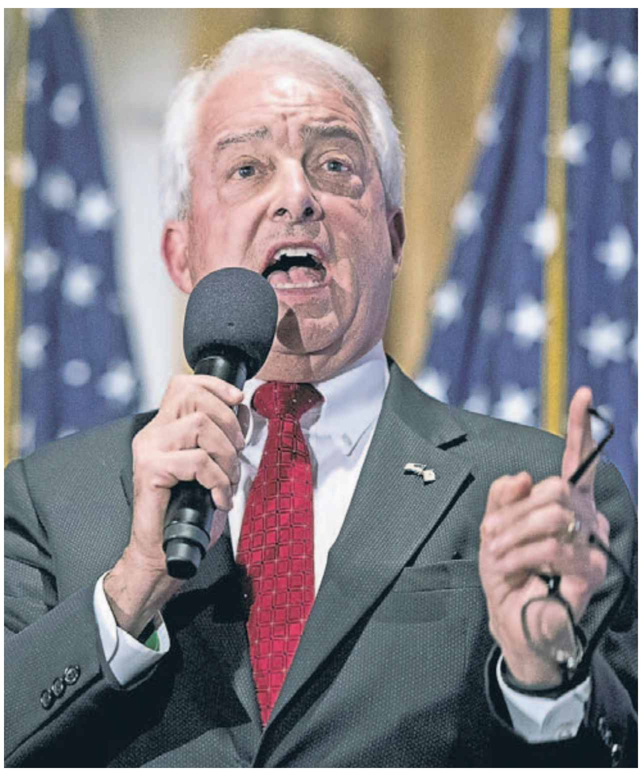
Polls have consistently shown Lt. Gov. Gavin Newsom, a Democrat and former San Francisco mayor, with a comfortable lead.

Recent polls show Republican businessman John Cox in second place. He is ahead of two Democrats—former Los Angeles Mayor Antonio Villaraigosa and State Treasurer John Chiang—as well as another Republican rival, state Assemblyman Travis Allen.

National Republicans, including Mr. Trump, are weighing in to boost Mr. Cox, with the president writing on Twitter that he looks forward to "working with him to Make California Great Again!"

Mr. Trump is anathema among Democrats in this deeply blue state. But he remains popular among many Republican voters, who tend to have higher turnout than Democrats in the state's nonpresidential elections.

On Friday, Republicans received more daunting news about their statewide prospects, with a report from the California secretary of state showing that Republicans made up 25.1% of registered voters, compared with 25.5% of voters who listed "No Party Preference," while Democrats made up 44.4% of the tally.



Clockwise, from top left, Republican John Cox, Democratic Lt. Gov. Gavin Newsom, Treasurer John Chiang and ex-L.A. Mayor Antonio Villaraigosa.

TOP LEFT: BILL CLARK/CONGRESSIONAL QUARTERLY/ZUMA PRESS; ALEJANDRO LAZO/THE WALL STREET JOURNAL (3)

Party leaders are betting that if they can get Mr. Cox into the November election, his presence will help drive Republicans to the polls, preserving their national congressional majority. House Majority Leader Kevin McCarthy, who is from Bakersfield, Calif., has orchestrated the push to unite behind Mr. Cox.

The three leading Democrats have split support from elected officials and Democratic groups in California. Notably, U.S. Sen. Kamala D. Harris is campaigning with Mr. Newsom, while former Republican gubernatorial candidate Meg Whitman, who was chief executive of eBay Inc. and Hewlett Packard, has endorsed Mr. Villaraigosa. Teachers unions are backing Mr. Newsom, while proponents of charter schools, including Netflix CEO Reed Hastings, support Mr. Villaraigosa.

Mr. Newsom has seized on the president's endorsement as an opportunity to focus on Mr. Cox in the hopes of avoiding a showdown with another Democrat, particularly Mr. Villaraigosa.

And Mr. Newsom has argued that a battle between two Democrats in November would be a costly general-election battle that would weaken the party.

Bill Whalen, a research fellow at the Hoover Institution and an aide to former California Republican Gov. Pete Wilson, said that while it seems like a foregone conclusion that a Democrat will succeed Mr. Brown, the down-ballot implications of the primary race are critical.

"In terms of the House, this is incredibly important because of the question of who is at the top of the ticket," he said of the gubernatorial race. "And if the Republicans get a beachhead on the gubernatorial side, that in theory should increase turnout down the ticket and help Republicans' chances in House races."

IRS Plans Massive Technology Upgrade

BY RICHARD RUBIN

WASHINGTON—The Internal Revenue Service plans to spend $291 million updating 140 computer systems to help it implement the new tax law, according to a previously undisclosed agency document.

Those information-technology costs and other back-office operations will consume more than 90% of the money Congress is giving the IRS for implementation. The IRS is also bracing for a 17% increase in phone calls, planning to revise 450 forms and publications and organizing 40,000 hours of training, according to the document.

Earlier this year, Congress reserved $320 million of the IRS's $11.4 billion budget for implementing the tax law. Without that boost, total funding would have gone down, continuing a trend since Republicans won the House in 2010 that has caused the tax agency to shed employees and reduce the frequency of audits.

The $320 million, available through Sept. 30, 2019, was contingent on the IRS submitting this spending plan to Congress. The National Taxpayer Advocate, an independent entity inside the IRS, said earlier this year that the IRS will need $495 million over two years for implementation.

The law, which was enacted in December, made the farthest-reaching changes to the U.S. tax system since 1986, lowering tax rates, limiting tax breaks and restructuring the way the U.S. taxes multinational companies.

The tax law altered longstanding features of the business and individual tax codes that were programmed into the IRS systems that receive and analyze tax returns. Preparing for the new law—especially the tax-filing season that starts in January 2019—requires revamping those systems.

IRS information-technology efforts have struggled for years, most recently on the individual tax-filing deadline this April when a failure prevented the agency from processing returns and forced a one-day extension.

Unions Court Own Members Ahead of Ruling

BY KRIS MAHER

As organized labor braces for a Supreme Court ruling that could make it easy for public-sector workers to stop paying some dues, unions across the country are reaching out to hundreds of thousands of members to persuade them to keep paying dues.

The Service Employees International Union has sent text messages to 800,000 members as part of a program that includes meeting with workers and sending mailers to homes.

"We have a goal of speaking to every union member and getting them to recommit to the union," said SEIU President Mary Kay Henry. Roughly half of its two million members are public-sector workers, she said.

At the same time, conservative groups in Illinois, Michigan, Ohio and Pennsylvania are alerting workers how to opt out of dues. They are gathering the names and addresses of tens of thousands of state and local workers through public-records requests. The goal is a political-style campaign using direct mail, phone calls and home visits.

"There is a subset of union workers that feel like they are being used and are forced to pay unions that don't represent their interest," said Carrie Conko, a spokeswoman for the State Policy Network, a limited-government nonprofit that connects 64 groups in 49 states, providing support on this and other campaigns.

The pending Supreme Court case was filed by a child-support worker in Illinois against the American Federation of State, County and Municipal Employees.

Mark Janus, who is represented by attorneys at the Liberty Justice Center and the National Right to Work Legal Defense Foundation, said bargaining with public agencies is inherently political and a mandatory $45-a-month fee paid to the union violates his First Amendment rights.

The high court, with a 5-4 conservative majority, is expected to rule in his favor within the next several weeks.

Such a ruling could allow an estimated five million government workers in 22 states to stop paying so-called agency fees, the portion of union revenue that funds collective bargaining. Workers have the right in all states to decline union membership or pay full union dues.

Twenty-eight states have passed right-to-work laws, which allow workers to avoid paying agency fees. The current battle is around heavily unionized states in the Midwest and along the coasts that don't have right-to-work laws.

A ruling that favors Mr. Janus could result in the loss of 726,000 union members over several years, the left-leaning Illinois Economic Policy Institute said in a May report. "It could be quite a radical change," said Robert Bruno, a professor at the University of Illinois at Urbana-Champaign, who co-wrote the report.

Lee Saunders, president of Afscme, which represents 1.3 million public-sector workers, called the case a "blatant political attack" by groups that want to weaken unions. The union is asking its members to sign cards that commit them to paying dues in the future.

The American Federation of Teachers has contacted 800,000 teachers in 10 states and persuaded 237,000 to sign recommitment cards that are legally binding in some states, said Randi Weingarten, president of the 1.8 million-member union.

The wave of teacher walkouts across several states this year indicated growing support among teachers for their unions, Ms. Weingarten said.

Keith Williams, a recently retired high-school English teacher in New Oxford, Pa., is helping start a campaign aimed at informing the state's 330,000 public employees how they can avoid paying union fees following a Janus ruling.

"Our role is to make sure people know what their rights are," said Mr. Williams.

Justin Baker, a public-school custodian in Bellwood, Pa., said the threat posed by such efforts has galvanized the support at his SEIU local of 27 custodians, secretaries and cafeteria workers. "At some point, you're going to need the union," Mr. Baker said.

Teachers have demonstrated for raises this year, but a Supreme Court ruling could hit their unions.

CAITLIN PENNA/EPA/SHUTTERSTOCK

Energy Department Moves to Assist Nuclear, Coal Plants

BY TIMOTHY PUKO

WASHINGTON—The Energy Department is proposing a new plan to bail out failing nuclear and coal-fired power plants by forcing grid operators to take the electricity they produce, a move that could upend competitive power markets and raise prices for consumers.

The plan—a draft now under White House review—isn't the first attempt by President Donald Trump's administration to help coal and nuclear businesses. Its goal is to stop a wave of plant closings for two years while the Energy Department studies which plants nationwide are critical to ensuring reliable power in case of an attack or natural disaster. Administration officials say grid reliability is a national-security issue.

A boom in natural-gas production and renewable power has lowered prices and forced coal and nuclear competitors out of business, a trend Mr. Trump has promised to slow. He pledged during his presidential campaign to help coal miners in particular, and he received millions of dollars in campaign donations from coal-company executives. In recent months, he has prodded Energy Secretary Rick Perry to craft a solution and did so again in a statement Friday.

"Unfortunately, impending retirements of fuel-secure power facilities are leading to a rapid depletion of a critical part of our nation's energy mix and impacting the resilience of our power grid," Sarah Sanders, the White House press secretary, said in a statement, adding that the president wants Mr. Perry "to prepare immediate steps" in response.

Mr. Trump's efforts so far have been blocked by the Federal Energy Regulatory Commission and fought by a broad coalition of opponents.

The country's largest grid operator is also skeptical. "Our analysis...has determined that there is no immediate threat to system reliability," **PJM Interconnection** LLC, which runs power markets in 13 states across the mid-Atlantic and Midwest, said in a statement. "There is no need for any such drastic action."

The administration came under pressure to help this spring when Ohio-based utility **FirstEnergy** Corp.'s fleet of coal- and nuclear-power plants filed for bankruptcy and asked the Energy Department for emergency intervention.

Opponents say these types of plans undermine the competition in power markets that has lowered prices and that they could raise consumer costs by billions of dollars in an attempt to fight a problem that may not materialize. Those groups, including consumer advocates, the oil-and-gas lobby, and renewable-power companies, said Friday the newest proposal creates the same concerns.

"The Administration's plan to federalize the electric power system is an exercise in crony capitalism taken solely for the benefit of a bankrupt power-plant owner and its coal supplier," said Malcolm Woolf, who oversees policy at Advanced Energy Economy, a trade group representing business consumers.

The administration's newest proposal is in a 40-page memo obtained by The Wall Street Journal and reported on Thursday by Bloomberg. The memo is dated May 29 and labeled as a draft addendum to a larger package submitted to the National Security Council. The council is working with the Energy Department on new policies to help the nuclear- and coal-power industries, and it isn't clear when they might finish a plan or how many other options are under consideration.

Most of the memo outlines potential risks to the grid and lays out a legal rationale for the plan. It doesn't specify how the obligation to buy power from mandated, often more expensive suppliers, would work.

Porn Star's Lawyer Faces Setbacks

By Jacob Gershman And Alexandra Berzon

For weeks, California lawyer Michael Avenatti has seized a starring role in the hush-money scandal unfolding around President Donald Trump.

Inside a courtroom in New York on Wednesday, a federal judge decided she had heard enough from Mr. Avenatti, telling him to take his "publicity tour" elsewhere.

"You are entitled to publicity so long as—that is, I can't stop you, unless you are participating in this matter before me," U.S. District Judge Kimba Wood told the square-jawed, 47-year-old lawyer.

By the evening, Mr. Avenatti had bowed out of the case involving Michael Cohen, Mr. Trump's personal lawyer, and the federal probe into payments Mr. Cohen made to Mr. Avenatti's client, Stephanie Clifford, the pornographic actress known as Stormy Daniels who says she was paid off to keep quiet about a sexual relationship with Mr. Trump. Mr. Cohen and the White House have said there was no such relationship.

The setback for Mr. Avenatti—who after the hearing appeared on at least four cable-news television shows—represented the latest in a string of blows for the celebrity lawyer, who has become a hero for many who are pressing for Mr. Trump's downfall.

On a single day last week, his law firm, Eagan Avenatti LLP, and a company he started were hit with back-to-back court judgments ordering them to repay millions of dollars in outstanding debts. In the past year alone, more than a dozen creditors—including a former colleague, a law firm and former landlords—have gone to court to collect millions of dollars in more in debts they allege are owed them by Mr. Avenatti, his law practice or his corporate entities. Most of these cases remain open.

In those and other recent lawsuits, opposing litigants have raised questions about tactics used by Mr. Avenatti


SETH WENIG/ASSOCIATED PRESS

Michael Avenatti, lawyer for Stormy Daniels, talking to reporters outside court in New York Wednesday.

against adversaries, some of whom have voiced suspicions that he or entities he controls have manipulated the court process and played shell games with creditors.

In an interview Tuesday, Mr. Avenatti dismissed any allegations that he behaved unethically as "hogwash."

Some who have worked with Mr. Avenatti described him as a skilled lawyer, and he has won some significant judgments.

Some of the litigation Mr. Avenatti faces stems from a risky bet he made in 2012 on a struggling Seattle coffee company, Tully's Coffee. By 2017, Global Baristas, the company Mr. Avenatti formed to buy Tully's, had accumulated a string of civil judgments for nonpayment of debts and a $5 million federal tax lien. Creditors said the company has made conflicting representations about its corporate structure, frustrating their efforts to collect debts.

Mr. Avenatti said he sold the company but declined to say when or to whom. The company's annual report, filed with Washington state authorities in January, lists him as its authorized representative, and his wife said in a divorce filing that month that he has "ownership interests" in the company.

> Opposing litigants have raised questions about Mr. Avenatti's tactics.

Eagan Avenatti—which shares an address in Newport Beach, Calif., with Avenatti & Associates APC, the entity through which Mr. Avenatti represents Ms. Clifford—has also clashed in court over alleged debts. In early 2017, Jason Frank, a lawyer who had been under contract with the firm, claimed before an arbitration panel that the firm hadn't paid him an agreed-upon percentage of profits.

Ahead of the arbitration trial set for March last year, the panel ordered Mr. Avenatti and the firm's office manager to appear for depositions by March 3 or face sanctions, citing what it described as a "pattern of delay, obfuscation and unresponsiveness."

On the eve of that scheduled questioning, Eagan Avenatti's lawyer, Phillip A. Baker, emailed Mr. Frank that the depositions wouldn't occur because of a petition filed the day before in Orlando, Fla., by a 48-year-old man named Gerald Tobin to have the law firm declared bankrupt.

Without legal representation, Mr. Tobin had lodged the petition under a little-used federal provision, seeking to put Eagan Avenatti into bankruptcy over a claim that the firm owed him $28,700 for unspecified services.

Mr. Tobin couldn't be reached for comment. A lawyer representing him in a pending criminal domestic-assault case in Orange County, Fla., to which Mr. Tobin pleaded not guilty in March, declined to comment.

Mr. Avenatti provided The Wall Street Journal with what he said was a sworn declaration from Mr. Tobin—dated in July 2017 but never filed in court or notarized—saying Mr. Avenatti's law firm had hired Mr. Tobin to find victims of the June 2016 Orlando Pulse nightclub shooting for a case that was never filed.

An involuntary bankruptcy would normally halt other collection efforts against a debtor. A judge at a bankruptcy hearing in Orlando, however, refused to halt the Eagan Avenatti arbitration, saying Mr. Tobin's petition had a "stench of impropriety. Nothing to do with the debtor, necessarily." Mr. Avenatti said the judge's criticism wasn't directed at him or his firm.

Two days later, Mr. Avenatti halted the arbitration anyway by placing Eagan Avenatti into Chapter 11 bankruptcy protection. He later struck a settlement with Mr. Frank that dismissed the bankruptcy and required Mr. Avenatti to personally guarantee a payment of $4.8 million to Mr. Frank's new law firm. In May, Mr. Frank sued Mr. Avenatti for allegedly failing to pay the first $2 million installment by a court-approved deadline. Mr. Avenatti contests the debt.

Pick for Bolton Aide Draws Criticism

By Dion Nissenbaum

WASHINGTON—Muslim and Jewish groups are objecting to the appointment of a former Central Intelligence Agency analyst to a top White House post because of his controversial views of Islam.

The Anti-Defamation League, Council on American-Islamic Relations and other groups said Fred Fleitz shouldn't serve as chief of staff to national security adviser John Bolton because he has advanced what they call anti-Muslim views.

As a conservative analyst, Mr. Fleitz has called for the U.S. to declare war formally on a broadly defined global jihad movement; suggested that most mosques in the U.S. are incubators for subversion or violence; and denounced some interfaith dialogue efforts in the U.S. as a move by "stealth jihadists" to undermine the country's democratic values.

Mr. Bolton's decision to bring Mr. Fleitz into the key White House role suggests that the new national security adviser might be moving back toward a more confrontational approach to Islam, an approach favored by President Donald Trump's first national security adviser, Mike Flynn, critics said.

"The appointment of Fred Fleitz speaks volumes about the administration's prioritization of fearmongering and racism over actual national security issues," said Scott Simpson, public advocacy director for Muslim Advocates, a Washington-based group.

Mr. Fleitz didn't respond to requests for comment. But a senior administration official called the criticism of him as "a deliberate smear campaign from the left against the Trump administration."

Until this week, Mr. Fleitz served as senior vice president for policy and programs at the Center for Security Policy, a conservative think tank that has been called a hate group by the Southern Poverty Law Center, a civil-rights group, because of its views of Islam.

Frank J. Gaffney, founder of the Center for Security Policy, denounced critics of Mr. Fleitz.

"Far from being concerned that terrorist fronts and their enablers are in hysterics because Donald Trump has entrusted these key roles to Fred Fleitz, the American people should be delighted with this fresh evidence that the president is determined to keep his promise to make America safe, as well as great again," he said.

Justice Department Defends Syria Strikes

By Byron Tau

WASHINGTON—U.S. strikes against Syrian chemical-weapons sites this spring were "sufficiently limited" that the Trump administration didn't need Congress's approval to launch them, according to a Justice Department memo released Friday.

"The president had the constitutional authority to carry out the proposed airstrikes on three Syrian chemical-weapons facilities," wrote Assistant Attorney General Steven Engel in the first public description of the administration's views on its authority to wage armed conflict.

The April 13 operation saw U.S., U.K. and French forces target the regime of President Bashar al-Assad of Syria in response to a chemical-weapons attack that killed dozens. The White House didn't seek prior authorization from Congress, nor were the strikes authorized by the United Nations under international law.

"The anticipated nature, scope and duration of the operations were sufficiently limited that they did not amount to war in the constitutional sense and therefore did not require prior congressional approval," Mr. Engel wrote.

Members of Congress have been seeking more details on the legal authority underpinning the 2018 Syria strikes, as well as other strikes conducted by the U.S. in 2017. Some are concerned the administration could use similar justification to attack North Korea or Iran.

According to the memo, the Justice Department doesn't see any legal need to seek approval from the U.N. or Congress for military actions that don't require the deployment of significant numbers of ground troops.

"Military operations will likely rise to the level of a war only when characterized by 'prolonged and sustained military engagement,'" Mr. Engel wrote, citing a Justice Department opinion during the Democratic administration of former President Bill Clinton.

Sen. Tim Kaine (D., Va.) disputed the Trump administration's view that firing missiles against another nation wasn't an act of war.

"That's nonsense. Is there any doubt that America would view a foreign nation firing missiles at targets on American soil as an act of war?" Mr. Kaine said. "The ludicrous claim that this president can magically assert 'national interest' and redefine war to exclude missile attacks and thereby bypass Congress should alarm us all."

After pressing Pentagon officials on the matter in April, Rep. Thomas Massie (R., Ky.) said Congress should declare that President Donald Trump, a Republican, can't attack Iran or North Korea without congressional approval, unless those nations attack the U.S. first.

Apple Eyes Bigger Ad Business

Continued from Page One

tribute ads across their collective apps, the people said. Apple would share revenue with the apps displaying the ads, with the split varying from app to app, they said.

The move would expand on Apple's current small-but-growing business selling promotional ads for search terms in its App Store, which delivered nearly $1 billion in revenue last year, they said.

Under the concept discussed internally and raised with potential partners, users searching in Pinterest's app for "drapes" might turn up an ad distributed by Apple for an interior-design app, or Snap users searching for "NFL" might see an ad for a ticket-reseller app, one of the people said.

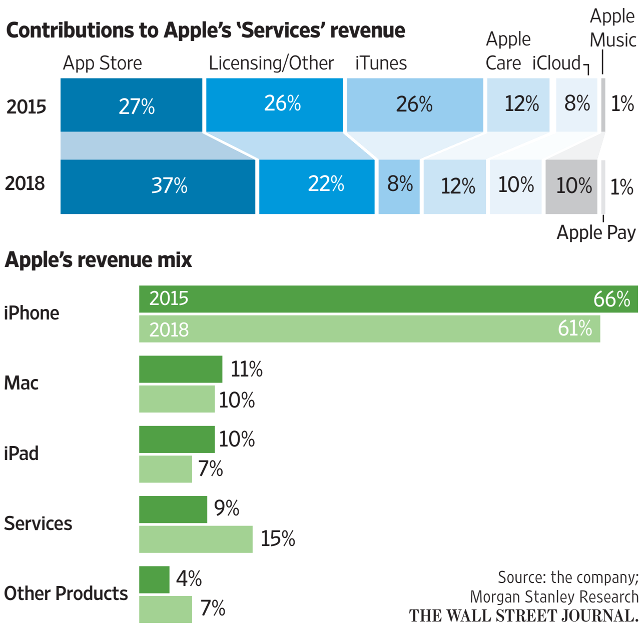
It's unclear where Apple's planning for the possible ad network stands. Representatives for Apple, Snap and Pinterest declined to comment.

The digital ad effort, if it proceeds, would push Apple into territory dominated by Alphabet Inc.'s Google, which claims 35% of the mobile ad market, and Facebook Inc., which has 25%, according to research firm eMarketer.

Tech giants increasingly are elbowing into each other's turf

Stepping Up Services

Apple is accelerating App Store sales and other businesses as iPhone growth slows.



seeking new sources of growth. Google launched its high-end Pixel smartphone in 2016 to compete with the iPhone. And Facebook is pushing into hardware with plans for a smart speaker that would compete with Apple's HomePod, Google Home and Amazon.com Inc.'s suite of Alexa-powered Echo speakers, according to a person familiar with the project.

Google tools such as AdMob, AdWords and DoubleClick Ad Exchange let marketers promote their products or services across a network of mobile apps, as well as online. Google typically takes about 30% of ad sales and the rest goes to the publisher, the company says.

With smartphone sales broadly stagnating and iPhone growth slowing, Apple has begun looking to its services business—which includes App Store sales, music-streaming subscriptions and mobile payments—to drive growth. Its App Store ad business was a fraction of its total services revenue of $29.98 billion, or about 13% of Apple's total sales, in the fiscal year ended September 2017.

Competing with Google and Facebook wouldn't be easy, in part because they build detailed user profiles that marketers can use to more effectively target ads. Apple has criticized that extensive use of data for advertising, saying it effectively turns the customer into the product.

"The truth is we could make a ton of money if we monetized our customer," Chief Executive Tim Cook said in a television interview on MSNBC in March. "We've elected not to do that."

For its App Store advertising, Apple says it collects information such as name, address, age, gender, device use, app activity and video or book downloads. It uses that data to create groups of people for targeted ads. It doesn't collect personal data from tools like Maps and Siri to use for advertising.

Apple is "the most constrained when it comes to collecting and using user data," said Karsten Weide, a digital-advertising analyst with researcher International Data Corp. "If they got back in the ad business for good, they would be super-handicapped compared with Google and Facebook."

Apple failed in its last ad push. Its iAd service, launched in 2010, sold ads within mobile apps on iPhones and iPads but failed to catch on because it charged higher prices than competitors and restricted the types of ads marketers ran.

Apple shut iAd in 2016. Todd Teresi, who oversees the ad business, refocused on the App Store ad business.

—Eliot Brown contributed to this article.

WORLD NEWS

Ross Heads to China as Trade Talks Stall

U.S., seeking to cut deficit, presses Beijing to commit to long-term purchase agreements

By Lingling Wei

DAVID PAUL MORRIS/BLOOMBERG NEWS

Cherries are sorted at a factory in Lodi, Calif. U.S. farmers fear a trade war could lead to Chinese tariffs on agricultural exports.

BEIJING—U. S. and Chinese trade negotiators are haggling over how to get Beijing to carry out recent promises to purchase more American farm and energy products, with Washington pushing for long-term contracts that Chinese officials are reluctant to commit to.

The snag is hanging over high-level negotiations scheduled for this weekend. U.S. administration officials said Commerce Secretary Wilbur Ross remains scheduled to be in China on Saturday. The plan is for two days of talks in Beijing with China's top trade negotiator, Liu He, but the White House's recent moves to revive the threat of tariffs on Chinese imports complicated the prospects for his mission.

During the discussions, held by a U.S. advance team and its Chinese counterpart in Beijing on Thursday and Friday, U.S. officials pressed their Chinese peers to commit to multiyear purchase agreements, according to people with knowledge of the exchanges from both sides. For the U.S., such pacts could be useful in prodding China to lower tariffs and ease regulations and other barriers to imported goods.

Chinese officials have been reluctant to get locked into long-term commitments, these people said. Beijing wants "control and leverage," one of them said.

The trip was initially seen as a positive move in the months of wrangling between the U.S. and China over trade. On Tuesday, however, the Trump administration unexpectedly declared it would move forward with tariffs on $50 billion in Chinese goods and take other actions aimed at restricting China's access to U.S. technology.

The U.S. team led by Mr. Ross is aiming to secure a deal in which China would buy more U.S. soybeans, beef, poultry, natural gas and crude oil, among other agricultural and energy products. The U.S. hopes that such purchases would narrow its trade deficit with China, which stood at $375 billion last year. President Donald Trump wants the trade gap slashed by at least $200 billion by 2020.

In negotiations in May in Washington, a Chinese team led by Mr. Liu, President Xi Jinping's economic envoy, agreed to try to step up purchases of U.S. goods, though it declined to commit to any numerical targets. In the talks this week, Chinese negotiators again have resisted agreeing to specific, long-term commitments.

One reason for the Chinese side's wariness to make concessions are Mr. Trump's looming tariffs and restrictions on Chinese investments, according to the people. On top of that, a divide between Trump administration factions also casts doubt over how long any trade deal can last, these people said.

A group led by Treasury Secretary Steven Mnuchin has been pushing for a deal centered on boosting U.S. exports, while another led by U.S. Trade Representative Robert Lighthizer is looking for more significant changes in how China treats foreign companies—and is more willing to resort to trade sanctions.

China's chief trade negotiator, Mr. Liu, so far has had the blessing of Mr. Xi to use the U.S. pressure to accelerate plans to liberalize financial markets, the auto sector and other industries, according to Chinese officials. But he is also running up against growing nationalist calls for Beijing to take a tougher stance against U.S. demands.

Those differences suggest that rather than a breakthrough, Washington and Beijing are likely in for a long haul of recurring talks, economists and analysts in both countries said.

—Bob Davis in Washington contributed to this article.

Beijing Woos Countries Angered By Tariff Threats

As the U.S.'s plans to impose import tariffs prompt anger from allies including Canada and Mexico, China is trying to line up other countries against Washington by enticing them with greater access to Chinese markets.

China's Finance Ministry on Friday released a list of more than 1,000 products that will be subject to lower import tariffs, starting July 1. Chinese consumers have long complained about having to pay higher prices for Bulgari jewelry, Rolex watches and other imported items.

By cutting the tariffs, Beijing is also hoping to spur domestic consumption as a way to offset any weakening of trade, said Zhang Ming, a senior economist at the Chinese Academy of Social Sciences, a state think tank in Beijing.

—Lingling Wei

EU Files WTO Suit Against U.S.

By Emre Peker

ULRICH BAUMGARTEN/GETTY IMAGES

The EU called U.S. metal tariffs pure protectionism and said they were illegal under trade rules.

BRUSSELS—The European Union fired its first shot on Friday against U.S. steel and aluminum tariffs, launching a World Trade Organization challenge and vowing swift duties on American exports, in a sign that the bloc would go blow-for-blow with President Donald Trump over trade.

Brussels says Washington's measures are pure protectionism. With its WTO complaint, it is challenging the U.S. national-security justification for Mr. Trump's levies, in an unusual rift between the trans-Atlantic allies.

"The U.S. is playing a dangerous game here," European Trade Commissioner Cecilia Malmström said. For Europe, "Not responding will be the same as accepting these tariffs, which we consider illegal under WTO rules."

The White House didn't respond to a request to comment.

An EU-U.S. trade war risks undermining joint efforts to counter China.

Highlighting Europe's desire to compartmentalize differences with the U.S. and engage Washington in challenging Beijing's state-backed capitalism, the EU also filed a WTO case against China for undermining intellectual-property rights with forced technology transfers.

"If players in the world do not stick to the rule book, the system might collapse—and that is why we are challenging today both the U.S. and China at the WTO," Ms. Malmström said. "We are not choosing any sides, we stand for the multilateral system."

Chinese Foreign Minister Wang Yi said in Brussels after meeting his EU counterpart, Federica Mogherini, that Beijing is committed to rules-based, multilateral trade.

He expressed hope for a "mutually beneficial outcome" in the continuing Beijing-Washington negotiations, as Mr. Trump oscillates between threatening massive tariffs and striking a bargain to close the U.S. trade deficit with China.

"China's position is not only trying to uphold China's own interests, but also upholding international rules and the global free-trade system," Mr. Wang said, echoing the European position against U.S. moves.

The EU complaints against the bloc's top two trading partners also come on the heels of an agreement among the EU, Japan and the U.S. this week, when the three outlined a joint road map to overhaul WTO rules on industrial subsidies.

Meeting on the sidelines of an Organization for Economic Cooperation and Development gathering in Paris for the third time since launching their trilateral effort in December, Ms. Malmström, Japan's trade chief Hiroshige Seko and U.S. Trade Representative Robert Lighthizer targeted commercial practices they often attribute to China, without identifying any country.

Even as Brussels signals its willingness to cooperate with the U.S., however, the path forward in mending bilateral relations remains unclear. U.S. Commerce Secretary Wilbur Ross suggested Thursday that Washington and Brussels could hammer out a trade deal despite the tariffs, whose removal was an EU precondition for discussions.

"We are not going to enter into any negotiations," Ms. Malmström said. "That door, for the moment, is closed."

The European Commission—the EU's executive arm—has prepared a list of U.S. exports that could be slapped with €6.4 billion ($7.5 billion) worth of levies.

Meanwhile, an investigation into vehicle and auto-part imports Mr. Trump ordered last month is stoking uncertainties and threatening to escalate the EU-U.S. trade spat.

—Laurence Norman and Jenny Gross contributed to this article.

Trump, Trudeau Spar Over Tariffs

By Paul Vieira

OTTAWA—Trade tensions between the U.S. and Canada escalated on Friday after Prime Minister Justin Trudeau rebuked the White House's metals tariffs and President Donald Trump disparaged Canada's "highly restrictive" agricultural trade policies on Twitter.

The actions are a fresh sign of how the American levies threaten to roil already contentious talks to revamp the North American Free Trade Agreement, or Nafta. It also signals an abrupt souring of relations between the two neighbors and longstanding allies who usually keep a cordial tone.

Mr. Trudeau declared "a turning point in the Canada-U.S. relationship," following the tariff announcement on Thursday. He called the duties "an affront" to the security partnership between the two countries, recalling how Canadian troops served side by side with U.S. soldiers in two world wars, Korea and Afghanistan.

"That Canada could be considered a national security threat to the United States is inconceivable," Mr. Trudeau said, as he unveiled retaliatory tariffs on U.S. goods, some targeting U.S. food products.

Mr. Trump on Friday reiterated his hard-line stance on trade with his North American neighbors, raising the prospect of separate deals with Canada and Mexico rather than the existing treaty.

"I wouldn't mind seeing Nafta, where you'd go by a different name, where you make a separate deal with Canada and a separate deal with Mexico because you're talking about a very different two countries," he said.

Earlier on Friday, Mr. Trump blasted Canada's agricultural policy on Twitter. Canada "has treated our Agricultural business and Farmers very poorly for a very long period of time," Mr. Trump wrote on his Twitter account.

Mr. Trump's tweet taps into long-running frustrations in some U.S. dairy states over Canadian agricultural policy.

Under Canada's supply-management policy, the government sets prices for dairy products based on the average costs of production. Production is controlled through a regulated quota system, and foreign competition is thwarted through steep tariffs.

Mr. Trump added in his latest tweet that Canada runs "a really high surplus on trade with us."

A Trudeau spokesman cited a report from the office of the U.S. Trade Representative, which contradicted Mr. Trump's tweet. The report indicated the U.S. recorded a goods-and-services trade surplus with Canada of $8.4 billion in 2017.

Mr. Trump appears to be focusing on trade in goods alone, in which Canada recorded a surplus of $17.5 billion last year, according to the same USTR report.

—Louise Radnofsky in Washington contributed to this article.

Trump-Putin Talks Planned

Continued from Page One

Trump and Putin, who held discussions on the sidelines of two international meetings in 2017—one at the Group of 20 summit in Germany last July and at a November summit in Vietnam.

The potential meeting comes as special counsel Robert Mueller continues to investigate alleged Russian interference in the 2016 presidential election and whether associates of Mr. Trump colluded with Moscow. Mr. Trump has denied any collusion and has described the probe as a "witch hunt." Russia has denied meddling in the election.

Asked about a summit taking place amid Mr. Mueller's investigation, another administration official said, "Of course there are discussions of the political perception."

In April, Yuri Ushakov, a former Russian ambassador to the U.S. and now an aide to Mr. Putin, said Mr. Trump had invited Mr. Putin to Washington during a March 20 phone call.

White House press secretary Sarah Sanders, responding to questions about Mr. Ushakov's revelation, confirmed the invitation. "The two had discussed a bilateral meeting in the 'not-too-distant future' at a number of potential venues, including the White House," Ms. Sanders said at the time.

Russian Foreign Minister Sergei Lavrov told a Russian news agency in late April that "President Putin is ready for such a meeting."

Mr. Trump is currently focusing on the summit with Kim Jong Un, the North Korean leader, according to an administration official. "If negotiations there continue, [work on the Russia summit] will be delayed," the official said.

The Russia summit "will be focused on specifics, not grand bargaining," the official said. "Those things need to be negotiated."

Before any summit takes place, a meeting is likely to occur between Gen. Joe Dunford, the chairman of the Joint Chiefs of Staff, and Gen. Valery Gerasimov, the chief of the Russian General Staff, the official said. These talks would focus on de-escalation of the conflict in Syria.

Mr. Trump has long said he wanted to improve relations with Russia, while at the same time bemoaning the poor state of Russian-U.S. ties.

As president-elect in January 2017, he made clear he wanted a cordial relationship with Mr. Putin. "If Putin likes Donald Trump, I consider that an asset, not a liability, because we have a horrible relationship with Russia," Mr. Trump said at a news conference.

Three months ago, after he spoke to Mr. Putin on the phone and congratulated him on his election victory, Mr. Trump tweeted that "Getting along with Russia (and others) is a good thing, not a bad thing...."

The following month, though, he wrote in a tweet that "our relationship with Russia is worse now than it has ever been, and that includes the Cold War."

He added: "There is no reason for this. Russia needs us to help with their economy."

> A summit would mark the third meeting between the two presidents.

As he has sought better ties with Moscow, Mr. Trump has been shadowed by the investigation into alleged Russian interference in the 2016 presidential race.

Mr. Mueller has been questioning former Trump aides and associates about whether the campaign colluded with Russia in an effort to defeat Democratic nominee Hillary Clinton. Mr. Mueller is also examining whether the president obstructed justice in firing former FBI Director James Comey; Mr. Trump has denied any obstruction of justice.

Meeting Mr. Putin last year on the sidelines of a G-20 summit meeting in Germany, Mr. Trump voiced concerns about Russian interference in the election, then-Secretary of State Rex Tillerson said at the time. Mr. Putin, during a two-hour meeting that lasted twice as long as planned, denied any involvement.

—Michael R. Gordon contributed to this article.

Summit With Kim Is Back On

Continued from Page One
side the Oval Office after Gen. Kim's departure, Mr. Trump described the letter as "very nice" and "very interesting." He acknowledged a few minutes afterward that he hadn't yet read the message.

That moment was emblematic of an astonishing saga that started with personal taunts from the leaders of the two nations, and, on Friday, included the first Oval Office visit for a North Korean official in 18 years. Mr. Trump posed for photos near the White House Rose Garden with Gen. Kim.

"I purposely didn't open the letter," Mr. Trump said, saying that Gen. Kim asked him to read the message later. "I may be in for a big surprise, folks."

U.S. officials inspected Mr. Kim's letter before it was delivered to Mr. Trump, and security in the West Wing was tightened ahead of the meeting with Gen. Kim, who also has been accused of playing a key role in the 2010 sinking of a South Korean warship that killed 46 sailors.

A plainclothes Secret Service agent took a position right outside the Oval Office, with more agents standing watch in the hallway at staggered distances. The White House restricted access for reporters as uniformed Secret Service, toting weapons, patrolled the driveway of the historic presidential building.

Speaking to reporters, Mr. Trump also appeared to acknowledge speaking with Kim Jong Un. Asked if he believed Mr. Kim was committed to denuclearization, Mr. Trump said he told him sanctions would remain in place until then.

"He wants to be careful," Mr. Trump said. "But I told him, to be honest with you, 'Look, we have sanctions on.' They're very powerful sanctions. We would not take sanctions off unless they did that."

It was unclear if Mr. Trump was referring to conversations with Mr. Kim or Gen. Kim. A White House spokeswoman didn't respond to repeated efforts to seek clarification. Asked earlier Friday if he had spoken with Mr. Kim, Mr. Trump said, "I don't want to say that."

A White House spokeswoman didn't return several messages seeking comment on Friday.

The president emerged from his 70-minute meeting with Gen. Kim—which had been scheduled to last only a few minutes—in high spirits but offering few specifics on the summit, which is expected to draw media from around the globe.

Instead, the president described his coming summit as a "getting-to-know you meeting," and spoke about the need for multiple encounters with Mr. Kim, outlining a potentially long-running diplomatic process. In April, Mr. Trump said the success of any summit would be defined only by the denuclearization of North Korea. He played down expectations Friday for quick action at the Singapore talks.

"We've gone from a cliff-hanger summit, where war-and-peace was going to be decided, to a getting-to-know-you meeting," said Victor Cha, who was an Asia expert in the George W. Bush White House.

President Trump tempered expectations for the initial meeting.

"My guess is that the North Koreans have made no significant concessions, while they got Trump to say no more maximum pressure. Not a bad outcome for the North Koreans," Mr. Cha added.

Mr. Trump said he and Gen. Kim spoke about sanctions as well as a potential drawdown of U.S. troops in South Korea.

Mr. Trump said South Korea and China would be willing to provide economic aid to North Korea, and that the U.S. would be willing to provide the regime with security guarantees.

Still, Mr. Trump stopped short of saying he had secured a pledge from North Korea to give up its nuclear arsenal, which has been the Trump administration's singular goal.

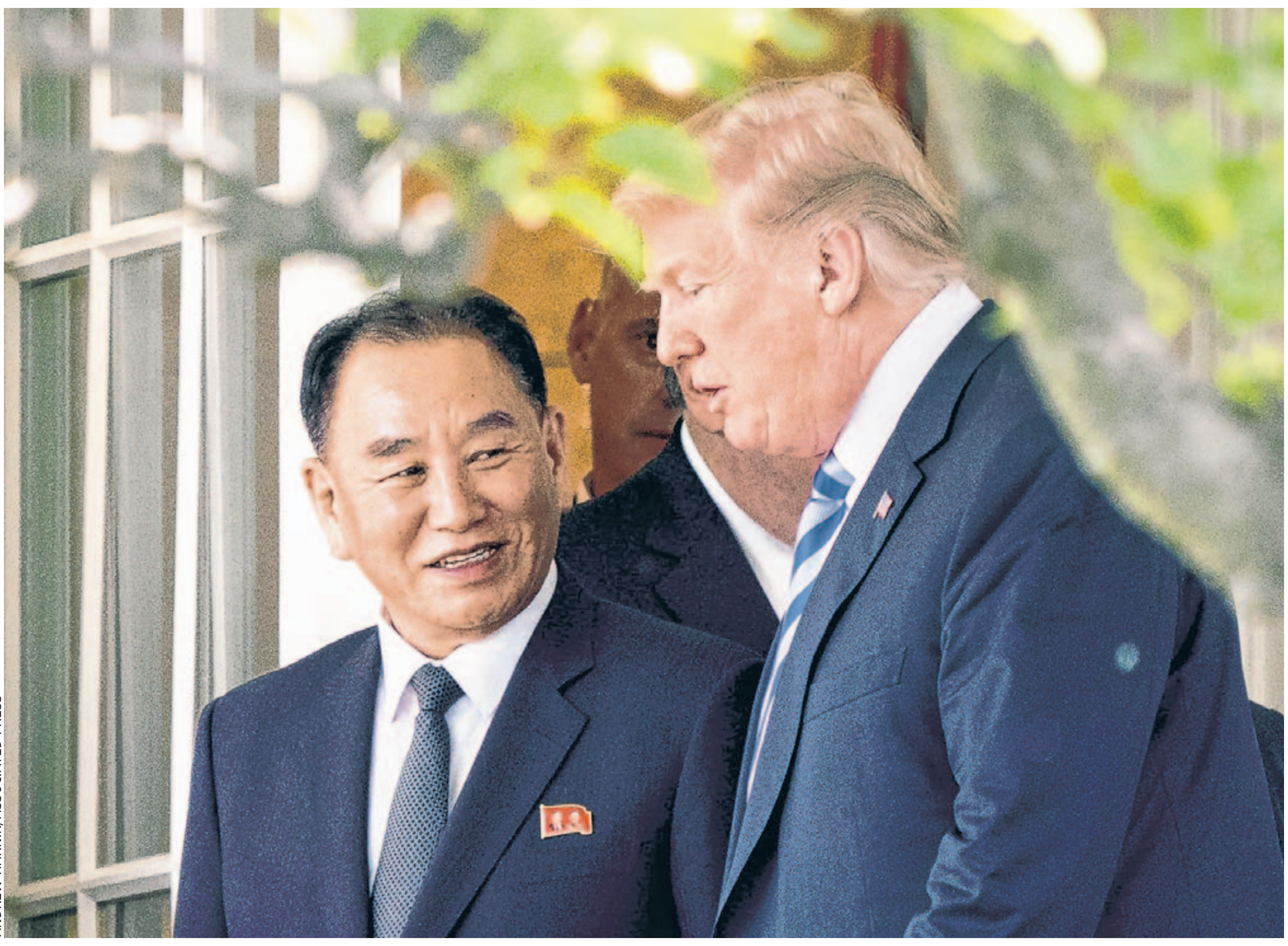
Mr. Trump described U.S.-North Korea relations as "good." While he said he wouldn't lift economic sanctions, he wants to stop talking about exerting "maximum pressure." That phrase has been used by the administration to describe its policy of using all tools necessary to force North Korea to stem its nuclear ambitions.

In an interview with The Wall Street Journal in January, Mr. Trump said that, "I probably have a very good relationship with Kim Jong Un of North Korea." The White House disputed the quote, and Mr. Trump since has repeatedly declined to say whether the two leaders have spoken.

Harry Kazianis, director of defense studies at the Center for the National Interest, a think tank founded by former President Richard Nixon, said the Trump administration should secure a commitment to denuclearization before the summit.

"It does not seem, at least for the moment, that the administration has a firm commitment on denuclearization from North Korea," Mr. Kazianis said. "North Korea needs to know that the price of being a member of the international community is its nuclear arms—nothing more, nothing less. And Team Trump must stand firm on that. History would not forgive us otherwise."

—Vivian Salama, Peter Nicholas and Louise Radnofsky contributed to this article.


ANDREW HARNIK/ASSOCIATED PRESS
President Donald Trump received a letter from North Korea's leader that was delivered by Gen. Kim Yong Chol, left, on Friday.

Koreas To Discuss Family Reunions

By Andrew Jeong

SEOUL—North and South Korea took steps to revive mutual engagement after high-level talks at the demilitarized zone, seeking to build trust and extending a detente that has brought the nuclear-armed regime to the negotiating table.

In a joint statement, the Koreas agreed to set up talks later this month to discuss holding a reunion for families separated by the 1950-1953 Korean War, reduce tensions on the highly militarized border and send a joint delegation to the 2018 Asian Games. In addition, the officials discussed holding joint celebrations in the South this month to mark the 18th anniversary of the first inter-Korean summit.

Go Myong-hyun, a research fellow at the Asan Policy Institute, a Seoul think tank, said the inter-Korean talks showed that President Moon Jae-in is trying to separate cross-border engagement issues like family reunions from the denuclearization talks involving the U.S.

"If he succeeds, he will be able to keep inter-Korean engagement issues like family reunions alive even if the denuclearization talks between North Korea and the U.S. fail," he said.

Mr. Moon has made outreach to North Korea a tenet of his presidency since taking office last year. The liberal leader, whose parents are from the North, has said South Korea can use its economic weight to forge closer links with the North, for whom rebuilding a sanctions-battered economy is a stated priority.

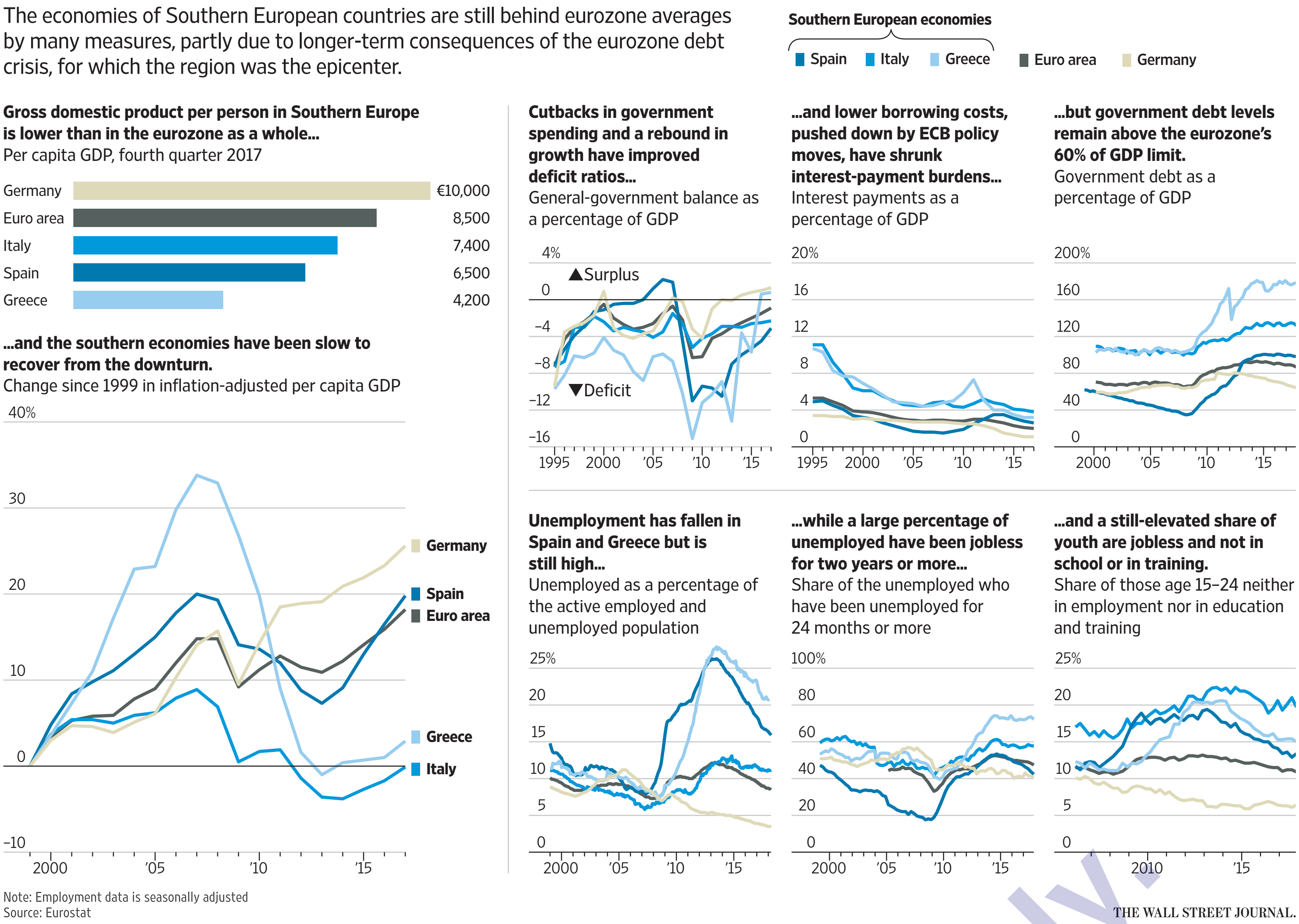
Despite signs of progress, significant disagreements remain. Most notably of late, the North has demanded a halt to U.S.-South Korean military exercises and has called for Seoul to return a group of North Korean restaurant waitresses who defected in 2016.

Europe's South Feels Crisis Aftereffects

Spain, Italy and Greece face political, social and economic fallout from EU woes

By Deborah Ball

The economies of Southern European countries are still behind eurozone averages by many measures, partly due to longer-term consequences of the eurozone debt crisis, for which the region was the epicenter.



ROME—This week's high-profile political crises in Spain and Italy are making plain the social and economic scars Southern Europe still bears almost a decade after the eurozone crisis, destabilizing traditional alliances and feeding political discontent.

In Italy—now home to Western Europe's largest anti-establishment movement—two large outsider parties are coming to power, bolstered by the votes of millions of Italians stuck in a cycle of stubbornly high unemployment and poverty.

In Spain, Prime Minister Mariano Rajoy was ousted Friday following a corruption scandal that proved the final blow for a leader whose support has gradually eroded since he imposed unpopular measures to avert economic disaster during the eurozone's debt crisis.

Meanwhile, Greece is enacting yet another round of painful reforms—including a 13th round of pension cuts—in the hopes of freeing itself from an eight-year bailout regime. But even after the country exits that regime, its creditors will keep tight control on its budget, stoking already deep popular anger that has spilled over into violence by extremist groups.

"We are still dealing with the aftershock of the crisis," said Franco Pavoncello, a professor at John Cabot University in Rome. "These are countries that suffered tremendously when the crisis hit."

Europe's overall economic picture is its brightest in years, but millions of people in Southern Europe—the epicenter of the eurozone debt crisis have yet to feel the recovery.

Many blame the aftereffects of reforms enacted at the height of the crisis, which prompted bailouts in Spain, Portugal, Greece, Ireland and Cyprus.

Mr. Rajoy, for instance, loosened labor laws in a bid to encourage companies to hire. That helped Spain bring its unemployment rate down from a peak of 27% in early 2013 to 17% today and encouraged economic growth of at least 3% each year since 2015, making it the poster child of crisis-era reforms.

But around 90% of new work contracts in Spain are short-term, often in poorly paid jobs and sometimes lasting only a few days. The phenomenon has especially hurt the young across Southern Europe: In Italy last year, more than 60% of contracts for those under 25 were short-term.

The result has been the failure to launch millions of young people. In a poll by Pew last year, at least two-thirds of respondents in Spain, Italy and Greece said they expected their children to be worse off financially than their parents, compared with 52% in Germany.

"Southern Europe is clearly going through a difficult phase," said Sergio Romano, a veteran Italian diplomat.

Long-term unemployment also remains a scourge throughout the south. Nearly 60% of unemployed Italians have been jobless for at least a year, and about five million Italians live in absolute poverty—nearly double the number a decade ago, according to Istat, the national statistics agency.

Growth in Italy and Greece has badly lagged behind that in the rest of Europe. Italy's economy is still nearly 6% smaller than it was before the crisis, making it the only country in the Group of Seven not to have grown since then. The Italian economy grew 1.5% last year, its fastest pace in six years, but that growth is already slowing this year, and wages haven't risen.

The 5 Star Movement and the League have given voice to many in Italy who still struggle to find jobs. A new coalition government supported by the two parties, which won about half of all votes cast in March's parliamentary elections, was sworn in Friday.

Greece's economy, which has suffered a longer downturn than the U.S. did during the Great Depression, is around 28% smaller than before the crisis. The government of Prime Minister Alexis Tsipras must overhaul dozens of labor and pension rules in the coming weeks to qualify to exit a bailout regime that has demanded tax increases, pension cuts and the sale of state-owned assets.

Declan Costello, the European Commission's mission chief to Greece, said Thursday it will take up to 10 years for the country to complete the necessary reforms.

—Nektaria Stamouli contributed to this article.

PIERRE-PHILIPPE MARCOU/PRESS POOL

Mariano Rajoy, right, on Friday congratulated Pedro Sánchez, who succeeded him as prime minister.

Spain's Prime Minister Ousted Following Corruption Scandal

By Jeannette Neumann

MADRID—Spanish lawmakers voted to oust Prime Minister Mariano Rajoy, ushering in a center-left government whose new leader pledged to enact a moderate, pro-European agenda unlikely to knock Spain's robust economic recovery off course.

Spain's parliament voted 180 to 169, with one abstention, on Friday to remove Mr. Rajoy, cutting short the second term of one of Europe's longest-serving leaders currently in power. He is being succeeded by Pedro Sánchez, the leader of the center-left Socialist Party, which last week had called for the no-confidence vote.

Mr. Sánchez seized on a corruption ruling last week that found Mr. Rajoy's center-right Popular Party financially benefited from a graft scheme. The corruption scandal was the final blow for a premier who managed to win re-election in 2016 but emerged from the vote with a weak minority government.

Mr. Sánchez told lawmakers that his goals include bolstering social policies to address problems such as unemployment and poverty levels, both of which remain high despite Spain's strong growth.

However, the new premier will lead a minority government that is likely to struggle to pass legislation and has already promised to call parliamentary elections ahead of the current 2020 deadline.

Mr. Rajoy had seen his support steadily erode since he became prime minister in 2011 and began to enact a series of painful economic reforms to help Spain recover from its deepest crisis in decades. He has shouldered much of the political blame for a recovery that has left millions of Spaniards behind. He is the first Spanish prime minister to be unseated in a no-confidence vote.

Rajoy is the country's first prime minister to be unseated in a no-confidence vote.

"It has been an honor to leave Spain better than I found it," Mr. Rajoy told lawmakers before the vote.

Mr. Sánchez said he would honor Spain's commitments to the European Union, including a reduction in the country's public debt, and pledged to keep in place Mr. Rajoy's 2018 budget, which boosts pension payments.

A leftist government in Spain will be an anomaly in Europe, where most center-left parties have fallen from power or seen their support wane in the past several years.

Mr. Sánchez's government, like his predecessor's, could struggle to pass his legislative agenda. The Socialist Party has just 84 seats in Spain's 350-member parliament, meaning Mr. Sánchez will lead a minority government with even thinner support than Mr. Rajoy's. The new premier must rely on a hodgepodge of parties to pass bills, including the far-left, antiestablishment Podemos and two Catalan pro-independence groups.

Mr. Rajoy accused Mr. Sánchez of presenting the no-confidence vote as a play for power without having to face an election, blasting the new government as a "Frankenstein" coalition.

Mr. Sánchez hasn't provided an exact time frame for new elections, though some expect a vote as soon as this autumn. The Socialists are likely to try to pass bills popular with their center-left base, including one to address a pay gap between men and women.

A China District Holds a Vote... On Its Budget

Officials, seeking the support of residents, call for ideas and let the people decide

By Te-Ping Chen

HAIKOU, China—Some residents of this leafy seaside city are getting a chance to do something unusual in China: vote on how their local government spends its money.

Haikou is one of several cities trying new ways to give citizens a voice while bolstering the reputation—and with it the authority—of their local governments.

Residents in Haikou's Meilan District are invited to offer suggestions on how to improve their quality of life, such as through parks and senior services, and this week they vote among the citizen-proposed ideas on how to spend 12 million yuan ($1.9 million) of government money—around 1% of the budget.

Public discontent in China is principally a local affair. Corruption, indifference and excess bureaucracy are common complaints in many parts of the country.

President Xi Jinping has said these concerns need to be addressed, and pushed for officialdom to become more service-oriented.

At the same time, Mr. Xi has also moved to strengthen the party, and his own power, by locking up dissidents and expanding the government's web of surveillance.

In Haikou, in China's southern Hainan province, officials say allowing residents to vote on how to spend government money, even just a fraction of the budget, can help boost attitudes toward officialdom.

Zhang Xuefen, who has worked as a grass-roots-level government employee in Haikou for more than a decade, said she has seen a shift in residents' attitudes since the program's launch.

"Ordinary people support us more and more," Ms. Zhang said, sitting in her office surrounded by forms from residents with ideas for how to spend the government's money. "They are more cooperative now," she said, "and our authority is stronger."

TE-PING CHEN/THE WALL STREET JOURNAL

Government officials solicit ideas in Haikou's Meilan District. With the program, 'ordinary people support us more and more,' says a worker.

Li Fan, a think-tank founder who is consulting on Haikou's project, said such programs help satisfy the desire of Chinese citizens to have a voice in public affairs. "You absolutely can't stop it," he said. "And since you can't stop it, you need to give it an outlet."

Officials are promoting the effort with posters reading "Our District, Our Choice," stepped-up canvassing on the streets and offering cloth shopping bags to residents who submit ideas.

On a recent day, Chen Zejin, 76 years old, was buying lettuce at a market when he saw government officials asking residents for ideas on how to spend public funds. He filled out a form, suggesting the creation of more youth after-school programs. "Before, the government would decide!" he said. "This is a big change."

Others voiced skepticism. Chen Guowen, a 48-year-old resident, groused that Haikou's government was more focused on efforts to spruce up the city's appearance, instead of tackling clogged gutters. "If you can't fix these basic problems, then nothing's of any use," he said.

In recent years, Beijing has embraced a posture of greater accountability, urging more efforts to take the public's pulse.

In Hangzhou, the government has polled citizens as part of department performance evaluations for years, while Nanjing recently began offering cash prizes to residents who come up with policy recommendations.

Wu Haining, one of the advisers to Haikou's program, said the initiative represents a viable kind of political reform for China—one that allows citizens a voice, while not threatening the government.

"What they're voting on is chicken-feather, garlic-skin stuff," he said, using a common idiom meaning trivial matters. "It will not destabilize things."

—Kersten Zhang contributed to this article.

EDGAR SU/REUTERS

India's leader said the 'Indo-Pacific' idea isn't aimed at any country.

For India's Modi, a Delicate Regional Balance

By Niharika Mandhana

SINGAPORE—Indian Prime Minister Narendra Modi set out his vision for a "new Indo-Pacific"—widely seen as a framework for closer ties between the U.S., India and regional powers wary of China's rise—but sought to dispel the view that it was aimed at containing Beijing.

"India does not see the Indo-Pacific region as a strategy or as a club of limited members," Mr. Modi said Friday at the Shangri-La Dialogue, an annual gathering of defense officials and experts in Singapore.

The U.S. has in recent months promoted the idea of the Indo-Pacific in lieu of "Asia-Pacific" as it attempts to bolster India's regional role. Analysts say the idea conveys common concerns over Beijing's increasingly assertive stance across a broad swath of territory, from the Indian Ocean to the South China and East China seas.

The U.S. has been pushing India to intensify defense cooperation, including buying more U.S. military equipment and forging a closer four-way naval partnership involving Japan and Australia. The U.S. military recently changed the name of its headquarters covering Asia and the Pacific Ocean from Pacific Command to Indo-Pacific Command. U.S. Defense Secretary Jim Mattis spoke at the conference Saturday, where he sought to reassure Asia-Pacific allies.

These discussions come at a time of heightened tensions between the U.S. and China. Washington last month rescinded an invitation to China to participate in an international naval exercise.

A top Chinese military officer speaking at the conference questioned the substance of the Indo-Pacific concept. "From a security perspective none of these countries consider China an overt enemy," said Senior Col. Zhou Bo. "So this should not be a military alliance."

OBITUARIES

TED DABNEY
1937 — 2018

Pong Made Co-Founder Of Atari Famous

Ted Dabney helped design and build machines to play Pong, a simple videogame that seemed shockingly modern when it began appearing in bars in the early 1970s.

The San Francisco native, who learned electronics in the Marines, was a co-founder of Atari Inc., which developed the game. His role included buying television sets and reconfiguring them as screens on which two players could battle by batting an electronic ball back and forth Ping-Pong style. He attached coin slots of the type used in laundries.

Mr. Dabney was more of a self-taught engineer than an entrepreneur. "If somebody wants something done, I figure out what it takes to do it," he said in an oral history for the Computer History Museum in 2012, "and that's basically all I do." After a falling-out with the other Atari founder, Nolan Bushnell, Mr. Dabney left in the early days of Atari's growth surge. Mr. Bushnell sold Atari to Warner Communications Inc. in 1976 for about $28 million.

In the mid-1990s, Mr. Dabney and his wife, Carolyn, bought a grocery store in Crescent Mills, Calif., and ran it for a decade. He died of esophageal cancer May 26 in Clearlake, Calif. He was 81.

Though he missed out on a chance to make a fortune at Atari, "Ted was not bitter about anything," his wife said.

—James R. Hagerty

PAUL CARLIN
1931 — 2018

Executive Tried to Make Postal Service Zippier

When he became head of the U.S. Postal Service in January 1985, Paul Carlin was determined to make the bureaucracy more businesslike. The new postmaster general distributed copies of the best-selling management book "In Search of Excellence" to thousands of postal managers. To reduce losses, he cut costs, including his salary.

"We're just one entry in a highly competitive market," he said. "We must earn the right to carry the mail."

Soon, however, some members of the Postal Service's Board of Governors accused Mr. Carlin of being indecisive. He was fired after just 12 months. Six months later, Mr. Carlin shot back with a lawsuit, saying he had been dismissed for opposing corrupt equipment-buying practices. His legal battle for reinstatement went to the Supreme Court, which dealt him a defeat when it declined to intervene.

By the 1990s, Mr. Carlin had moved on. He and a partner set up Mail2000 Inc. to help other firms with billing. The company zapped bills electronically to regional printing centers near their final destinations, then put them in the mail. The partners sold Mail2000 to United Parcel Service Inc. for about $80 million in 2001.

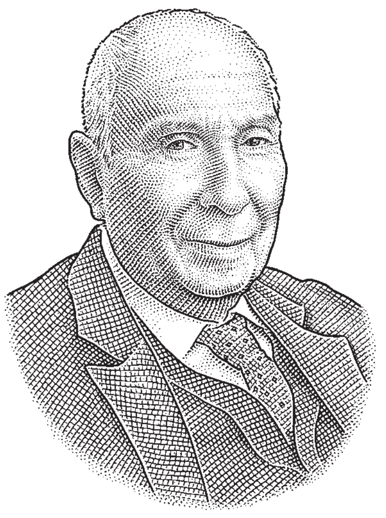
Mr. Carlin died April 25 of pneumonia and bronchitis in Arlington, Va. He was 86.

—James R. Hagerty

SERGE DASSAULT
1925 — 2018

Underrated Son Kept French Jet Maker Flying High

BY JAMES R. HAGERTY



Serge Dassault had to fight for a role in Groupe Dassault, a French maker of military and corporate jets founded by his father, Marcel Dassault. The father wasn't impressed with the son's academic record in engineering and at first gave him only peripheral roles in management.

"When I joined the company, I could tell it annoyed him," the younger Mr. Dassault once told a French magazine.

"There wasn't room for two," his mother, Madeleine Dassault, said.

Serge Dassault finally became CEO of the group in 1986, at age 61, when his father died. The younger Mr. Dassault maintained family control of a company of strategic importance to France, producing Mirage and Rafale jet fighters, as well as Falcon business jets. The company also expanded its global presence in computer-aided design and other software, and diversified in such areas as wine production and art auctions. Mr. Dassault bought Le Figaro, the country's leading conservative newspaper.

His reputation suffered in his later years when he was prosecuted for tax fraud, vote buying in local French elections and bribery related to aircraft sales in Belgium.

Mr. Dassault died May 28, apparently of a heart attack, at his office on the Champs-Élysées in Paris. He was 93.

Forbes estimated Mr. Dassault's net worth at $26.1 billion, ranking him as the world's 30th richest person. He enjoyed hunting deer, sometimes chasing them down in an off-road vehicle, mounted with a gun turret, on his property.

He had little time for society dinners, music or movies. He worked long hours and insisted that six hours of sleep was enough. His morning routine included a dose of ginseng, a tonic he discovered during a trip to South Korea.

He was born in Paris on April 4, 1925, as Serge Bloch, then the Jewish family's name. His father, an engineer, developed a propeller, made of wood in a furniture plant, that was used on World War I airplanes. When the Nazis invaded during World War II, the family took refuge in Cannes. In 1944, the German Gestapo, aided by the police of Vichy France, arrested the family. Serge and other members of his family were sent to prison camps in France, while his father was deported to the Buchenwald death camp, where he survived and was freed in 1945.

After the war, Marcel Bloch changed the family name to Dassault, in honor of the alias used by his brother, Darius Paul Bloch, when he fought in the French Resistance.

Serge Dassault graduated from an elite engineering school, École Polytechnique, and an aerospace institute before joining the company in the early 1950s. He was sent to the U.S. and elsewhere to find buyers for business jets in the 1960s and then put in charge of the electronics division.

After Marcel Dassault died in 1986, Serge Dassault outmaneuvered French military leaders who said he wasn't up to the job of running the business. His early years as head of the group were rocky. Hurt by a decline in sales of fighter jets to Arab countries, Dassault closed five of its 17 factories and reduced employment at the parent company by 20%.

In his political life, he fulminated against France's wealth tax, 35-hour workweek and restrictions on layoffs. Gay marriage, he said, was an "enormous danger to the country." In the 1980s, he began a campaign to "liberate" the depressed Parisian suburb of Corbeil-Essonnes from left-wing political control. He finally was elected mayor of the town in 1995. He also served in the French Senate.

In 1998, Belgium's highest court convicted Mr. Dassault and others of corruption in a case involving bribery to secure orders for electronic equipment used in Belgium's fighter jets. Mr. Dassault's two-year prison sentence was suspended.

In 2009, French authorities annulled his re-election as mayor of Corbeil-Essonnes after alleging that he paid cash for votes from poor immigrant families. Mr. Dassault said he had given money to help people and organizations in the town but denied buying votes.

Like his father, Mr. Dassault chose not to hand over the reins of his company to any of his children. Instead, he named a longstanding colleague, Charles Edelstenne, as his successor. Mr. Dassault's survivors include his four children and his wife, Nicole.

◆ Read a collection of in-depth profiles at **WSJ.com/Obituaries**

FROM PAGE ONE

Michael Jackson's Tax Case

LIAISON/GETTY IMAGES

UNITED STATES TAX COURT

The late pop star in 1987 and the Honorable Mark V. Holmes.

Continued from Page One

dling fortune of a man in his dotage:

"Arthur Marsh worked hard and lived simply for decades, but when he became old and infirm he met Angelina Alhadi. In the two last years of his life, she somehow came to receive more than a million dollars from him."

Because Americans can challenge the Internal Revenue Service in Tax Court without paying taxes first, the docket is filled with ordinary, down-on-their-luck Americans pressing small claims against the bureaucracy. It's also packed with aggressive deals pitched by shady advisers to successful business owners and messy multiyear disputes between large corporations and the government.

That diversity of subjects gives Judge Holmes his raw material and it occasionally yields extraordinary cases such as Mr. Jackson's.

The IRS and Mr. Jackson's estate have settled some differences, but they're still about $400 million apart on the value of what he left behind, according to a recent filing. They are disputing the worth of song rights Mr. Jackson owned—his own writings and his interest in pieces like "Runaround Sue." They're also fighting over the extent of his posthumous right to publicity, or his estate's ability to profit from his image.

The IRS argues that Mr. Jackson was, in fact, wealthy, despite his myriad financial problems. Mr. Jackson's lawyers say the post-death rehabilitation of his image was no sure thing. Their point is that the estate's marketing successes, including a movie and a Cirque du Soleil show, weren't obvious and inevitable when Mr. Jackson died in June 2009, and that his net worth at the moment of death is what counts.

They're arguing before a judge with a greater depth of non-tax experience than most.

Judge Holmes, a 57-year-old native of Buffalo, N.Y., learned legal writing as a clerk for 9th Circuit Judge Alex Kozinski, then worked as a private litigator and a staff member at the International Trade Commission before turning to tax law in the late 1990s.

"Mark's approach is probably less formulaic than many," says Eileen O'Connor, his boss at the Department of Justice Tax Division in the early 2000s. "Many tax lawyers, I think, are too limited in their overall experience, and have difficulty explaining tax concepts to other people because they don't have a non-tax concept to use to explain."

$400M

The disputed value of Michael Jackson's estate.

Judge Holmes has plenty of non-tax concepts—and jokes.

Give him a case about a scuba-diving business, and he'll note how the owner dove in. Give him a riverboat-casino case, and he'll describe the IRS trying to sink the taxpayer's shelter.

In the case of a used-car businessman who had trouble supporting his claims with paper, he wrote: "Tax records are the ancient Egyptians of the modern age--plagued not by boils, frogs, flies, and lice but by fire, flood, mold, and theft."

Faced with an apartment-building owner seeking depreciation deductions, he wrote: "We are tempted to say this is why AmeriSouth throws in everything but the kitchen sink to support its argument—except it actually throws in a few hundred kitchen sinks, urging us to classify them as 'special plumbing,' depreciable over a much shorter period than apartment buildings."

When a chiropractor tried to claim dubious deductions, Judge Holmes responded:

"The Commissioner thought this was a stretch and urges us to support his adjustment," he wrote. "We particularly disbelieve his claim that the Xbox, Wii, big-screen TVs, and other electronics in his basement were used exclusively for chiropractic purposes since this claim conflicts with his much more plausible admission to the IRS examiner during audit that his daughter and his girlfriend's son would play these video games while he was on the phone."

Judge Holmes, nominated by George W. Bush in 2003, is up for a second 15-year term on the court. He declined an interview, saying only that he was grateful for President Donald Trump's nomination and looking forward to working with the Senate as it considers his confirmation.

Mideast Power Struggle

Continued from Page One

over the port here. Elsewhere along the Horn of Africa, allies Saudi Arabia and U.A.E. have snapped up ports and military bases at sites in Somalia, plus farther north in Djibouti and Eritrea. Qatar and Turkey, which support a different model of political Islam and are closer to Saudi Arabia's arch-rival Iran, are building in Somalia and Sudan. China is positioned with a military base and a container port, for which it paid $700 million, in Djibouti and is exploring sites in Somalia. The U.S., meanwhile, conducts Africa operations and directs drones in the Persian Gulf from Camp Lemonnier in Djibouti, the largest U.S. base on the continent.

The scramble to lock down critical sites like Berbera is unscrolling all along the Horn and northward into the Red Sea. At stake is the precarious peace in one of the world's most volatile and strategic corners, and the balance of power in the Middle East. The nearby Suez Canal, meanwhile, is the fastest and most heavily used shipping lane connecting Asia with Europe. It handles about 10% of the world's seaborne trade, including roughly 10% of the world's oil trade, according to the United Nations and the U.S. Energy Information Administration.

"We have new kids on the block...competition in the Middle East between the Sunnis and the Shias, and the Americans, the Russians, the Turks, the Qataris," said Saad Ali Shire, Somaliland's foreign minister. "It's a poisonous meeting of interests coming together."

Berbera and other sites along the northern coast of the Horn are important because of their proximity to Yemen, a stage for the rivalry between Iran and Saudi Arabia across the Middle East. Saudi Arabia has been fighting a war there against Iran-backed Houthi rebels since 2015 with the support of allies like the U.A.E. Iran denies arming or training the Houthis.

The United Nations and independent investigators say Iran has used ports in Sudan and Somalia to smuggle weapons to Hezbollah and to allies in Yemen. In support of the other side in Yemen, a vast U.A.E. military base erected in isolated and secretive Eritrea in 2016 has been a launching pad for drones and jet strikes into the battle zone.

Other complications abound. Saudi Arabia and its allies are concerned about jihadist groups, including Islamic State and al Qaeda affiliates, gaining strength in the Arabian peninsula.

And Saudi and U.A.E.'s break last year with Qatar, claiming the Gulf state supports terrorism, upended traditional alliances. The diplomatic crisis spurred a realignment of deals on the poor and conflict-prone African coast, where Somalia, Djibouti, Eritrea and Sudan have welcomed more than $2 billion in investments from the richer Middle East nations since 2016.

"Turmoil in the Gulf has sharply escalated the Horn's already dangerous militarization," said Rashid Abdi, an expert on the region at the International Crisis Group, a Brussels-based global geopolitics think tank. "Gulf powers want to control this region to support an economic future that doesn't fully depend on oil production, and to be ready for a potential future war with Iran."

U.A.E.'s DP World took over the port in Berbera, Somaliland. Saudi Arabia, Turkey, China and others have made investments on the Horn of Africa coast in recent years.

TOMMY TRENCHARD/PANOS FOR THE WALL STREET JOURNAL (3)

The situation has left Washington in a diminished position of influence, Western diplomats say. The U.S. has few commercial investments in the region but has spent tens of billions of dollars on military programs, including efforts to fight piracy, in recent decades, and has increased drone strikes and special-forces deployments against jihadists in Somalia.

"There's no evidence that there's a coherent U.S. strategy to deal with divisions in the Horn and the militarization of the Red Sea," said Payton Knopf of the United States Institute of Peace, a Washington-based nonpartisan think tank.

State Department officials didn't respond to requests for comment.

> Since antiquity, it has been coveted by military and maritime powers.

Tensions flared in May when Chinese military personnel at its Djibouti base used a high-powered laser to harass U.S. flight crews from Camp Lemonnier, the Pentagon said.

The maneuvering for territory has drawn a motley crew of actors, including U.A.E. state-owned shipping giant DP World; a Turkish conglomerate owned by the family of President Recep Tayyip Erdogan's son-in-law; and Navy-SEAL-turned-businessman Erik Prince, who wants to develop a port south of the capital Mogadishu. France and Japan have military bases, and Russian entities are scouting for deals.

Sudan, which ditched a long-standing alliance with Iran to secure desperately needed investments from Saudi Arabia, is contributing some 5,000 troops to the war in Yemen, and has been carefully straddling both sides of the Middle East rift in a bid to save itself from economic collapse.

In December, Turkey secured the rights to develop Suakin Island, a former Ottoman outpost in Sudan. Qatar in March reached a preliminary agreement with Sudan to spend $4 billion developing a nearby port on Sudan's mainland that hosts a passenger ferry to the Saudi port of Jeddah. If finalized, it will be the biggest single planned investment in the area's ports to date.

Berbera, a coastal city of about 200,000, is a focus of the military and commercial buildup. The Soviets erected a major military base here during the 1960s and 1970s, which flipped to the U.S. in the 1980s after the Soviets stopped supporting dictator Siad Barre, and he switched sides. The U.S. arranged for access to Berbera's airport runway, one of Africa's longest, as a potential emergency landing strip for the space shuttle.

When DP World, the world's third-largest port operator, struck a $442 million deal to modernize and manage Berbera's port in mid-2016, a more-lucrative military agreement between Somaliland and the U.A.E. quickly followed. The deal will see the U.A.E. refurbish the old military base as well as a small port nearby for military use for 25 years.

DP World said it boosted traffic at the commercial port by more than 20% in the past year. It recently brought in modern cargo equipment to speed up the loading and unloading of vessels, and this month the company plans to start extending the quay.

"We have no doubt this place and the broader area will look very different in a few years' time," said Supachai Wattanaveerachai, the port's chief executive.

DP World said Berbera's expansion is part of a strategy to secure more points of access along the Horn and further inland, helping to increase trade with fast-growing economies like Ethiopia and tapping East Africa's swelling consumer class.

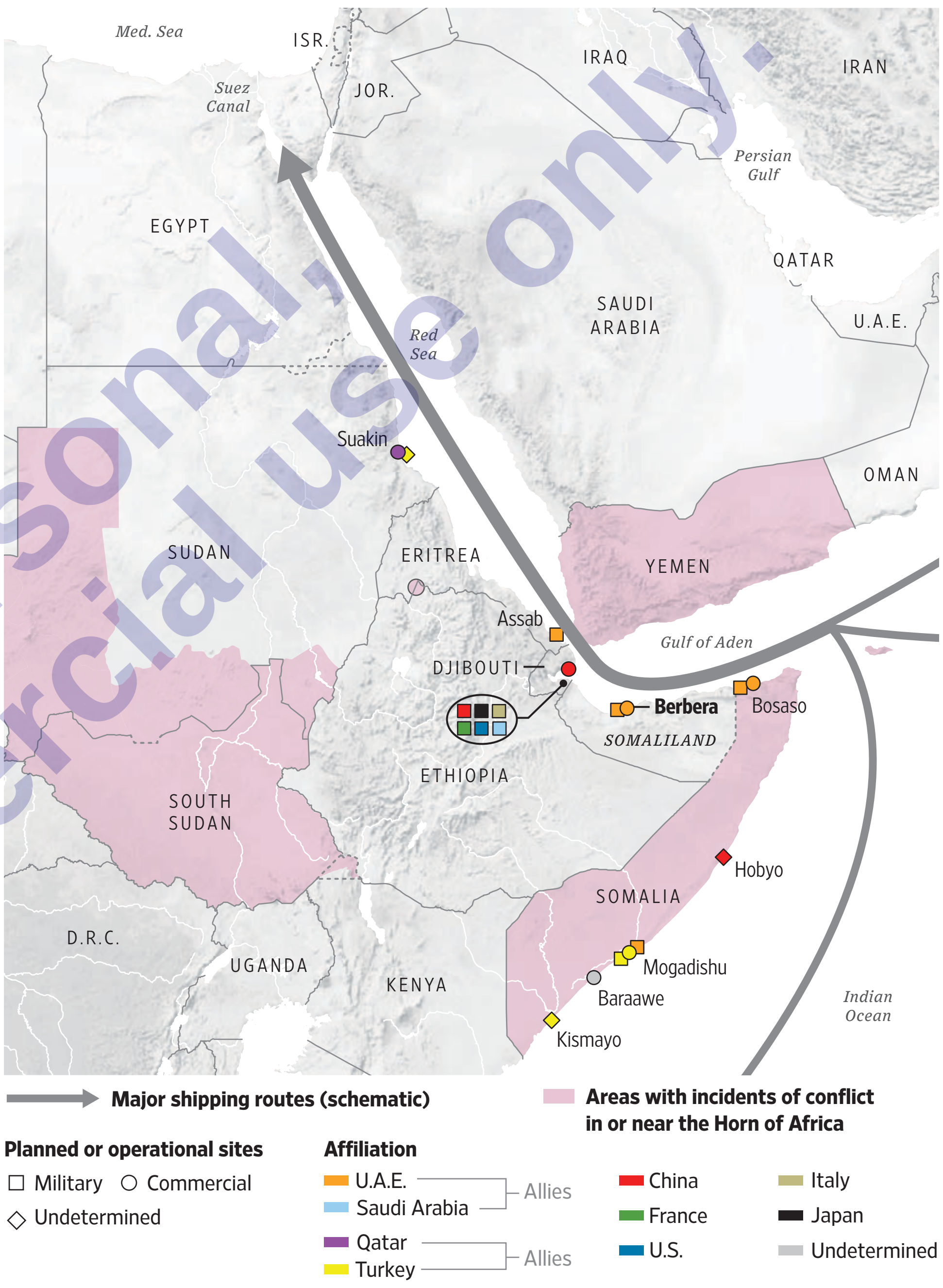
Mr. Shire, the Somaliland foreign minister, said as part of the deal U.A.E. will build new roads to connect the commercial port to the Ethiopian border and fund education and health-care programs.

Somalilanders, long isolated after declaring independence from Somalia in 1991, said they hoped the first major economic recognition will connect them to regional trade and help bolster a fledgling army. Somaliland is treated as de facto independent of Somalia by many countries, although it hasn't been formally recognized as such.

"I am hopeful improvements to the port will bring more people here...business is already getting bigger daily," said 24-year-old Hamda Abdirahman, who cooks at her mother's restaurant in the town center.

New Focus on Strategic Zone

World powers have spent billions in recent years to build ports and military bases in the Horn of Africa region, which is strategically located on important shipping routes and in the midst of conflict zones.



Sources: The governments, DP World, P&O Ports, Frontier Services Group, Albayrak Group, staff reports and people familiar with the matter (planned/operational sites)

THE WALL STREET JOURNAL.

Ruun Ali, in her tea shop in Berbera, said she hoped the port investment would help the local economy.

DP World is by far the biggest private-sector employer in Somaliland, with some 2,200 workers. The company until recently hauled in the devalued local currency in trucks to pay salaries.

Property prices have risen as much as 100% along the waterfront, and compounds are being constructed near the ocean. Older hotels are getting upgraded.

On a recent day, Berberawis sitting cross-legged and chewing the narcotic khat leaf said the investments provide a shield for their breakaway state. "As Somalilanders our passports aren't recognized anywhere, we can't travel," said 28-year-old Mohamed Jama, a veterinarian who was in a shop nearby. "After this deal, the U.A.E. may accept our passports, and I could get a chance to work in Dubai." U.A.E. officials didn't respond to requests for comment.

Others fear the investments come with too high a price: being dragged further into conflicts across the Middle East and the Horn. Frictions between Somaliland and Somalia—a country war-torn for decades—have already been worsened by the Gulf's diplomatic crisis over Qatar.

In a Western-backed model, Somalia has been divided into federal states. Outside Mogadishu, half of the states have broken with President Mohamed Abdullahi Mohamed, who critics say is aligned with Qatar despite formally being neutral in the Gulf spat. The states have declared support for the U.A.E. and Saudi Arabia, which are pouring in dozens of millions in investment to help sway opinion.

The Mogadishu government has called the U.A.E.'s Berbera investment illegal and has complained to the U.N. "If you become part of a bloc against another bloc, you gain friends, you make enemies," said Somaliland's Mr. Shire. "It's as simple as that."

Somali-U.A.E. relations broke down spectacularly in April, when Somali agents boarded a U.A.E. airplane in Mogadishu and confiscated $9.6 million in cash. In a Hollywood-style operation, the Somali agents held U.A.E. security personnel at gunpoint, seized the aircraft and removed the money in large bags.

U.A.E. said the funds were flown in to pay salaries and costs at its military base in Mogadishu, where its forces since 2014 have trained Somali soldiers to fight against al-Shabaab, the local al Qaeda-affiliated Islamist insurgency. After the incident, U.A.E. suspended aid and the training program in Somalia and left the base. Later, Somali soldiers trained by U.A.E. skirmished with officers loyal to Somalia's president.

Officials from U.A.E. and Somalia didn't respond to requests for comment.

In January, 103 unmarked containers arrived at Mogadishu's port from Jeddah, Saudi Arabia. Puzzled officials examined the manifest, to discover the containers held millions of rounds of Chinese-made ammunition, for AK-47 assault rifles, DShK machine guns and shoulder-mounted rocket-propelled grenades, people familiar with the matter said. In the past few weeks, another 57 containers with similar contents arrived from Saudi Arabia.

The shipments were intended for some part of the Somali forces under a deal between Saudi Arabia and the previous Somalia administration, according to two senior international-community officials briefed on the matter. Saudi officials didn't respond to requests for comment.

Now guarded by the ragtag Somali National Army, most of the containers have been languishing in temperatures higher than 100 degrees for months, raising concerns the ammunition will be siphoned off to warring militias or to al-Shabaab, or explode in the heat.

"This is just the perfect example of how things could literally explode in the current environment," said a senior Western diplomat. "If there's conflict...it will spread like wildfire."

OPINION

THE WEEKEND INTERVIEW with Douglas A. Irwin | By Tunku Varadarajan

Why Trump's Protectionism Is Futile

Stanford, Calif.

President Trump may not be a friend of international trade, but he's a gift for a trade economist. Douglas Irwin has just hauled himself across the country from his perch at Dartmouth College to lecture on the president's trade policy. His talk is titled "Exercise in Futility." The next day, he and his massive suitcase will fly west to Singapore for more lectures on the same insistent theme.

The president is clobbering allies and adversaries alike with protectionist tariffs, and it seems everyone wants to hear from Mr. Irwin, 55, who last year published "Clashing Over Commerce," a history of U.S. trade policy. We're sitting in a little office in the shadow of Stanford's Hoover Tower, named for the president who signed the Smoot-Hawley Tariff in 1930, America's last exercise in unabashed protectionism.

Mr. Irwin is at pains to point out the differences between the two men. "Trump has escalated the rhetoric on trade to something we've never seen in previous presidents," he says. "Even Herbert Hoover never bad-mouthed other countries and said we're being manipulated and taken advantage of, and we're losing." Sure, Hoover would "always talk about the need to protect domestic industry from foreign competition—but in a very dispassionate, neutral way."

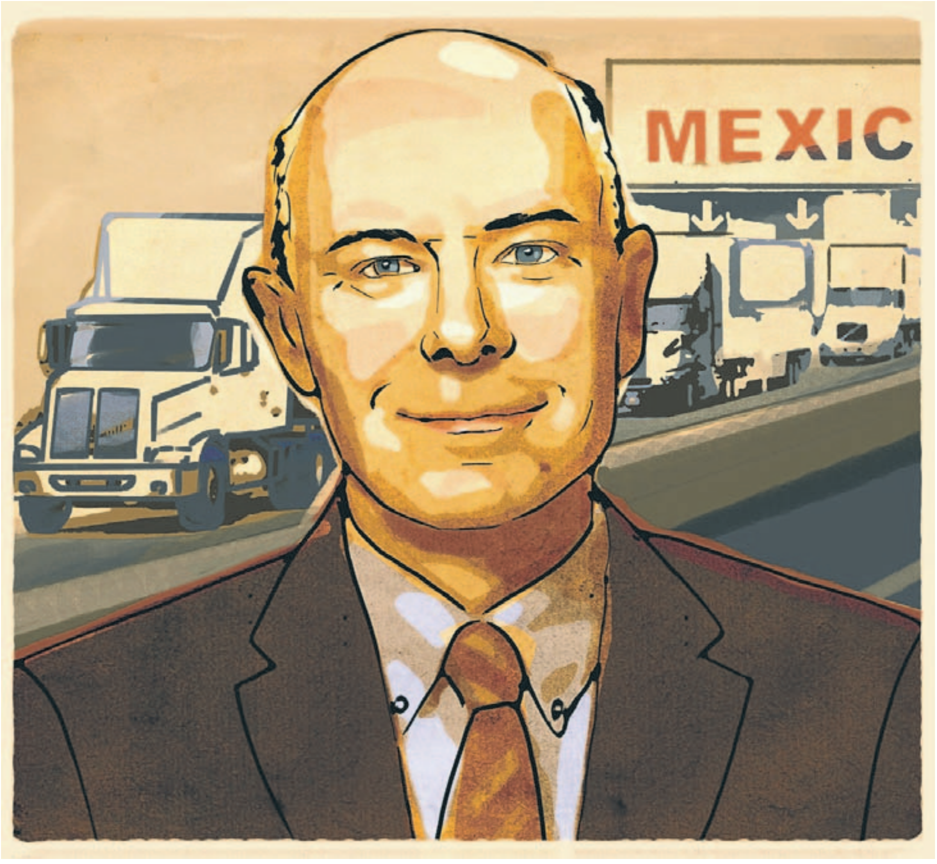
The president is wrong to attribute industrial decline to foreign competition, and the rising dollar is likely to cause the trade deficit to rise.

Mr. Trump may be the first openly protectionist president since Hoover, but what Mr. Irwin finds most frustrating about him is that "he never really defines what a 'better' trade deal is. His judgment of trade comes down to the trade balance, which he uses as a sort of ledger, as a businessman would, rather than think more broadly about the national economic impact of trade." It is impossible for every country to run a trade surplus, but "Trump thinks about trade in these zero-sum terms, about whether there's profits or losses, and he views exports as good and imports as bad."

That may be because Mr. Trump "comes from the casino industry, the real-estate industry, where you either get the project or not; you either win against the house or you lose against the house." He fails to see that in international trade, imbalances "aren't an indication that one country is beating another, or that one is 'winning' and the other's 'losing.' " Mr. Trump's rhetoric and vocabulary are "not the way economists think about trade at all."

Yet the world must reckon with the trade-deficit-phobic president and advisers such as Commerce Secretary Wilbur Ross and especially Peter Navarro, director of the White House National Trade Council. Invoking the national-security provisions of the Trade Expansion Act of 1962, known as Section 232, Mr. Trump has just imposed steel tariffs on a range of countries, including many military allies. Mr. Irwin is aghast. "This is a huge and unwarranted slap," he says, "sure to bring retaliatory blowback against American exporters. And thus a triple-harm: It hits U.S. steel-consuming industries and U.S. exporters, and hurts national security by alienating friends."

Mr. Trump has also signaled that he will use Section 232 to impose tariffs on imported automobiles and auto parts. Under what earthly scenario are Japanese cars a threat to U.S. national security? Mr. Irwin treats the question as rhetorical and explains that the statute is "the easiest, least reviewable way in which a president can impose tariffs. Like steel, national security seems to be just a pretense for what is pure protection."



ZINA SAUNDERS

There is no import surge putting America's automobile industry at risk, Mr. Irwin says. To the contrary, "the domestic industry is at a high level of capacity utilization." In 2017, 56% of American-bought light vehicles were domestically produced. The breakdown among imports: 22% from Canada and Mexico, 11% from Japan, and 8% from Germany and South Korea. That adds up to 97% of cars that were either made in America or "came from neighboring countries or those we have an alliance with—not enemies or sources of supply that might be threatened in an emergency." If Defense Secretary Jim Mattis "did not think there was a national case for steel, it's hard to think the defense establishment would believe there's a national-security case for imposing tariffs on cars."

Steel is a leitmotif in President Trump's narrative of trade-driven industrial decline. But the steel industry, Mr. Irwin says, isn't "being decimated by import competition. Imports as a share of domestic consumption are pretty stable—we produce 73% of all the steel we consume. So it's not as though we're completely dependent and we've lost that industry."

The U.S. has lost steel *jobs*, but Mr. Irwin says that's because the domestic industry has become more productive. "In 1980, it used to take 10 worker-hours to produce a ton of steel. Today, it takes less than two worker-hours. So even though we're producing the same amount of steel, or even more, we use many, many fewer workers to produce that steel."

That old newsreel image of workers mixing metals next to furnaces is far from today's reality, which consists of "one or two engineers who are adjusting dials in a highly mechanized place." Bringing back those blue-collar jobs "is just not in the cards," says Mr. Irwin, who attributes the president's insistence othe course to nostalgia—"reflecting back on American greatness after World War II, and trying to recapture those days. Wilbur Ross had a lot of ties to the steel industry."

Even Messrs. Ross and Navarro, "have never fully articulated their protectionist arguments," Mr. Irwin says. "I have the sense that they both have protectionist instincts rather than well thought-out strategies." Both men "seem to pine for yesteryear when the big industries were autos and steel, and there was no foreign competition in sight. They seem very uncomfortable in the irrevocably globalized world of today, in which growth sectors are based on high-tech and intellectual property." Mr. Navarro, he continues, thinks free trade arguments are "outmoded," and has a particular animus against China.

Few economists would disagree that the U.S. has serious problems in its economic relationship with China, and Mr. Irwin points out that matters have become worse as China has "moved away from a more market-oriented approach" under President Xi Jinping, "who's embracing a more mercantilist approach, or even an overtly protectionist one in parts of his 'Made in China 2025' initiative"—Beijing's master-plan to bolster its high-tech industries.

The U.S., Mr. Irwin says, needs strong allies in Europe and Asia to "counter China when it violates the letter or spirit of its World Trade Organization commitments, and the Trump administration has done little to cultivate such allies. Instead, it seems bent on alienating them."

Mr. Navarro, author of a book called "Death By China," takes a different view. He has spoken of "repatriating the supply chain, bringing it all back home," in Mr. Irwin's paraphrase. "While this hasn't become explicit administration policy, it does reflect Navarro's broader anti-globalization sentiment. If undertaken, it would tear apart the system of trade the U.S. has sought to create over the past 70 years."

As for Mr. Ross, Mr. Irwin says he seems to emphasize reciprocity "quite a bit" and he "likes to pick instances in which U.S. tariffs are lower than those in Europe or Asia." For example, Mr. Ross juxtaposes the 10% European Union tariff on cars with the U.S. tariff of only 2.5%—but neglects to mention the 25% U.S. tariff on trucks. "If he were really concerned about higher foreign tariffs, he'd propose a free-trade agreement with such countries, bringing all tariffs down to zero," Mr. Irwin says. That would be "pure reciprocity, and presumably a 'winner' for the U.S., since other countries would have to cut their tariffs more than the U.S. would." Instead, Mr. Ross pushes for raising tariffs on U.S. imports, which "handicaps downstream user-industries by inflicting higher costs on them and pushes up prices for consumers."

Mr. Irwin acquired his penchant for free trade when he studied at Columbia, where Jagdish Bhagwati was his doctoral adviser. Mr. Bhagwati, 83, still teaches economics at Columbia, and Mr. Irwin points to his "seminal contribution to trade theory, which was to delink free trade from laissez-faire, as well as to point out that countries will grow more rapidly by exporting rather than through import-substitution."

Mr. Irwin's other inspiration is Cordell Hull, "a deeply underrated figure." Hull was the longest-serving U.S. secretary of state, in office from 1933 to 1944. He was awarded the Nobel Peace Prize in 1945 for helping to create the United Nations and he was, Mr. Irwin says, "one of the creators of the postwar international trade architecture. His view was that world trade dovetailed with world peace."

What would Hull have made of Mr. Trump's tariffs? "He would be horribly dismayed," Mr. Irwin answers, "and would contend that a turn toward a more protectionist America would make the world a more dangerous place by increasing economic friction and fragmenting alliances." Hull would also "lament the loss of American leadership in trade relations as a rejection of the 'destiny of history.'"

The U.S. must now contend with China, which is pushing hard to usurp America's global leadership—and not merely in the sphere of trade. China has a "strategic blueprint for where it wants to go," Mr. Irwin says. "Trump, in contrast, has these trade instincts but no plan." The obsession with reducing the bilateral deficit with China appears to have blinded the administration to the need to address "the real structural problems we should be talking about, like protecting intellectual property, transparency, whether you need to partner with a Chinese firm if you go in as a foreign investor, and the rule of law."

America's relationship with China, one might say, is unprecedented in history, being the first example of two world powers that are so interdependent in trade even as they grapple for global supremacy. "The two economies are intermeshed in terms of supply chains," says Mr. Irwin, "as well as in the direct investment that U.S. firms have made there." Unlike Japan in the 1980s, which moved very quickly to accommodate the U.S. when President Reagan threatened protectionism, "China has a lot of threat points that would enable it to retaliate against the U.S."

Mr. Trump would like to see the trade deficit go down and U.S. manufacturing revived. But "his macroeconomic policies are almost guaranteed to lead to larger trade deficits, not to a smaller one," Mr. Irwin says. Since Mr. Trump took office, the U.S. has cut taxes and raised government spending, so that the fiscal deficit is going up. The trade deficit often shadows the fiscal one, because exports get crowded out when the Federal Reserve tightens credit and the dollar appreciates. "We're then going to get capital inflows from abroad," Mr. Irwin says, "and the trade deficit is going to go up."

So, thinking of trade as a process of "reaching these deals, where China agrees to buy more, doesn't add up to a lower trade deficit if you have these big macroeconomic forces moving exactly in the opposite direction." Mr. Irwin predicts that Mr. Trump "is going to be very frustrated at the end of the first term."

Mr. Varadarajan is a fellow at Stanford University's Hoover Institution.

The Hostile Occupation of Carlos Lopez's House

CROSS COUNTRY
By Rikka Fountain

Palmdale, Calif.

If Carlos Lopez lived anywhere but California, he could have forced the squatter out of his modest rental house months ago. But here any eviction defendant, even one who has admittedly refused to pay the rent, can get a free attorney and demand a jury trial as leverage. That's what the woman occupying Mr. Lopez's house in northern Los Angeles County did. Only ethics or ignorance prevents every evictee from doing the same.

As Mr. Lopez's lawyer, I was skeptical when he told me someone was living in his house without payment or permission—until I discovered that my firm had helped evict the same woman from three other area houses. The difference this time was that the squatter had an attorney, provided by a state-funded nonprofit whose mission is to reduce evictions. As a result, she could practically decide for herself when and how she would leave.

Like many small-time landlords, Mr. Lopez, a landscaper, couldn't afford a lawsuit costing anywhere from $8,000 to $20,000. He was dealing from a nearly powerless position with someone to whom, he says, he never agreed to rent and who never paid him a cent. He says she showed up after his former tenant went to jail.

"This is not worth it," Mr. Lopez said of being a landlord. He hopes to sell the house, which he inherited, once it's vacant.

Historically, eviction was intended to be faster and simpler than other civil litigation so that landlords could quickly reclaim their property from deadbeat tenants. In California, jury trials for evictions were nearly unheard of until the mid-2000s, as they still are in other states. Most residential leases included jury waivers, and most tenants couldn't afford the legal expense of a jury trial.

That changed in 2005, when the California Supreme Court ruled jury waivers unenforceable. Lawyers swarmed to represent tenants free, making money by demanding landlords pay tenants thousands of dollars to leave. Landlords pay because it's cheaper than litigation.

Legal-aid attorneys now use similar tactics. Their presence in eviction courts has increased since 2011 because of the Sargent Shriver Civil Counsel Act, which provides $9.5 million a year of state funds for free legal help in civil cases. (It also funds offices within the Los Angeles County courthouses that give eviction defendants free help preparing their documents.) Even attorneys who don't demand payoffs seek several free months of residence, a waiver of unpaid rent, a sealed judgment, and a reference letter from the landlord so that future landlords won't know the tenant's history.

Many tenant advocates think this should be the norm. In San Francisco, a proposition on next Tuesday's ballot would give all eviction defendants the right to a city-funded attorney, regardless of income or reason for eviction. Tenants with attorneys always demand discovery, depositions and a jury. This drives landlords' legal costs up from the typical flat fee of several hundred dollars to tens of thousands.

Under California law, deadbeat tenants and even squatters can ruin working-class landlords.

That would be great for attorneys and for tenants who don't pay their rent. It's bad for tenants trying to enter the crowded San Francisco rental market and for the already sluggish court system. As word spreads among landlords that references and civil records are unreliable, they'll focus on other ways to vet tenants, such as credit checks. But many people with low credit ratings still prioritize their rent, so a system that protects bad tenants penalizes many trustworthy applicants who happen to be poor.

Lawyers at my firm have approached legislators about making changes to the law, but no politician wants to be branded anti-tenant—especially when activists and scholars blame evictions for homelessness.

The data suggest that assumption is wrong. California's eviction rate is among the lowest in the nation and falling, according to research by the Eviction Lab at Princeton University. Meanwhile, California's homeless rate is the third-highest and rising, and the highest in the nation for unsheltered homeless, according to the Department of Housing and Urban Development. Hawaii and New York, the two states with higher overall homeless rates than California, also have below-average eviction rates.

Contrast those states with Connecticut, where the eviction rate is three times California's. The homeless rate is less than a third as high and has fallen substantially since 2010. If a tenant contests an eviction in Connecticut, the landlord can demand rent payments be made to the court while the case is litigated. Automatically answering nonpayment evictions with check-the-box disrepair claims doesn't have the same tactical advantage as in California.

Even without the jury demands, California's eviction system is tough on landlords. In northern Los Angeles County, answering an eviction buys the tenant at least two months, because that's how long it takes to get to trial. If a tenant refuses to comply with a court-approved eviction, it takes police at least a month to enforce it.

The 2008 housing-market crash hit this part of Southern California hard. A decade later, many homeowners are still underwater or have little equity. Many who inherited houses or wanted to move chose to become landlords rather than sell in a down market. Many, like Mr. Lopez, use rental income to pay their mortgages. Some rent rooms in their own homes to make ends meet.

California law treats these part-time landlords no differently from wealthy owners of multiple properties. But working-class landlords don't have deep pockets for litigation. Some, like Mr. Lopez, quit renting properties after feeling extorted by the system. Others let the property slide into foreclosure. Every time this happens, California's shortage of affordable housing gets worse.

Ms. Fountain is an attorney at Charlton Weeks LLP and a part-time landlady.

REVIEW & OUTLOOK

Singapore or Bust

Trump gets the summit he wants with Kim Jong Un.

The Trump Presidency is often harrowing but never dull, so perhaps it was inevitable that a summit between Donald Trump and North Korean dictator Kim Jong Un would be back on again. The two adversaries who were publicly trading schoolyard taunts a few months ago will now meet on June 12 in Singapore after all, and the only thing we can say with any confidence is that no one has a clue what will happen.

Mr. Trump announced that the summit is back on a week after he cancelled it amid North Korean insults and unanswered phone calls. But in a sign of the surreal nature of this diplomacy, Kim then sent a top emissary who is on the U.S. sanctions list, Kim Yong Chol, to meet in New York with Secretary of State Mike Pompeo. On Friday Kim Yong Chol met with Mr. Trump for more than an hour in the Oval Office, and the summit was full speed ahead.

"I think we're over that, totally over that, and now we're going to deal and we're going to really start a process," Mr. Trump said at the White House. "The relationships are building and that's a very positive thing." Asked if the North had committed to giving up its nuclear weapons, Mr. Trump said, "I think they want to do that. I know they want to do that."

But there is the rub. If the North is committed to giving up its weapons, it hasn't said so publicly. It has merely committed to a diplomatic process and a "phased" denuclearization in return for certain unspecified concessions from the U.S. But that is also what the North committed to do in the 1990s and again in the 2000s only to continue its nuclear work in secret and eventually toss out United Nations inspectors.

The summit will be an immediate propaganda coup for Kim, a sanctioned rogue who will appear on the world stage with a U.S. President for the first time. The question is what Mr. Trump will be able to take away beyond the photos of a presidential meet and greet. Mr. Trump is nothing if not confident in his negotiating abilities, and he clearly savors dominating world attention with this kind of made-for-global-TV drama.

But he also isn't known for mastering policy details, and it was only days ago that the North released three American hostages after months of captivity, and only months ago that it essentially murdered American tourist Otto Warmbier after arresting him for trying to take home a wall poster.

On Friday Mr. Trump ignored all that and said "I don't want to use the term maximum pressure anymore. I don't want to use that term." He added that "we're getting along. You see the relationship. It's not a question of maximum pressure." Mr. Trump always overdoes the diplomatic flattery, but no one should forget that Kim and his family run a country that is essentially a prison for millions—and a literal prison for tens of thousands.

Perhaps a summit like this is worth trying since nothing else across four American Presidencies has worked to stop the North's drive to become a nuclear power that can strike the U.S. We certainly hope for success, but Mr. Trump will have to be prepared for the consequences if Kim is merely there for the show.

The Rising Jobs Tide

Faster growth is drawing workers off the sidelines, but will tariffs interfere?

The U.S. economy is picking up speed, and it's paying dividends in an expanding job market. The Labor Department reported Friday that the unemployment rate fell in May to 3.8%, an 18-year low, while more workers are joining the party from the sidelines. President Trump's tax reform and deregulation agenda appears to be working, assuming his protectionist trade policies don't interfere.

Employers added 223,000 jobs in May, exceeding the monthly average of 191,000 over the last year. Although labor-force participation remains stuck at a stubbornly low 62.7%, the report's details show that workers who are often on the edges of the economy see opportunities worth grabbing. Notably, the number of people who have been jobless for 27 weeks or more has fallen by 476,000 over the last year. The number of full-time workers has increased by about three million while part-timers have dropped by 457,000.

In particular good news, the jobless rate continues to fall for workers with less than a high school diploma (5.4% from 6.2% a year ago) and black Americans (to 5.9% from 7.6%) as 208,000 blacks joined the labor force. Workers age 25 to 34 made up 1.04 million of the 2.58 million jobs added over the last year while those over 55 contributed 1.08 million. Job and wage growth may finally be inducing young people out of their parents' basements.

All of this fits with the anecdotal news from employers who say they can't find enough workers. Manufacturers have reported employing high-school students. In Maine where the unemployment rate has dipped to 2.7%—the lowest in more than 40 years—a temp agency has built a thriving business out of hiring and rehabilitating convicted felons who have served their time.

Amid stiff competition for workers, employers are also raising wages, which have climbed 2.7% in the last 12 months but showed signs of accelerating with a 0.3% increase in May. This is less than what some economists project at such a low jobless rate, but the aggregate figure may be somewhat depressed by the huge increase in employment among lower-skilled workers.

A Chick-fil-A in Sacramento this week said that it would increase worker pay to $17 per hour to reduce employee turnover. Walmart this week announced plans to subsidize college tuition for employees. The Journal last week reported that a Colorado company is trying to lure more plumbers by offering craft beer, a putting green and "a lot of Zen." We'd prefer cash, but we won't judge millennials.

Despite glum headlines of Sears closing dozens of stores, retail jobs increased by 31,000 last month and 125,000 over the last year. Employment in construction has swelled by 286,000 since May 2017.

The Labor Department last month reported 6.6 million job openings. The tight labor market underscores the need for more seasonal guest workers, and the Labor Department ought to approve more H-2B visas to meet the economic demand this summer. Immigrants aren't stealing jobs from Americans; they are creating more opportunities for economic growth.

In the last year business confidence has improved, investment is increasing and workers are reaping the benefits. Please don't blow it with a trade war, Mr. President.

The Catholic School Difference

A new study shows the benefit of demanding student self-discipline.

For the thousands of nuns who have served as principals at Catholic schools, their emphasis on self-discipline must seem like common sense. But a new academic study confirms the sisters are on to something: You can instill self-discipline in students, a virtue that will help them in their studies and later in life.

The study was conducted for the Thomas B. Fordham Institute by University of California-Santa Barbara associate professor Michael Gottfried and doctoral student Jacob Kirksey. The authors analyzed two waves of national data on elementary school students collected under the Early Childhood Longitudinal Study for the National Center for Education Statistics. They compared children in Catholic schools with those in public schools and other private schools, religious and secular.

The authors found statistically meaningful evidence that students in Catholic schools exhibited less disruptive behavior than their counterparts in other schools. "According to their teachers, Catholic school children argued, fought, got angry, acted impulsively, and disturbed ongoing activities less frequently," the authors write. Specifically, students in Catholic schools "were more likely to control their temper, respect others' property, accept their fellow students' ideas, and handle peer pressure." In other words, they exhibited more self-discipline.

The authors concede their findings aren't causal, meaning there might be unobservable differences between students in different schools that account for the striking differences they have found. But the correlation is strong between the focus that Catholic schools put on self-discipline and better student behavior. We also know that, especially in urban areas, black and Latino students who attend Catholic schools show higher achievement, higher graduation rates and higher college enrollment than those at nearby public schools.

At a time when the different suspension rates between minority and non-minority students has become a toxic debate, the authors offer three key judgments:

First: "Schools that value and focus on self discipline will likely do a better job of fostering it in children." If other schools "took self discipline as seriously as Catholic schools do, they wouldn't have to spend as much time, energy and political capital on penalizing students" for bad behavior.

Second: "Assuming that these results reflect a 'Catholic Schools Effect,' other schools might consider both explicit and implicit methods to replicate it." The report notes that some "no excuses" charter schools are already doing this, through the curriculum or the way students interact with adults and teachers who model self-discipline themselves.

Third: "Don't underestimate the power of religion to positively influence a child's behavior." Religion isn't the only way to foster self-discipline, the authors emphasize, but it's effective compared to most of the alternatives in channeling youthful energy into productive self-control.

Though the authors offer no easy prescriptions, they do say it is a "tragedy for the nation" that so many Catholic schools continue to close when they are most needed. Their lessons are worth preserving.

LETTERS TO THE EDITOR

Million-Dollar Man? This Is Proof of Idiocy

Orthodontist Mike Meru cannot be blamed for putting in place a system that in the end, after 25 years, allows the eventual discharge of his million-dollar-plus educational debt onto taxpayers, many of whom could never dream of earning over $200,000 a year, and likely helped their own kids get through college and beyond ("The $1 Million Student Loan: 'Should I Be Doing This?,'" page one, May 26). Some millennials with broad cultural support to pursue their dreams seem to be under the impression that their fellow taxpayers are somehow obliged to finance those experiences. The concern for many is how are this country's interests advanced by subsidizing a well-intentioned educational-loan system apparently without sufficient taxpayer safeguards or loan limitations?

PAUL E. ZIMAN, D.D.S.
Minneapolis

The student-loan program was once a program that helped close a funding gap for students wanting a college education. The program today has dramatically inflated the cost of college, led to a proliferation of worthless degrees, and now provides me the privilege of paying the cost of other people's bad decisions.

MICHAEL J. LALLY
Overland Park, Kan.

Student-loan programs' structural flaw is that they focus concerns for repayment on taxpayers and the students/borrowers while ignoring the schools themselves. This has resulted in rampant creation of too many loans. Many graduates are burdened with obligations they can never fulfill, and the taxpayer is left to pay for ever-more defaulted loans. There's no incentive for schools not to make a loan. By the time the issue of nonpayment arises, their former student is long gone. The remedy is simple. In order to participate in the loan program, schools should become liable for some percentage of future defaults. This could be 5%, 25% or more. The consequence will be that schools will turn their attention from short-term considerations such as making students happy and the quantity graduated to considerations of whether the loan represents a worthy risk of their resources.

DON W. BROWN
Los Angeles

It's time for Uncle Sam to get out of the student-loan business.

STEVE LENNART
Warrenville, Ill.

My dad would tell us about going to dental school at the University of Maryland, Baltimore, at the height of the Great Depression. According to Dad's story, he shows up on the first day of class and pleads poverty to the dean, who inquires whether he can afford to pay half tuition. Dad says no. Dean then asks if he can pay any part of the tuition. Dad again says no. So Dean offers to waive the tuition requirement, so long as Dad promises to donate to the school once he goes into practice. And that's precisely what Dad did.

JON FOX
Linwood, N.J.

You Wouldn't Think Sea Level Is So Complex

Prof. Fred Singer ("The Sea Is Rising, but Not Because of Climate Change," op-ed, May 16) is right: CO_2 emissions have no detectable effect on sea-level rise. Profs. Andrea L. Dutton and Michael E. Mann (May 22 letter) claim, without measurable evidence, that human-caused climate change raises sea levels.

Sea-level is rising in some places and falling in others. Globally, sea levels are very slowly rising, but "human-caused climate change" cannot be the cause, because the rate of rise is no greater now than when the first Model A rolled off Ford's assembly line.

Since precise measurements began, mean atmospheric CO_2 level has risen for 58 consecutive years, with no detectable acceleration of sea-level rise. Clearly, human-caused warming doesn't significantly increase the rate of sea-level rise.

Profs. Dutton and Mann also suppose the Antarctic ice sheet simply must lose ice in a warming climate because of "basic physics." That's also nonsense. Most of Antarctica averages far below freezing, so a few degrees of warming won't melt it. Melting decreases ice-sheet mass balance, while snowfall adds to it, offsetting sea-level rise. Multiple studies confirm accumulating snow on ice sheets increases as the climate warms, the result of downwind "ocean effect snowfall."

Compelling evidence shows global warming from fossil-fuel use is modest and benign, and higher CO_2 levels measurably benefit agriculture and natural ecosystems, outweighing hypothetical harms.

DAVID BURTON
Cary, N.C.

THOMAS WYSMULLER
NASA meteorologist (Ret.)
Ogunquit, Maine

The North Helped Reconstruction's Failure

David S. Reynolds's review of Allen C. Guelzo's "Reconstruction: A Concise History" (Bookshelf, May 22) is incomplete and misleading. The determining reason for the failure, and it was a failure, of Reconstruction was the pervasive white Northern antiblack attitude during and after the antebellum period. The North won the war decisively; with the Confederacy in shambles, the South could never have thwarted Northern efforts to bestow full citizenship on former slaves. White Northerners who opposed slavery on moral (and economic) grounds, were mostly anti-black and weren't about to shed white Southern blood for black rights.

The biggest racial fear of the antebellum white North was a black migration northward. The black abolitionist Samuel R. Ward summed up Northern attitudes in the 1840s: White abolitionists "best love the colored man at a distance." The South provided the distance. Lincoln's right hand, William Henry Seward, despite impeccable abolitionist credentials didn't mince words: The "African race here is a foreign and feeble element . . . incapable of assimilation."

During the Civil War, both Illinois and Massachusetts blocked the resettlement of slave refugees. Republican-appointed Supreme Court justices eviscerated civil-rights legislation. President Grant didn't send troops to Mississippi when black suffrage was overturned. Republican George Boutwell even admitted that civil rights were an "expediency" to keep freed slaves in the South.

The North's black population stayed at 2% while millions of white immigrants settled there. This would change only when World War I produced a labor shortage which ignited the Great Migration of blacks north, where race riots ensued. Racial separation became a fixture of the nation long before the Kerner Commission (1968) belatedly acknowledged America's "two societies."

GENE DATTEL
Lakeville, Conn.

Jailed for Practicing Illinois Politics: Quelle Surprise

It appears that former Illinois Gov. Rod Blagojevich ("I'm in Prison for Practicing Politics," op-ed, May 29) seems to have forgotten that in June 2011 the jury found him guilty of 11 counts related to trying to sell the Senate seat vacated by Barack Obama and six counts related to fundraising extortion. Unless, of course, he still considers those actions "routine practices of politics and government" (his words) which, given that he had held elected office in Illinois, is very possibly correct.

JIM MUELLER
Indianapolis

1941 Was a Squeeze Too Far

Regarding your editorial "Putting a New Squeeze on Iran" (May 22): We put the squeeze on Japan in early 1941. What happened then?

JOHN FRAY
Rye, N.Y.

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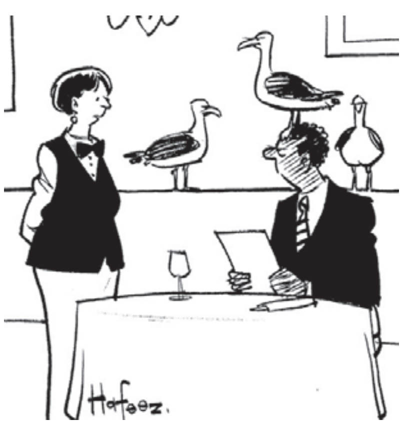
Pepper ... And Salt

THE WALL STREET JOURNAL



"The fish sticks here are very good."

We Must Improve Our Trust

DECLARATIONS

By Peggy Noonan

I have been thinking about trust. All the polls show and have for some time what you already know: America's trust in its leaders and institutions has been falling for four decades. Trust in the federal government has never been lower. In 1958 Pew Research found 73% trusted the government to do what is right "always" or "most of the time." That sounds healthy. As of 2017 that number was 18%. That's not.

Other institutions have suffered, too—the church, the press, the professions. That's disturbing because those institutions often bolster our national life in highly personal ways. When government or law turns bad, they provide a place, a platform from which to stand, to make a case, to correct.

American institutions—and therefore democracy itself—are frailer than we realize.

A problem that has so many parts and so much history—from Vietnam to Twitter bots—will not easily be solved. But there are things we can do individually to help America be more at peace with itself.

First, realize this isn't merely a problem but a crisis. When you say you believe in and trust democratic institutions, you are saying you believe in and trust democracy itself. When you don't, you don't. When a nation tells pollsters it's unable to trust its constituent parts it's telling pollsters it doesn't trust itself.

It's time to see our mighty institutions with their noble facades—the grand marble court houses, the soaring cathedral—for what they are: secretly frail and in constant need of saving.

When you're young and starting out you imagine institutions are monoliths—big, impervious to your presence. Later, having spent time within, you know how human and flawed it all is, and how it's saved each day by the wisdom and patience—the quiet heroism—of a few. Be one of the few.

If you're young it would be good at this point to enter your profession with a premature sense of the frailty of everything.

Six years ago I was invited to speak to a small West Point class. Polls had come out showing that the U.S. military still retained the trust of the people, and this was much on my mind. I wondered if the cadets knew how much was riding on them.

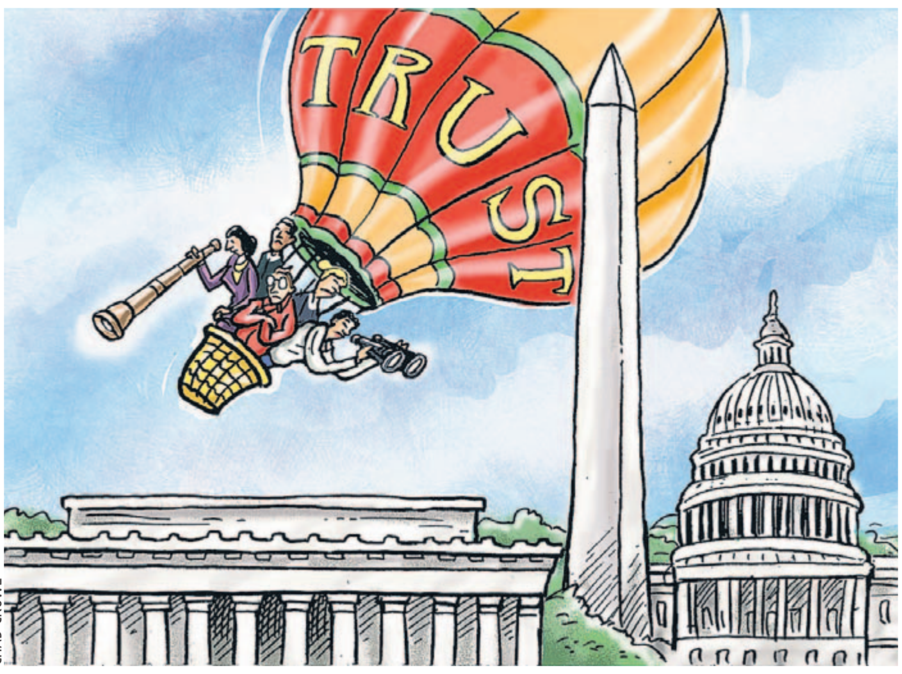
I told them the institution they're about to enter was among the last standing, and one of their great jobs will be to keep it trustworthy.

Naturally maintaining their institution's moral stature was not the main focus of their minds. So I told them a story of a great army of the West, admired by all, that did something wrong, and then a series of things, and by the end, when it came out, as such things do, it broke that army's reputation in a way from which it never quite recovered. I was speaking of France and the Dreyfus affair. They had not heard of it.

There should be a course in it.

I urged them to conduct themselves so that such a thing could never happen in the U.S. Army. I don't think I left them rushing to download Émile Zola on their iPads. I do think they were hearing for the first time how much America depends on them not only for military expertise but to keep up the national morale.

In many ways we're too national in our thinking. Don't always be thinking up there. Be thinking here, where life takes place. In building trust think close to home. If your teenager judges an institution called Business in America by the billionaire hedge funder spouting inane thoughts on cable TV with a look on his face that says "See how original I am!" then capitalism is doomed. You can't make your teenager admire slippery, rapacious tech gods in Silicon Valley. But if your children understand business in America as modeled by you—as honorable men and women engaged in an honorable pursuit—then they will have respect for the institution if business. If for no other reason be honest in your dealings, be compassionate, and provide excellence.



Realize there's a difference between skepticism and cynicism, that one is constructive and the other childish.

Skepticism involves an intellectual exercise: You look at the grand surface knowing it may not reflect the inner reality. It implies action: If it doesn't, try to make it better. Cynicism is a dodge: Everything's crud, you'd be a fool to try and make it better, it's all irredeemable and unchangeable.

Be skeptical of our institutions, not cynical toward them.

For those who operate on any level of our public life, hear this: Some of our problems can be resolved or made less dramatic and assaultive by an old-fashioned concept that used to exist in American public life. It is called tact. We are in an epidemic of tactlessness, which is an absence of respect for the other side, for whoever is on that side. It is an utter lack of generosity and sensitivity.

"Bake my cake" is, among other things, a stunning example of lack of tact. You're supposed to win graciously, not rub the loser's face in it.

If you are, say, in the U.S. Congress, where both parties failed for a quarter-century to regulate our borders effectively, and those forced to live with the results of that derogation rise up and demand action, the correct response is not to imply they are nativist racist bigots.

You listen to people, you don't label them insultingly.

A tactful response? "We take your point—we haven't succeeded and we'll try to get it right. In the meantime, since we're all imperfect human beings, please don't let your anger turn into something small, biased and narrow. While you investigate your heart, we will get to work."

You lose nothing when you hear and respect criticism. *You gain trust.*

Finally, we ask so much of government, which is not, we know, the most competent of institutions. When we ask too much and multiply its tasks, it's likely to fail, and when it does we become angry—and trust goes down again.

Our founders were skeptical of concentrated power. The power of government, arrayed against the individual, could crush him. They devised checks, balances, enumerated rights. Those who believe in their wisdom should speak of it more persuasively.

To this day many Republicans speak of what they call "limited government." This is an unfortunate and unpersuasive phrase. Usage changes. To most people "limited" means insufficient, not up to the task. "He had the heart of a quarterback but was limited by his small stature." Americans know they have limited government. They've been to the DMV. What they'd like is a government that acknowledges its limits and understands itself as one of many players in the democratic drama—not the central player but a present and competent one. A realistic government, a humble government, at the very least a more collegial one.

President Trump cannot help. Increasing public trust is not his declared mission, and what it would take is not in his toolbox. He tends in his statements to undermine trust: His own government is embarked on a deep-state witch-hunt conspiracy, his agencies are incompetent, the press is fake-news liars.

What can be handled by us, should be. We can't go forward this way.

Conversion Therapy Isn't the Cure for 'Toxic Masculinity'

By Crispin Sartwell

It's traditional to regard other people's gender and sexuality as pathological. Mostly male medical professionals once diagnosed "female problems," including hysteria, fainting spells and chronic irrationality. Doctors and psychiatrists considered homosexuality an illness, and for decades it was listed as such in the diagnostic manual of the American Psychological Association. Some still try to treat homosexuality as a curable condition. Gender nonconformists have been relentlessly pathologized, stereotyped, and even criminalized wherever they wandered into public view.

Yet these traditions are being inverted. Macho men are now taking what we've dished out, and "toxic masculinity" is being blamed for school shootings, wars, sexual harassment, and even—God forbid—Donald Trump, who is held up as its very embodiment. Since people who regard themselves as masculine have spent centuries diagnosing other people's identities, this turnabout might be considered fair play.

There is a certain poetic justice in the reversal. But that doesn't make it a sensible, effective or morally decent approach to any particular societal problem. I can only say what members of these marginalized groups have said for years: Get your hands off my . . . gender.

"Too many boys are trapped in the same suffocating, outdated model of masculinity, where manhood is measured in strength, where there is no way to be vulnerable without being emasculated, where manliness is about having power over others," the comedian Michael Ian Black lamented in February. "They are trapped, and they don't even have the language to talk about how they feel about being trapped, because the language that exists to discuss the full range of human emotion is still viewed as sensitive and feminine." Inspired by Mr. Black's essay, two New York Times writers offered conversion therapy in the form of a lesson plan. It's supposed to prevent mass shootings.

We guys, evidently, find ourselves caged in a world without emotion or even language. We are accounted for as evolutionary throwbacks. Adapted to hunting mammoths, our services are no longer required in a world of yoga studios, chai lattes and universal love. This too—the gentle hint that men are baboons as much as humans—is quite a traditional way of devaluing very large groups.

This trend has transcended thinkpieces and entered real life. The "Boys to Men" program in the Maine public schools retrains middle- and high-school boys away from pathological machismo. The program begins with a "gender box" exercise. "The group leader draws a big box on the chalkboard, and the boys brainstorm stereotypes of masculinity. All of those go inside the box. Then they discuss what happens if a guy tries to behave in a way that's not described in the box," according to the Guardian. "Empathy is the glue that holds together all of the ideas in the course." After that, curing masculinity is as easy as thinking outside the box.

Doctors once regarded homosexuality and 'female problems' as diseases. The reverse is no better.

These interventions use a hyper-general idea about a whole population—call it a stereotype—as an explanation for specific phenomena. It isn't much more insightful than blaming mass shootings on "society" or "social media." Seldom can anyone explain how masculinity specifically affected the shooters or put them in motion. Unless they can make that connection directly, the critics of masculinity haven't explained anything. And I would caution against sheer stereotyping or bigotry as a plausible style of inference. Taking a few problematic people and tainting whole groups as inherently flawed, inferior or pathological—it's never ended well.

Nor should boys be trained in femininity. There isn't any reason to believe it will ameliorate the problems, and it isn't anyone's job. We ought to leave each person's gender to himself or herself. That the conversion therapy is directed in this case at a "dominant" group does not make the thinking clear, the ethics decent or the treatment effective.

No doubt masculinity—like femininity, for that matter—has bad as well as good effects. But the results of trying to box it up are incalculable. Start with the following principle, a hard-won insight from a century of bad diagnosis of people's sexual identities as dysfunctions or crimes: No one is called upon to be the gender police.

Mr. Sartwell, an associate professor of philosophy at Dickinson College, is author of "Entanglements: A System of Philosophy" (State University of New York, 2017).

What CBS's Boardroom Blood Feud Says About TV

BUSINESS WORLD

By Holman W. Jenkins, Jr.

References to the Tiffany Network have been scarce in the latest corporate brawl over control of CBS. The phrase harks back to a time when network TV was awfully important.

Network TV isn't what it used to be, but the CBS battle is sufficiently juicy to have occupied the New York and L.A. media for the past several weeks. In one corner is Shari Redstone, who controls 10% of the stock and 80% of the voting rights in thriving CBS, and wants CBS to acquire flailing Viacom, in which she also owns 80% of the voting rights.

In the other corner is CBS's long-serving CEO, Leslie Moonves, and a majority of his board. They apparently have been chomping to get out from under Ms. Redstone's special powers and now see her conflicted role in the Viacom proposal as a chance to free themselves.

Our own view is that voting-rights lockups are a mixed bag but public investors can choose not to live under them simply by not buying the stock. To give the standard plug, such lockups allow ruling families to consider the public interest rather than Wall Street when running media companies. Even a defender like veteran studio executive Edward Bleier, however, recently took to the pages of industry publication Broadcasting & Cable to chastise Viacom for giving the practice a bad name.

But the matter is complicated. Mr. Moonves himself has blown hot and cold on a Viacom deal. A reunion (the companies were under the same roof until 2006) would actually fall pretty much in line with the strategic reaction of other TV powers to the streaming revolution, which has been to double down on traditional TV content.

Comcast is chasing after the cable and studio assets of Fox; AT&T is buying those of Time Warner. In both cases, physical network operators apparently see television as a sweetener in the battle for broadband subscribers. They also see digital TV as a platform for competing with Google and Facebook in targeted advertising.

Even more relevant to CBS and Viacom is the Disney example. Disney also seeks the Fox assets because it says it wants to compete directly with Netflix in the streaming business. Disney even says it will stop selling shows to Netflix when current deals expire.

Believe the first part. Don't believe the second part. Disney will certainly launch its own streaming apps in a multifaceted strategy to lure top dollar for its many valuable franchises (e.g., "Star Wars"). But Netflix is hardly turning out to be the hit factory that its own big content production budget was supposed to make it. Netflix will remain a buyer of Disney content. So will Amazon, the broadband companies, Facebook, Google and Apple as they pursue their own ambitions.

Disney has it right: Owning and creating great content is key to survival.

Disney is seeking to become a stronger version of what it is now, a premium content purveyor to many customers. If you own and can create great shows, this will certainly be the safest place to be among the tsunamis that are breaking. And if it makes sense for Disney, why not for CBS-Viacom, which would bring together the rights and talents embodied in the CBS broadcast network, Showtime, MTV, Comedy Central and the Paramount movie studio?

One of these tsunamis is the long-promised broadband assault on the traditional cable bundle, by too many players now to list. The other is the arrival of 5G wireless.

Cable guys once comforted themselves that after their TV profits withered, they could still count on the fat margins generated by their local broadband monopolies and duopolies. Not any more. T-Mobile, keen to win Washington backing for its own proposed merger with fellow wireless operator Sprint, is already promising to roll out a full-blown TV offering over wireless later this year that will be available not just on your phone, but on the big screen in your rumpus room. Hold on tight. How Americans buy access to the internet and video content is about undergo a major shakeup.

CBS's boardroom uproar is mostly a distraction from this main event, but it fulfills a demand for human drama, with identifiable characters: the frustrated heiress waiting to come into her glory; the long-serving CEO chafing to be his own man.

As a side note, Amazon is perhaps your best bet to turn the CBS maelstrom into a future movie or miniseries. Amazon is big in video, but video isn't big to Amazon; other candidates like Fox and Comcast's NBCUniversal may find that the family boardroom issues cut a bit too close to home.

In fact, Amazon's Jeff Bezos stands out in the tech and media sandboxes as one founder who has not endowed himself and his heirs with special voting rights. And depending on how things play out at the Tiffany Network, CBS's Mr. Moonves, who began life as a TV actor, may even be available to play himself.

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SPORTS

STANLEY CUP

The Russian Leading a Hockey Boom

Alexander Ovechkin has led the Capitals to the Stanley Cup Finals—and has helped spur youth participation in Washington

BY RACHEL BACHMAN

BILL WIPPERT/NHL/GETTY IMAGES

Alex Ovechkin tosses a puck to fans before a recent game. Ovechkin ranks among the top five players in merchandise sales this season, according to Fanatics.

THE WASHINGTON Capitals might not be able to match the Las Vegas Golden Knights' glittery, sword-fighting pregame shows. But they carry their own kind of magic as the Stanley Cup Playoffs move to Washington for Saturday night's Game 3: a Russian star and an army of 8-year-olds.

Capitals captain Alexander Ovechkin has built one of the best careers in NHL history, with the Cup the only thing he's yet to clinch. (The Caps are tied 1-1 with the expansion Knights.) The 32-year-old left winger from Moscow has led the league in goals in seven of his 13 seasons, won three league MVP awards and scored a go-ahead goal in the Capitals' Game 2 victory in Las Vegas.

He's also helped spur a hockey boom in the Washington, D.C., area. Since the year before Ovechkin's first season, which was 2005-06, youth hockey participation in D.C., Virginia and Maryland has jumped 37%, according to USA Hockey. That far surpasses the 4% gain for youth hockey nationwide.

"Certainly when the Caps do well, registration is up," said John Rader, president of the Northern Virginia Hockey Club based in Mt. Vernon, Va. The club has doubled its number of skaters to 600 from a decade ago, Rader said.

Ovechkin ranks among the top five players in merchandise sales this season, according to official NHL e-commerce partner Fanatics, and third for youth merchandise, behind only Pittsburgh legend Sidney Crosby and Edmonton wunderkind Connor McDavid.

"He's a great leader and a great hockey player," said 7-year-old Caleb Chen by phone from his home in Clarksburg, Md., during a break from watching Game 1. "He skates really fast. Almost any time he shoots, he scores."

Caleb, who wears a No. 8 Ovechkin jersey and jumps on the couch while watching games, has played hockey for the past two years. His 9-year-old brother, Dylan, has been playing for five. A friend got their father, Feng Chen, interested in hockey and now he's a volunteer board member and recruiter for the Montgomery Youth Hockey Association.

David Carney, MYHA president, said the Capitals' strong play in recent years "has a positive influence on our program, both on interest and intensity of interest."

The 6-foot-3 Ovechkin carries himself with a rough-edged charisma. His playful smile, missing a top-left incisor, suggests kinship with first graders. His preseason assessment of the Caps—"We're not going to be suck this year"—was made into T-shirts.

Thousands of fans, many of them children, lined up outside Kettler Capitals Iceplex in Arlington, Va., last Saturday to glimpse Capitals players coming out of practice.

"I was in the same position they are," Ovechkin said Friday. "When I was a little kid I wore my idols' jerseys. When the kids see you and want to be like you, it's a very special moment."

Girls hockey in the D.C. area also has surged since Ovechkin's arrival, more than doubling to 2,653 players in 2017-18, according to USA Hockey. The Washington Pride hockey club in Rockville, Md., has four teams and a training program for younger players, up from the one team it fielded at its 2001 launch, club director Kush Sidhu said. Among the club's alumni is Haley Skarupa, a gold medalist on the 2018 women's Olympic team who has said she idolized Ovechkin while growing up.

The Ovechkin Effect

Youth hockey participation the year before Alexander Ovechkin's first start with the Capitals and current numbers:

	2004-05	2017-18	% CHANGE
Potomac Valley 18-Under	9,744	13,307	37%
Nationwide 18-Under	369,271	382,514	4%

Source: USA Hockey. The Potomac Valley includes Washington D.C., Maryland and Virginia

Other forces have fueled the transition of hockey from an exotic to a more mainstream sport in the D.C. area. For one, the Capitals' 1997 move from Landover, Md., to downtown Washington made for a more convenient commute for the families that tend to play the pricey sport, Sidhu said.

"It just became easier, more accessible to families that come from more affluent areas," he said. "And the population's been growing, and the economy's been pretty strong. People started to make hockey their primary sport."

D.C.-area adult participation has grown even faster than youth leagues in recent years, nearly tripling in size since Ovechkin's arrival, according to USA Hockey.

Yet the youth numbers are still larger overall, and more striking because they counter the nationwide trend of fewer young people playing sports. In 2017, 37% of children age 6-12 played team sports on a regular basis, down from nearly 45% nine years earlier, according to the Aspen Institute.

A program sponsored by the NHL and NHL Players' Association that gives kids free hockey equipment, including skates, for a relatively modest fee that varies by club also has helped spur growth. The Potomac Valley Amateur Hockey Association grew by 1,700 players age 5-9 just this past season through the program, association president Linda Jondo said.

The only problem with youth hockey's growth is that it's become tough to pick out individual players on the ice, Jondo said. So many jerseys simply say "Ovechkin."

—Chris Gordon contributed to this article.

Weather

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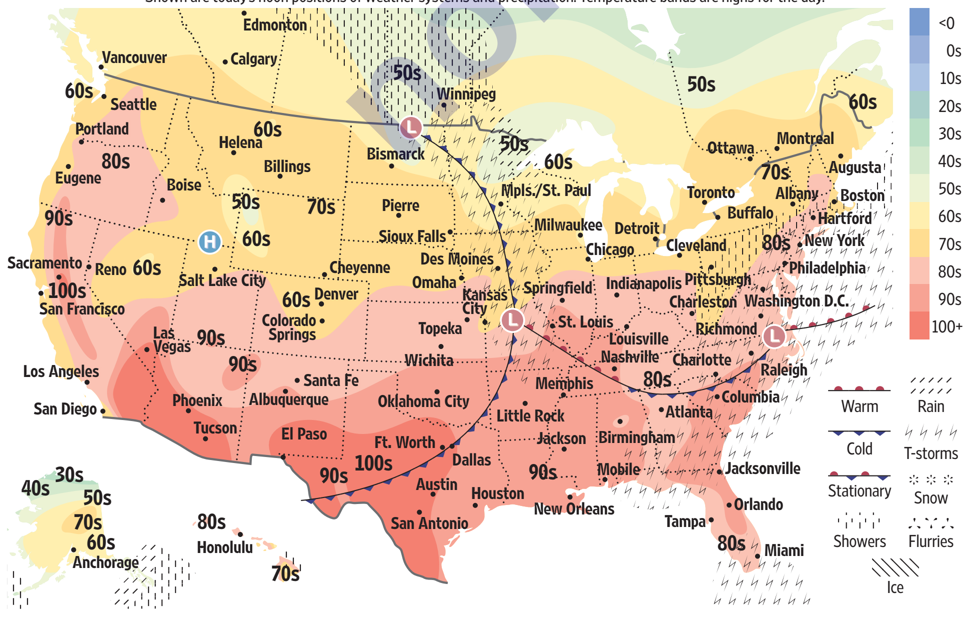

U.S. Forecasts

s...sunny; pc... partly cloudy; c...cloudy; sh...showers; t...t'storms; r...rain; sf...snow flurries; sn...snow; i...ice

City	Today Hi	Today Lo	Today W	Tomorrow Hi	Tomorrow Lo	Tomorrow W
Anchorage	65	49	s	61	47	s
Atlanta	89	72	t	88	67	t
Austin	100	74	s	98	75	t
Baltimore	82	63	t	68	54	r
Boise	81	56	s	91	58	pc
Boston	75	54	sh	62	50	pc
Burlington	76	50	pc	77	52	pc
Charlotte	88	68	t	90	64	pc
Chicago	72	60	pc	73	56	pc
Cleveland	72	60	pc	79	60	t
Dallas	100	72	s	91	69	pc
Denver	79	51	s	82	55	c
Detroit	73	59	s	74	57	t
Honolulu	84	75	pc	86	76	sh
Houston	97	77	s	96	76	t
Indianapolis	86	65	pc	78	56	pc
Kansas City	79	58	t	83	58	s
Las Vegas	100	77	s	104	79	s
Little Rock	95	67	t	87	60	pc
Los Angeles	80	60	s	81	62	s
Miami	88	73	t	89	73	pc
Milwaukee	66	55	pc	73	60	pc
Minneapolis	68	53	r	74	57	s
Nashville	92	70	pc	85	60	t
New Orleans	93	78	t	96	76	pc
New York City	84	62	t	70	54	c
Oklahoma City	92	58	s	85	58	pc
Omaha	79	57	r	83	61	s
Orlando	90	73	pc	89	75	pc
Philadelphia	83	62	t	68	53	sh
Phoenix	105	77	s	108	78	s
Pittsburgh	78	64	c	77	59	t
Portland, Maine	79	50	pc	65	47	pc
Portland, Ore.	81	56	pc	71	53	c
Sacramento	96	61	s	97	62	s
St. Louis	91	66	t	80	62	s
Salt Lake City	77	54	s	83	62	s
San Francisco	77	56	s	73	56	s
Santa Fe	89	55	s	77	50	t
Seattle	74	53	pc	64	49	sh
Sioux Falls	75	50	r	78	55	s
Wash., D.C.	81	65	t	68	56	r

International

City	Today Hi	Today Lo	Today W	Tomorrow Hi	Tomorrow Lo	Tomorrow W
Amsterdam	67	56	t	69	55	pc
Athens	89	69	pc	87	68	s
Baghdad	105	79	s	106	80	s
Bangkok	91	77	t	91	78	pc
Beijing	96	71	pc	89	64	pc
Berlin	77	63	t	79	63	t
Brussels	69	56	t	76	56	pc
Buenos Aires	57	39	pc	57	44	s
Dubai	105	90	s	106	89	s
Dublin	68	52	t	68	49	pc
Edinburgh	67	53	t	64	53	c
Frankfurt	76	60	t	81	60	pc
Geneva	78	56	t	77	58	t
Havana	87	70	pc	88	72	pc
Hong Kong	92	81	t	92	83	c
Istanbul	78	63	pc	77	63	s
Jakarta	91	77	pc	92	76	pc
Jerusalem	75	59	pc	75	60	s
Johannesburg	67	40	s	69	39	s
London	73	56	pc	76	56	pc
Madrid	71	57	t	74	54	pc
Manila	95	79	t	92	80	c
Melbourne	59	42	pc	59	42	pc
Mexico City	82	57	pc	81	54	pc
Milan	85	63	pc	86	64	pc
Moscow	74	55	pc	76	56	pc
Mumbai	93	86	s	92	86	c
Paris	77	57	pc	80	61	pc
Rio de Janeiro	86	70	pc	76	68	r
Riyadh	109	91	s	111	85	s
Rome	81	61	pc	81	63	s
San Juan	89	76	pc	90	77	s
Seoul	82	60	s	85	62	pc
Shanghai	79	67	pc	80	70	pc
Singapore	89	80	pc	88	81	pc
Sydney	62	58	pc	64	56	r
Taipei City	86	76	c	88	77	sh
Tokyo	79	65	s	80	67	s
Toronto	75	58	pc	70	58	r
Vancouver	69	54	c	62	50	sh
Warsaw	82	62	t	83	60	t
Zurich	77	55	t	80	57	t

CYCLING

A CLOUD LOOMS OVER THE TOUR

BY JOSHUA ROBINSON

ATEF SAFADI/EPA/SHUTTERSTOCK

Chris Froome in action during the Giro d'Italia.

THIS JULY IN PARIS, with crowds lining the Champs-Elysées and the yellow jersey on his shoulders, Chris Froome hopes to pull of a feat that only Eddy Merckx, the greatest cyclist of all time, has achieved before: winning a fourth consecutive Grand Tour.

Froome took the Tour de France last summer, the Vuelta a Espana last fall, and completed the set of cycling's three-week stage races last week with his first career Giro d'Italia victory in Rome last Sunday. But with the 2018 Tour six weeks away, Froome couldn't help but look ahead.

"I'm already thinking about it," he said.

So is the rest of the cycling world, but for different reasons.

While Froome dreams of joining Merckx on the sport's mountaintop after a dominant Giro d'Italia, other riders, officials and organizers are cringing at the prospect. Froome has had an "adverse analytical finding"—a failed doping control— hanging over him since last fall. Now, cycling's least favorite question has returned: Which performances can it believe?

"I know from my side, I've done absolutely nothing wrong and it's only a matter of time until that is clear to everybody," Froome told the BBC. "It's unfortunate for the sport and its image, but hopefully we'll get this result as soon as possible."

The provisions of the anti-doping code mean that Froome can continue competing until the proceedings are concluded. But while the process would normally be confidential, news of the test leaked in December, and created awkwardness wherever Froome shows up.

"If I would be in same situation, I would not be here," Dutch rider Tom Dumoulin said at the start of the Giro d'Italia, three weeks before finishing second to Froome.

Even the president of the sport's governing body, the Union Cycliste Internationale's David Lappartient, has said repeatedly that he doesn't believe Froome should be racing. "The burden of proof is not on the UCI. It's on the rider. It's not up to us to prove that he's guilty, it's up to him to prove that he's innocent," he said in an April interview with The Wall Street Journal.

Lappartient's problem is that the UCI doesn't directly have the authority to suspend Froome. That decision is up to an anti-doping court, which has moved through this case like it's riding with two flat tires. Lappartient hopes that a decision is imminent. But the Tour de France kicks off on July 7 and it isn't clear that this will be resolved.

Froome and Team Sky have done their best to shut out the conversation. With the short turnaround to the Tour, they have already begun preparing for him to line up at the start in Noirmoutier-en-l'Île on July 7, awkwardness or not.

License to Drive
Lamborghini's secret for great leadership: get out of the way **B7**

EXCHANGE

The Deal Maker
Peggy Johnson of Microsoft on her most trusted advisers **B4**

DJIA 24635.21 ▲ 219.37 0.9% **NASDAQ** 7554.33 ▲ 1.5% **STOXX 600** 386.91 ▲ 1.0% **10-YR. TREAS.** ▼ 20/32, yield 2.895% **OIL** $65.81 ▼ $1.23 **GOLD** $1,294.80 ▼ $5.30 **EURO** $1.1659 **YEN** 109.52

PHOTO ILLUSTRATION BY THE VOORHEES

How Amazon Wins

As the company relentlessly gobbles up markets in the lucrative cloud business, some partners thrive while others fear a giant competitor

By Jay Greene and Laura Stevens

It is with a certain dread every autumn that some companies described by **Amazon.com** Inc. as its technology partners gather at a Las Vegas convention and find out if Andy Jassy has new plans to encroach on their turf.

These firms run their software on Amazon's vast array of servers—part of what is known as "the cloud"—and from there sell use of their programs to others. Over nearly three hours, the boss of the Amazon Web Services unit walks the stage, revealing a road map of brand-new features Amazon itself plans to offer, a few of which inevitably compete with partners.

Last November, Emil Eifrem, one of roughly 100,000 people watching Mr. Jassy's keynote in the hall or remotely, braced for what he expected to be one of the announcements, a data-graphing service. Mr. Eifrem's company, Neo4j Inc., says it defined the technology, which allows customers to analyze data on Amazon's platform and others. Two years ago, as it researched the market, Amazon visited Neo4j asking for help building a similar product, said Mr. Eifrem, Neo4j's chief executive. Neo4j declined.

Mr. Jassy did announce Amazon's competing service in Las Vegas and made it widely available this week. "When Amazon launches in your space, you're stupid if you don't get scared by that," Mr. Eifrem said, "because they do tend to outcompete everyone."

Amazon's web-services business has been blazingly successful, and a look at how that came to be stands as a master class in how Amazon wins—and why now it has become a political target. The unit has become the Seattle company's cash cow, providing 73% of its operating income, or $1.4 billion, on about 11% of its $51 billion in total revenue it reported in the most recent quarter.

Mr. Jassy made $194,447 last year, the second most among Amazon's top officers after CEO Jeff Bezos, who made $1.7 million. In 2016, Mr. Jassy received shares that were then valued at $35.4 million, in addition to his salary—the most any top Amazon executive received that year.

A web-services platform such as Amazon's lets businesses and other entities rent computing resources at giant server farms, allowing them to do computing tasks in the so-called cloud rather than buying their own servers and software. Amazon was early to build such a platform, and in doing so it upended the information-technology industry, pressuring incumbents that sold hardware and software.

Mr. Jassy's strategy echoes one Amazon employed in retail. There, it built a dominant platform and became a powerful ally to brands and vendors of goods sold on its website. Then Amazon also began selling its own brands and goods that competed with some of its vendors.

In its cloud services, Mr. Jassy built a platform that can weave a multitude of programs in a seamless web of offerings, its own as well as partners'. And Amazon then began selling its own services that compete with some.

"On top of everyone's mind is this black-widow behavior," said Bill Richter, chief of Qumulo Inc., a Seattle startup that offers data storage and management on Amazon's system. Amazon doesn't compete with his company, but every year, he said, "we pray there's not some big announcement" of an Amazon service that will.

There is growing concern in Washington and abroad about the dominance of giant tech firms such as Alphabet Inc.'s Google and Facebook Inc. Amazon, too, has come under attack from right and left. President Donald Trump in March tweeted that it is "putting many thou-

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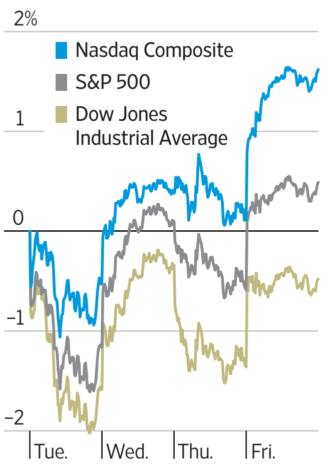
◆ **Tech Titans Tiptoe Toward Monopoly** B6

Digging Out

Index performance, past week



Source: WSJ Market Data Group
THE WALL STREET JOURNAL.

Stocks Get Boost From Jobs Report

Facebook sets highest close; worries on eurozone stability ease

By Michael Wursthorn and Riva Gold

The Dow Jones Industrial Average rose more than 200 points Friday to recoup most of its losses for the week following an upbeat unemployment report that showed a modest gain in wages.

Investors got a dose of good news about the U.S. economy after the Labor Department released its May unemployment report, which showed a healthy gain in jobs that pushed the unemployment rate to 3.8%, the lowest since April 2000.

The robust jobs report helped steady a stock market that had been struggling this past week with concerns about escalating trade tensions and eurozone stability, which eased after Italy struck a deal on a coalition government.

"It's encouraging but not scary for the markets," said Luke Tilley, chief economist of Wilmington Trust, of the 2.7% gain in wages from a year earlier. "The numbers, as they are, leave the [Federal Reserve] in the place where they were," he added of the central bank's plans to proceed with two more interest-rate increases this year.

Markets had some early indication that the jobs report would be strong after President Donald Trump tweeted he was "looking forward" to seeing the figures about an hour before the Labor Department released the data.

> Investors bought shares of technology companies, sending the sector up nearly 2%.

The unusual break from protocol sent yields on the 10-year Treasury note higher and boosted the dollar. Stock futures were little changed in the minutes after the tweet and only strengthened in the hour between the report's release and the market's opening.

Analysts suggested the muted stock-market reaction was due, in part, to the fact that Mr. Trump's interests may not necessarily intersect with investors', similar to the subject of trade tariffs—something most money managers say would be detrimental to stocks.

"For the administration, it might be a goal to cause the labor market to overheat for a short period," said Sameer Samana, global equity and technical strategist with Wells Fargo Institute. "They may view above-potential job growth as something that is positive, especially heading into midterm elections," while investors fear such a jump in wages could force the Fed to move more aggressively on interest rates.

The Dow industrials added 219.37 points, or 0.9%, Friday to 24635.21. The S&P 500 rose 29.35 points, or 1.1%, to 2734.62, while the Nasdaq Composite added 112.22 points, or 1.5%, to 7554.33.

Buoyed by the jobs report, investors bought shares of technology companies, a popular trade that has contributed to much of the nine-year stock rally's gains. Tech stocks in the S&P 500 rose nearly 2% on Friday, with **Facebook** adding $2.21, or 1.2%, to $193.99—its highest close ever.

Still, Friday's gains weren't

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THE INTELLIGENT INVESTOR | JASON ZWEIG

The Fanciful Alphabet Soup Companies Use to Fool You

Eighty-six years ago this week, the stock market hit its worst low. Today, with markets near all-time highs, things aren't as different as you might think.

Then, as now, companies and investors were engaged in a massive power struggle. Then, companies were worth far more than investors thought—and would do almost anything to keep investors from unlocking the hidden value. Today, companies may be worth *less* than investors think—and are equally intent on preventing investors from noticing.

On June 1, 1932, the great investment analyst Benjamin Graham published an essay called "Inflated Treasuries and Deflated Stockholders: Are Corporations Milking Their Owners?"

That day, the predecessor of the S&P 500 index hit its low of 4.40. The Dow Jones Industrial Average closed at 44.93. Total trading volume was 1.8 million shares.

Amid the bearish stupor, Graham detected something outrageous: Companies were cloaking their true worth from investors.

In the boom that preceded the 1929 crash, investors had complacently pumped billions into new stock offerings, wrote Graham, with "excessive emphasis being laid on the reported earnings—which might only be temporary or even deceptive."

After the crash, companies were flush with cash and investors beggared. Still, leading businesses refused to liquidate their stagnant operations and wouldn't pay out cash in extra dividends or by repurchasing their stock. This despite the fact

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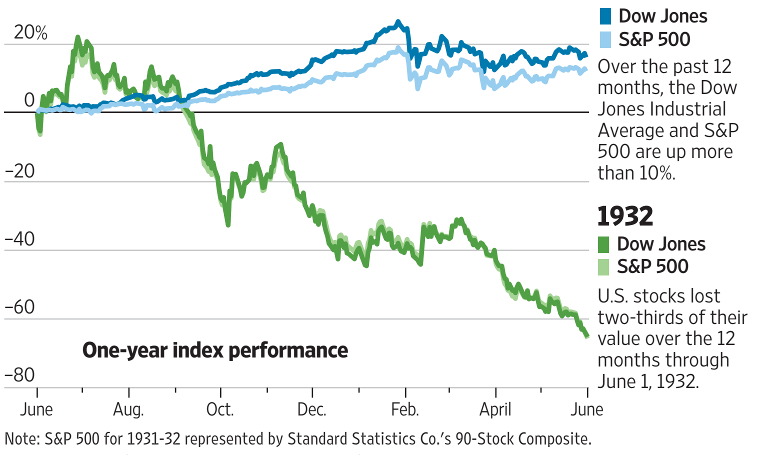
A Tale of Two Markets



Note: S&P 500 for 1931-32 represented by Standard Statistics Co.'s 90-Stock Composite.
Sources: WSJ Market Data Group; S&P Dow Jones Indices
THE WALL STREET JOURNAL.

THE SCORE

THE STORY OF THE BUSINESS WEEK TOLD THROUGH 7 STOCKS

WALT DISNEY CO.

DIS
-2.5%

The debut of Walt Disney's "Solo: A Star Wars Story" grabbed the top spot at the weekend box office, but investors weren't getting cocky. Solo's $84.8 million in North American ticket sales through Sunday were the weakest since Disney relaunched the Star Wars franchise in 2015, and the movie also opened at less than light speed overseas. The company was dealt another blow later Tuesday when its ABC network canceled hit TV show "Roseanne" after a racist tweet from lead actress Roseanne Barr. The move opened a big hole in the network's prime-time schedule.

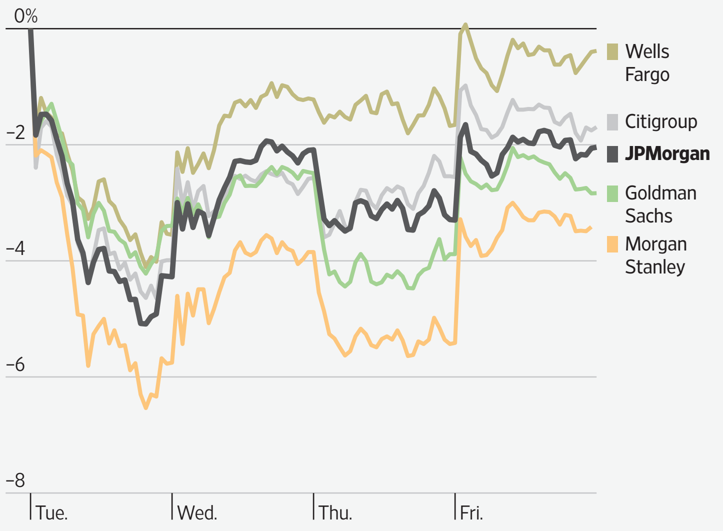
DICK'S SPORTING GOODS INC.

DKS
26%

Shares of Dick's Sporting Goods had their best day ever Wednesday, rising 26% after the company reported its first quarter of results since halting sales of assault-style rifles in the aftermath of the school shooting in Parkland, Fla. As expected, hunting sales fell, but the overall results were better than many observers had anticipated and the company raised projections for the rest of the year. Guns are a low-margin business for retailers, so the decision helped improve Dick's profit margins, and analysts expect the company's results will continue to improve.

PERFORMANCE OF BIG U.S. BANK STOCKS THIS WEEK

Source: WSJ Market Data Group



JPMORGAN CHASE & CO.

JPM
-4.3%

U.S. bank stocks went for a wild ride over the past week, plummeting Tuesday on fears that Italian political tumult could spark a crisis in Europe, and dipping again Thursday amid heightened trade tensions. But they recovered some ground Friday after a sunny U.S. jobs report. JPMorgan was the S&P 500's worst performer Tuesday with a 4.3% dip. By the end of the week, the bank's stock was trading 2% off last Friday's close.

WALMART INC.

WMT
2.1%

In an attempt to attract and retain workers in one of the tightest labor markets since World War II, Walmart announced it would heavily subsidize the cost of online college tuition for its U.S. store workers pursuing degrees in business and supply-chain management from three schools. Walmart, with 1.5 million domestic employees, is the largest private employer in the U.S.. The company did not disclose the price tag of the program, which it will phase in over a year, but said it selected the three nonprofit schools based on their programs for adult students.

GENERAL MOTORS CO.

GM
13%

GM got a leg up in the race to develop commercial autonomous vehicles on Thursday after Japan's SoftBank Group Corp. unveiled a $2.25 billion investment in its driverless-car unit, GM Cruise. GM's stock soared 13% as investors heralded the deal as a potential tide-turner for the 110-year-old company that previously struggled to match the hype of its Silicon Valley competitors, electric-car maker Tesla Inc. and Alphabet Inc.'s self-driving car subsidiary Waymo. GM has been testing autonomous electric cars and plans to launch a driverless ride-hailing service in several cities next year.

SEARS HOLDINGS CORP.

SHLD
-12%

Sears shares plummeted Thursday after the embattled discount retailer announced plans to close more than 60 unprofitable stores. Sears has been closing hundreds of locations in recent years, selling brands and spinning off divisions to stay afloat amid mounting losses and the defection of customers. Investors, suppliers and landlords have grown increasingly concerned about the company's future. Its struggles showed no sign of abating in the latest quarter, its 26th consecutive period of declining sales, with merchandise sales down 34%, same-store sales down 13% and a net loss of $424 million.

FACEBOOK INC.

FB
1.2%

What data-privacy scandal? Shares of Facebook Inc. on Friday hit a new record high for the first time since February's Cambridge Analytica data-breach revelations. The stock rose 1.2% on a day when news broke that the social-media giant was close to announcing the first crop of news shows that will air exclusively on its video platform, Watch, starting in July. Facebook will fully finance the video content, which will likely come from Fox News and CNN. Separately, the company said it was scrapping its trending-topic feature.

—*Laine Higgins*

How Amazon Wins

Continued from the prior page

sands of retailers out of business!" Sen. Bernie Sanders in an April Facebook post raised concerns about Amazon's "extraordinary power and influence."

Mr. Bezos, at Amazon's annual meeting Wednesday, answered a question about the mounting criticism, saying all large institutions "deserve to be inspected and scrutinized. It's normal."

Much of the ire focuses on Amazon's retail heft, but the story of Amazon's web services helps show how far the company is spreading its tentacles, with huge success. Mr. Jassy has turned the world's largest online retailer into a dominant source of corporate technology online.

Amazon is market leader, reporting $17.5 billion in web-services sales last year. No. 2 Microsoft Corp. had $5.3 billion in revenue last year from its cloud-infrastructure business, estimates investment firm Stifel Nicolaus & Co.

The rising concern is over how Amazon's dominance may give it an advantage in new businesses. None of the Amazon partners The Wall Street Journal spoke with would say publicly that new Amazon competition damaged its business. Privately, some said they worry Amazon's encroachment may do damage eventually.

One reason there is angst but no visible pain when Amazon suddenly competes is that there is plenty of business to go around, said Tod Nielsen, CEO of a cloud-application company named FinancialForce.com Inc. "The total addressable market is so big. We're really in the early days of the land grab."

Mr. Jassy said in a November interview that Amazon is providing services that customers are asking for. "You'll continue to see us add services as customers tell us they make sense and they want them from us." He declined this week to comment further. In a 2016 interview, he said: "In every one of the spaces where we have built further up the stack, our ecosystem partners who've built significant offerings on top of our platform have done just fine. These are gigantic markets."

Antitrust questions

Amazon's position raises the kind of concerns seen years ago over practices of companies such as Microsoft. That company's use of its dominance in personal-computer operating systems to move into others' turf lay at the center of the landmark antitrust case against it.

Microsoft and the federal government settled in 2001, with Microsoft agreeing to such business restrictions as not engaging in some discriminatory practices. At the time, Microsoft founder Bill Gates called the deal "a good compromise and good settlement."

Amazon could run afoul of antitrust law if it tied new services to its cloud-infrastructure offering, making it less likely customers would use rival products, said Herbert Hovenkamp, a University of Pennsylvania Law School antitrust professor. Moves by Amazon to require customers and partners to use its services, rather than competitors', would also get regulatory scrutiny, he said.

One difference is Amazon Web Services isn't as dominant as Microsoft's Windows in the late 1990s, when Microsoft held more than a 90% share of its market. Goldman Sachs & Co. pegged Amazon's share of the so-called public-cloud market at 42% last year.

Amazon views the market more broadly, including all corporate tech spending in the cloud and in companies' own data centers. By that measure, Amazon's share "represents a single digit percentage," said an Amazon spokeswoman. Amazon Web Services, she said, "competes with the largest and most successful technology companies in the world in a market segment that's trillions of dollars in size."

And Amazon isn't growing as quickly as Microsoft and Google in cloud computing. Microsoft's revenue from the business gained 94% and No. 3 Google's more than doubled in the most recent quarter, while Amazon's climbed 45%, according to Goldman Sachs.

Some partners praised what they said is Mr. Jassy's ability to straddle the line between ally and rival, including CEO Bob Muglia of Snowflake Computing Inc., a data-warehousing service. It competes with an Amazon offering that existed when Snowflake began offering it on the platform. Mr. Muglia, speaking of his earlier days running Microsoft's division that worked with developers and corporate customers, said: "Andy has done a better job partnering with companies he competes with than I did."

KAMIL BIALOUS FOR THE WALL STREET JOURNAL

The data weapon

One Amazon weapon is data. In retail, Amazon gathered consumer data to learn what sold well, which helped it create its own branded goods while making tailored sales pitches with its familiar "you may also like" offer. Data helped Amazon know where to start its own delivery services to cut costs, an alternative to using United Parcel Service Inc. and FedEx Corp.

"In many ways, Amazon is nothing except a data company," said James Thomson, a former Amazon manager who advises brands that work with the company. "And they use that data to inform all the decisions they make."

In web services, data across the broader platform, along with customer requests, inform the company's decisions to move into new businesses, said former Amazon executives.

That gives Amazon a valuable window into changes in how corporations in the 21st century are using cloud computing to replace their own data centers. Today's corporations frequently want a one-stop shop for services rather than trying to stitch them together. A food-services firm, say, might want to better track data it collects from its restaurants, so it would rent computing space from Amazon and use a data service offered by a software company on Amazon's platform to better analyze what customers order. A small business might use an Amazon partner's online services for password and sign-on functions, along with other business-management programs.

Amazon said it doesn't peer into the sensitive data such as customer records, corporate accounts and other data that its business partners store on Amazon's servers.

Amazon engineers are adding features and services at a rapid pace, more than 1,400 last year. "They never let up on the gas pedal," Mr. Bezos told shareholders Wednesday. "Our customers are loyal to us right up until the second a competitor offers a better service."

The day before his November 2017 keynote, Mr. Jassy previewed his speech with venture-capital firms in a windowless Las Vegas conference room, two attendees said. One venture capitalist asked Mr. Jassy if he planned to launch services that could threaten startups that built their businesses on Amazon's platform. Mr. Jassy replied, they said, that any time Amazon moved into a market niche, companies already there continued to succeed because the markets are large and growing.

The notion that Amazon's entry in a market won't hurt new rivals "doesn't quite pass the smell test," said one of the attendees, a venture capitalist who said he worries about the threat to companies in his portfolio.

"A lot of CEOs go into Andy's keynote saying, 'God, I hope Amazon doesn't introduce a product that competes with mine,' " said Snowflake's Mr. Muglia.

The introductions continue after Las Vegas. In December, Amazon launched Single Sign-On, which manages access to Amazon Web Services accounts, a move some believe will put it in competition with Okta Inc., which offers a way for customers to sign on once across multiple services. Okta CEO Todd McKinnon said his company's product lets users sign in across a broader array of companies than Amazon's. Still, "we're paranoid," he said, "so we're watching them."

Inside job

Mr. Jassy is a 20-year insider, a Harvard M.B.A. who led Amazon into music CDs and did a gig in the early 2000s shadowing Mr. Bezos as his technical assistant. He has led Amazon Web Services, known as AWS, since 2003.

The idea for the service, he said, was discussed at a 2003 brainstorming session in Mr. Bezos' living room. Participants began looking into how Amazon, which had built data centers to manage its retail operation, could turn that expertise into a business.

Early on, AWS focused on being a place where companies could build code and store data, and from which they could offer services to firms wanting to do business tasks in the cloud. The vision was that "any individual in his or her own garage or dorm room," Mr. Jassy said, "could have access to the same cost structure and scalability and infrastructure as the largest companies in the world."

"We thought we would have database services," he said, "but we didn't anticipate building our own."

AWS appealed to startups, which, with just a credit card, could buy the computing services they needed. Airbnb Inc., Lyft Inc. and Pinterest Inc. are AWS customers. More-established corporations came along later.

Initially, Amazon built a few massive data centers in the U.S. It now has 55 collections of data centers globally.

Amazon's partners saw it becoming a rival in 2015, when Mr. Jassy introduced a data-analytics tool, QuickSight, in his keynote. That encroached on partners such as Tableau Software Inc. QuickSight has gained some traction with small and midsize businesses, while Tableau has had success with larger corporations, said Stifel Nicolaus analyst Tom Roderick. The threat looms, he said, that Amazon will pluck off those bigger customers. "The fact is that Amazon is the bogeyman that can come at you in three to five years."

Tableau CEO Adam Selipsky, a former AWS executive and a friend of Mr. Jassy's, said: "There are tiny areas where the companies are in competition, but it's really noise."

Companies happy with Amazon's web services despite competing with Amazon include Netflix Inc., whose CEO, Reed Hastings, said Mr. Jassy took a hands-on approach to securing his business.

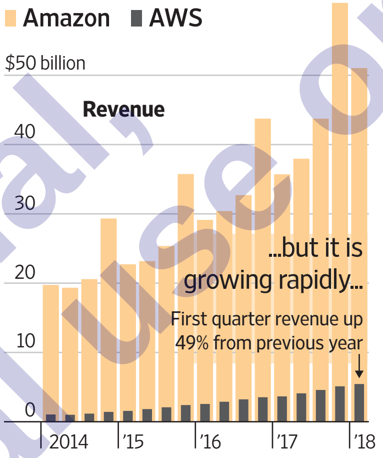
"As Andy would say, we are particularly valuable because we competed," said Mr. Hastings, saying he isn't concerned about Amazon's move a few years ago to become a rival in video.

Amazon's decisions to move into others' markets are part of doing business, said Barry Crist, CEO of Chef Software Inc., which makes tools to automate developer tasks and has limited competition with Amazon in the business of provisioning computing resources.

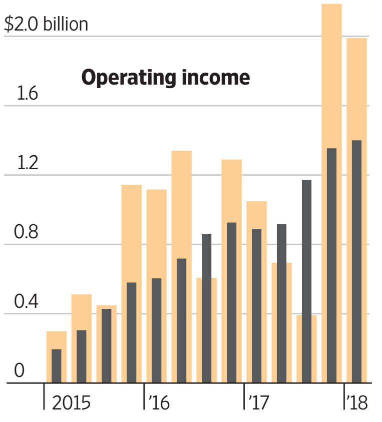
"As a small company, you've got to be the minnow that swims in and out of the mouth of sharks," he said. "If you get lazy, that mouth might close on you."

Silver Lining

Amazon's 'cloud' revenue, through Amazon Web Services, is still a small portion of total sales...

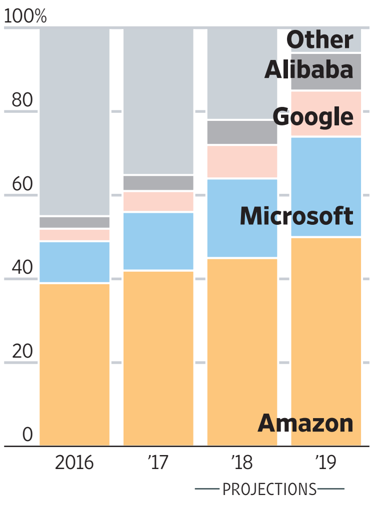


...and it brings in the bulk of Amazon's total profit.



AWS has continued to gain global market share, while its main rivals also grow.

Public-cloud market share



Source: FactSet (income and revenue); Gartner (market); Goldman Sachs (estimate)

Hanna Sender/THE WALL STREET JOURNAL.

Fiat Chrysler Bets on Trucks, Tech

By Chester Dawson

DANIEL ACKER/BLOOMBERG NEWS

Besides promoting electric-car and self-driving technologies, the company envisions its Jeep brand fueling strong growth globally.

BALOCCO, Italy—**Fiat Chrysler Automobiles** NV on Friday presented a five-year vision for the company that embraces the two biggest trends in the industry—meeting demand for SUVs and trucks and investing in future technologies such as electric-powered and self-driving cars.

If its plan pans out, the auto maker expects to double operating profit to €16 billion ($18.71 billion) by 2022 and hit double-digit profit margins, compared with 6.8% today.

Chief Executive Sergio Marchionne said the company will invest €9 billion to develop and deploy electric engines as it expands its lineup of electric-powered vehicles, part of a €45 billion spending plan over the next five years focused on four core brands: Jeep SUVs, Ram pickups and Alfa Romeo and Maserati luxury cars.

"This plan will provide the portfolio of products aligned with our brands that will ensure our ability to comply in each region" with stricter emissions and fuel-economy standards, Mr. Marchionne told financial analysts and media gathered at a company test track outside of Milan.

In the U.S., the company is expanding its bet on bigger SUVs and trucks, reflecting consumer demand and a less-strict approach to fuel economy standards in Washington. Mr. Marchionne chided his peers for appearing to back away from what he said was a unified industry request to President Donald Trump to ease fuel economy regulations. "That kind of wavering with the White House is not helpful," he said.

To meet increasingly strict emissions rules in Europe, Fiat Chrysler said it would phase out diesel vehicles there by 2021 and end sales of some mass-market Fiat cars, such as the Punto model, that aren't profitable enough to recoup the cost of electrification, he said.

Fiat Chrysler's chief technology officer, Harald Wester, said the company also plans to be among the first auto makers to offer "fully autonomous vehicles to the premium retail market." That effort will likely grow out of Fiat Chrysler's expanded partnership with former Google car unit Waymo LLC, Mr. Wester said.

He didn't provide a timeline for retail sales, but said the plan is to introduce robotic vehicles for restricted areas by 2023 and fully self-driving vehicles under all driving conditions after 2025.

In a move to boost annual profit by as much as $800 million, Fiat Chrysler said it plans to start offering vehicle financing directly to car buyers. The company is considering setting up a new business or buying an existing one, including that of its current financing partner, Santander Consumer USA Holdings Inc. The auto maker has begun acquisition talks with the Santander unit, said Chief Financial Officer Richard Palmer.

Santander Consumer said it is in "exploratory discussions" with Fiat Chrysler about its interest in the financing business, known as Chrysler Capital.

Fiat Chrysler is the only major auto maker in the U.S. that doesn't have an in-house financing unit, which provides an additional revenue stream from vehicle sales and a continuing relationship with car buyers. It has operated without a so-called captive financing arm since the Chrysler brand emerged from bankruptcy in 2009.

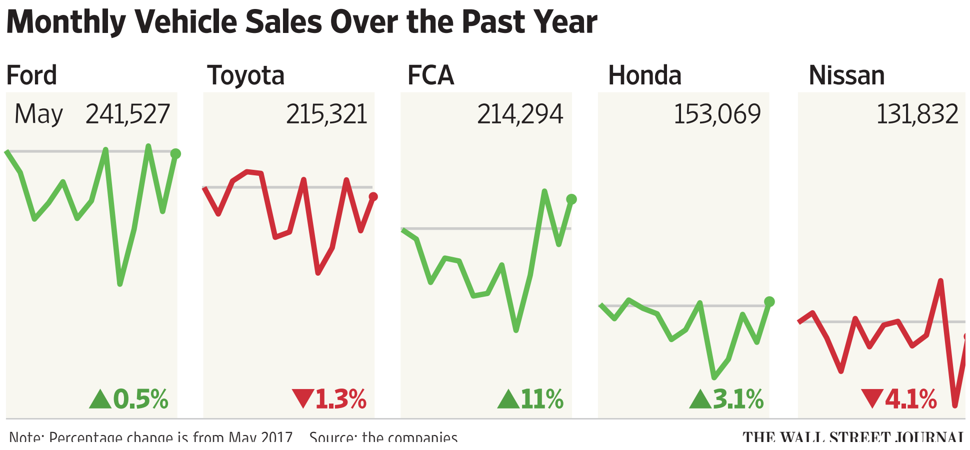
The auto maker also said it is pursuing an aggressive growth agenda globally, led by Jeep which will launch three all-new vehicles, including a subcompact for emerging markets and a reintroduced super-size Grand Wagoneer for the U.S. It will also expand electric engine options to all Jeeps, including four fully electric SUVs.

"All models will have a range of electric options" by 2022, said Mike Manley, head of the Jeep and Ram brands.

Fiat Chrysler will also add to its truck lineup, unveiling a new premium version of its mainstay Ram 1500 pickup in the U.S. and a midsize pickup for global markets. That is part of a plan to increase Ram truck sales by at least 20% to 930,000 vehicle sales annually by 2022.

The full-size Ram Rebel TRX will take on Ford Motor Co.'s F-150 Raptor, one of the most expensive pickups sold in the U.S. Fiat Chrysler also will launch a smaller truck to be sold under both the Fiat and Ram brands.

That will mark a return to a segment it abandoned in the U.S. in 2011 when Fiat Chrysler ended production of its Dodge Dakota midsize pickup. The move comes as Ford prepares to reintroduce its Ranger midsize pickup next year and after General Motors Co. successfully rebooted its midsize trucks with the Chevy Colorado and GMC Canyon.



SUVs, Pickups Continue to Drive U.S. Auto Sales

U.S. auto sales rose in May as demand for sport-utility vehicles and pickup trucks continued to buoy results despite rising gas prices.

The seasonally adjusted annual rate for industrywide sales rose to 16.91 million vehicles from 16.79 million in May 2017, according to Auto-Data Corp.

May is often the biggest month of the year for auto sales, with Memorial Day sales driving car shoppers to dealerships to kick off the summer selling season.

SUVs and pickups accounted for about two-thirds of last month's sales, according to J.D. Power, the highest level ever for May.

That mix benefited auto makers like **Ford Motor** Co. and **Fiat Chrysler Automobiles** NV, whose lineups skew heavily toward those vehicles, but hurt auto makers like **Toyota Motor** Corp. and **Nissan Motor** Co. which are long known for their strength in sedans.

Ford's U.S. sales chief, Mark LaNeve, said that while the shift toward SUVs and pickup trucks has been happening for years, "the move is accelerating."

At Ford, an 11% increase in sales of the company's F-Series trucks drove a slight increase overall. Fiat Chrysler reported an 11% rise on continued strength for its Jeep-brand vehicles. General Motors Co. no longer reports monthly sales, moving to disclose the numbers on a quarterly basis.

Among Japanese car makers, Toyota and Nissan posted small declines while Honda Motor Co. notched a modest gain.

The richer mix of SUVs and pickups—which carry higher prices than passenger cars—drove the average transaction price up nearly $1,200 in May compared with last year, while discounts remained flat at about $3,665 per vehicle, J.D. Power said.

—Adrienne Roberts

Cybersecurity Firm Picks New CEO

By Robert McMillan And Rolfe Winkler

DAVID PAUL MORRIS/BLOOMBERG NEWS

Nikesh Arora is taking the helm at Palo Alto Networks.

Palo Alto Networks Inc. on Friday named Nikesh Arora, a former top **SoftBank Group** Corp. executive, as its next chairman and chief executive, following years of rapid growth for the cybersecurity company.

Mr. Arora will succeed Mark McLaughlin, who joined Palo Alto Networks as CEO in 2011 and took the company public in 2012. He oversaw brisk growth at a time when high-profile cyberattacks pushed corporations to beef up their investments in security software.

In an interview, Mr. McLaughlin said that after nearly a decade of running publicly traded companies, he wants to spend more time with his family. He said he discussed the transition with the board for eight months. He will remain as vice chairman, a "customer-facing" role in which he said he will help with customer advocacy and the company's relationship with the federal government.

With Mr. Arora, who also will replace Mr. McLaughlin as chairman, Palo Alto Networks gains a CEO with a reputation as a global deal maker.

Mr. Arora was a longtime executive at Alphabet Inc.'s Google, where as chief business officer he oversaw sales, customer service, marketing and tech support.

He pointed to his experience in helping Google build up globally.

"No, I haven't worked in security," Mr. Arora said in an interview. "The need here is to lead a team of 5,000 people, shore up our global operations to continue to scale."

Mr. Arora said it was too soon to get into the specifics of his strategy, but noted that he was attracted to helping companies figure out how to stay secure as they transition to cloud computing. "I think that is a huge opportunity," he said.

His tenure at Palo Alto Networks begins June 6, the company said. Mr. Arora declined to comment on his compensation.

Mr. Arora said he plans to focus on continuing the company's current trajectory. "The question is how do we take this from here and 2x or 3x it and continue to scale," he said.

At SoftBank, where he served as president and operating chief, Mr. Arora shepherded billions of dollars in acquisitions. He had once been considered a successor to the Japanese internet and telecommunications company's CEO, Masayoshi Son, who had handpicked the Silicon Valley deal maker to replace him. But Mr. Arora faced criticism from some SoftBank shareholders over his investment choices for the company, and he left abruptly in 2016—two years after he was wooed away from Google.

Mr. Arora at the time defended his investment record and said he would remain an adviser to SoftBank as he thought over his next move.

Palo Alto Networks sells next-generation firewalls, security products designed to keep malicious software out of corporate networks. When it went public in 2012, annual revenue was $225.1 million. By fiscal 2017, that figure had jumped to $1.8 billion as the company siphoned sales from established vendors such as Cisco Systems Inc. and Check Point Software Technologies Ltd.

However, Palo Alto Networks has consistently run at a loss, in part because of the cost of share-based compensation. Its loss widened to $216.6 million in fiscal 2017 from $192.7 million a year earlier.

The change at the top comes as Palo Alto Networks is looking to acquisitions to maintain its breakneck revenue growth. In March, the Santa Clara, Calif., company spent $300 million on cloud-security company Evident.io. The following month, it bought Israeli cybersecurity startup Secdo Ltd. Terms of that deal weren't disclosed.

When Palo Alto Networks went public, the shares priced at $42. The stock finished Friday up slightly at $209.19. For the year, it has surged 44%.

Sanofi Sees Price For Its Drugs Fall

By Jonathan D. Rockoff

French drug company **Sanofi** SA says the average price of its medicines fell 8.4% in the U.S. last year after accounting for rebates, the latest example of pharmaceutical pricing pressures.

Several major drug companies have now said the net prices of their medicines—that is, the price of the drugs after discounts and rebates—fell in aggregate in 2017. Johnson & Johnson and Merck & Co. have said the sums paid for their drugs dropped last year, too.

Eli Lilly & Co. said the average prices paid for its medicines rose 6% last year after discounts and rebates, which the company said had increased to 51% of the list price.

Such disclosures are aimed at deflecting criticism of drug prices, showing that the companies aren't price-gouging or responsible for the rising co-pays and other out-of-pocket costs many patients are coping with.

Overall, the list prices of many drugs continue to rise.

Public attention to the high cost of drugs has prompted pharmaceutical companies like **Allergan** PLC to pledge to limit their annual list-price increases to less than 10%.

Sanofi had vowed to keep annual list-price increases in the U.S. at or below the federal government's projections of yearly health-care spending growth. The company tweaked that pledge on its website last month, aiming to limit increases to that estimated inflation rate and promising to explain the rationale for any increases above it.

Sanofi has faced criticism from health insurers over the price increases for some of its products like Lantus insulin, though much of the increases went to such middlemen as drug-benefit managers.

The Paris-based company was also criticized for originally listing Praluent, a new kind of cholesterol drug sold with Regeneron Pharmaceuticals Inc., at $14,600 a year. Earlier this year, the companies said they would offer discounts bringing the annual price down to as low as $4,500.

In 2017, Sanofi says it raised the average list prices of its medicines by 1.6%. The year before, Sanofi upped the list prices of its drugs by 4% but net prices fell 2.1%. Sanofi's net-price decline last year reflected its efforts to rebate its drugs so that patients would have lower co-pays, a company spokeswoman said.

BUSINESS WATCH

REGULATION

Trump Taps Roisman For SEC Opening

President Donald Trump plans to nominate a top aide to the Senate Banking Committee chairman for a GOP opening on the Securities and Exchange Commission, the White House announced late Friday.

If confirmed, Elad Roisman, the chief counsel to the banking panel led by Mike Crapo (R., Idaho), would succeed Michael Piwowar at the top U.S. markets regulator. Mr. Piwowar plans to leave the SEC by July.

Mr. Roisman, 37 years old, would join a long list of former banking committee staffers who have filled top slots at the five-member commission, including Mr. Piwowar and two other sitting commissioners: Kara Stein, a Democrat, and Hester Peirce, a Republican.

The Wall Street Journal reported last week the White House was considering nominating Mr. Roisman to the post.

—Andrew Ackerman

NECCO WAFERS

Candy Maker Is Sold For $17.3 Million

The Metropoulos family, known for turning around nostalgic household names such as Hostess Brands and Chef Boyardee, is buying the maker of Necco wafers after a sale of the company to an Ohio candy maker fell apart.

Round Hill Investments LLC, the firm run by billionaire investor C. Dean Metropoulos and his sons Evan and Daren, has purchased the **New England Confectionery** Co. out of bankruptcy for $17.3 million.

The sale, which a bankruptcy lawyer said closed on Thursday, comes days after a deal with Ohio's **Spangler Candy** Co., the maker of Dum Dum lollipops, collapsed. Spangler had won a chapter 11 auction last week and agreed to pay $18.83 million for the candy maker. However, court papers show, Spangler wanted its purchase price adjusted to reflect a lower price, causing the sale to collapse.

—Lillian Rizzo

FACEBOOK

Trending-Topics Feature Dropped

Facebook Inc. said it was scrapping its trending-topics feature, two years after the list of news stories became a lightning rod for conservatives' discontent over what they claimed was the company's liberal bias—an accusation that still dogs Facebook.

Facebook said the feature, which it intends to remove next week, became less useful over time, and that removing it would "make way for future news experiences" on the platform.

The feature accounted for an average of less than 1.5% of clicks to news publishers from Facebook, according to the company.

One plan is for Facebook to pay some news organizations to produce daily and weekly news shows for Watch, the video-focused portion of its platform. The company plans to unveil some of those news shows as early as next week, The Wall Street Journal reported.

—Deepa Seetharaman

STRATEGY

FULL DISCLOSURE

JOHN D. STOLL

Starbucks Slow-Roasts Its Scandal

We've now spent well over a month with **Starbucks** Corp. in the corporate penalty box. It should be time to make room for the next company's encounter with a hot-button issue.

But Starbucks Chairman Howard Schultz has taken an unusual step, encouraging the public to resist the temptation to leave his company's troubles behind.

On Tuesday—more than six weeks after the arrest of two black patrons who tried to use the restroom without buying anything at a Starbucks in Philadelphia—the company closed its stores nationwide for an afternoon of antibias training. In interviews and a letter to customers, Mr. Schultz has indicated that subtle forms of racism are a systemic problem the company will need time to address.

In the middle of this saga, the company briefly caused a new controversy, when it announced that its bathrooms would be open to all. After some customers and staff balked at the prospect, Starbucks clarified it didn't mean the bathrooms could be used for sleeping or drug use.

Companies are in a new world where crises blow up and spread globally instantly, so they have to respond instantly. That means companies can often end up creating a new controversy, upsetting another constituency with their response—think of Delta Air Lines suspending its discounts for NRA members in the wake of the Parkland, Fla., shooting, only to spark a backlash.

That same rapid cycle can work in companies' favor, however; it often means controversy blows over faster than ever.

Boycotts devised to punish corporate misdeeds rarely result in a drag on revenue, and pressure virtually always evaporates over time, says Brayden King, a management professor at Northwestern University's Kellogg School.

> Boycotts devised to punish corporate misdeeds rarely result in a drag on revenue.

"One has to wonder if the effect of activism targeting companies is becoming diluted, in the sense that we can't pay attention to any single controversy for very long," he says.

To date, Starbucks indicates it hasn't suffered a blow to its business as a result of the incident, although its share price has seen a modest slump. Executives recently said traffic remained strong at stores after the April arrests.

Mr. Schultz's work is hardly done. Turning thousands of cafes into more inviting places will test his ability to please a finicky public and profit-minded shareholders at the same time.

One significant hurdle: how to deal with his licensing operation. Thousands of Starbucks stores in the U.S. are run by independent operators, which pay a licensing fee and a cut of annual revenue to Starbucks. Although sometimes indistinguishable from the 8,000 company-owned stores, the licensee stores offer higher operating margins because the operators shoulder much of the overhead, according to Starbucks's annual report.

Chasing these profits means relinquishing complete control over a company's culture. The company's 5,700 licensees didn't close for bias training Tuesday, though managers have been invited to attend diversity training sessions and have a related guide to use in daily huddles with employees.

Rather than waiting for the storm to pass, Mr. Schultz has bet on a big overhaul. But for Starbucks to thoroughly tackle bias issues, it will need the attention of a broad constituency.

Almost on cue, just as Tuesday's training was getting started, attention moved to a fresher example of corporate crisis management. Following a racist tweet by comedian Roseanne Barr, her hit television show was canceled by Walt Disney Co.'s ABC.

RYAN COLLERD FOR THE WALL STREET JOURNAL(2)

Bon-Ton Stores is closing all its locations, including this one in York, Pa., where it all began in 1898. Below, Tim Grumbacher, the founder's grandson.

A Retail Magnate's Reckoning

The scion of the doomed Bon-Ton empire offers struggling department stores his prescription for survival

By Suzanne Kapner

A scion of one of the last American department-store dynasties has a recipe for other ailing chains: stop being a department store.

That realization came too late for Tim Grumbacher to save his own company, Bon-Ton Stores Inc., which is liquidating all of its 262 locations after filing for bankruptcy protection in February.

"If I had had the foresight to realize I had to blow up the model, I would have," the former CEO says in an interview at his spacious condominium in York, Pa., the city where his grandfather opened a small dry-goods store in 1898.

Mr. Grumbacher, the largest shareholder, who stepped down as CEO in 2004 but remained chairman until last year, says he would have subleased space to other companies, added more services like blow-dry bars and narrowed the product assortment. He says consumers don't want to shop in cavernous department stores anymore. "You almost have to be a series of specialty stores that people can get into and out of much faster," says the 78-year-old, who is trim from years of Ironman competitions.

One obstacle that prevented the company from making any big changes was a roughly $1 billion debt load, accrued through multiple acquisitions that created a rift between Mr. Grumbacher and his father, who ran Bon-Ton for more than four decades.

When the first U.S. department stores opened in the late 1800s, they were amusement parks for the upwardly mobile. The big emporiums showcased everything from corsets to cookware, and included novelties like escalators.

Shoppers lingered: The average department-store visit lasted two hours during the late 19th century, says Paco Underhill, chief executive of Envirosell Inc., a research and consulting firm. Today, visits by time-pressed shoppers average less than 45 minutes.

By 1912, the one-room storefront Max Grumbacher named the Bon-Ton, French for fashionable, had relocated and morphed into a 37,000-square-foot store with 27 departments. After Max suffered a stroke in 1923, his son Max Samuel, known as Tom, abandoned plans to attend Dartmouth College and joined the business. During the post-World War II boom, it expanded it into smaller markets.

Tim Grumbacher, Tom's son, started working for the company in 1961, after graduating from Dartmouth. Employees set him up with his first wife, who worked in Bon-Ton's credit office. They were married for 46 years, until she died in 2013. His second wife, who worked in Bon-Ton's small-appliance department in the 1970s, before the two met, replaced her husband as chairman when he retired.

Because of his Depression-era experience, Mr. Grumbacher's father had an aversion to debt. But by the early 1980s, retailing was going through a period of consolidation and to survive chains had to get bigger—fast.

Bon-Ton, then just a 20-unit chain, waded into the field with its 1987 acquisition of 13 stores from Allied. "When I told [my dad] I was going to borrow $100 million, that was more than he could handle," Mr. Grumbacher says. His father retired from the company and the two didn't speak for two years.

Bon-Ton went public in 1991 and more debt-driven acquisitions followed, taking the company into the Northeast, Midwest and upper Great Plains. The spree culminated with a $1.1 billion deal to buy 142 stores from what was then called Saks Inc. under banners that included Carson Pirie Scott, Younkers and Herberger's.

The transaction closed in 2006, leaving Bon-Ton cash-strapped heading into the recession.

Coming out of the downturn, bigger chains such as Kohl's Corp. and Macy's Inc. stepped up spending to keep up with rising online competition by improving their websites and rolling out new programs that let customers pick up online purchases at local stores. But Bon-Ton was hamstrung.

"They weren't able to invest, because their cash was going to pay down debt," says Monica Aggarwal, a managing director of Fitch Ratings.

Mr. Grumbacher defends his decision to leverage the company, saying that to survive it had to grow. Even though he admits the debt hampered Bon-Ton's ability to invest in its future, he is frustrated that subsequent CEOs didn't do more to reinvent the business.

"It would have taken an imagination that wasn't there," he says.

Some directors, former executives and suppliers agree that management wasn't innovative enough, while acknowledging that executives were limited by having to siphon off large chunks of the company's cash flow for interest payments.

"In hindsight, we took on more debt than was reasonable had we known what we were going to be facing going forward," says Michael Gleim, Bon-Ton's former chief operating officer and a longtime director.

"I don't know where to shop now," says Barb Blakely, a 55-year-old food-service sales representative at a Bon-Ton liquidation sale on a recent afternoon.

Mr. Grumbacher says he has come to terms with the company's fate."Maybe I didn't pay enough attention to the changes that should have been made," he says.

MICROSOFT

Peggy Johnson

Executive Vice President of Business Development, Microsoft

Microsoft's chief deal maker says she largely relies on her gut when making big decisions but then "validates her intuition" by checking in with valued former colleagues, mentors and, first and foremost, her husband, Eric Johnson, an independent investor. Here, four of her other trusted advisers.

PERSONAL BOARD OF DIRECTORS

Navrina Singh
Principal product lead, Microsoft AI

At Qualcomm, where Ms. Johnson worked for nearly 25 years, she gained insight from an informal group of women at the company known as "Sweetfest," so named because sweets were served at their gatherings. Ms. Singh, another core member, later joined Ms. Johnson at Microsoft.

Mary Dillon
Chief executive, Ulta Beauty

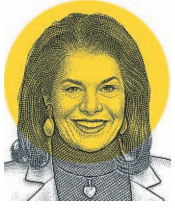
"She reminds me of one of my sisters," Ms. Johnson says of Ms. Dillon, noting that they come from similar Irish-Catholic families and both have a background in wireless-technology businesses. She consulted Ms. Dillon when weighing her decision to move to Microsoft in 2014.

Greg Maffei
President and CEO, Liberty Media

Mr. Maffei helped guide Ms. Johnson to her first seat on a board of directors, at Live Nation, where he is chairman. "Greg emphasized that it was as important for the board to be a good fit for me and my goals as it was for me to fit the board's needs," Ms. Johnson recalls. She joined in 2013.

Sherry Lansing
Former chairman and CEO, Paramount Pictures

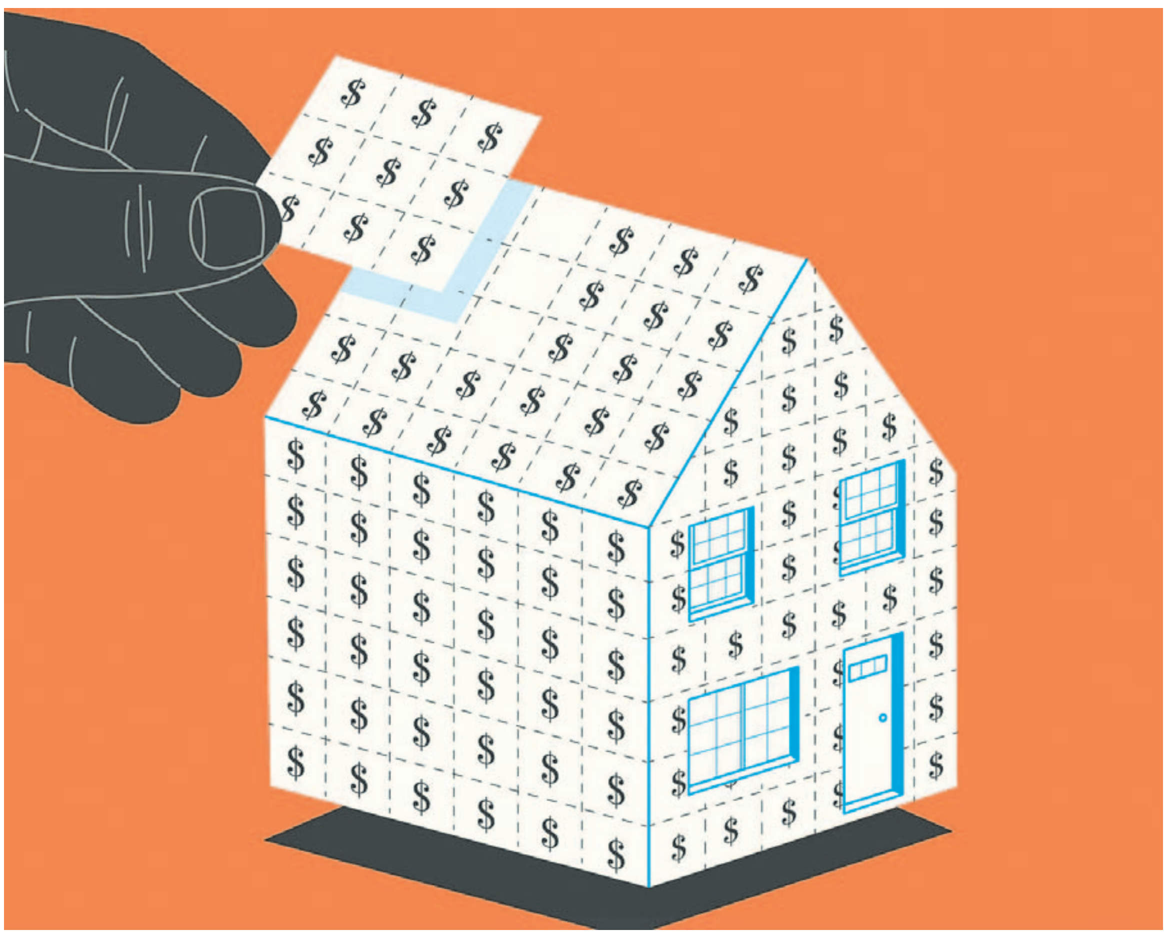
Ms. Lansing also helped Ms. Johnson navigate the process of joining a corporate board, advising her on what questions to ask. In addition to Live Nation, Ms. Johnson sits on the boards of the Paley Center for Media and the nonprofit organization PATH; in March she was named to a seat on BlackRock's board.



TAX REPORT | LAURA SAUNDERS

Should You Pay Off Your Mortgage?

The new tax law changes the math for millions of Americans, especially married couples



HARRY CAMPBELL

Now is the time to find out if you are one of the millions of Americans who won't be able to deduct their monthly mortgage-interest payments.

For 2017, 32 million tax filers got a mortgage-interest deduction. For 2018, that number will drop to 14 million. Americans' total savings from this break are also expected to fall sharply this year, from nearly $60 billion for 2017 to $25 billion for 2018, according to Congress's Joint Committee on Taxation.

These landmark shifts are the result of the tax overhaul's direct and indirect changes to the long-standing provision allowing filers to deduct home-mortgage interest on Schedule A. The changes are set to expire at the end of 2025.

As a result, current and future mortgage holders need to consider their options, which range from paying part or all of debt to sitting tight.

"The changes to the mortgage deduction strengthen the arguments for paying down or off a mortgage," says Allan Roth, a financial planner with Wealth Logic.

Some homeowners are already reducing their debt. Ken Walsh, an engineer who lives outside Baltimore with his family, says he used a windfall to pay off the remaining $500,000 mortgage on his home in January.

When tax overhaul passed, Mr. Walsh knew that he and his wife would no longer get an interest deduction, even after their 2.6% adjustable-rate loan reset higher this year.

"It was a perfect storm, so we decided to pay off the loan," he says.

Mr. Walsh's move may not make sense for everyone. Here's what to consider for your analysis.

The key changes

For many people, two revisions to non-mortgage provisions will have the biggest effects on their mortgage-interest deductions.

One is the near-doubling of the "standard deduction" to $12,000 for most single filers and $24,000 for most married couples. As a result, millions of filers will no longer benefit from breaking out mortgage interest and other deductions on Schedule A.

The other key change is the cap on deducting more than $10,000 of state and local income or sales and property taxes, known as SALT. This limit is *per tax return*, not per person.

These changes will hit many married couples with mortgages harder than singles. Here's why: For 2017, a couple needed write-offs greater than $12,700 to benefit from listing deductions on Schedule A. Now these write-offs have to exceed $24,000.

Assuming a couple has maximum SALT deductions of $10,000, they'll need more than $14,000 in other write-offs of mortgage interest, charity donations, and the like to benefit from using Schedule A.

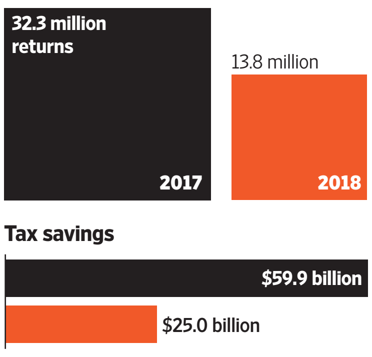
Many couples won't make it over this new hurdle on mortgage interest and SALT alone. According to the Mortgage Bankers Association, the first-year interest on a 30-year mortgage of $320,000 (the average) at the current rate of 4.8% is about $15,250. Interest payments are smaller if the loan is older or the interest rate is lower.

The new threshold is lower for single filers, as each can also deduct SALT up to $10,000. Their standard deduction is now $12,000, so many will only need more than $2,000 of mortgage interest, charity donations and the like to benefit from listing them on Schedule A.

Even for taxpayers who can still deduct mortgage interest, the expansion of the standard deduction means the value of this write-off will typically be lower than in the past.

Homewrecker

The tax overhaul's changes to the mortgage-interest deduction limit its use.



Source: Joint Committee on Taxation
THE WALL STREET JOURNAL.

Other limits

Following the tax overhaul, most home buyers can deduct only the interest on total mortgage debt up to $750,000 for up to two homes. This limit won't be an issue for most buyers, but some will be affected.

There's a "grandfather" exception: Most homeowners with *existing* debt up to $1 million on up to two homes before the tax overhaul can continue to deduct their interest.

The rules also changed for home-equity loans. To get an interest deduction, the taxpayer must use the debt to buy, build or improve a home. There's no write-off if it's used for another purpose, such as paying tuition.

Doing the math

For homeowners with a shrinking or vanishing interest deduction, here's the key question: Is the after-tax return on an ultra-low-risk investment lower than your after-tax mortgage rate? If it is, consider paying down the mortgage if you can.

Mr. Roth offers this example. Say Bob has a mortgage rate of 3.7%, and he'll no longer get an interest deduction. He'll need to earn about 3.7% after-tax on an investment such as a five-year certificate of deposit to come out ahead by keeping his mortgage. Recently some of these CDs had pretax yields of about 2.8%.

Preserving liquidity

Even if paying down a mortgage makes financial sense, it means restricting access to funds. So consider whether they'll be needed in an emergency, and what the rate on a (non-deductible) personal loan would be. You need to be able to sleep at night.

Saving the difference

If you pay off a mortgage, Mr. Roth advises setting up an automatic payment of the savings to an investment account to rebuild your liquidity.

SEAN MCCABE; BEZOS: ZUMA PRESS; PAGE, ZUCKERBERG, COOK: BLOOMBERG NEWS; SUITS: LIBRARY OF CONGRESS

Jeff Bezos, Larry Page, Mark Zuckerberg and Tim Cook evoke magnates of yore. (photo illustration)

KEYWORDS | CHRISTOPHER MIMS

Tech's Titans Tiptoe Toward Monopoly

Will Facebook, Google and Amazon be regulated or broken up like Standard Oil and AT&T? It depends on how they grow.

Imagine a not-too-distant future in which trustbusters force Facebook to sell off Instagram and WhatsApp. Imagine a time when Amazon's cloud and delivery services are so dominant the company is broken up like AT&T. Imagine Google's search or YouTube becoming regulated monopolies, like power and water.

Facebook Inc., Google parent Alphabet Inc. and Amazon.com Inc. are enjoying profit margins, market dominance and clout that, according to economists and historians, suggest they're developing into a new category of monopolists. They may not yet be ripe for such extreme regulatory action, but as they consolidate control of their markets, negative consequences for innovation and competition are becoming evident.

For example, some who study the past compare Amazon and Facebook to Standard Oil, for their similar quests to vanquish competitors and even their own suppliers through vertical integration.

Google, Facebook and Amazon also bear resemblance to another monopolist of yore, the telegraph heavyweight Western Union, says Richard du Boff, emeritus professor of economic history at Bryn Mawr College.

"What [Western Union] was always engaged in was clearing the field, getting rid of anybody who was in their way, either by takeover or other means. The main motive, as I see it, was market domination."

Experts aren't, however, lumping in Apple Inc. with the new monopolists. Like Microsoft Corp. and Intel Corp. before it, Apple is considered more vulnerable to competitive disruption, despite the fact that it tops the tech world in revenue, profit and market capitalization.

One way today's monopolists are different from the robber barons of old is that they're not exactly behaving like, for example, Andrew Carnegie, who turned armed guards on striking workers. And regulators don't particularly care if a company is a monopoly unless it harms the public or hampers innovation. But on those counts, many argue we're close. Take the way both Google and Facebook dominate the harvesting of user data, or Facebook's ethically dubious decision to release vast quantities of personal information to developers.

The reason your electricity comes from a regulated monopoly is that building a grid is expensive, but pushing more electrons to new customers is not. One condition for judging monopolies is how difficult it is for upstarts to challenge them.

Together, Google and Facebook take in 73% of U.S. digital advertising. It may not be something you think about often, but that success rests largely on the fact that both have spent so much money building data centers and filling them with hardware and software designed by an elite, in-demand set of engineers. In this way they resemble the telegraph giants, with investments in physical infrastructure so large no upstart could match them.

They also benefit from something historically unprecedented: the ability to get users to subsidize them with enormous quantities of free labor. Their systems are fueled by personal information, but instead of them hunting for it, people willingly provide it.

In addition, social media is a land grab, and Facebook is its most successful grabber, says Glen Weyl, a senior research scholar at Yale University and a principal researcher at Microsoft Research, the company's R&D lab. In basic function, it's hardly changed in a decade, yet it's made enough money to buy (Instagram, WhatsApp) or copy (Twitter and Snapchat) its biggest competitors.

There is preliminary evidence that the size of the digital advertising pie could grow faster than Google's and Facebook's share of it. Research company eMarketer projected in March that their combined share of the ad market will fall for the first time ever.

"We face fierce competition as new technologies change the way people connect," says a Facebook spokeswoman. "Facebook is just one part of an ecosystem that includes dozens of messaging products, photo and video sharing apps, and many other services. Popularity does not equal dominance, and size is not a guarantee of future success."

Amazon illustrates what monopolies look like in their early days, says Kim Wang, an assistant professor of strategy and international business at Suffolk University's Sawyer Business School. Amazon seems determined to translate its dominance in cloud computing and online retail into dominance in physical retail, delivery of goods, voice-based computing and a half-dozen other industries.

Amazon already accounts for 44% of U.S. e-commerce sales, and is showing rapid growth in categories where it previously foundered, like luxury goods and food. It's convinced former competitors to get on board as partners, is vertically integrating everything from ordering to delivery—and could someday add manufacturing to the mix.

If Amazon's rapid growth continues across all these lines of business, it's hard to imagine it not eventually becoming a target for breakup. Jeff Wilke, Amazon's chief of world-wide consumer business, has said that in all the businesses it is in, Amazon has "incredible competition."

"In world-wide retail, we're less than 1%," he recently told the Journal. "I don't think any one of these areas is a football game where there's only one winner."

While Apple may be hoovering up the lion's share of the mobile industry's profits, the company is hardly a monopoly by measure of overall market share, say experts.

A "network effect" is when a product becomes more useful as more and more people use it—be it a fax machine or Facebook. For Apple, the size of its customer base attracts developers who in turn make the iPhone and iPad more valuable.

Microsoft once had a platform with similar dominance, and it was thought that the network effects of its large customer base would help it stay dominant, says Catherine Tucker, a professor of management and marketing at MIT Sloan School of Management.

But we've got network effects all wrong, argues Dr. Tucker, and we failed to realize they're just as likely to empower upstarts to disrupt incumbents like Microsoft. Network effects helped smartphones like the iPhone quickly gain popularity, which marginalized Microsoft's Office and Windows platforms.

Even Apple's own iTunes takeover of the music industry proved to be passing, as Spotify and other streaming services moved in.

Not everyone agrees that Facebook, Google or Amazon, as powerful as they are now, will need to be reined in. "Today's Amazon is tomorrow's Macy's," says Dr. Wang. "Very few companies will be able to position themselves for the new, next technology every time." The technology that gives firms an edge eventually comes within reach of their competitors, she says.

In every monopoly-dominated industry in history, whether oil, railroads, steel or utilities, even the greediest competitors took decades to consolidate their hold on markets. Even at today's pace, it's probably still early days for tech giants.

"Companies go one of two ways—some are in areas where declining returns to scale set in and they get tamed by market processes," says Dr. Weyl. "And other companies get tamed by getting turned into a public utility. And until they are, they reap extortionate profits."

Now Cropping Up: Robo-Farming

ERICH SCHROEDER FOR THE WALL STREET JOURNAL(2)

The bright red, driverless tractor drags the tiller in a perfect line in a south Indian field, makes a turn at the edge of the property, encounters a test dummy and then stalls, not knowing what to do.

India's Mahindra & Mahindra, one of the biggest suppliers of smaller tractors to the U.S., and other manufacturers are racing to develop what they see as the future of farming: robo-tractors and other farming equipment to help produce more food, more sustainably at a lower cost.

John Deere has tractors and combines, at left, on the market that free the driver in the cabin from the actual driving so he or she can monitor the crops and adjust pesticide, water and soil levels. Technology from Agco Corp.'s Fendt lets several driverless tractors follow a lead tractor driven by a human.

The next generation is tractors that can drive entirely by themselves. After that: ones that can plant, fertilize and spray pesticides. London-based CNH Industrial is testing a tractor that has no driver's cabin, with planting and harvesting monitored remotely.

But there are plenty of obstacles.

The global positioning systems and sensors to steer around hindrances or read different kinds of soil and slopes need improvement.

And the industry expects pushback from people whose livelihood could be threatened. In India, for instance, hundreds of millions of farmers make up the largest voter group. "We have decided it has to be a gradual process of migrating the farmers," said Aravind Bharadwaj, chief technology officer for farm equipment at Mahindra.

Still, there is a lucrative opportunity to retool an industry. A Goldman Sachs report put potential demand for driverless tractors and other equipment in the next five years at $45 billion.

Agricultural giants and startups say they are piggybacking on driverless-car research to revolutionize farming. For example, John Deere's GPS-guided tractors can ensure no part of a field is planted or sprayed twice. Using big data and artificial intelligence, Deere expects to eventually have tractors that can deliver a different amount of fertilizer, pesticide or water for each plant based on need.

THE FUTURE OF EVERYTHING

"The more we can automate with computers, with data science and laserlike actions, [the more it] will help save the farmer a ton of money and make production more sustainable," said John Stone, senior vice president in charge of development at Deere & Co.

—Vibhuti Agarwal

CAPTAIN CLASS | SAM WALKER

Lamborghini's Guide to Genius: Get Out of the Way

At the Geneva Motor Show in 1971, an Italian industrialist named Ferruccio Lamborghini unveiled a new sports car his company hoped to build. Then something remarkable happened.

Frantic onlookers began mobbing the yellow prototype—banging elbows to get a better view.

Three years later, when it went on sale, the automotive press couldn't believe their stopwatches. Not only was this the most breathtakingly futuristic rolling sculpture anyone had ever seen—but it also was the fastest production car they'd ever tested.

Road & Track said of Lamborghini's Countach: "Its no-holds-barred, cost-no-object design is, on one hand, one of extremes and excesses and, on the other hand, a mobile demonstration representing the pinnacle of automotive design, technical achievement and sophistication, the likes of which we will probably never see again."

Business leaders who aspire to build revolutionary products usually consult the same handful of case studies: Apple's iPhone, Nike's iconic waffle sneaker treads or Pixar's breakthrough animated films. Along the way, they invest millions in market research, hire teams of engineers and helicopter-parent the project.

To build the Countach (KOON-tash), a car that changed the course of automotive history and appeared on the bedroom walls of millions of adolescents (including mine), Mr. Lamborghini did exactly none of those things. He simply rounded up three precocious 30-somethings, gave them a clean sheet, ordered them to build the maximum car and left them alone.

> What the Countach really offers is a counterpoint to the Steve Jobs model.

mathematical logic.

This menacing design would turn Mr. Gandini into a superstar, but that was only half the battle. The Countach also had to be fast—and roadworthy.

Paolo Stanzani, the 33-year-old engineer tapped to build the car's mechanical underpinnings, knew it would be difficult to fit a hulking V-12 engine behind the driver in a space only 42 inches tall. For better weight distribution, he mounted the engine backward with the output shaft in front.The chassis he commissioned was a handbuilt one-of-a-kind tubular spaceframe—itself a work of art.

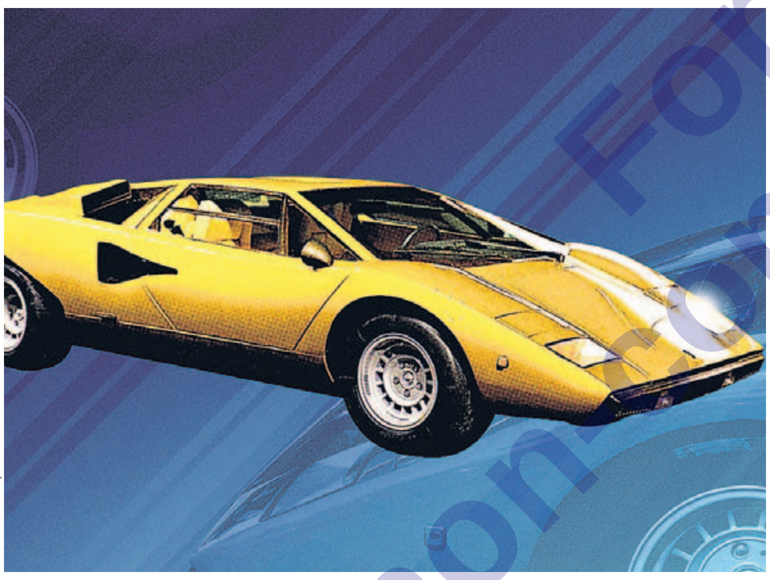
The crucial job of refining the Countach fell to the third team member, Bob Wallace, a 32-year-old New Zealand-born test driver. Mr. Wallace wanted to avoid a flaw in the Miura, whose aerodynamics had made it unstable at high speed, but didn't have access to a wind tunnel. He resorted to gluing strands of cloth to the body and filming them at speed to measure airflow.

As his team worked, Mr. Lamborghini mostly let them be. When he did check in, it was usually to express skepticism about whether the Countach would actually work. Before agreeing to put the car into production, he ordered Mr. Wallace to ferry it to an endurance race in Sicily and return it to the factory with the engine still running.

The Countach wasn't perfect—or practical. Climbing in and out was a struggle, rear visibility was virtually nonexistent and there was no room for a proper suitcase. After Mr. Lamborghini was forced to sell a controlling stake in the car maker in 1973, subsequent owners debased it with garish skirts, flares and spoilers.

Nevertheless, the Countach's legacy endures. The original "periscopio" model that caused pandemonium in Geneva now fetches more than $1 million at auction. Seeking inspiration in the 1990s, General Motors borrowed a Countach, blindfolded a group of designers and let them fondle its bodylines with their bare hands.

There's no question that the



SEAN MCCABE; CAR: ZUMA PRESS

It's not surprising that business schools ignore this story. The Countach never made anyone a billionaire despite its $52,000 original price tag ($296,000 in current dollars). Over 16 years, the chronically troubled company took many more orders for the car than it managed to fill; in all, only 2,049 were made.

What really emerges from the hodgepodge of books, trade articles and firsthand accounts of the Countach's construction is a counterintuitive model for leading a team toward genius. Signor Lamborghini's brilliance lay in creating the ideal conditions for something magical to happen.

The Countach took its name from a Piedmontese slang expression one enraptured worker reportedly blurted out upon seeing it for the first time. Loosely translated, it means "holy s—."

The bodylines were the work of Marcello Gandini, a 31-year-old designer from the Italian style house Bertone, who'd drawn the shapely curves and eyelashlike headlamp accents of Lamborghini's Miura. Like most sports cars of the era, the Miura gave off a distinctly anthropomorphic vibe. The Countach would put an end to all that.

Inspired by a space-age prototype he'd penned for Alfa Romeo, Mr. Gandini drew a low-slung, angular, muscular body with a nose that narrowed to a wedge. He pushed the cabin forward, added insectile doors that swung dramatically upward and used hexagons to give its body panels a

Countach contributed to Lamborghini's renaissance under its current owner, Volkswagen's Audi. The brand is currently working on an electric supercar.

Sometimes, future-altering products are works of a singular genius. Other innovations, such as the iPad's multitouch screen or the aperture grilles inside Sony's 1968 Trinitron color television, draw on years of tireless research. Recent studies suggest companies can achieve consistent gains by soliciting lots of small innovative ideas from employees.

What the Countach really offers is a counterpoint to the Steve Jobs model: the notion that a team leader who inspires genius must be a hard-driving visionary relishing getting into the weeds.

The late Harvard psychologist Richard Hackman, who studied many kinds of effective teams, found that once the actual work began, team leaders had limited impact. What mattered most were intelligent preparations.

Ferruccio Lamborghini might have gotten lucky with the Countach, but there's no question that he set a favorable stage. He'd built a capable factory and a brilliant engine and infected his workers with high standards. His finest achievement, however, was identifying three emerging talents with fresh eyes who weren't married to the status quo. He simply told them to build something incredible—then went water skiing.

The hard work of leadership was already done.

CHAMBERS: STEPHEN MCCARTHY/SPORTSFILE VIA GETTY IMAGES; CHENAULT: MARK LENNIHAN/ASSOCIATED PRESS

Former Cisco chief John Chambers says his venture-capital fund is primarily a way for him to nurture startup CEOs.

Second Act for Corporate Bigwigs: Startup Whisperers

Cisco's John Chambers and AmEx's Kenneth Chenault are part of a wave of former top executives who are moving into venture capital and offering counsel to young companies.

BY VANESSA FUHRMANS

In his two decades running Cisco Systems Inc., John Chambers transformed what was a small networking-equipment company into a tech giant. His second act? Investing in and coaching more than a dozen startups with the hope of creating the next Cisco.

After retiring as Cisco's executive chairman last year (he stepped down as chief executive in 2015), the 68-year-old Silicon Valley pioneer launched a venture-capital fund, JC2 Ventures, with $100 million of his own money. But it's not just his money at work. To the fledgling companies he backs, perhaps more important is the value he brings as a "chief guru," as one startup founder dubbed him.

He estimates that he talks or texts, on average, with each CEO in his portfolio three or four times a week. He visits potential customers with Jörg Lamprecht, CEO of Dedrone, a 75-employee drone-security firm. He interviews finalists for any leadership role at Uniphore, a 120-person speech-analytics technology firm in India.

"It's not about the investments," Mr. Chambers says about his portfolio. "I want to first be a strategic partner with the CEO, where I am his or her most trusted adviser, mentor—a coach."

Mr. Chambers is part of a wave of big-time CEOs and executives who, instead of more conventional retirements of just sitting on a couple of big-company boards, are embarking on second chapters as guiding lights on the startup scene. And more could pursue this route as Wall Street's performance demands and technological disruption make the top job at megacorporations less hospitable.

Others who have taken to the startup path include former Time Warner Inc. CEO Richard Parsons, who has teamed up with Rachel Lam, the longtime chief of the media company's investment arm, to fund their own VC firm, Imagination Capital. And American Express Co.'s Kenneth Chenault, who retired this year after 16 years at the credit-card firm's helm, is now chairman of General Catalyst Partners, whose investments include Airbnb and Warby Parker.

One factor behind the trend: Many CEOs are calling it quits with more personal wealth than ever but before they're ready to ride quietly off into the sunset, says Donald Hambrick, professor of management at Penn State's Smeal College of Business.

Working with startups "is stimulating, but it's not grueling in the way being a public-company CEO now is," Mr. Hambrick says. "If Chambers's investments go bad, he's not going to be vilified or scrutinized in the same way he would if he were still at Cisco."

Nor is Jeff Immelt, another former CEO-turned-venture capitalist. The longtime leader of General Electric Co. spent much of his tenure there working to transform GE into a digital industrial company but left amid growing investor pressure to reverse GE's slumping stock price and boost its stagnant profits. After withdrawing from the race to become Uber Technologies Inc.'s CEO last year, Mr. Immelt joined venture-capital firm New Enterprise Associates in February, where he has said he hopes to help entrepreneurs build tech and health-care startups. Mr. Immelt declined to comment.

Another force behind the CEO-to-VC track: As startups wait longer to go public or run into culture problems, as with Uber, more investors are looking for experienced operators to help them scale and navigate the pitfalls that can come with growing so fast.

Mr. Chambers says he'd now rather nurture a bunch of small companies than run another big one for a different reason: Startups, he says, will create most of the new jobs needed to replace the tens of millions soon destroyed by artificial intelligence and automation. "Big companies will just not be able to move with the speed of innovation," he says.

It's too soon to determine whether corporate success will translate to the VC world, but Mr. Chambers's playbook for identifying startups is the same he used to snap up more than 180 companies during his tenure at Cisco. If the company isn't poised to take advantage of a market in transition, "we don't do it," he says. "Then it's the CEO—is she or he a potential world-class CEO who really wants to be coached?"

Though he won't disclose how much he invests, he says he typically buys between a 3% and 15% stake in the company.

Usually the CEOs approach him first. "I stalked him," said Dedrone's Mr. Lamprecht, who met Mr. Chambers after his company was named one of three winners of a Cisco innovation challenge in late 2016. After sending him repeated texts afterward, Mr. Lamprecht finally got a response to one showing how Dedrone's technology was securing the World Economic Forum from rogue drones at its annual conference in Davos, Switzerland, where Mr. Chambers had just arrived. The next month, Mr. Chambers bought a stake in Dedrone for an undisclosed amount.

Uniphore CEO Umesh Sachdev says Mr. Chambers mentored him for nearly a year before buying a 10% stake in the company this past November. Speaking at MIT Technology Review's "Innovators Under 35" event in New Delhi in 2016, Mr. Chambers offered to hold monthly group mentoring sessions via video with Mr. Sachdev and the other honorees. Pretty soon, "I was spending the most time with him—I just had all these questions," Mr. Sachdev says.

At times this year, they have spoken several times a day. Mr. Sachdev was overhauling his management team and planning to relocate to the Bay Area this summer to spearhead Uniphore's North American expansion, and he was worried about a potential leadership vacuum in India and the signal the move would send to his staff there.

"It seemed hard, like too many things changing at once," he says. "It helps to have someone like John Chambers tell you, 'I've been through this multiple times—you'll get through it.' " He also had Mr. Sachdev map three different scenarios for how the changes might play out—including a media leak of the news—and plan for each, then gave pointers on how to present the changes to his board and employees.

"He's as involved as I want him to be," Mr. Sachdev says. "He never forgets to say, 'This is my advice, but the choice is yours.' It just encourages me to get him more and more involved."

Kenneth Chenault: From American Express to venture capital.

Fanciful Measures Of Profit

Continued from page B1
many traded below the value of their cash per share.

Financial reporting was sparse, and making the business look even worse than it was paid off—for insiders.

"Corporation treasurers sleep soundly while stockholders walk the floor," growled Mr. Graham.

Today's highflying market looks like a polar opposite. But information is still power.

To assess profits, investors have long looked to net income, or earnings per share. Over the past decades, companies have come up with new measures of profit.

Chief among them: Ebitda, or earnings before interest, taxes, depreciation and amortization. This is a modified measure of the cash generated by the business.

The key word there is modified. This isn't cash flow.

Yet, in a disturbing coalition of the willing, companies and professional investors alike have colluded to flatter profit by removing costs from reported earnings.

Concerns about Ebitda go back at least to the internet bubble of the late 1990s. In 2002, the Securities and Exchange Commission imposed a rule requiring companies to explain how they calculate Ebitda and to state it doesn't conform to accounting rules.

In 2003, Warren Buffett's business partner, Charles Munger, called Ebitda "bullshit earnings."

A long bull market has enabled companies to produce a lot more of it. Today, Ebitda and even more outrageous clones are everywhere.

The mutations include Ebitdac (with a change in acquisition costs used by insurers); Ebitdao (with option expense, a cost of paying management); Ebitdap (pension and other retirement benefits); Ebitdar (the costs of leasing real estate or airplanes, depending on the industry); Ebitdare (losses, gains and other adjustments on real estate); Ebitdas or Ebitdasc (stock-based pay for management); and Ebitdax (exploration costs for oil-and-gas companies).

Can Ebitdaft be far behind? Companies say they provide these alternatives to make earnings easier to compare and to reduce the impact of unusual events.

But businesses in the same industry don't have to use the same definition for these measures.

WeWork Cos., the provider of shared office space, has even created what it calls "community-adjusted Ebitda." This excludes such basic costs of doing business as marketing, development and administrative expenses.

Crazy? Yes. But analysts and fund managers turn to these numbers first, not last. Banks commit to monitoring companies' creditworthiness not against net income but against measures like "adjusted Ebitdax." Companies, meantime, use these numbers to award bonuses. When managers' pay is based on a "costs-don't-count" metric, that sort of thinking may pervade other decisions as well.

"With all the additions and subtractions to Ebitda, I'm surprised nobody's tried multiplying," says David Zion, who analyzes corporate financial reporting at Zion Research Group in New York.

So far this year, companies have filed more than 450 documents with the SEC tacking suffixes onto Ebitda, according to Intelligize, a financial-information firm.

Because these metrics aren't part of official accounting rules, they aren't audited. Managements are also free to change the definitions, says Howard Schilit, co-author of the book "Financial Shenanigans: How to Detect Accounting Gimmicks and Fraud in Financial Reports."

In recent years, "managements have always wanted to put as positive a spin as possible on their results so the stock will keep rising," he says. "Now they can do that with a lot less risk."

If professional portfolio managers want to win back the hearts and minds of investors, they should stop participating in the farce of fanciful earnings—before it does serious damage to the market.

The Federal Palace in Bern. The Swiss will vote on broad money matters on June 10.

STEFAN WERMUTH/REUTERS

A Shocking Challenge to the Banking System

Should banks still be able to create money on the spot? The Swiss put it to a vote.

By Brian Blackstone

A decade after the collapse of Lehman Brothers, the world is still debating the causes of the financial crisis—down to the meaning of money itself.

In buttoned-down Switzerland, that debate is taking the form of a nationwide referendum set for June 10. Voters are being asked to consider fundamental questions rooted in the crisis: What is money; who creates it; and how safe is it? And they'll have a chance to blow up one of the foundational features of global finance: the ability of banks to create money with just a few keystrokes.

That's right: Now, if a bank gives you a loan, it can pretty much create the money on the spot. It's something that banks do every day around the world.

But if the Swiss referendum passes, all money creation there would have to be done directly by the country's central bank.

Supporters say this is how most of the public assumes that all money is created already, so their idea isn't that radical. Yet some opponents compare the idea to the gold standard, something that they contend might sound good in theory but is entirely unworkable in practice.

Behind the initiative is Hansruedi Weber, a former schoolteacher turned financial reformer. He is a founder of the Vollgeld Initiative, known in English as Sovereign Money. The group amassed enough signatures to put the proposal on the ballot. Under the current system, he says, "money is debt." Vollgeld would "separate money from credit," he says, leading to a more stable economy.

When banks create electronic money, it becomes a liability on their balance sheet while the loan is an asset. If the borrower can't repay the loan, the bank's profit takes a hit. If this happens on a large scale, as it did in the U.S. subprime crisis a decade ago, the bank could be wiped out. Even if customers only fear this, they might start withdrawing their money en masse.

Under Vollgeld, banks could still go bust but the money wouldn't disappear because it would no longer be on the balance sheet of the bank the way electronic money is.

> 'In a sovereign-money system, there could be no bank run because the money would exist.'

Similar ideas to Vollgeld stretch back at least to the 1930s and are American in origin. In the midst of the Great Depression, a group of U.S. economists presented what became known as the "Chicago Plan" of banking reforms that would have required all lending to be backed by central-bank-created money. It was never adopted. After the 2008 financial crisis, the idea gained traction among campaigners in Iceland and the U.K. Next month's Swiss referendum has given the idea of sovereign money its biggest public airing yet.

It's an unlikely proposal in a country synonymous with finance. Under Vollgeld, the Swiss central bank would directly control the money supply. Electronic deposits—basically the money people see in their bank statements instead of their wallets—would be converted to central-bank money issued by the Swiss National Bank.

Opponents of Vollgeld say Switzerland would be going it alone if it upended its money-creation system, weakening its competitiveness while making it harder for banks to extend credit and overburdening the central bank with decisions on who should be getting loans and who shouldn't. Their most effective argument may simply be that the current system isn't broken—Switzerland's economy is doing well—and doesn't need fixing.

Under the current system, when a borrower is approved for a mortgage, the bank doesn't take existing money from a vault. Instead, it creates an electronic deposit for the borrower, which the borrower transfers to the seller's bank account. Much of the growth in money in circulation is through bank-created deposits. Regulatory limits, such as capital ratios, keep banks from making endless loans.

Of the 645 billion Swiss francs (about $652 billion) in circulation, only about 85 billion francs are notes and coins.

Under the Vollgeld proposal, banks would have to actually have money before they lend it out. The central bank would extend loans to banks to keep the supply of available money sufficient for the economy. But the onus would be on the central bank to determine the amount of lending available, a form of monetary policy that was more common in the early days of central banks in the 19th and early 20th centuries.

The onetime schoolteacher and his allies are up against some powerful opponents. Switzerland's central bank chief, whose powers would expand greatly under Vollgeld, has slammed it as a "dangerous experiment" that would "inflict great damage" by raising borrowing costs and damaging investment. The plan is also opposed by parliament, the executive branch and the country's commercial banks. "I don't expect the Swiss people to be suicidal and approve it," UBS Group AG Chief Executive Sergio Ermotti said recently, without going into details. Indeed, recent polling suggests the Swiss are solidly opposed to it.

Switzerland's direct-democracy system creates these types of David-versus-Goliath scenarios whereby citizens like Mr. Weber—whose organization MoMo (for Monetäre Modernisierung) took its name from a little girl's character in a Michael Ende novel—can take on the elites of politics and finance. Vollgeld enthusiasts have campaigned for the referendum with fliers, sandwich boards and a giant piggybank touring Swiss cities to argue that electronic deposits are nothing more than glorified vouchers for money that might or might not exist.

"It would be like creating your money and going shopping with it. Everyone would like to do this. But it is only the banks that have the ability," said Joseph Huber, professor at Germany's Martin-Luther-Universität, whose writing on the topic inspired Mr. Weber to launch Vollgeld. "Central banks have lost control, and the whole idea is to regain control of money creation."

Supporters say that the Vollgeld plan would limit destabilizing credit booms and busts while protecting the economy from costly bailouts. "In a sovereign-money system there could be no bank run because the money would exist," said Mr. Huber.

Aleksander Berentsen, professor at the University of Basel, sees the vote as an abuse of Switzerland's direct-democracy system, under which people can obtain a referendum by gaining 100,000 signatures. In the past, the country has gone to the polls to decide on ending television fees (no), phase out nuclear power (no), or purchase military jets (no, but stay tuned for another vote by 2020).

"It has become a game, like kindergarten, but this is going to radically affect the way we live," he said, by making Switzerland a laboratory for untested economic theories.

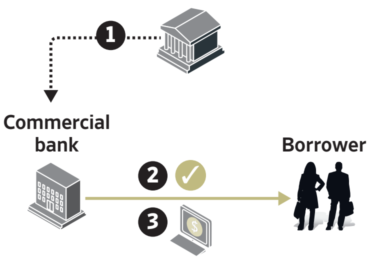
Even if Vollgeld is rejected, Mr. Weber thinks he has planted the seeds for future success. He sees parallels with another long-shot referendum two years ago: Basic Income. The plan, which would have guaranteed each Swiss resident a minimum income, was soundly defeated but got a lot of exposure. The idea has gained steam in Switzerland and elsewhere since then.

"It's the same with Vollgeld, you can't anymore put Vollgeld aside," Mr. Weber said. "If we change this here, everyone will know that it's not necessary to have a debt-accumulating system that will inevitably crash."

How money is created

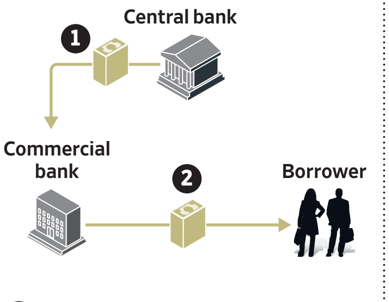
Banks are central to the money creation process in the global economy, but a Swiss initiative being voted on June 10 wants to put its central bank in charge.

Current scenario



1. Central bank influences pace of money creation by adjusting interest rates, which causes demand for credit to ebb and flow.
2. Commercial bank approves loan to borrower.
3. Commercial bank creates electronic money, deposits loan proceeds in borrowers account.

Vollgeld proposal scenario

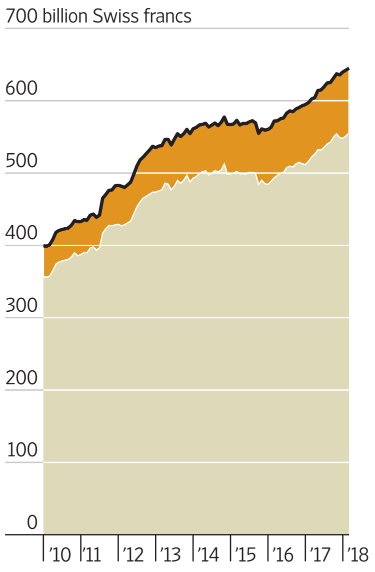


1. Central bank lends money to commercial bank if the institution can't back the loans with its own funds or by securing funds elsewhere.
2. Commercial bank relends central bank created money to borrowers.

Sources: WSJ analysis of economic research reports; UBS; Swiss National Bank (francs in circulation)

Money in circulation

Less than one-sixth of the francs in circulation in Switzerland are in notes and coins.



Andrew Barnett/THE WALL STREET JOURNAL.

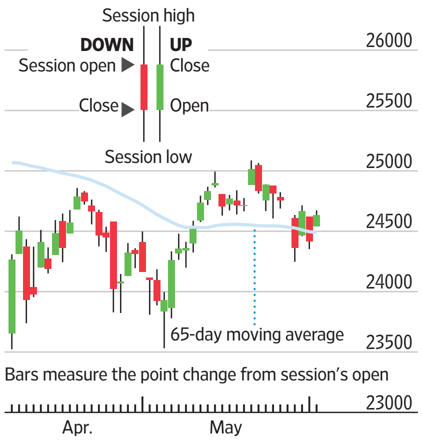
MARKETS DIGEST

Dow Jones Industrial Average

24635.21
▲ 219.37
or 0.90%
All-time high
26616.71, 01/26/18

	Last	Year ago
Trailing P/E ratio	24.22	20.63
P/E estimate *	16.21	17.92
Dividend yield	2.21	2.37

Current divisor
0.14523396877348



Bars measure the point change from session's open

S&P 500 Index

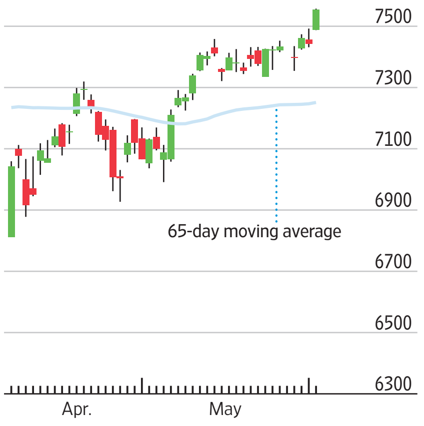
2734.62
▲ 29.35
or 1.08%
All-time high
2872.87, 01/26/18

	Last	Year ago
Trailing P/E ratio *	24.09	24.08
P/E estimate *	17.15	19.01
Dividend yield	1.91	1.95

Nasdaq Composite Index

7554.33
▲ 112.21
or 1.51%
All-time high:
7588.32, 03/12/18

	Last	Year ago
Trailing P/E ratio *	25.07	26.65
P/E estimate *	20.85	21.42
Dividend yield	0.97	1.09



Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.

Major U.S. Stock-Market Indexes

	Latest High	Latest Low	Latest Close	Net chg	% chg	52-Week High	52-Week Low	52-Week % chg	% chg YTD	% chg 3-yr. ann.
Dow Jones										
Industrial Average	24673.60	24542.09	**24635.21**	219.37	0.90	26616.71	21136.23	**16.2**	-0.3	**10.9**
Transportation Avg	10918.05	10805.39	**10893.97**	143.64	1.34	11373.38	9021.12	**16.7**	2.7	**9.1**
Utility Average	695.20	681.29	**684.74**	-10.47	-1.51	774.47	647.90	**-6.5**	-5.3	**5.2**
Total Stock Market	28486.77	28312.84	**28460.09**	293.79	1.04	29630.47	24958.26	**12.7**	2.8	**8.8**
Barron's 400	744.35	740.66	**743.31**	5.71	0.77	757.37	629.56	**14.8**	4.6	**9.2**
Nasdaq Stock Market										
Nasdaq Composite	7557.38	7487.23	**7554.33**	112.21	1.51	7588.32	6089.46	**19.8**	9.4	**14.1**
Nasdaq 100	7084.84	7008.02	**7083.93**	116.20	1.67	7131.12	5596.96	**20.4**	10.7	**16.1**
S&P										
500 Index	2736.93	2718.70	**2734.62**	29.35	1.08	2872.87	2409.75	**12.1**	2.3	**9.0**
MidCap 400	1965.84	1955.86	**1958.33**	11.90	0.61	1995.23	1691.67	**11.8**	3.0	**8.6**
SmallCap 600	1017.91	1012.21	**1015.57**	8.03	0.80	1018.46	817.25	**19.2**	8.5	**12.4**
Other Indexes										
Russell 2000	1650.50	1635.40	**1647.98**	14.37	0.88	1647.99	1356.90	**17.3**	7.3	**9.7**
NYSE Composite	12635.11	12595.91	**12620.83**	93.69	0.75	13637.02	11667.73	**7.7**	-1.5	**4.5**
Value Line	568.61	563.98	**567.98**	4.00	0.71	589.69	503.24	**8.3**	1.0	**3.6**
NYSE Arca Biotech	4832.18	4756.55	**4821.79**	73.30	1.54	4939.86	3641.87	**30.7**	14.2	**5.2**
NYSE Arca Pharma	528.82	526.12	**528.71**	4.47	0.85	593.12	514.66	**-0.3**	-3.0	**-3.6**
KBW Bank	108.11	106.98	**107.49**	1.55	1.47	116.52	89.11	**20.3**	0.7	**12.6**
PHLX§ Gold/Silver	83.70	82.50	**83.04**	-0.28	-0.33	93.26	76.42	**-0.2**	-2.6	**6.2**
PHLX§ Oil Service	157.52	154.20	**155.30**	0.13	0.09	170.18	117.79	**12.2**	3.8	**-9.3**
PHLX§ Semiconductor	1411.43	1387.67	**1411.31**	32.31	2.34	1445.90	1020.51	**27.9**	12.6	**23.7**
Cboe Volatility	14.93	13.37	**13.46**	-1.97	-12.77	37.32	9.14	**38.1**	21.9	**-1.2**

§Nasdaq PHLX

Sources: SIX Financial Information; WSJ Market Data Group

Trading Diary

Volume, Advancers, Decliners

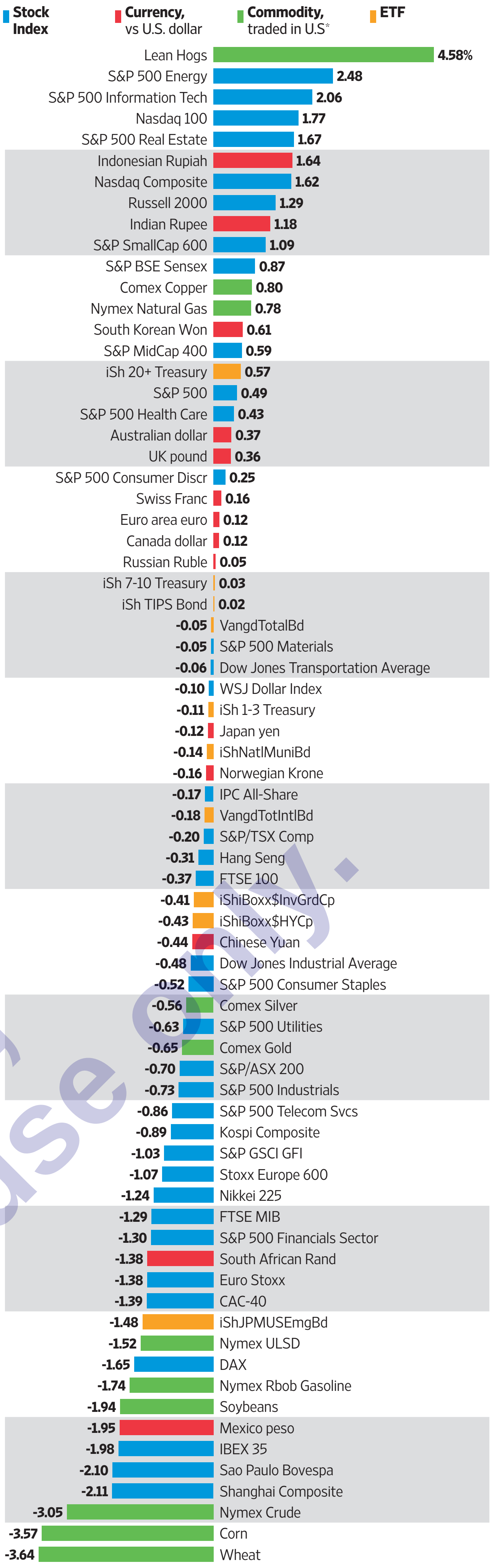
	NYSE	NYSE Amer.
Total volume*	856,022,887	10,844,718
Adv. volume*	585,764,628	6,480,502
Decl. volume*	264,258,149	3,598,164
Issues traded	3,078	322
Advances	2,092	179
Declines	884	114
Unchanged	102	29
New highs	116	7
New lows	40	3
Closing tick	654	75
Closing Arms†	1.10	1.34
Block trades*	7,008	151

	Nasdaq	NYSE Arca
Total volume*	2,165,085,227	247,821,495
Adv. volume*	1,552,835,689	179,230,825
Decl. volume*	565,575,764	64,222,997
Issues traded	3,100	1,330
Advances	2,079	944
Declines	862	376
Unchanged	159	10
New highs	206	28
New lows	43	10
Closing tick	1,107	55
Closing Arms†	0.88	0.98
Block trades*	8,418	1,519

* Primary market NYSE, NYSE American NYSE Arca only.
†(TRIN) A comparison of the number of advancing and declining issues with the volume of shares rising and falling. An Arms of less than 1 indicates buying demand; above 1 indicates selling pressure.

Track the Markets: Winners and Losers

A look at how selected global stock indexes, bond ETFs, currencies and commodities performed around the world for the week.



*Continuous front-month contracts
Sources: SIX Financial Information (stock indexes), Tullett Prebon (currencies), WSJ Market Data Group (bond ETFs, commodities).

THE WALL STREET JOURNAL

See an expanded daily list of selected global stock indexes, bond ETFs, currencies and commodities at **WSJ.com/TrackTheMarkets**

International Stock Indexes

Region/Country	Index	Close	Latest Net chg	Latest % chg	YTD % chg
World	**The Global Dow**	**3025.69**	23.41	0.78	-2.0
	DJ Global Index	**397.36**	2.86	0.73	0.03
	DJ Global ex U.S.	**260.21**	1.01	0.39	-2.5
Americas	**DJ Americas**	**654.17**	6.35	0.98	1.8
Brazil	**Sao Paulo Bovespa**	**77239.75**	486.14	0.63	1.1
Canada	**S&P/TSX Comp**	**16043.54**	-17.96	-0.11	-1.0
Mexico	**S&P/BMV IPC**	**45013.12**	350.57	0.78	-8.8
Chile	**Santiago IPSA**	**4052.24**	12.02	0.30	-3.8
EMEA	**Stoxx Europe 600**	**386.91**	3.85	1.01	-0.6
Eurozone	**Euro Stoxx**	**385.09**	4.31	1.13	-0.1
Belgium	**Bel-20**	**3809.22**	45.00	1.20	-4.2
Denmark	**OMX Copenhagen**	**908.03**	11.07	1.23	-2.1
France	**CAC 40**	**5465.53**	67.13	1.24	2.9
Germany	**DAX**	**12724.27**	119.38	0.95	-1.5
Israel	**Tel Aviv**	**1512.01**	...	Closed	0.1
Italy	**FTSE MIB**	**22109.55**	325.37	1.49	1.2
Netherlands	**AEX**	**559.18**	6.33	1.14	2.7
Russia	**RTS Index**	**1164.37**	1.39	0.12	0.9
South Africa	**FTSE/JSE All-Share**	**57282.14**	1124.25	2.00	-3.7
Spain	**IBEX 35**	**9632.40**	166.90	1.76	-4.1
Sweden	**OMX Stockholm**	**579.07**	6.38	1.11	1.8
Switzerland	**Swiss Market**	**8618.54**	161.59	1.91	-8.1
Turkey	**BIST 100**	**99171.21**	-1481.06	-1.47	-14.0
U.K.	**FTSE 100**	**7701.77**	23.57	0.31	0.2
U.K.	**FTSE 250**	**20984.92**	138.66	0.67	1.2
Asia-Pacific					
Australia	**S&P/ASX 200**	**5990.40**	-21.50	-0.36	-1.2
China	**Shanghai Composite**	**3075.14**	-20.34	-0.66	-7.0
Hong Kong	**Hang Seng**	**30492.91**	24.35	0.08	1.9
India	**S&P BSE Sensex**	**35227.26**	-95.12	-0.27	3.4
Japan	**Nikkei Stock Avg**	**22171.35**	-30.47	-0.14	-2.6
Singapore	**Straits Times**	**3427.51**	-0.67	-0.02	0.7
South Korea	**Kospi**	**2438.96**	15.95	0.66	-1.2
Taiwan	**TAIEX**	**10949.08**	74.12	0.68	2.9
Thailand	**SET**	**1719.82**	-7.15	-0.41	-1.9

Sources: SIX Financial Information; WSJ Market Data Group

Percentage Gainers...

Company	Symbol	Latest Session Close	Net chg	% chg	52-Week High	52-Week Low	52-Week % chg
Co-Diagnostics	CODX	4.79	1.89	**65.17**	6.85	1.45	...
DHI Group	DHX	3.10	0.80	**34.78**	3.25	1.25	**10.7**
Euro Tech Holdings	CLWT	4.75	0.90	**23.38**	8.45	2.00	**55.7**
Liberty TripAdvisor B	LTRPB	17.05	2.94	**20.87**	17.05	9.00	**41.5**
Zuora	ZUO	26.40	4.22	**19.03**	27.50	18.75	...
Cohbar	CWBR	7.10	1.05	**17.36**	7.17	4.44	...
lululemon athletica	LULU	122.19	17.14	**16.32**	123.84	51.30	**125.1**
OrthoPediatrics	KIDS	24.20	3.14	**14.91**	24.40	14.00	...
trivago ADR	TRVG	5.30	0.66	**14.22**	24.27	4.25	**-72.4**
HUYA ADR	HUYA	29.07	3.62	**14.22**	29.59	15.25	...
Good Times Restaurants	GTIM	3.75	0.45	**13.64**	3.75	2.25	**7.9**
Nektar Therapeutics	NKTR	90.35	10.08	**12.56**	111.36	17.51	**340.5**
iQIYI ADR	IQ	28.46	3.16	**12.49**	28.94	15.30	...
Scholar Rock Holding	SRRK	19.65	2.16	**12.35**	19.95	14.00	...
DAVIDsTEA	DTEA	4.15	0.45	**12.13**	6.45	3.20	**-33.1**

Percentage Losers

Company	Symbol	Latest Session Close	Net chg	% chg	52-Week High	52-Week Low	52-Week % chg
Sears Holdings	SHLD	2.28	-0.53	**-18.86**	10.76	1.99	**-68.3**
Petroleo Brasileiro ADR A	PBR.A	8.56	-1.64	**-16.08**	14.98	6.96	**7.1**
Kitov Pharma ADR	KTOV	2.58	-0.45	**-14.85**	3.81	1.27	**37.2**
Petroleo Brasileiro ADR	PBR	10.13	-1.73	**-14.59**	17.20	7.61	**19.5**
JinkoSolar Holding ADR	JKS	15.14	-2.48	**-14.07**	30.50	15.13	**-19.4**
Energ Gerais-Cemig ADR C	CIG.C	1.92	-0.29	**-13.12**	3.16	1.81	**-22.3**
China Customer Relations	CCRC	17.56	-2.30	**-11.58**	23.40	10.75	**7.7**
SM Energy	SM	23.19	-3.01	**-11.49**	28.20	12.29	**34.9**
Zion Oil Gas	ZN	3.17	-0.40	**-11.10**	6.90	1.37	**126.1**
Curis	CRIS	2.49	-0.29	**-10.43**	11.35	2.07	**-73.9**
scPharmaceuticals	SCPH	8.92	-1.02	**-10.26**	18.17	8.50	...
Clean Energy Fuels	CLNE	2.85	-0.31	**-9.81**	3.52	1.31	**16.3**
Urban One Cl A	UONE	2.90	-0.30	**-9.38**	4.85	1.25	**48.7**
Orchids Paper Products	TIS	3.62	-0.36	**-9.05**	15.74	3.44	**-73.6**
Resolute Energy	REN	32.50	-3.16	**-8.86**	42.00	23.64	**-17.4**

Most Active Stocks

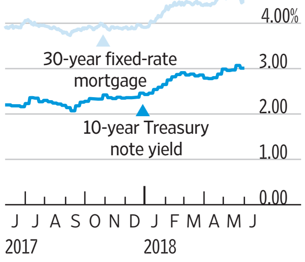
Company	Symbol	Volume (000)	% chg from 65-day avg	Latest Session Close	Latest Session % chg	52-Week High	52-Week Low
Petroleo Brasileiro ADR	PBR	**180,637**	840.3	10.13	**-14.59**	17.20	7.61
Micron Technology	MU	**74,096**	27.2	58.74	**2.00**	64.66	26.85
Advanced Micro Devices	AMD	**66,811**	18.4	14.40	**4.88**	15.65	9.04
SPDR S&P 500	SPY	**64,196**	-29.8	273.60	**0.98**	286.63	239.96
Bank of America	BAC	**63,596**	-5.5	29.40	**1.24**	33.05	22.07

* Common stocks priced at $2 a share or more with an average volume over 65 trading days of at least 5,000 shares †Has traded fewer than 65 days

Consumer Rates and Returns to Investor

U.S. consumer rates

A consumer rate against its benchmark over the past year



Selected rates

30-year mortgage, Rate

Bankrate.com avg†:	**4.48%**
United Teletech Financial	**3.88%**
Tinton Falls, NJ	732-530-8100
Easthampton Savings Bank	**4.25%**
Easthampton, MA	413-527-4111
Fidelity Bank Trust	**4.38%**
Dubuque, IA	563-557-2300
Foxboro Federal Savings	**4.38%**
Foxboro, MA	877-369-3331
American Trust Savings Bank	**4.39%**
Dubuque, IA	800-373-1841

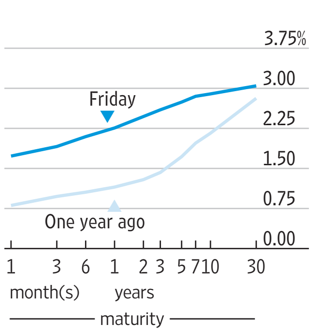
Interest rate	Yield/Rate (%) Last	Yield/Rate (%) Week ago	52-Week Range (%) Low	52-Week Range (%) High	3-yr chg (pct pts)
Federal-funds rate target	**1.50-1.75**	1.50-1.75	0.75	1.50	**1.50**
Prime rate*	**4.75**	4.75	4.00	4.75	**1.50**
Libor, 3-month	**2.32**	2.32	1.22	2.37	**2.04**
Money market, annual yield	**0.47**	0.46	0.25	0.47	**0.11**
Five-year CD, annual yield	**1.71**	1.71	1.33	1.71	**0.27**
30-year mortgage, fixed†	**4.48**	4.58	3.73	4.69	**0.52**
15-year mortgage, fixed†	**3.95**	4.05	2.99	4.14	**0.78**
Jumbo mortgages, $424,100-plus†	**4.73**	4.82	4.21	4.96	**0.53**
Five-year adj mortgage (ARM)†	**4.27**	4.43	3.22	4.78	**1.05**
New-car loan, 48-month	**4.15**	4.20	2.85	4.28	**1.10**

Bankrate.com rates based on survey of over 4,800 online banks. *Base rate posted by 70% of the nation's largest banks.† Excludes closing costs.

Sources: SIX Financial Information; WSJ Market Data Group; Bankrate.com

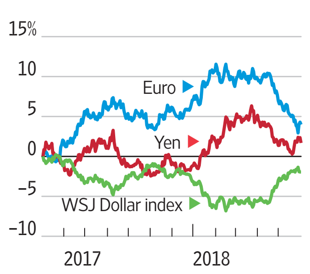
Treasury yield curve

Yield to maturity of current bills, notes and bonds



Forex Race

Yen, euro vs. dollar; dollar vs. major U.S. trading partners



Sources: Ryan ALM; Tullett Prebon; WSJ Market Data Group

Corporate Borrowing Rates and Yields

Bond total return index	Close	Yield (%) Last	Yield (%) Week ago	52-Week High	52-Week Low	Total Return (%) 52-wk	Total Return (%) 3-yr
Treasury, Ryan ALM	1435.008	**2.767**	2.793	2.945	1.818	**-1.861**	0.787
10-yr Treasury, Ryan ALM	1674.666	**2.895**	2.931	3.109	2.058	**-4.181**	-0.117
DJ Corporate	370.065	**3.860**	3.858	3.995	2.879	**-1.020**	2.728
Aggregate, Barclays Capital	1908.750	**3.270**	3.290	3.430	2.380	**-0.633**	1.433
High Yield 100, Merrill Lynch	n.a.	**n.a.**	6.086	n.a.	n.a.	**n.a.**	n.a.
Fixed-Rate MBS, Barclays	1963.060	**3.370**	3.440	3.580	2.660	**-0.476**	1.170
Muni Master, Merrill	n.a.	**n.a.**	2.538	n.a.	n.a.	**n.a.**	n.a.
EMBI Global, J.P. Morgan	771.061	**6.539**	6.411	6.617	5.279	**-2.332**	4.100

Sources: J.P. Morgan; Ryan ALM; S&P Dow Jones Indices; Barclays Capital; Merrill Lynch

Currencies

U.S.-dollar foreign-exchange rates in late New York trading

Country/currency	Fri in US$	Fri per US$	US$ vs, YTD chg (%)
Americas			
Argentina peso	.0401	24.9650	**34.2**
Brazil real	.2655	3.7661	**13.7**
Canada dollar	.7720	1.2954	**3.0**
Chile peso	.001584	631.50	**2.6**
Ecuador US dollar	1	1	**unch**
Mexico peso	.0502	19.9390	**1.4**
Uruguay peso	.03197	31.2800	**8.6**
Venezuela b. fuerte	.00001379	900.0001	**772489.0**
Asia-Pacific			
Australian dollar	.7569	1.3212	**3.2**
China yuan	.1558	6.4204	**-1.3**
Hong Kong dollar	.1275	7.8449	**0.4**
India rupee	.01494	66.935	**4.8**
Indonesia rupiah	.0000723	13826	**2.5**
Japan yen	.009131	109.52	**-2.8**
Kazakhstan tenge	.003021	331.07	**-0.5**
Macau pataca	.1237	8.0839	**0.5**
Malaysia ringgit	.2514	3.9780	**-2.1**
New Zealand dollar	.6981	1.4325	**1.6**
Pakistan rupee	.00865	115.600	**4.5**
Philippines peso	.0190	52.525	**5.1**
Singapore dollar	.7470	1.3386	**0.1**
South Korea won	.0009329	1071.89	**0.4**
Sri Lanka rupee	.0063036	158.64	**3.4**
Taiwan dollar	.03354	29.819	**0.5**
Thailand baht	.03121	32.040	**-1.7**
Vietnam dong	.00004387	22797	**0.4**
Europe			
Czech Rep. koruna	.04519	22.128	**4.0**
Denmark krone	.1566	6.3842	**2.9**
Euro area euro	1.1659	.8577	**3.0**
Hungary forint	.003643	274.53	**6.0**
Iceland krona	.009553	104.68	**1.1**
Norway krone	.1221	8.1872	**-0.2**
Poland zloty	.2709	3.6909	**6.1**
Russia ruble	.01607	62.226	**7.9**
Sweden krona	.1133	8.8247	**7.8**
Switzerland franc	1.0120	.9881	**1.4**
Turkey lira	.2150	4.6508	**22.6**
Ukraine hryvnia	.0383	26.1235	**-7.2**
UK pound	1.3350	.7491	**1.2**
Middle East/Africa			
Bahrain dinar	2.6466	.3779	**0.2**
Egypt pound	.0559	17.9025	**0.7**
Israel shekel	.2812	3.5558	**2.2**
Kuwait dinar	3.3064	.3024	**0.3**
Oman sul rial	2.5974	.3850	**0.01**
Qatar rial	.2746	3.642	**-0.2**
Saudi Arabia riyal	.2666	3.7503	**...**
South Africa rand	.0788	12.6906	**2.7**

	Close	Net Chg	% Chg	YTD % Chg
WSJ Dollar Index	87.24	0.21	0.24	**1.47**

Sources: Tullett Prebon, WSJ Market Data Group

Commodities

	Close	Friday Net chg	Friday % Chg	52-Week High	52-Week Low	52-Week % Chg	YTD % chg
DJ Commodity	**656.63**	-2.43	**-0.37**	667.35	532.01	**19.59**	5.00
TR/CC CRB Index	**201.71**	-1.13	**-0.56**	206.38	166.50	**13.34**	4.05
Crude oil, $ per barrel	**65.81**	-1.23	**-1.83**	72.24	42.53	**38.08**	8.92
Natural gas, $/MMBtu	**2.962**	0.01	**0.34**	3.63	2.55	**-1.23**	0.30
Gold, $ per troy oz.	**1294.80**	-5.30	**-0.41**	1362.40	1208.60	**1.41**	-0.88

MARKET DATA

Futures Contracts

Metal & Petroleum Futures

	Open	High	hi lo	Low	Settle	Chg	Open interest
Copper-High (CMX)-25,000 lbs.; $ per lb.							
June	3.0565	3.0890		3.0490	**3.0915**	0.0335	2,665
July	3.0630	3.1000		3.0560	**3.0985**	0.0335	128,840
Gold (CMX)-100 troy oz.; $ per troy oz.							
June	1298.60	1299.50		1288.90	**1294.80**	–5.30	7,720
Aug	1303.70	1304.80		1293.10	**1299.30**	–5.40	333,403
Oct	1309.60	1310.10		1299.40	**1305.40**	–5.40	10,999
Dec	1316.00	1317.10		1305.90	**1311.70**	–5.40	78,777
Feb'19	1322.60	1322.70		1313.40	**1318.10**	–5.30	12,079
June	1334.50	1334.50		1327.50	**1331.20**	–5.10	3,996
Palladium (NYM) - 50 troy oz.; $ per troy oz.							
June	989.50	1004.20		988.70	**1002.10**	13.20	124
Sept	980.10	998.30		977.70	**996.60**	14.90	20,838
Dec	975.10	989.60		974.40	**991.40**	14.30	482
Platinum (NYM)-50 troy oz.; $ per troy oz.							
July	906.90	913.60		900.00	**906.70**	–3.40	70,862
Oct	911.80	916.20		905.00	**911.80**	–3.20	10,405
Silver (CMX)-5,000 troy oz.; $ per troy oz.							
July	16.430	16.515		16.335	**16.441**	–0.017	139,430
Dec	16.670	16.725		16.570	**16.659**	–0.017	29,855
Crude Oil, Light Sweet (NYM)-1,000 bbls.; $ per bbl.							
July	67.10	67.34		65.51	**65.81**	–1.23	485,153
Aug	66.96	67.19		65.48	**65.77**	–1.14	235,836
Sept	66.60	66.79		65.26	**65.53**	–1.01	249,600
Oct	66.18	66.35		64.95	**65.23**	–0.88	197,696
Dec	65.62	65.77		64.46	**64.78**	–0.74	296,910
Dec'19	61.50	61.58		60.68	**61.19**	–0.03	183,859
NY Harbor ULSD (NYM)-42,000 gal.; $ per gal.							
July	2.2100	2.2138		2.1686	**2.1763**	–.0283	135,788
Aug	2.2152	2.2164		2.1723	**2.1804**	–.0268	61,071
Gasoline-NY RBOB (NYM)-42,000 gal.; $ per gal.							
July	2.1654	2.1724		2.1316	**2.1434**	–.0171	176,765
Sept	2.1454	2.1480		2.1100	**2.1206**	–.0194	68,848
Natural Gas (NYM)-10,000 MMBtu.; $ per MMBtu.							
July	2.951	2.983		2.932	**2.962**	.010	308,674
Aug	2.966	2.996		2.947	**2.976**	.011	105,267
Sept	2.943	2.974		2.928	**2.955**	.011	174,734
Oct	2.949	2.974		2.934	**2.959**	.011	150,425
Jan'19	3.166	3.194		3.155	**3.179**	.013	109,092
March	3.025	3.050		3.014	**3.037**	.012	102,930

Agriculture Futures

	Open	High	hi lo	Low	Settle	Chg	Open interest
Corn (CBT)-5,000 bu.; cents per bu.							
July	393.75	397.00		390.75	**391.50**	–2.50	736,393
Dec	413.50	417.00		411.00	**411.75**	–2.00	538,020
Oats (CBT)-5,000 bu.; cents per bu.							
July	246.00	250.75		243.75	**246.00**	1.25	3,140
Dec	251.50	252.50		246.50	**251.00**	.25	1,247
Soybeans (CBT)-5,000 bu.; cents per bu.							
July	1019.25	1026.50		1015.00	**1021.25**	2.75	370,034
Nov	1034.75	1042.00		1031.00	**1037.75**	3.50	267,393
Soybean Meal (CBT)-100 tons; $ per ton.							
July	375.30	377.40		372.10	**374.20**	–1.10	202,088
Dec	374.30	375.70		370.90	**373.10**	–.70	110,561
Soybean Oil (CBT)-60,000 lbs.; cents per lb.							
July	31.14	31.50		31.14	**31.19**	.07	224,650
Dec	31.91	32.29		31.91	**31.96**	.06	120,527
Rough Rice (CBT)-2,000 cwt.; $ per cwt.							
July	1161.00	1169.00		1142.50	**1144.50**	–11.50	5,613
Sept	1144.50	1144.50		1122.50	**1130.00**	–4.00	3,128
Wheat (CBT)-5,000 bu.; cents per bu.							
July	524.50	528.00		518.25	**523.25**	–3.00	233,146
Sept	541.25	544.50		535.50	**540.75**	–2.25	123,132
Wheat (KC)-5,000 bu.; cents per bu.							
July	540.25	544.00		532.00	**540.75**	–1.75	137,208
Sept	559.50	562.00		550.50	**559.00**	–1.75	70,847
Wheat (MPLS)-5,000 bu.; cents per bu.							
July	611.25	613.25		603.25	**604.00**	–8.00	28,030
Sept	619.25	620.75		611.75	**612.75**	–7.00	14,508
Cattle-Feeder (CME)-50,000 lbs.; cents per lb.							
Aug	147.250	147.800		145.875	**146.325**	–1.075	24,544
Oct	147.125	147.675		146.025	**146.425**	–.575	5,921
Cattle-Live (CME)-40,000 lbs.; cents per lb.							
June	105.250	105.775		104.550	**104.900**	–.150	32,385
Aug	104.000	104.425		103.300	**103.625**	–.325	165,751
Hogs-Lean (CME)-40,000 lbs.; cents per lb.							
Dec	...	...	▲	...			...
July'18	78.475	79.125		77.525	**78.800**	.750	73,117
Lumber (CME)-110,000 bd. ft., $ per 1,000 bd. ft.							
July	604.80	606.10		587.80	**593.60**	–3.50	4,598
Sept	590.50	591.40		572.80	**579.20**	–3.60	1,082
Milk (CME)-200,000 lbs., cents per lb.							
June	15.54	15.61		15.49	**15.49**	–.08	3,771
July	16.36	16.37		16.20	**16.23**	–.15	3,401
Cocoa (ICE-US)-10 metric tons; $ per ton.							
July	2,450	2,470		2,413	**2,458**	4	101,056
Sept	2,508	2,516		2,465	**2,505**	–2	79,842
Coffee (ICE-US)-37,500 lbs.; cents per lb.							
July	123.90	124.95		122.35	**122.75**	–.95	122,781
Sept	126.05	127.15		124.55	**124.95**	–.95	70,790
Sugar-World (ICE-US)-112,000 lbs.; cents per lb.							
July	12.79	12.97		12.43	**12.52**	–.27	390,603
Oct	13.01	13.18		12.70	**12.81**	–.21	286,854
Sugar-Domestic (ICE-US)-112,000 lbs.; cents per lb.							
July	24.90	24.95		24.85	**24.95**	.29	1,463
Sept	25.76	25.95		25.76	**25.80**	.29	2,516
Cotton (ICE-US)-50,000 lbs.; cents per lb.							
July	93.16	94.49		92.72	**93.30**	.15	104,630
Dec	91.62	93.00		91.21	**92.36**	.72	165,026
Orange Juice (ICE-US)-15,000 lbs.; cents per lb.							
July	162.15	166.00		162.15	**165.30**	3.50	11,638
Sept	162.50	166.25		162.50	**165.80**	3.55	3,293

Interest Rate Futures

	Open	High	hi lo	Low	Settle	Chg	Open interest
Treasury Bonds (CBT)-$100,000; pts 32nds of 100%							
June	145-110	145-150		144-090	**144-260**	–1-06.0	37,943
Sept	144-170	144-190		143-140	**143-300**	–1-06.0	814,887
Treasury Notes (CBT)-$100,000; pts 32nds of 100%							
June	120-175	120-175		119-290	**120-055**	–18.0	153,321
Sept	120-080	120-080		119-190	**119-270**	–19.0	3,516,939
5 Yr. Treasury Notes (CBT)-$100,000; pts 32nds of 100%							
June	114-015	114-015		113-205	**113-250**	–10.5	98,167
Sept	113-257	113-257		113-120	**113-167**	–11.7	3,633,191
2 Yr. Treasury Notes (CBT)-$200,000; pts 32nds of 100%							
June	106-062	106-065		106-030	**106-040**	–3.2	65,320
Sept	106-030	106-030		105-300	**105-315**	–4.2	1,844,950
30 Day Federal Funds (CBT)-$5,000,000; 100 - daily avg.							
June	98.185	98.185		98.178	**98.178**	–.005	160,353
July	98.095	98.095		98.085	**98.085**	–.010	244,646
10 Yr. Del. Int. Rate Swaps (CBT)-$100,000; pts 32nds of 100%							
June	93.672	93.719		93.359	**93.594**	–.609	33,285
1 Month Libor (CME)-$3,000,000; pts of 100%							
June	97.9150	97.9150		97.9000	**97.9075**	–.0100	4,127
July	97.9100	97.9100		97.8950	**97.8900**	–.0200	3,732
Eurodollar (CME)-$1,000,000; pts of 100%							
June	97.6700	97.6800		97.6550	**97.6700**	–.0075	1,461,326
Dec	97.4500	97.4550		97.3700	**97.3900**	–.0500	1,933,213
June'19	97.2600	97.2750		97.1800	**97.2000**	–.0700	1,435,403
Dec	97.1350	97.1400		97.0450	**97.0750**	–.0800	1,854,549

Currency Futures

	Open	High	hi lo	Low	Settle	Chg	Open interest
Japanese Yen (CME)-¥12,500,000; $ per 100¥							
June	.9201	.9206		.9121	**.9140**	–.0075	149,873
Sept	.9259	.9262		.9180	**.9198**	–.0076	8,357
Canadian Dollar (CME)-CAD 100,000; $ per CAD							
June	.7721	.7736		.7690	**.7712**	–.0010	126,358
Sept	.7744	.7747		.7709	**.7727**	–.0009	24,998
British Pound (CME)-£62,500; $ per £							
June	1.3302	1.3370		1.3261	**1.3354**	.0055	209,724
Sept	1.3364	1.3428		1.3323	**1.3412**	.0055	13,914
Swiss Franc (CME)-CHF 125,000; $ per CHF							
June	1.0156	1.0172		1.0098	**1.0125**	–.0039	96,243
Sept	1.0237	1.0253		1.0185	**1.0207**	–.0039	4,667
Australian Dollar (CME)-AUD 100,000; $ per AUD							
June	.7568	.7574		.7514	**.7570**	.0003	145,336
July	.7565	.7574		.7526	**.7571**	.0002	529
Aug	.7545	.7568		.7526	**.7573**	.0003	275
Sept	.7578	.7578		.7520	**.7575**	.0003	3,116
Dec	.7532	.7579		.7526	**.7582**	.0003	423
Mexican Peso (CME)-MXN 500,000; $ per MXN							
June	.05006	.05038		.04987	**.05006**	.00008	182,064
Sept	.04944	.04962		.04916	**.04931**	.00009	5,143
Euro (CME)-€125,000; $ per €							
June	1.1705	1.1730		1.1628	**1.1675**	–.0026	499,981
Sept	1.1788	1.1813		1.1714	**1.1758**	–.0026	47,459

Index Futures

	Open	High	hi lo	Low	Settle	Chg	Open interest
Mini DJ Industrial Average (CBT)-$5 x index							
June	24440	24679		24419	**24629**	212	97,870
Sept	24468	24700		24450	**24651**	212	3,038
S&P 500 Index (CME)-$250 x index							
June	2706.00	2736.00		2706.00	**2733.80**	28.30	98,580
Sept	2736.00	2743.80		2734.00	**2738.20**	28.40	17,614
Mini S&P 500 (CME)-$50 x index							
June	2707.50	2737.00		2706.00	**2733.75**	28.25	2,986,857
Sept	2711.25	2741.00		2710.50	**2738.25**	28.50	194,415
Mini S&P Midcap 400 (CME)-$100 x index							
June	1949.00	1964.00		1949.00	**1958.20**	11.20	83,831
Sept	...	1968.00			**1962.90**	11.20	83
Mini Nasdaq 100 (CME)-$20 x index							
June	6982.5	7090.5	▲	6977.3	**7083.0**	106.0	232,346
Sept	7003.3	7114.3	▲	7003.3	**7108.0**	106.5	14,844
Mini Russell 2000 (ICE-US)-$100 x index							
June	1640.60	1651.90		1637.60	**1650.10**	15.60	11,302
Mini Russell 1000 (ICE-US)-$100 x index							
June	1513.60	1519.40		1513.60	**1518.10**	15.10	72
U.S. Dollar Index (ICE-US)-$1,000 x index							
June	93.96	94.44		93.86	**94.17**	.21	41,159
Sept	93.51	93.98		93.41	**93.73**	.22	2,791

Source: SIX Financial Information

Bonds | WSJ.com/bonds

Global Government Bonds: Mapping Yields

Yields and spreads over or under U.S. Treasurys on benchmark two-year and 10-year government bonds in selected other countries; arrows indicate whether the yield rose(▲) or fell (▼) in the latest session

Coupon (%)	Country/ Maturity, in years	Yield (%) Latest	Previous	Month ago	Year ago	Spread Under/Over U.S. Treasurys, in basis points Latest	Prev	Year ago
2.500	U.S. 2	2.484 ▲	2.432	2.508	1.294			
2.875	10	2.889 ▲	2.860	2.967	2.210			
4.500	Australia 2	2.018 ▲	1.991	2.052	1.568	-46.6	-44.1	27.4
2.250	10	2.711 ▲	2.683	2.768	2.406	-17.8	-17.8	19.6
0.000	France 2	-0.512 ▼	-0.489	-0.498	-0.511	-299.6	-292.1	-180.4
0.750	10	0.708 ▲	0.671	0.789	0.737	-218.1	-218.9	-147.3
0.000	Germany 2	-0.661 ▲	-0.684	-0.590	-0.740	-314.5	-311.6	-203.4
0.500	10	0.388 ▲	0.343	0.561	0.308	-250.1	-251.8	-190.1
0.350	Italy 2	1.007 ▲	1.000	-0.311	-0.175	-147	-143.2	-146.8
2.000	10	2.716 ▼	2.723	1.782	2.246	-17.3	-13.7	3.6
0.100	Japan 2	-0.136 ▲	-0.145	-0.142	-0.160	-262.0	-257.7	-145.3
0.100	10	0.048 ▲	0.037	0.040	0.046	-284.2	-282.3	-216.3
1.400	Spain 2	-0.182 ▼	-0.061	-0.350	-0.267	-266.5	-249.3	-156.0
1.400	10	1.444 ▼	1.495	1.278	1.549	-144	-136.5	-66.1
2.000	U.K. 2	0.642 ▲	0.613	0.788	0.133	-184.2	-181.9	-116.1
4.250	10	1.283 ▲	1.230	1.406	1.077	-160	-163.0	-113.3

Source: Tullett Prebon

Corporate Debt

in that same company's share price.

Investment-grade spreads that tightened the most...

Issuer	Symbol	Coupon (%)	Maturity	Spread*, in basis points Current	One-day change	Last week	Stock Performance Close ($)	% chg
Deutsche Bank AG	DB	7.500	April 30, '49	561	–51	480	11.04	–0.36
UniCredit SpA	UCGIM	5.861	June 19, '32	395	–40	363	...	...
Intesa Sanpaolo SpA	ISPIM	5.710	Jan. 15, '26	385	–36	340	...	...
Iheartcommunications	IHRT	9.000	Sept. 15, '22	1339	–34	n.a.	...	...
Pitney Bowes	PBI	3.625	Sept. 15, '20	231	–23	n.a.	9.02	1.35
HSBC Holdings	HSBC	6.000	May 22, '49	347	–20	332	48.77	0.81
Bed Bath & Beyond	BBBY	5.165	Aug. 1, '44	409	–18	418	17.83	–1.82
Barclays	BACR	4.836	May 9, '28	255	–16	235	...	...

...And spreads that widened the most

Issuer	Symbol	Coupon (%)	Maturity	Current	One-day change	Last week	Close ($)	% chg
Verizon Communications	VZ	3.450	March 15, '21	66	20	50	47.81	0.29
Citigroup	C	5.950	Jan. 30, '49	262	15	233	67.28	0.88
Kinder Morgan Energy Partners	KMI	6.950	Jan. 15, '38	253	13	235	...	...
Wyndham Worldwide	WYN	3.900	March 1, '23	255	10	235	...	...
Bank of America NA	BAC	6.000	Oct. 15, '36	139	9	117	...	...
GlaxoSmithKline Capital	GSK	2.800	March 18, '23	70	9	n.a.	...	...
Oracle	ORCL	2.500	Oct. 15, '22	49	9	n.a.	47.35	1.35
Chevron	CVX	2.419	Nov. 17, '20	39	7	32	123.85	–0.36

High-yield issues with the biggest price increases...

Issuer	Symbol	Coupon (%)	Maturity	Bond Price as % of face value Current	One-day change	Last week	Stock Performance Close ($)	% chg
Talen Energy Supply	TALEE	9.500	July 15, '22	102.688	2.44	101.750	...	...
Aptim	CSVCAC	7.750	June 15, '25	78.500	1.75	n.a.	...	...
PHI	PHII	5.250	March 15, '19	96.250	1.73	96.000	12.20	–3.52
APX	APXSEC	7.625	Sept. 1, '23	89.625	1.63	85.000	...	...
Intesa Sanpaolo Spa*	ISPIM	7.700	Sept. 17, '49	98.000	1.50	101.000	...	...
SRS Distribution	SRSDIS	8.250	July 1, '26	99.000	1.38	98.500	...	...
RR Donnelley & Sons	RRD	6.000	April 1, '24	96.875	1.25	94.375	6.20	–0.64
Windstream Services	WIN	8.625	Oct. 31, '25	95.250	1.25	93.250	5.59	1.45

...And with the biggest price decreases

Issuer	Symbol	Coupon (%)	Maturity	Current	One-day change	Last week	Close ($)	% chg
Intelsat Luxembourg S.A.	INTEL	8.125	June 1, '23	75.750	–1.31	75.375	...	...
Great Western Petroleum	GRTWST	9.000	Sept. 30, '21	101.500	–1.25	n.a.	...	...
SM Energy	SM	5.000	Jan. 15, '24	92.500	–1.25	95.500	23.19	–11.49
Sutter Health	SUTHEA	4.091	Aug. 15, '48	96.879	–1.10	96.270	...	...
Hertz	HTZ	7.375	Jan. 15, '21	96.500	–1.00	98.375	14.97	–0.80
Plains All American Pipeline	PAA	4.900	Feb. 15, '45	91.178	–0.99	92.221	23.71	0.89
Encana	ECACN	6.500	Aug. 15, '34	118.541	–0.98	118.338	...	...
Sanchez Energy	SN	7.750	June 15, '21	85.500	–0.97	87.250	4.01	1.78

*Estimated spread over 2-year, 3-year, 5-year, 10-year or 30-year hot-run Treasury; 100 basis points=one percentage pt.; change in spread shown is for Z-spread.
Note: Data are for the most active issue of bonds with maturities of two years or more

Sources: MarketAxess Corporate BondTicker; WSJ Market Data Group

Exchange-Traded Portfolios | WSJ.com/ETFresearch

Largest 100 exchange-traded funds, latest session

Friday, June 1, 2018

ETF	Symbol	Closing Price	Chg (%)	YTD (%)
AlerianMLPETF	AMLP	10.40	0.48	–3.6
CnsmrDiscSelSector	XLY	106.54	0.74	8.0
CnsStapleSelSector	XLP	49.66	...	–12.7
EnSelectSectorSPDR	XLE	76.38	0.47	5.7
FinSelSectorSPDR	XLF	27.48	1.10	–1.5
FT DJ Internet	FDN	136.73	1.73	24.4
HealthCareSelSect	XLV	83.36	1.15	0.8
IndSelSectorSPDR	XLI	75.26	1.10	–0.5
iSh1-3YCreditBond	CSJ	103.69	–0.00	–0.8
iSh3-7YTreasuryBd	IEI	119.68	–0.27	–2.0
iShCoreMSCIEAFE	IEFA	66.06	0.66	–0.0
iShCoreMSCIEmgMk	IEMG	56.14	1.10	–1.3
iShCoreMSCITotInt	IXUS	62.85	0.83	–0.4
iShCoreS&P500	IVV	275.53	1.03	2.5
iShCoreS&P MC	IJH	195.90	0.58	3.2
iShCoreS&P SC	IJR	83.41	0.69	8.6
iShS&PTotlUSStkMkt	ITOT	63.01	1.06	3.1
iShCoreUSAggBd	AGG	106.08	–0.12	–3.0
iShSelectDividend	DVY	97.74	0.08	–0.8
iShEdgeMSCIMinEAFE	EFAV	73.56	0.34	0.8
iShEdgeMSCIMinUSA	USMV	52.80	0.46	0.0
iShEdgeMSCIUSAMom	MTUM	111.87	1.59	8.5
iShFloatingRateBd	FLOT	50.93	–0.03	0.2
iShGoldTr	IAU	12.41	–0.40	–0.8
iShiBoxx$InvGrCpBd	LQD	114.91	–0.19	–5.5
iShiBoxx$HYCpBd	HYG	85.19	0.23	–2.4
iShJPMUSDEmgBd	EMB	108.00	–0.36	–7.0
iShMBSETF	MBB	103.83	–0.22	–2.6
iShMSCI ACWI	ACWI	73.08	1.04	1.4
iShMSCIBrazil	EWZ	35.81	0.53	–11.5
iShMSCI EAFE	EFA	70.00	0.86	–0.4
iShMSCI EAFE SC	SCZ	65.44	0.71	1.5
iShMSCIEmgMarkets	EEM	46.33	1.40	–1.7
iShMSCIEurozone	EZU	43.02	0.66	–0.8
iShMSCIJapan	EWJ	60.15	0.69	0.4
iShNasdaqBiotech	IBB	109.84	1.28	2.9
iShNatlMuniBd	MUB	108.70	–0.17	–1.8
iShRussell1000Gwth	IWF	144.19	1.24	7.1
iShRussell1000	IWB	152.60	1.04	2.7
iShRussell1000Val	IWD	121.99	0.78	–1.9
iShRussell2000Gwth	IWO	204.77	0.93	9.7
iShRussell2000	IWM	163.84	0.66	7.5
iShRussell2000Val	IWN	132.15	0.59	5.1
iShRussell3000	IWV	162.87	1.01	3.0
iShRussellMid-Cap	IWR	212.53	0.84	2.1
iShRussellMCValue	IWS	88.33	0.57	–0.9
iShS&PMC400Growth	IJK	226.16	0.73	4.8
iShS&P500Growth	IVW	164.32	1.33	7.6
iShS&P500Value	IVE	110.97	0.74	–2.9
iShUSPfdStk	PFF	37.19	0.36	–2.3
iShShortTreaBd	SHV	110.27	–0.00	0.0
iShTIPSBondETF	TIP	111.98	–0.14	–1.8
iSh1-3YTreasuryBd	SHY	83.27	–0.08	–0.7
iSh7-10YTreasuryBd	IEF	101.93	–0.37	–3.4
iSh20+YTreasuryBd	TLT	120.30	–0.53	–5.2
iShRussellMCGrowth	IWP	127.80	1.17	5.9
PIMCOEnhShMaturity	MINT	101.45	0.01	–0.1
PwrShQQQ 1	QQQ	172.74	1.57	10.9
PwrShS&P500EW	RSP	102.16	0.85	1.1
PwrShSrLoanPtf	BKLN	22.99	...	–0.2
SPDR BlmBarcHYBd	JNK	35.51	0.16	–3.3
SPDR Gold	GLD	122.49	–0.50	–0.9
SchwabIntEquity	SCHF	33.86	0.74	–0.6
SchwabUS BrdMkt	SCHB	66.51	1.02	3.1
SchwabUS Div	SCHD	49.82	0.95	–2.6
SchwabUS LC	SCHX	65.54	1.08	2.8
SchwabUS SC	SCHA	73.97	0.76	6.1
SPDR DJIA Tr	DIA	246.36	0.89	–0.4
SPDR S&PMdCpTr	MDY	356.54	0.56	3.2
SPDR S&P 500	SPY	273.60	0.98	2.5
SPDR S&P Div	SDY	92.35	0.35	–2.3
TechSelectSector	XLK	71.09	1.70	11.2
VanEckGoldMiner	GDX	22.31	–0.13	–4.0
VangdInfoTech	VGT	186.32	1.81	13.1
VangdSC Val	VBR	136.60	0.58	2.9
VangdSC Grwth	VBK	175.47	0.88	9.1
VangdDivApp	VIG	102.90	1.00	0.9
VangdFTSEDevMk	VEA	44.50	0.75	–0.8
VangdFTSE EM	VWO	45.11	1.12	–1.7
VangdFTSE Europe	VGK	58.45	0.85	–1.2
VangdFinls	VFH	69.82	1.03	–0.3
VangdFTSEAWxUS	VEU	54.09	0.93	–1.2
VangdGrowth	VUG	150.29	1.20	6.9
VangdHiDiv	VYM	84.63	0.85	–1.2
VangdIntermBd	BIV	80.77	–0.23	–3.7
VangdIntrCorpBd	VCIT	83.50	–0.20	–4.5
VangdLC	VV	125.84	1.03	2.7
VangdMC	VO	158.21	0.96	2.2
VangdMC Val	VOE	110.70	0.71	–0.8
VangdRealEst	VNQ	79.24	0.44	–4.5
VangdS&P500	VOO	251.41	1.05	2.5
VangdST Bond	BSV	78.06	–0.14	–1.3
VangdSTCpBd	VCSH	78.04	–0.10	–1.6
VangdSC	VB	156.12	0.73	5.6
VangdTotalBd	BND	79.09	–0.17	–3.0
VangdTotIntlBd	BNDX	54.37	–0.02	...
VangdTotIntlStk	VXUS	56.39	0.91	–0.7
VangdTotalStk	VTI	141.50	1.04	3.1
VangdTotlWrld	VT	75.08	0.97	1.1
VangdValue	VTV	105.23	0.95	–1.0

Borrowing Benchmarks | WSJ.com/bonds

Money Rates

June 1, 2018

Key annual interest rates paid to borrow or lend money in U.S. and international markets. Rates below are a guide to general levels but don't always represent actual transactions.

Inflation

	April index level	Chg From (%) March '18	April '17
U.S. consumer price index			
All items	250.546	0.40	2.5
Core	257.025	0.16	2.1

International rates

	Latest	Week ago	52-Week High	Low
Prime rates				
U.S.	4.75	4.75	4.75	4.00
Canada	3.45	3.45	3.45	2.70
Japan	1.475	1.475	1.475	1.475
Policy Rates				
Euro zone	0.00	0.00	0.00	0.00
Switzerland	0.50	0.50	0.50	0.50
Britain	0.50	0.50	0.50	0.25
Australia	1.50	1.50	1.50	1.50

Secondary market

Fannie Mae

30-year mortgage yields	Latest	Week ago	52-Week High	Low
30 days	4.166	4.206	4.344	3.253
60 days	4.192	4.232	4.371	3.281

Notes on data:

U.S. prime rate is the base rate on corporate loans posted by at least 70% of the 10 largest U.S. banks, and is effective March 22, 2018. **Other prime rates** aren't directly comparable; lending practices vary widely by location. Complete Money Rates table appears Monday through Friday.

Sources: Bureau of Labor Statistics; SIX Financial Information

Dividend Changes

Dividend announcements from June 1.

Company	Symbol	Yld %	Amount New/Old	Frq	Payable / Record
Increased					
Calvert Ultra-Short Incm	CRUSC	0.2	.0206/.0192	M	Jun06/Jun04
Eaton Vance Oaktree Div	OKDCC	0.5	.0378/.0335	M	Jun06/Jun04
WR Berkley	WRB	0.8	.15/.14	Q	Jul05/Jun15
Reduced					
Eaton Vance FR NextShares	EVFTC	0.4	.0361/.0365	M	Jun06/Jun04
Eaton Vance TABS 5-to-15Y	EVLMC	0.2	.0181/.0195	M	Jun06/Jun04
Foreign					
Golden Ocean Group	GOGL	4.7	.10	Q	Jun28/Jun14
Xinyuan Real Estate ADR	XIN	7.4	.10	Q	Jun22/Jun11
Special					
Camping World Cl A	CWH	1.7	.0732		Jun29/Jun15
Capitol Federal Finl	CFFN	2.6	.25		Jun29/Jun15
WR Berkley	WRB	0.8	.50		Jun18/Jun11

KEY: A: annual; M: monthly; Q: quarterly; r: revised; SA: semiannual; S2:1: stock split and ratio; SO: spin-off.

Mutual Funds

Data provided by LIPPER

Top 250 mutual-funds listings for Nasdaq-published share classes by net assets.

e-Ex-distribution. **f**-Previous day's quotation. **g**-Footnotes x and s apply. **j**-Footnotes e and s apply. **k**-Recalculated by Lipper, using updated data. **p**-Distribution costs apply, 12b-1. **r**-Redemption charge may apply. **s**-Stock split or dividend. **t**-Footnotes p and r apply. **v**-Footnotes x and e apply. **x**-Ex-dividend. **z**-Footnote x, e and s apply. **NA**-Not available due to incomplete price, performance or cost data. **NE**-Not released by Lipper; data under review. **NN**-Fund not tracked. **NS**-Fund didn't exist at start of period.

Friday, June 1, 2018

Fund	NAV	Net Chg	YTD %Ret
A			
American Century Inv			
Ultra	48.01	+0.65	10.6
American Funds Cl A			
AmcpA p	34.13	+0.33	8.4
AMutlA p	40.79	+0.27	0.4
BalA p	27.24	+0.13	0.7
BondA p	12.54	-0.04	-1.9
CapIBA p	60.75	+0.27	-2.5
CapWGrA	52.14	+0.50	2.4
EupacA p	56.88	+0.43	1.2
FdInvA p	63.53	+0.62	2.4
GwthA p	53.76	+0.54	8.5
HI TrA p	10.12	...	...
ICAA p	41.02	+0.33	1.9
IncoA p	23.02	+0.12	-0.8
N PerA p	45.58	+0.57	5.6
NEcoA p	49.46	+0.63	10.8
NwWrldA	67.34	+0.49	0.6
SmCpA p	58.89	+0.38	5.5
TxExA p	12.83	-0.01	-0.4
WshA p	46.34	+0.41	2.0
B			
Baird Funds			
AggBdInst	10.54	-0.04	-2.0
CorBdInst	10.88	-0.04	-1.9
BlackRock Funds A			
GlblAlloc p	19.58	+0.09	-0.6
BlackRock Funds Inst			
EqtyDivd	22.54	...	-0.6
GlblAlloc	19.71	+0.09	-0.5
StratIncOpptyIns	9.80	-0.01	-0.2
Bridge Builder Trust			
CoreBond	9.87	-0.03	-1.8
D			
Del Invest Instl			
Value	21.97	+0.19	2.8
Dimensional Fds			
5GlbFxdInc	10.87	-0.01	...
EmgMktVa	30.86	+0.21	-1.2
EmMktCorEq	22.68	+0.23	-2.3
IntlCoreEq	14.50	+0.11	-0.3
IntlVal	20.17	+0.20	-1.4
IntSmCo	21.35	+0.16	0.4
IntSmVa	22.46	+0.22	-2.2
US CoreEq1	23.54	+0.23	3.5
US CoreEq2	22.12	+0.21	2.8
US Small	37.76	+0.28	5.3
US SmCpVal	40.17	+0.29	5.9
US TgdVal	25.99	+0.21	4.6
USLgVa	38.87	+0.43	-0.2
Dodge & Cox			
Balanced	104.89	+0.68	-0.4
GblStock	13.51	+0.16	-2.5
Income	13.46	-0.02	-1.3
Intl Stk	44.24	+0.46	-4.5
Stock	201.83	+2.24	0.6
DoubleLine Funds			
CoreFxdIncmI	NA	...	NA
TotRetBdI	NA	...	NA
E			
Edgewood Growth Instituti			
EdgewoodGrInst	33.52	+0.49	13.4
F			
Fidelity			
500IdxInst	95.86	+1.04	3.1
500IdxInstPrem	95.86	+1.04	3.1
500IdxPrem	95.85	+1.03	3.1
ExtMktIdxPrem r	65.78	+0.56	6.1
IntlIdxPrem r	42.85	+0.28	-0.7
SAIUSLgCpIndxFd	14.73	+0.16	3.2
TMktIdxF r	78.87	+0.81	3.6
TMktIdxPrem	78.87	+0.82	3.6
USBdIdxInstPrem	11.24	-0.03	-1.9
Fidelity Advisor I			
NwInsghtI	33.85	+0.30	8.0
Fidelity Freedom			
FF2020	16.30	+0.08	0.8
FF2025	14.21	+0.07	1.0
FF2030	17.82	+0.12	1.3
Freedom2020 K	16.28	+0.08	0.8
Freedom2025 K	14.19	+0.07	1.0
Freedom2030 K	17.80	+0.12	1.4
Freedom2035 K	15.08	+0.12	1.8
Freedom2040 K	10.59	+0.09	1.8
Fidelity Invest			
Balanc	24.38	+0.15	3.1
BluCh	97.76	+1.42	11.4
Contra	132.49	+1.63	9.9
ContraK	132.46	+1.63	9.9
CpInc r	10.26	+0.03	1.2
DivIntl	39.79	+0.31	-0.6
GroCo	201.99	+3.51	13.1
GrowCoK	202.03	+3.51	13.1
InvGB	7.70	-0.01	-1.9
InvGrBd	10.94	-0.02	-1.6
LowP r	55.08	+0.39	1.0
MagIn	106.04	+1.20	6.3
OTC	12.38	+0.21	12.7
Puritn	24.12	+0.19	3.4
SrsEmrgMkt	20.82	+0.23	-2.8
SrsGroCoRetail	18.89	+0.33	13.6
SrsIntlGrw	16.28	+0.15	0.8
SrsIntlVal	10.46	+0.09	-2.2
TotalBond	10.36	-0.02	-1.6
First Eagle Funds			
GlbA	59.17	+0.30	0.2
FPA Funds			
FPACres	34.68	+0.28	...
FrankTemp/Frank Adv			
IncomeAdv	2.29	...	-0.3
FrankTemp/Franklin A			
CA TF A p	7.30	-0.04	-0.8
IncomeA p	2.31	...	-0.4
RisDv A p	61.56	+0.60	0.9
FrankTemp/Franklin C			
Income C t	2.34	...	-0.7
FrankTemp/Temp A			
GlBond A p	11.73	+0.05	0.1
Growth A p	26.87	+0.27	-1.4
FrankTemp/Temp Adv			
GlBondAdv p	11.68	+0.04	0.1
H			
Harbor Funds			
CapApInst	77.98	+1.03	12.3
IntlInst r	67.81	+0.55	0.4
Harding Loevner			
IntlEq	NA	...	NA
I			
Invesco Funds A			
EqIncA	10.90	+0.07	-0.2
J			
John Hancock Class 1			
LSGwth	16.35	+0.11	1.7
John Hancock Instl			
DispValMCI	23.45	+0.17	0.6
JPMorgan Funds			
MdCpVal L	39.90	+0.20	-0.9
JPMorgan R Class			
CoreBond	11.28	-0.02	-1.5
CorePlusBd	8.05	-0.02	-1.6
L			
Lazard Instl			
EmgMktEq	18.64	+0.15	-6.9
Lord Abbett A			
ShtDurIncmA p	4.19	...	0.1
Lord Abbett F			
ShtDurIncm	4.19	...	0.2
M			
Metropolitan West			
TotRetBd	10.39	-0.03	-1.6
TotRetBdI	10.38	-0.04	-1.6
TRBdPlan	9.77	-0.04	-1.5
MFS Funds Class I			
ValueI	39.39	+0.34	-3.1
MFS Funds Instl			
IntlEq	NA	...	NA
O			
Oakmark Funds Invest			
EqtyInc r	32.14	+0.20	-0.2
Oakmark	86.36	+0.79	2.4
OakmrkInt	27.48	+0.33	-3.8
Old Westbury Fds			
LrgCpStr	14.73	+0.11	1.9
Oppenheimer Y			
DevMktY	NA	...	NA
IntGrowY	44.09	+0.40	1.1
P			
Parnassus Fds			
ParnEqFd	43.52	+0.45	2.4
PIMCO Fds Instl			
AllAsset	11.98	+0.01	-0.9
ShortT	NA	...	NA
TotRt	9.97	-0.02	-1.9
PIMCO Funds A			
IncomeFd	NA	...	NA
PIMCO Funds I2			
Income	NA	...	NA
PIMCO Funds Instl			
IncomeFd	NA	...	NA
Price Funds			
BlChip	108.73	+1.60	12.9
EqInc	32.93	+0.26	-0.9
EqIndex	73.61	+0.80	3.0
Growth	68.89	+0.89	10.0
HelSci	75.50	+0.87	7.3
InstlCapG	41.47	+0.58	12.4
IntlStk	18.65	+0.14	-0.1
IntlValEq	14.71	+0.16	-2.7
MCapVal	31.08	+0.17	2.2
MidCap	91.96	+0.87	5.7
N Inc	9.20	-0.02	-1.9
NHoriz	59.15	+0.49	12.5
OverS SF r	11.37	+0.11	0.5
R2020	NA	...	NA
R2025	NA	...	NA
R2030	NA	...	NA
R2035	NA	...	NA
R2040	NA	...	NA
Value	36.89	+0.34	-1.2
PRIMECAP Odyssey Fds			
AggGrowth r	51.78	+1.11	16.8
Growth r	41.94	+0.76	12.6
Stock r	32.55	+0.41	2.0
Principal Investors			
DivIntlInst	NA	...	NA
Prudential Cl Z & I			
TRBdZ	14.06	-0.05	-2.3
S T			
Schwab Funds			
S&P Sel	42.48	+0.46	3.1
TIAA/CREF Funds			
BdIdxInst	10.50	-0.02	-1.9
EqIdxInst	NA	...	NA
IntlEqIdxInst	NA	...	NA
Tweedy Browne Fds			
GblValue	28.91	+0.21	1.5
V			
VANGUARD ADMIRAL			
500Adml	253.36	+2.74	3.1
BalAdml	35.07	+0.19	1.5
CAITAdml	11.62	-0.01	-0.2
CapOpAdml r	163.91	+2.36	6.7
EMAdmr	37.42	+0.40	-1.8
EqIncAdml	77.25	+0.67	-0.4
ExplrAdml	98.96	+1.10	11.9
ExtndAdml	89.68	+0.76	6.1
GNMAAdml	10.23	-0.02	-1.0
GrwthAdml	77.36	+0.94	7.2
HlthCareAdml r	85.23	+0.71	0.8
HYCorAdml r	5.72	+0.01	-1.2
InfProAd	25.29	-0.04	-0.9
IntlGrAdml	100.93	+1.22	5.6
ITBondAdml	10.95	-0.03	-2.5
ITIGradeAdml	9.40	-0.03	-2.3
LTGradeAdml	9.79	-0.03	-6.1
MidCpAdml	195.96	+1.90	2.6
MorgAdml	99.41	+1.27	9.6
MuHYAdml	11.24	-0.02	-0.2
MuIntAdml	13.89	-0.02	-0.5
MuLTAdml	11.43	-0.01	-0.6
MuLtdAdml	10.83	...	0.2
MuShtAdml	15.71	+0.01	0.6
PrmcpAdml r	143.08	+2.01	7.1
RealEstatAdml	112.27	+0.48	-3.6
SmCapAdml	74.81	+0.56	6.0
STBondAdml	10.25	-0.01	-0.5
STIGradeAdml	10.47	-0.01	-0.4
TotBdAdml	10.43	-0.02	-1.9
TotIntBdIdxAdm	21.78	-0.01	0.8
TotIntlAdmIdx r	30.20	+0.24	-0.8
TotStAdml	68.88	+0.71	3.7
TxMIn r	14.29	+0.10	-0.5
ValAdml	41.06	+0.40	-0.3
WdsrIIAdml	67.05	+0.71	-0.1
WellsIAdml	63.53	+0.13	-2.1
WelltnAdml	71.90	+0.46	-0.4
WndsrAdml	79.75	+0.70	1.0
VANGUARD FDS			
DivdGro	26.83	+0.19	2.2
INSTTRF2020	22.68	+0.10	0.7
INSTTRF2025	23.06	+0.12	0.9
INSTTRF2030	23.37	+0.15	1.1
INSTTRF2035	23.68	+0.17	1.3
INSTTRF2040	23.98	+0.19	1.5
INSTTRF2045	24.18	+0.20	1.6
INSTTRF2050	24.21	+0.21	1.6
IntlVal	39.22	+0.31	-1.7
LifeCon	19.93	+0.06	0.2
LifeGro	34.12	+0.25	1.3
LifeMod	27.36	+0.15	0.8
PrmcpCor	27.75	+0.38	3.2
SelValu r	29.91	+0.21	-4.3
STAR	27.23	+0.17	1.6
TgtRe2015	15.39	+0.05	0.4
TgtRe2020	31.59	+0.15	0.7
TgtRe2025	18.65	+0.10	0.8
TgtRe2030	33.99	+0.21	1.1
TgtRe2035	20.95	+0.15	1.3
TgtRe2040	36.31	+0.29	1.5
TgtRe2045	22.86	+0.20	1.6
TgtRe2050	36.79	+0.32	1.6
TgtRetInc	13.53	+0.03	0.2
TotIntBdIxInv	10.90	...	0.9
WellsI	26.22	+0.05	-2.1
Welltn	41.63	+0.26	-0.4
WndsrII	37.78	+0.40	-0.1
VANGUARD INDEX FDS			
500	253.32	+2.74	3.1
ExtndIstPl	221.32	+1.87	6.1
SmValAdml	58.72	+0.39	3.4
TotBd2	10.40	-0.02	-1.9
TotIntl	18.06	+0.15	-0.7
TotSt	68.85	+0.72	3.6
VANGUARD INSTL FDS			
BalInst	35.07	+0.19	1.5
DevMktsIndInst	14.31	+0.10	-0.5
DevMktsInxInst	22.37	+0.17	-0.5
ExtndInst	89.68	+0.76	6.1
GrwthInst	77.36	+0.94	7.2
InPrSeIn	10.30	-0.02	-0.9
InstIdx	250.06	+2.70	3.1
InstPlus	250.08	+2.70	3.1
InstTStPlus	61.24	+0.64	3.7
MidCpInst	43.29	+0.42	2.6
MidCpIstPl	213.50	+2.07	2.6
SmCapInst	74.81	+0.56	6.0
SmCapIstPl	215.94	+1.62	6.0
STIGradeInst	10.47	-0.01	-0.4
TotBdInst	10.43	-0.02	-1.9
TotBdInst2	10.40	-0.02	-1.9
TotBdInstPl	10.43	-0.02	-1.9
TotIntBdIdxInst	32.69	...	0.8
TotIntlInstIdx r	120.79	+1.00	-0.8
TotItlInstPlId r	120.81	+0.99	-0.8
TotStInst	68.89	+0.71	3.7
ValueInst	41.06	+0.40	-0.3
W			
Western Asset			
CorePlusBdI	NA	...	NA

BIGGEST 1,000 STOCKS

How to Read the Stock Tables

The following explanations apply to NYSE, NYSE Arca, NYSE American and Nasdaq Stock Market listed securities. Prices are composite quotations that include primary market trades as well as trades reported by Nasdaq BX (formerly Boston), Chicago Stock Exchange, Cboe, NYSE National and Nasdaq ISE.

The list comprises the 1,000 largest companies based on market capitalization. Underlined quotations are those stocks with large changes in volume compared with the issue's average trading volume. **Boldfaced quotations** highlight those issues whose price changed by 5% or more if their previous closing price was $2 or higher.

Footnotes:
- ↑-New 52-week high.
- ↓-New 52-week low.
- **dd**-Indicates loss in the most recent four quarters.
- **FD**-First day of trading.
- **h**-Does not meet continued listing standards
- **lf**-Late filing
- **q**-Temporary exemption from Nasdaq requirements.
- **t**-NYSE bankruptcy
- **v**-Trading halted on primary market.
- **vj**-In bankruptcy or receivership or being reorganized under the Bankruptcy Code, or securities assumed by such companies.

Stock tables reflect composite regular trading as of 4 p.m. and changes in the closing prices from 4 p.m. the previous day.

Friday, June 1, 2018

A B C

YTD % Chg	52-Week Hi	52-Week Lo	Stock	Sym	Yld %	PE	Last	Net Chg
-13.39	28.67	21.92	ABB	ABB	3.6	24	23.23	0.49
18.10	12.86	9.87	AES	AES	4.1	55	12.79	0.04
3.44	46.19	37.27	Aflac	AFL	2.3	8	45.40	0.34
-6.49	22.34	17.84	AGNC Invt	AGNC	11.4	7	18.88	0.06
45.98	15.77	10.24	ANGI Homesvcs	ANGI	...	dd	15.27	0.21
12.34	173.20	119.20	Ansys	ANSS	...	51	165.80	3.00
[illegible]								
-4.50	50.85	40.48	CMS Energy	CMS	3.2	25	45.17	-0.96
-10.99	55.62	45.60	CNA Fin	CNA	2.5	14	47.22	0.24
-12.31	15.64	10.78	CNH Indl	CNHI	1.5	36	11.75	0.01
19.76	185.72	108.05	CNOOC	CEO	4.4	21	171.93	2.76
6.00	17.69	10.63	CPFLEnergia	CPL	2.7	23	12.19	0.03
2.94	39.32	32.47	CRH	CRH	...	14	37.15	0.16
↑ 18.96	65.95	47.99	CSX	CSX	1.3	10	65.44	0.79
-11.63	84	60.14	CVS Health	CVS	3.1	10	64.07	0.68
-19.48	29.57	21.40	CabotOil	COG	1.0	96	23.03	0.18
3.32	46	32.85	CadenceDesign	CDNS	...	58	43.21	0.76
-5.14	14.50	10.47	CaesarsEnt	CZR	...	dd	12	-0.15
-3.06	96.39	78.19	CamdenProperty	CPT	3.5	42	89.24	1.24
↓ -30.83	58.33	33.23	CampbellSoup	CPB	4.2	21	33.28	-0.36

YTD % Chg	52-Week Hi	52-Week Lo	Stock	Sym	Yld %	PE	Last	Net Chg
-10.42	100.01	77.38	CIBC	CM	4.8	10	87.26	-0.05
1.19	85.73	70.59	CanNtlRlwy	CNI	1.7	24	83.48	...
-3.53	38.20	27.52	CanNaturalRes	CNQ	3.0	20	34.46	-0.10
↑ 4.85	193.49	150.91	CanPacRlwy	CP	1.1	15	191.63	-1.16
-9.17	40.67	32.20	Canon	CAJ	4.2	17	33.97	-0.07
-4.83	106.50	76.91	CapitalOne	COF	1.7	21	94.77	0.77
-14.05	80.37	50.79	CardinalHealth	CAH	3.6	10	52.66	0.57
-4.26	119.21	92.09	Carlisle	CSL	1.4	22	108.81	1.42
-2.62	25.90	17.15	Carlyle	CG	4.8	12	22.30	0.40
8.98	77.64	57.05	CarMax	KMX	...	19	69.89	0.97
[illegible]								
-6.65	20.86	15.84	FirstHorizonNatl	FHN	2.6	26	18.66	0.12
17.22	105.52	84.56	FirstRepBank	FRC	0.7	23	101.56	1.96
-2.35	81.72	35.33	FirstSolar	FSLR	...	dd	65.93	-1.68
11.69	35.56	28.66	FirstEnergy	FE	4.2	dd	34.20	-0.22
11.84	74.45	59.85	Fiserv	FISV	...	22	73.33	0.73
4.29	213.74	138.43	FleetCorTech	FLT	...	24	200.68	1.33
-22.46	19.71	12.93	Flex	FLEX	...	18	13.95	0.06
17.40	55.67	33.95	FlirSystems	FLIR	1.2	73	54.73	0.83
-5.13	62.09	37.04	Fluor	FLR	1.7	61	49	0.26
-11.57	103.82	81.34	FomentoEconMex	FMX	1.7	14	83.04	-0.28
16.68	59.55	28.42	FootLocker	FL	2.5	25	54.70	0.73
-6.24	13.48	10.14	FordMotor	F	5.1	6	11.71	0.16
41.91	62.13	35.44	Fortinet	FTNT	...	177	62	0.82

New Highs and Lows | WSJ.com/newhighs

The following explanations apply to the New York Stock Exchange, NYSE Arca, NYSE American and Nasdaq Stock Market stocks that hit a new 52-week intraday high or low in the latest session. **% CHG**-Daily percentage change from the previous trading session.

Friday, June 1, 2018

Highs

Stock	Sym	52-Wk Hi/Lo	% Chg
AddusHomeCare	ADUS	58.80	1.7
AdobeSystems	ADBE	251.83	0.8
AegleaBioTherap	AGLE	12.00	-6.5
AgiosPharm	AGIO	97.59	3.6
AllianceBernstein	AB	28.85	0.7
AlliedMotionTech	AMOT	50.23	2.1
BayCom	BCML	24.99	0.5
BeiGene	BGNE	204.96	2.0
BioTelemetry	BEAT	44.10	3.4
BoiseCascade	BCC	48.60	1.4
BoozAllen	BAH	45.38	-0.6
BrooklineBcp	BRKL	18.55	1.6
Brown&Brown	BRO	28.12	0.9
Brunswick	BC	65.08	2.2
BrynMawrBank	BMTC	47.80	1.1
Cintas	CTAS	184.68	1.3
CoBizFin	COBZ	22.72	1.6
Codexis	CDXS	15.40	0.3
Cohbar	CWBR	7.17	17.4
CorePoint	CPLG	28.30	-1.3
CornerstoneOnDem	CSOD	51.62	3.0
CrestwoodEquity	CEQP	34.40	1.2
Crocs	CROX	18.45	2.4
CryoLife	CRY	28.45	1.3
ExtractionOil	XOG	17.42	1.2
F5Networks	FFIV	176.34	1.2
FairIsaac	FICO	187.68	1.8
FedAgriMtg C	AGM	94.79	0.4
51job	JOBS	110.38	3.2
FirstBancorpNC	FBNC	42.27	0.8
FstCmntyBcsh	FCBC	34.95	1.2
FirstFinNW	FFNW	18.27	5.1
FirstIndRlty	FR	33.35	0.9
Five9	FIVN	35.68	2.0
Fossil	FOSL	23.77	8.3
FoundationMed	FMI	103.85	3.8
Funko	FNKO	10.25	2.6
GWPharm	GWPH	164.76	0.8
GenomicHealth	GHDX	40.67	-0.6
GlobusMedical	GMED	56.86	0.7
GoDaddy	GDDY	73.64	2.8
GoodTimesRest	GTIM	3.75	13.6

Lows

State Sued on Saving Plan

By Anne Tergesen

California's state-sponsored retirement-saving plan, expected to become the country's largest when it launches next year, was hit with a lawsuit in the first major legal challenge to states developing or authorizing auto-enrollment programs.

The nonprofit **Howard Jarvis Taxpayers Association** filed the suit Thursday in U.S. District Court for the Eastern District of California, seeking to invalidate the CalSavers program on the basis that it violates federal pension laws, said Jon Coupal, president of the association. The suit also seeks an injunction to stop public funding of the program.

The nonprofit's legal argument is that states can't impose a retirement plan requirement because those plans are already regulated under a federal law, the Employee Retirement Income Security Act of 1974, or Erisa, which governs 401(k)-style plans.

"This looked to us like significant government overreach," said Mr. Coupal, who also cited the "administrative burden on employers" such as the association, which doesn't offer its employees a retirement-saving plan.

California Treasurer John Chiang said in an email the state remains confident that it is on strong legal ground.

Almost a dozen states either have a retirement program on the market or are developing one.

Oregon last summer became the first to start requiring employers that don't offer a retirement plan of their own to give employees access to a state-run plan, by automatically enrolling them in individual retirement accounts invested in mutual funds. Employees have the right to opt out.


RICH PEDRONCELLI/ASSOCIATED PRESS

Treasurer John Chiang, right, says California is on strong legal ground, with state Sen. Kevin de León.

Illinois is expected to launch a similar pilot program this summer, and California is scheduled to follow suit toward the end of this year or in 2019.

Proponents of state-run retirement programs say they are concerned about the estimated 42% of private-sector workers who don't have access to a workplace retirement-saving plan, many of whom don't save at all. State legislators also are trying to save taxpayers money over the long term by reducing retirees' reliance on public-assistance programs, including Medicaid.

> 'This looked to us like significant government overreach.'

"The Howard Jarvis Taxpayers Association shockingly fails to recognize that if we don't help our citizens build a nest egg with their own money, they will ultimately become wards of the state wholly dependent on public assistance for their most basic needs," Mr. Chiang said in a statement.

California estimates that 6.8 million people who lack access to a retirement-saving plan at work would be enrolled under the program, which requires employers with five or more employees to participate.

CalSavers has borrowed $1.5 million from the state to fund its startup expenses, a sum the program expects to repay over a few years with a portion of the fees participants pay on their balances.

CalSavers is separate from the California Public Employees' Retirement System, which provides pensions for California state employees.

The legality of state auto-enrollment programs was thrown into question last year when Congress scrapped two Labor Department rulings that had paved the way for those programs by clarifying that they would not be covered by Erisa.

Some states have adopted approaches considered less vulnerable to legal challenges. Washington state, for example, avoided a coverage mandate in favor of establishing a state-run marketplace to help small companies shop for a retirement plan if they choose to offer one. Its program recently became the second to launch.

Visa Hit by Outage In Parts of Europe

By AnnaMaria Andriotis And Max Colchester

Consumers in parts of the U.K. and Europe couldn't use Visa Inc. cards for much of Friday after a system failure prevented transactions from being processed, the company said, a disruption that flummoxed both businesses and consumers. The problem was resolved later in the day.

"Visa had a system failure that impacted customers across Europe," the company said. It added that the problem was the result of a hardware failure and that the company didn't believe it "was associated with any unauthorized access or malicious event."

Most Visa card transactions in Europe are processed in one location outside of London. That is where the company's investigation was focused and where the hardware failure was found.

Visa apologized to cardholders and merchants, saying it "fell well short" of its goal of ensuring that all Visa cards work reliably 24 hours a day, 365 days a year.

The company said that by late Friday Visa cards in Europe were operating at close to normal levels.

The outage was a blow to Visa, the largest network in Europe, accounting for about 66% of card purchase volume there as of 2016, according to the latest data from the Nilson Report. Visa comprises about 50% of card purchase volume in the U.K. Cards that run over other card networks such as Mastercard Inc. and American Express Co. weren't affected. Banks said ATM transactions weren't affected.

Merchants ranging from pubs to supermarkets took to Twitter to apologize to customers for the outage. Consumers, meanwhile, were forced to use other cards or cash.

"This is really terrible," said Heather Bateman, 29 years old, as she fumbled with her purse while trying to pay for drinks at the Globe pub in central London. "I am going to have to go to the bank and get cash."

Signs on beer pumps in the pub warned of disruption to the payments system, although this didn't seem to slow business on a sunny Friday evening in London.

"This is pretty old school," said one man as he handed over cash to pay for some Pinot Grigio wine. "AmEx must be loving this."

Deutsche Bonds Firm After Downgrade

By Laurence Fletcher

Having sold off in recent days, the bonds of troubled lender **Deutsche Bank** AG were relatively untroubled Friday by a credit-ratings downgrade.

Early Friday, S&P Global Ratings downgraded Deutsche Bank's long-term credit rating one notch to BBB+, citing "execution risks" in a "deeper restructuring of the business model than we previously expected." S&P said the outlook is stable.

The yield spread over the benchmark on Deutsche Bank's three-year senior note has widened to 1.867 percentage points from its low for this year of 0.912 points in February, indicating that markets have come to see the bonds as riskier. However, much of that move took place during the second half of May, with Friday's move relatively modest.

"We appreciate S&P's statement that 'management is taking tough actions to cut the cost base and refocus the business in order to address the bank's currently weak profitability,'" the bank said in response to the ratings cut.

The ratings decision could raise the bank's cost of doing business and comes a day after The Wall Street Journal reported that the Federal Reserve last year designated the bank's sprawling U.S. business as being in a "troubled condition," a rare censure for a major financial institution. A Deutsche Bank spokeswoman said the bank doesn't discuss "specific regulatory feedback."

Deutsche Bank shares rose 2.8% Friday, having lost 7.2% Thursday to €9.16, their lowest Xetra exchange close, according to data going back to 1991.

Feeling the Pain

Difference in the yield of Deutsche Bank's three-year senior note and its benchmark

Source: Thomson Reuters

THE WALL STREET JOURNAL.

Former Heartland CEO Faces Federal Investigation

By Peter Rudegeair

Federal investigators are examining stock trades tied to the former CEO of financial-technology company **Heartland Payment Systems** Inc. in the run-up to its $3.8 billion sale to a larger rival two years ago, according to an attorney for the former executive.

The trades first came to light this past week in a breach-of-contract lawsuit that Heartland, now part of **Global Payments** Inc., filed against its former chief, Robert Carr, in federal court in New Jersey. In the complaint, Heartland accused Mr. Carr of passing confidential material information about the company's impending sale to his girlfriend and transferring around $1 million to a bank account in her name so she could purchase Heartland stock before the deal was announced in December 2015.

Mr. Carr is fully cooperating with the federal investigation, which is being carried out by the Securities and Exchange Commission and the Justice Department, and "is confident that the facts will confirm that he acted appropriately," his attorney, Michael McGovern of Ropes & Gray, said in an email.

An SEC spokesman declined to comment, while a Justice Department representative had no immediate comment.

Mr. McGovern said "key facts are misrepresented in the lawsuit" and "critical exculpatory information known to [the company] was intentionally withheld."

Shale, OPEC Curb Oil-Price Swings

By Sarah McFarlane

Volatility in the oil market is being squeezed out by two giant forces: U.S. shale and OPEC.

Even threats of war, sanctions and an economic crisis haven't roused the sort of market moves that drive profits for traders and hedge funds.

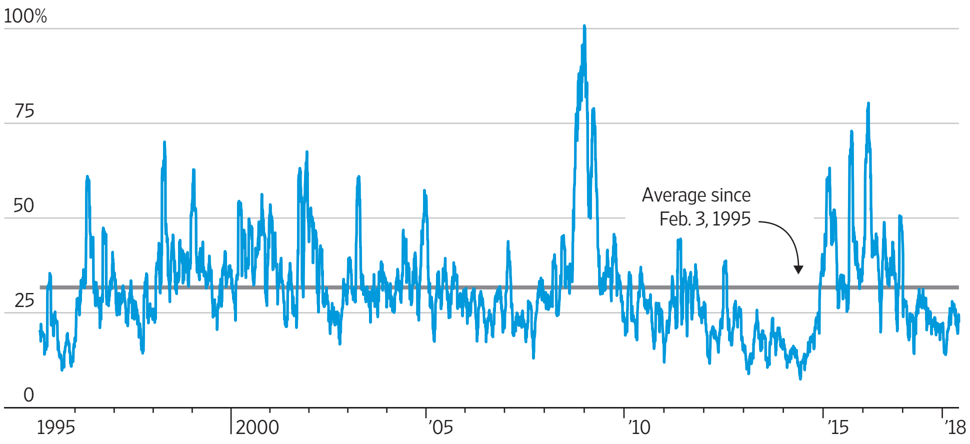
COMMODITIES

The volatility of Brent crude, the international benchmark, has fallen to around 22%, as measured by the standard deviation of daily price moves over the past year. Since 1995, the average has been 32%. A lower figure indicates less volatility.

Settling Down

Global oil prices have become less volatile in the past year.

Historical volatility of Brent crude-oil futures prices over rolling one-year average



Source: Thomson Reuters

THE WALL STREET JOURNAL.

The oil price tends to move around more when global inventories shift between being very high, prompting prices to fall because of extra supply, and very low, which pushes up the price.

Currently, when inventories fall, nimble U.S. shale producers respond quickly to price rises by producing more oil, meaning their tanks don't empty too much. On the other side, supply cuts from the Organization of the Petroleum Exporting Countries and other major producers mean inventories don't rise too high.

"It's a combination of shale becoming a bigger force, and then you have this more cyclical story of inventories coming down helped by OPEC cuts, Venezuela and strong demand," said Francisco Blanch, head of commodities research at Bank of America Merrill Lynch.

An economic crisis has crimped production in Venezuela, one of several geopolitical factors that would typically stir volatility. Tensions are high in the Mideast, with Yemeni rebels targeting Saudi Arabian oil facilities and Israel hitting Iranian targets in Syria. The U.S. is reinstating sanctions against Iran, which analysts say will likely curb supply from the country.

"Even with the events in the Middle East and the geopolitical price premium, the market volatility is not screaming panic," said Thibaut Remoundos, chief executive of consultancy Commodities Trading Corp.

Volatility has fallen across most markets in recent years, but stocks are now whipsawing more as central banks withdraw stimulus and political risk rises.

Brent fell 1% to $76.79 Friday, off from more than $80 a barrel last month. It may feel like oil is swinging around a lot, but it isn't. Swings in prices are currently at the lower end of a historical range that stretches back over 20 years.

OPEC and its ability to move prices isn't a new factor. But the addition of U.S. oil exports has added another large supply stream that can respond to price signals. Shale producers can react to price moves within months, whereas other sources of crude—such as deep water oil fields—can take years. This faster response time has muted swings in prices. When the oil price rises, shale producers turn on the taps, and when it falls they ease off, capping big moves in either direction.

DANIEL ACKER/BLOOMBERG NEWS

A worker on a Chevron oil rig near Midland, Texas.

"Shale is contributing a lot in the sense that it's giving people comfort that even if inventories fall a lot or build, production is going to adjust," said Bank of America Merrill Lynch's Mr. Blanch.

The supply cuts agreed on by OPEC and its allies in 2016 put a cap on supply from about half of global production, affecting just how high those inventories can rise.

It was Washington's decision to reinstate sanctions on Iran that sent Brent above $80 a barrel. But that led Saudi Arabia and Russia to step in, saying they are working to boost production soon, pushing oil lower again.

Analysts say that when oil inventories are neither particularly high nor low, price volatility tends to diminish.

Oil inventories brimmed after U.S. shale technology unleashed vast reserves of oil after 2010, and OPEC reacted by turning on its taps in a battle for market share.

But inventories hit their lowest in three years in March, back in line with their five-year average, according to the Organization for Economic Cooperation and Development.

"The possibility of inventories becoming extremely high or low should diminish, which reduces the likelihood of extreme spikes or drops in price," said Sebastian Barrack, head of commodities at Chicago-based hedge fund Citadel.

Less volatility is good for oil producers and consumers, who find it easier to plan ahead. But it isn't so great for traders and hedge funds.

Lower volatility is putting pressure on the razor-thin margins of the giant trade houses that ship millions of barrels of oil around the world in a high volume.

"We work on margins which are less than half a percent of turnover, which means you don't have a lot of margin for error," said Marco Dunand, chief executive of Switzerland-based trader **Mercuria Energy Group**.

Amid such trading conditions, hedge funds are bowing out. Oil trader Andy Hall's main fund at Astenbeck Capital Management LLC closed last August, while Madava Asset Management led by veteran energy trader George Taylor and Jamison Capital Partners LP have also shut down funds.

—Jon Sindreu and Patricia Minczeski contributed to this article.

Crude Declines As Focus Shifts To Higher Output

Oil prices declined on Friday, weighed down by rising U.S. production and concerns over a potential increase in output from other major exporters, including Saudi Arabia and Russia.

Light, sweet crude for July delivery fell 1.8% to $65.81 a barrel on the New York Mercantile Exchange, its lowest close since April 10.

U.S. crude production has risen to weekly highs of 10.47 million barrels a day, according to the U.S. Energy Information Administration. Based on Friday data, active oil rigs in the U.S. rose by two to 861, the highest level since March 2015.

Meanwhile, news that Saudi Arabia and Russia were nearing a deal to ramp up crude production has spooked investors, pushing prices down to seven-week lows.

The Organization of the Petroleum Exporting Countries—of which Saudi Arabia is the de facto head—and 10 countries outside the oil cartel, including Russia, have been cutting output by roughly 1.8 million barrels a day since the start of 2017. The coordinated effort, which is set to expire at the end of this year, has helped to boost prices by more than 40%.

"If they're going to start increasing production, you may see cheating across the board," said Tariq Zahir, managing member of Tyche Capital Advisors. "We may start to see a build of supplies again."

Also, the Energy Department on Thursday said crude inventories fell by 3.6 million barrels in the week ended May 25, but stockpiles of gasoline and distillates rose, a bearish sign for demand.

—Stephanie Yang and Christopher Alessi

Blue Chips Finish Week With a Win

Continued from page B1

enough to lift the Dow industrials out from under the heavy selling it suffered earlier in the week, when political drama in Italy and the Trump administration's push to enact tariffs on key allies sent the Dow down by triple digits during two of the four trading sessions.

FRIDAY'S MARKETS

The blue-chip index of 30 stocks fell 0.5% for the week, while the S&P 500 and Nasdaq rose 0.5% and 1.6%, respectively.

Trade tensions continued to simmer after the U.S., Canada, Mexico and the European Union traded barbs and threats over the Trump administration's decision to move ahead with tariffs on steel and aluminum. But the lack of any meaningful developments on Friday gave some trade-sensitive stocks a reprieve.

Two often-looked-at trade bellwethers in the market, **Boeing** and **Caterpillar**, rose Friday. Analysts say the two stocks are among the publicly traded companies that could be stung by protectionist trade policies.

Shares of Boeing added $4.56, or 1.3%, to $356.72, while Caterpillar rose $1.61, or 1.1%, to $153.52.

Consumer-staple stocks in the S&P 500, which fell under pressure Thursday after Canada and Mexico announced they would place tariffs on a number of U.S. food and agricultural goods, were little changed Friday.

Meanwhile, the Stoxx Europe 600 added 1%, paring its decline for the week to 1.1%.

Investors' worries about eurozone stability appeared to ease Friday after two large antiestablishment parties in Italy, the League and the 5 Star Movement, struck a deal on a coalition government, resolving a political crisis but putting a euroskeptic administration into power.

The decreased chance of fresh elections in Italy—which could be seen as a proxy vote on European integration—appeared to reassure investors for now after a rocky week.

"These developments might mean that we go back to the slow burning problem of the new administration's fiscal expansion plans and rolling back of reforms rather than this week's immediate concerns over a decisive fresh election campaign and possible euro membership discussions," strategists at Deutsche Bank wrote.

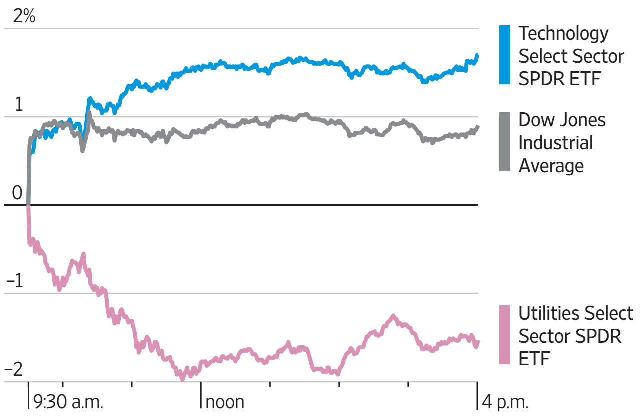
Stocks in Spain also rose, after lawmakers voted to oust Prime Minister Mariano Rajoy, ushering in a center-left government whose new leader pledged to enact a moderate, pro-European agenda that analysts expect to keep its economic recovery on course.

Earlier, stocks in Hong Kong and Shanghai were mixed as the long-awaited introduction of Chinese shares into a set of global benchmarks took effect. Global index provider MSCI Inc. added around 230 mainland-listed Chinese stocks to its Emerging Markets Index and other indexes.

Hong Kong's Hang Seng rose 0.1%, but the Shanghai Composite fell 0.7% after rising Thursday ahead of the inclusion in the MSCI indexes.

Risk On

Investors bought shares of technology companies after an upbeat jobs report, while selling haven equities such as utilities.



Source: WSJ Market Data Group

THE WALL STREET JOURNAL.

Italian Debt's Wild Week: First the Selloff, Then the Buyback

MASSIMO PERCOSSI/EPA/SHUTTERSTOCK

League leader and new Interior Minister Matteo Salvini, right, outside the presidential palace with Undersecretary Giancarlo Giorgetti.

Countries often pay off their debt early. But Italy's decision to retire a slug this week feels like good timing.

The Ministry of Economy and Finance said Thursday that it would buy back a total of €500 million ($585 million) in nominal bonds that mature in 2019 and 2020.

Italian government bonds were at the center of a global market selloff this week as investors grappled with the fractious politics of a country with one of the world's biggest debt piles.

On Tuesday, Italian two-year government bonds had their worst trading day since records started in 1989.

They have since recovered and on Thursday, Rome sent its message to markets: We have this under control.

To be sure, bond-buyback operations are nothing unusual. They're part of a national treasury's tool kit and are applied to reduce near-term redemptions.

And for Italy, there is still a long way to go.

The country has a debt-to-gross-domestic-product ratio of more than 130%.

—Emese Bartha

Treasurys Retreat on Strong Jobs Figures

By Daniel Kruger

U.S. government bonds weakened after a labor-market report showed faster-than-forecast growth in jobs and wages.

CREDIT MARKETS

The yield on the 10-year Treasury note climbed to 2.895% on Friday from 2.824% the day before. The two-year Treasury yield, which is typically more responsive to expectations for Federal Reserve interest-rate policy, rose to 2.472%. The yields on both securities have fallen for two consecutive weeks. Yields rise as bond prices fall.

Yields rose after the Labor Department reported that the economy added 223,000 jobs in May, compared with the 190,000 average forecast by economists in a Wall Street Journal survey. The department also said that average hourly earnings rose 0.3% in the month and 2.7% on an annual basis, while the unemployment rate fell to 3.8%, the lowest since 1969, and lower than the 3.9% predicted by economists surveyed by the Journal.

Fed-funds futures, which investors use to bet on central bank policy, reflected 36% chances that the Fed would raise interest rates four times in 2018. That is up from 26% on Thursday, according to data from CME Group Inc. Fed officials had forecast three increases for the year at their meetings in December and March. They raised rates in March and are widely expected to raise them again at their next meeting, which concludes June 13.

The data were strong throughout the report, and "the most important was average hourly earnings," said Larry Milstein, managing director of Treasury and agency trading at R.W. Pressprich & Co. "The Fed's watching that."

Many investors and policy makers have expected tighter labor markets to push wages higher, which would lead to an acceleration of inflation as rising pay could lead to increases in demand for goods and services. Inflation presents a risk to the value of government debt by reducing the purchasing power of their fixed interest payments.

One hour before the report, yields jumped after President Donald Trump said Friday on Twitter that he was "looking forward" to the release of the Labor Department unemployment figures.

"The market was reacting to a really strong report before it was released," said Ray Remy, head of fixed-income trading at Daiwa Capital Markets America Inc. "Unfortunately, Trump's tweet took a little fire out of the report."

HEARD ON THE STREET

FINANCIAL ANALYSIS & COMMENTARY

The New Tech That Terrifies OPEC

U.S. shale oil drilling is becoming so efficient that it could hurt exporters like Saudi Arabia

By Spencer Jakab

What doesn't kill you makes you stronger.

Two years ago, it looked like Saudi Arabia was winning its fight against the U.S. shale oil industry by furiously pumping crude to drive down prices. Some drillers went bust and many more flirted with bankruptcy while oil drilling in places like West Texas and North Dakota collapsed.

The Saudi effort backfired. Instead of killing shale it spurred a wave of innovation that transformed U.S. drilling into a highly efficient process, dramatically lowering costs and boosting output. During the next oil bust, it will be the Saudis who have to worry.

"High prices tend to create sloppiness in this industry because people focus only on growth," says Doug Suttles, chief executive of shale driller Encana. "Downturns make you focus on cost because it's the only thing you can control."

Meanwhile, the U.S., where production was once thought to have peaked nearly 50 years ago, will become the largest oil producer on the planet by next year.

One region alone, the prolific Permian Basin, recently passed 3.1 million barrels a day of output. Stretching from West Texas to New Mexico, it would now rank No. 4 of the 14 members of the Organization of the Petroleum Exporting Countries and may soon produce more than No. 3, Iran.

The amount of oil being pulled from the ground there is already driving global markets. But what should really frighten energy ministers in Riyadh, Tehran and Moscow is how that oil is produced. The number of drilling rigs now active in the Permian is the same as back in October 2011, yet the region is producing three times as much crude.

Just a few years ago, a well would be drilled and then the rig would be disassembled and moved to a new location—a time- and labor-intensive process. Today it is more common for rigs to sit on giant pads, which host multiple wells and the necessary infrastructure, and for them to move on their own power to a new well yards away. These rigs drill over a wider area and are increasingly being guided by instruments developed for offshore drilling that see hundreds of feet into the rock. They inject more sand underground to break open the rocks, boosting output.

Those small gains add up. Between 2010 and 2016, the average number of drilling days per rig including transport time fell at a pace of about 8% a year in the Midland section of the Permian, while initial well production grew by 33% in just two years, according to McKinsey Energy Insights.

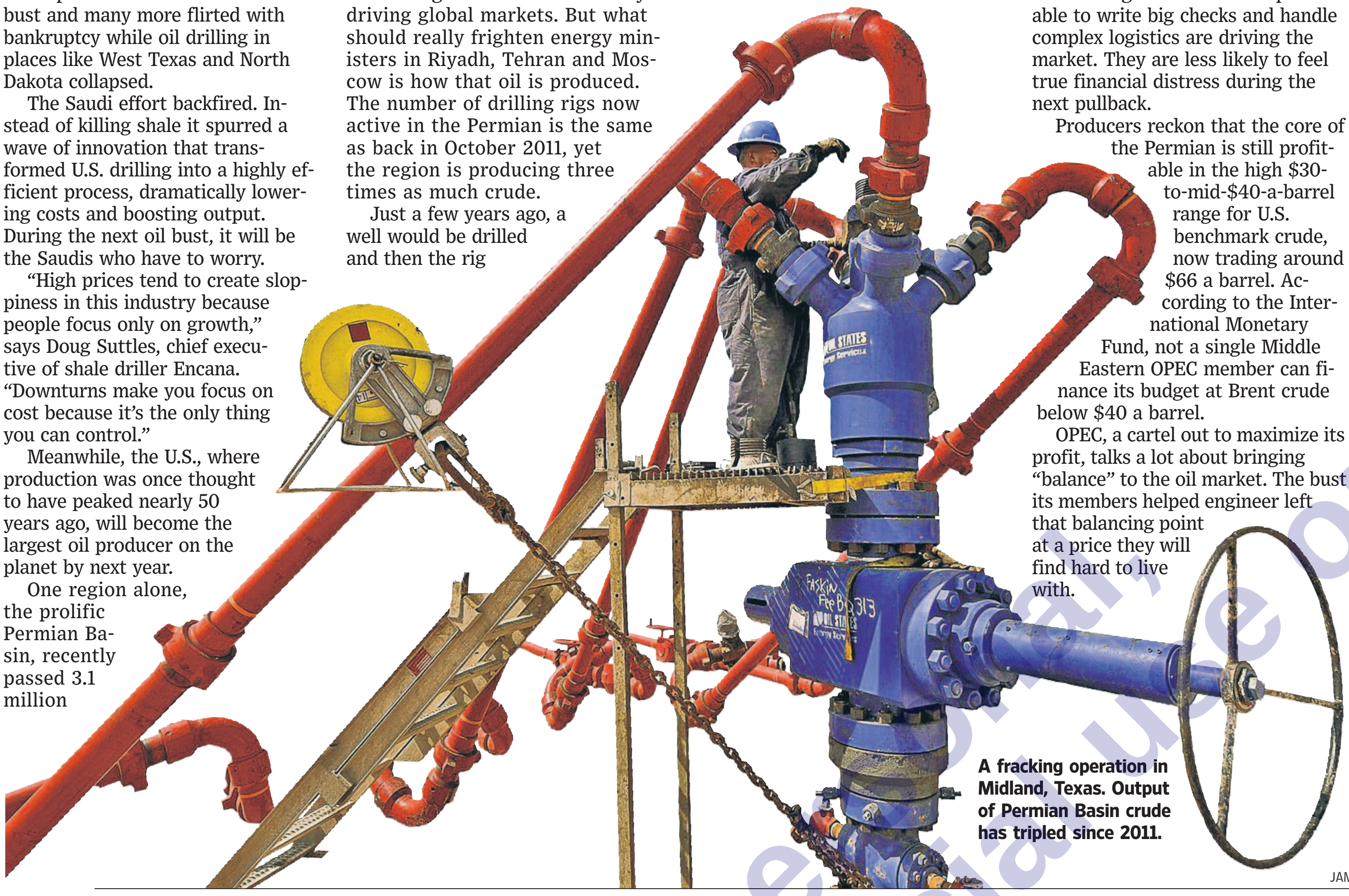
The efficiency and drilling intensity is clear from just one site owned by Encana. The pad in the Permian started out with 14 wells, recently had 19 more added to it and may reach 60 wells—a once unimaginable concentration.

That also may make America's reserves last longer. Encana's approach, which it calls "the cube," targets different layers simultaneously, which can boost the amount that can be recovered economically by about 50%, Mr. Suttles said.

The efficiency gains mean that even an epic price decline won't halt activity at the best fields. What's more: The industrial scale of U.S. drilling means that companies able to write big checks and handle complex logistics are driving the market. They are less likely to feel true financial distress during the next pullback.

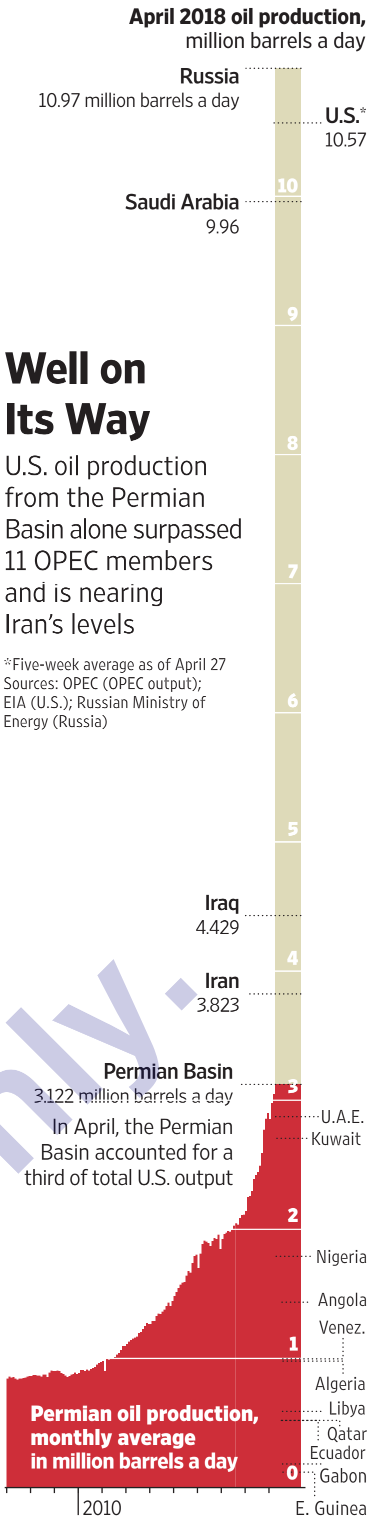
Producers reckon that the core of the Permian is still profitable in the high $30-to-mid-$40-a-barrel range for U.S. benchmark crude, now trading around $66 a barrel. According to the International Monetary Fund, not a single Middle Eastern OPEC member can finance its budget at Brent crude below $40 a barrel.

OPEC, a cartel out to maximize its profit, talks a lot about bringing "balance" to the oil market. The bust its members helped engineer left that balancing point at a price they will find hard to live with.



A fracking operation in Midland, Texas. Output of Permian Basin crude has tripled since 2011.

JAMES DURBIN FOR THE WALL STREET JOURNAL



Hanna Sender/THE WALL STREET JOURNAL.

DANIEL ACKER/BLOOMBERG NEWS

Fiat Chrysler CEO Sergio Marchionne has deferred talk of succession until 2019.

New Fiat Chrysler Bet: Not Chrysler, Not Fiat

Strategic plan doubles down on luxury and SUV brands

By Stephen Wilmot

Fiat Chrysler Automobiles could be re-christened Maserati Jeep or Alfa Romeo Ram.

These are the four brands to which the Italian-American auto maker will direct resources over the next four years, according to a hotly anticipated strategy unveiled Friday by philosopher-boss Sergio Marchionne. He expects them and Fiat's van business to account for 80% of revenue in 2022 from roughly 65% now. Fiat cars, Dodge and Chrysler will be marginalized.

Since taking Fiat's wheel in 2004, Mr. Marchionne has put resources only where there is a sustainable return—a novelty in the car business. These days luxury brands, SUVs and light trucks make a return. So do car loans, which explains why Fiat Chrysler is considering setting up an in-house finance arm in the U.S.

A strategic flaw is that Mr. Marchionne won't be around to see it through. He insists he will step down as CEO next year, though hopes remain that he will remain as chairman. On Friday he deferred talk of succession until 2019. Fiat Chrysler's shares fell, perhaps because of a lack of clarity over Mr. Marchionne's successor. If he doesn't retain some oversight, the company's commitment to the new targets could slip.

Investors were skeptical of ambitious 2018 targets Mr. Marchionne unveiled in 2014. Against expectations, he will likely hit them. That is partly thanks to strong car sales, said Philippe Houchois, an automotive analyst for Jefferies.

The 2022 plan could be harder. Fiat Chrysler now faces a weakening market in the U.S., on which it is heavily dependent. There is also the existential threat of driverless taxis, which in urban markets could make car ownership redundant. This, too, explains why Mr. Marchionne is betting on sports cars and iconic SUVs—vehicles less likely to be replaced by robotaxis.

Meanwhile, he is supplying Alphabet's driverless car unit Waymo so that Fiat Chrysler can profit from driverless technology if it ever shows a return. Waymo unveiled an order of 62,000 Chrysler minivans on Thursday.

Mr. Marchionne is right to bet that upscale brands have the best chance of surviving. Investors just need him to back the bet.

OVERHEARD

Stock investors are a lot like fishermen, often lamenting "the one that got away." It turns out that traders should also be casting their lines when the time is ripe. Doug Ramsey of Leuthold Group, a Minnesotan who keeps track of such things, notes that the fish like to bite in the days surrounding a full moon or new moon and not in between.

Since the S&P 500's inception, the index has returned 10% annually but 19% in the part of the month when fishing was most auspicious and just 4.9% in the least-promising part. The effect was even greater for high-beta stocks, at 33% and negative 13% for the best and worst periods, respectively.

By any measure, this is one of the most profitable investing strategies around. The problem is, there is no provable connection between the phases of the moon and stock returns. That has been made clear since 2015, when the relationship has reversed; returns around full and new moons have lagged behind those in between. At least the fish are still biting on schedule.

KEITH SRAKOCIC/ASSOCIATED PRESS

Jobs and Trade Make a Bitter Brew for Business

Wage growth, trade tensions bring higher expenses. And companies will be hard-pressed to raise prices.

By Justin Lahart

Low labor costs and tame wholesale prices make companies, and investors, happy. With the job market heating up and trade tensions escalating, the good times may end quickly.

Friday's employment report was strong all around. The economy added 223,000 jobs in May—more than the 190,000 that economists expected. The unemployment rate fell to 3.8% from 3.9% a month earlier. Average hourly earnings are 2.7% higher than a year ago, topping estimates.

Wage growth has been surprisingly restrained despite the tight labor market, but there is rising evidence that will change. Employees are increasingly leaving their jobs to look for work, which suggests they are confident they can get another job at higher pay. The jobs report showed that 14% of the people counted as unemployed had left their old jobs voluntarily and continued to look for new work. That compared with 11% at the start of the year, and was the highest figure since 2000.

Goldman Sachs economists have found that sharp increases in the number of people leaving jobs voluntarily as a share of the unemployed tends to be followed by sharp drops in unemployment.

As labor gets more expensive, the brewing trade war means companies will pay more for supplies. The Trump administration on Thursday levied tariffs on steel and aluminum imports from Canada, Mexico and the European Union—a move that would raise costs for car makers and other manufacturers such as Boeing and Caterpillar.

That followed the White House on Tuesday restoring its plan to place tariffs on industrial imports from China, and saying it is weighing additional tariffs.

Countries targeted by the tariffs quickly responded, potentially setting off a trade war that raises costs across global supply chains.

The natural response from companies facing rising labor and materials costs is to raise prices, but that will be hard. Not only have Americans become conditioned to low prices, but the competitive landscape has been fundamentally altered by players such as Amazon.com that are willing to accept lower profit margins for the sake of more market share.

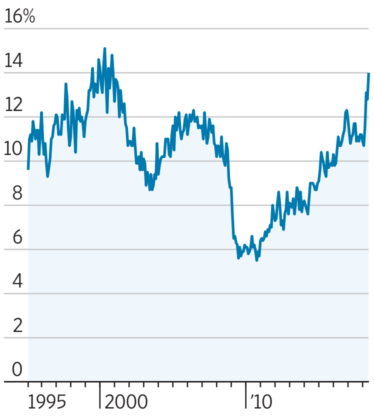
Companies are at risk of being stuck between rising costs and a hard place.

LAWRENCE BRYANT/REUTERS

Labor is getting more expensive. Here, a steelworker in Illinois.

Take This Job and Shove It

Job leavers as a share of unemployed workers



Source: Labor Department

THE WALL STREET JOURNAL.

Dangerous Turn?
What it will take for Americans to accept self-driving cars **C5**

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Books
A New York City voyeur with a camera: Weegee's flashy life **C7**

FROM TOP: DREW ANGERER/BLOOMBERG NEWS (CAR); PHOTO ILLUSTRATION BY DAVID ARKY; ERIN PATRICE O'BRIEN FOR THE WALL STREET JOURNAL

The Overprotected American Child

Why not let them play outside without supervision or walk to school alone? Parents and communities are figuring out ways to give their children more independence—and it just may help them to become less anxious, more self-reliant adults.

By Andrea Petersen

A FEW WEEKS AGO I left my 9-year-old daughter home alone for the first time. It did not go as planned.

That's because I had no plan. My daughter was sick. My husband was out of town. And I needed to head to the drugstore—a five-minute walk away—to get some medicine for her. So I made sure my daughter knew where to find our rarely used landline phone, quizzed her on my cellphone number and instructed her not to open the front door for anyone. Then I left. Twenty minutes later I was back home. Both of us were a bit rattled by the experience—her first time completely alone, with no supervising adult!—but we were fine.

I had been postponing this moment of independence for my daughter for months, held back by worry over the potential catastrophes. But I know that this way of thinking is part of a larger social problem. Many have lamented the fact that children have less independence and autonomy today than they did a few generations ago. Fewer children are walking to school on their own, riding their bicycles around neighborhoods or going on errands for their parents. There have been several high-profile cases of parents actually being charged with neglect for allowing their children to walk or play unsupervised. We're now seeing a backlash to all this pressure for parental oversight: Earlier this year, the state of Utah enacted a new "free-range" parenting law that redefined neglect to specifically exclude things like letting a child play in a park or walk to a nearby store alone.

Annabel Kim started walking to school without an adult at age 10. Now 15, she baby-sits her sister.

Overzealous parenting can do real harm. Psychologists and educators see it as one factor fueling a surge in the number of children and young adults being diagnosed with anxiety disorders. According to a study published this year in the Journal of Developmental & Behavioral Pediatrics, the number of children ages 6 to 17 whose parents said they were currently diagnosed with anxiety grew from 3.5% in 2007 to 4.1% in 2012. And in a 2017 survey of more than 31,000 college students by the American College Health Association, 21.6% reported that they had been diagnosed with or treated for anxiety problems during the previous year. That is up from 10.4% in a 2008 survey.

Please turn to the next page

> "Overzealous parenting can cause real harm.

Ms. Petersen is the author of "On Edge: A Journey Through Anxiety."

Inside

REVIEW

Children Left To Themselves

Continued from page C1

A big 2007 study, published in Clinical Psychology Review, surveyed the scientific literature on how much parenting influences the development of anxiety in kids. The parenting behavior that had the strongest impact of any kind was "granting autonomy"—defined as "parental encouragement of children's opinions and choices, acknowledgment of children's independent perspectives on issues, and solicitation of children's input on decisions and solutions of problems." More autonomy was associated with less childhood anxiety. (Genes play an even bigger role, however, in individual differences in anxiety.)

For children who are already anxious, overprotecting them can make it worse. "It reinforces to the child that there is something they should be scared of and the world is a dangerous place and 'I can't do that for myself,'" says Rebecca Rialon Berry, a clinical psychologist at the NYU Langone Child Study Center.

A lack of autonomy and independence can also stymie the development of self-confidence and may cause children to remain dependent on parents and others to make decisions for them when they become adults, says Jack Levine, a developmental pediatrician in New York. And because children naturally want more independence as they grow, thwarting that desire can cause them to become angry and act out, notes Brad Sachs, a family psychologist in Columbia, Md.

Like a lot of Generation Xers, I have my own memories of a carefree childhood riding bicycles and playing tag with other neighborhood children, my parents nowhere in sight. They seemed to trust their instincts. But today, how do you go with your gut when you're bombarded by hyperventilating social media posts, shrill parenting advice books and a neurotic cultural tide? And what about disapproving neighbors—and spouses? My own husband wasn't thrilled when I told him that I'd left our daughter home alone. "She could have hit her head. Or choked," he said. (To be fair to him, both things have actually happened to her—and this is when we've been around.)

A handful of states have laws that specify minimum ages when it is legal, typically, for children to be left home alone. In Maryland, for example, it is 8; in Illinois, children under 14 can't be left alone for a vague "unreasonable" amount of time. Other states give more general guidelines. But for many big independence milestones—such as taking public transportation alone or caring for younger siblings—there are few hard age recommendations.

"Children mature and develop skills at different rates," says Phyllis F. Agran, a pediatric gastroenterologist in Irvine, Calif., and the co-author of several of the American Academy of Pediatrics' injury prevention policies. She notes that children with special needs, such as those with ADHD or developmental delays, may take longer to develop the impulse control and skills necessary to do some things independently.

Many financially struggling families may have no choice but to leave their children home alone while they work. And in high-crime neighborhoods, it may not be safe to send even older children out to play.

One independence milestone that has been studied extensively is crossing the street. Research has found that young children walking to school often don't look for traffic or stop at the curb before stepping into the street. Some studies have found that parents are likely to overestimate their children's ability to safely cross the street. A paper published in 2000 in the British Journal of Educational Psychology found that, in general, 10- and 11-year-old children were much better than 7- and 8-year-olds at identifying safe places to cross and at detecting traffic and road dangers. The American Academy of Pediatrics advises parents to wait until age 10 to allow children to walk to school, or anywhere else, without an adult.

Alan E. Kazdin, a professor emeritus of psychology and child psychiatry at Yale University, recommends that parents repeatedly encourage independence in small, lower-stakes situations, like having children start homework on their own, do the dishes or choose a gift for a friend. While dishes and other chores may just seem like duties, they are also moves toward independence: Children need these skills, and the sense of mastery they engender, to become self-sufficient adults. These are "practice trials," Dr. Kazdin says. He suggests that when children make these efforts, parents offer enthusiastic and specific praise, along with a pat on the back or a high-five. Issuing a good-natured challenge—"I bet you can't make your sandwich all by yourself"—can also make it more likely that a child will follow through. What doesn't work is nagging, issuing reprimands or punishing a child for not being more independent, he says.

Dr. Sachs encourages parents to involve their children in making decisions about their own path toward independence. When you ask children what they think about, say, staying home by themselves and then ask them to weigh risks and benefits, "it facilitates their self awareness," says Dr. Sachs. "They automatically start to make better decisions because they are thinking rather than just acting." This will serve them well when they face decisions about things with more serious consequences, like sex and alcohol.

It's also never too early to start encouraging independence, says NYU Langone's Dr. Berry. Children as young as 2 or 3 can start helping with chores, such as carrying a plate to the table and putting clothes in the hamper. Most 8-year-olds should be able to make scrambled eggs "with some gentle eyes on them," while most 10-year-olds can handle a chef's knife, she says. Parents first need to teach safe techniques, repeatedly, then assist with and monitor the activity before gradually "fading out."

Giving children more independence outside of the house can be more of a challenge—especially if you live in a neighborhood of worrywarts and you're the only parent letting your kid bike to the park alone. That's why Lenore Skenazy, a former journalist and mother of two now-grown sons, is trying to convince entire communities to give their kids independence with her nonprofit Let Grow. "It takes away the stigma of being a daredevil parent," she says.

Ten years ago, Ms. Skenazy started a blog entitled "Free Range Kids" after she faced a backlash over a newspaper column she wrote about letting her 9-year-old son ride the subway home alone in New York City. Ms. Skenazy says that having an entire community commit to children's independence can solve another potential problem, too: A dearth of other unaccompanied kids to play with. Otherwise, "everyone is in lacrosse or in the after-school chess club or some other structured activity," she says.

Michael J. Hynes, superintendent of the Patchogue-Medford Schools on Long Island in New York, launched a Let Grow project last fall because he was seeing "kids more and more bubble wrapped as the years go on," he says. "I've noticed they are averse to risk-taking."

The children in five of the district's seven elementary schools now have one day when their only homework is to do something new. (Some classes also write about the experience.) Project suggestions, to do alone or with a friend, include walking the dog, exploring the woods and "playing night tag." Let Grow also helps schools to launch Play Clubs in which children can play freely in the playground or gym before or after school. The organization suggests that schools enlist one adult to act as a "lifeguard" but otherwise let youngsters alone to figure out what and how to play—and to solve their own problems.

After nearly a year of the effort, Mr. Hynes says that he's seen positive results in the district. "I can't say test scores went up, but I believe the kids are better behaved and more self-confident. Students are taking risks in the classroom. Normally shy kids are now raising their hands."

When Jodi Della Femina Kim felt that her daughter, then age 10, was ready to get a cellphone and walk to school without an adult, she and her husband made the decision jointly with several other families in their Brooklyn neighborhood. For several weeks, Ms. Della Femina Kim walked a few steps behind her daughter. There were also rules: The phone had to be in the girl's pocket (no texting while walking) and she couldn't wear headphones (too distracting). Next, Ms. Della Femina Kim walked her daughter to a corner where they would meet the child's friend. The kids would walk the rest of the way to school together. After several months, the children were allowed to walk the entire way—about four blocks—without an adult.

Her daughter, Annabel Kim, now 15, says that she was "very excited to get to walk to school myself. I felt like it meant you were finally growing up." She continues to build her own independence by babysitting her 9-year-old sister and making dinner.

Anne Marie Albano, director of the Columbia University Clinic for Anxiety and Related Disorders in New York, reminds parents that the ultimate goal is to have their children be self-sufficient by the time they leave home for college or the workplace. She and her colleagues have come up with a list of milestones that adolescents should achieve before high-school graduation, including being able to advocate for themselves with teachers and other authority figures, seeing a doctor without a parent and waking themselves up in the morning on their own. "We have parents who call their college student at Harvard or Michigan and wake them up every morning," she says. You do not want to be that parent.

Even when children are thrilled to gain some independence, parents often have to learn to cope with their own anxiety. Heidi Thompson, lives with her husband and two children in Calais, Vt., a town where children often run around unsupervised. Still, Ms. Thompson, a psychotherapist, was nervous when her daughter wanted to participate in a ritual for neighborhood kids the summer before seventh grade: camping overnight without adults on an island in the nearby lake. Ms. Thompson reluctantly gave her OK. "I was up all night," she said. In the morning, however, her daughter, "came home so excited. We want them to feel that the world overall is a safe place," says Ms. Thompson.

Of course, when children try something on their own, it doesn't always go smoothly. They may take the wrong bus or choose not to study for a test—and then bomb it.

Such outcomes point to the one autonomy milestone that parents find particularly difficult, says Joseph F. Hagan Jr., clinical professor in pediatrics at the University of Vermont and the co-editor of the American Academy of Pediatrics' Bright Futures guidelines for health professionals. "Part of independence is to make your own decisions," he says—including "the right to make a wrong decision."

▲ A Let Grow 'kid card' is meant to be carried by children out on their own, to calm the fears of concerned adults.

A PATH TOWARD INDEPENDENCE

AGE 2 TO 3

- Put dirty clothes in the hamper.
- Put toys away.

AGE 6 TO 7

- Make a sandwich.
- Take a bath unsupervised.

AGE 14 TO 17

- Schedule and go to a doctor's appointment without help.
- Get an after-school or summer job.
- Make and follow a budget.
- Take an out-of-town trip alone.

Sources: Rebecca Rialon Berry, Anne Marie Albano, American Academy of Pediatrics, familyeducation.com

FROM TOP: LET GROW; ISTOCK (3)

WORD ON THE STREET

BEN ZIMMER

A Deli Standby Remains on the Menu for Judges, Prosecutors

[Indict a Ham Sandwich]

THERE'S A facetious saying in legal circles about the ease with which prosecutors can secure indictments in grand jury cases: You can get a grand jury to "indict a ham sandwich."

That saying is back in the news, thanks to Special Counsel Robert Mueller's Russia probe. Two weeks ago, Fox News's Judson Berger paraphrased a statement from President Donald Trump's personal lawyer, Rudy Giuliani, by saying, "You can indict a ham sandwich, but not a sitting president." And on CNN, former Trump political adviser Roger Stone elicited a chuckle from host Chris Cuomo when he suggested that by bringing charges against a Russian catering company with links to Russian President Vladimir Putin, "Mr. Mueller has, indeed, indicted a ham sandwich."

The legal aphorism has long been attributed to Sol Wachtler, former chief judge of New York's Court of Appeals, based on a piece that appeared in the New York Daily News in January 1985. Mr. Wachtler told the paper that the state should scrap the grand jury system for bringing criminal indictments. The piece summarized his view, with brief quotes: "district attorneys now have so much influence on grand juries that 'by and large' they could get them to 'indict a ham sandwich.'"

Mr. Wachtler became even more firmly linked to the saying two years later, when Tom Wolfe, a classmate of the judge at Washington and Lee University, credited him with the "ham sandwich" line in "The Bonfire of the Vanities."

But recent research has revealed that Mr. Wachtler's quip to the Daily News wasn't the first time the expression appeared in print. Word researcher Barry Popik found the line attributed to Thomas Puccio, a Justice Department attorney who was a lead prosecutor in the Abscam federal corruption case. In February 1982, Washington Post columnist Jack Anderson quoted Puccio: "'I could,' he boasted in front of witnesses, 'indict a ham sandwich.'" When Puccio left for the private sector a few months later, the Daily News reported that his former boss at the Justice Department, David Margolis, averred that Puccio could indeed get that proverbial ham-sandwich indictment.

Further digging into digitized newspaper databases reveals an even earlier use. In a September 1979 article in the Democrat and Chronicle of Rochester, N.Y., an unnamed local defense lawyer is quoted as saying, "The district attorney could get a grand jury to indict a ham sandwich if he wanted to."

I reached Mr. Wachtler, now 88, and told him about these early examples. He surmised that the Rochester lawyer was echoing public statements that Mr. Wachtler himself made about the grand jury system in 1972 when he campaigned statewide for the Court of Appeals judgeship (then an elected position). "That was the language I used," he told me, adding that Puccio, who he says he knew well, likely also got the expression from him.

Regardless of who exactly used it first, Mr. Wachtler is the one who has received the credit over the years, for better or worse. He himself would get indicted in 1992 for harassing his former girlfriend, spending nearly a year in prison after being convicted. As he wrote in his prison memoir, "After the Madness," "It seemed somewhat perverse that after my having had some twelve hundred opinions and over one hundred articles published, part of my legal legacy would relate to a ham sandwich."

RUTH GWILY

WONG MAYE-E/ASSOCIATED PRESS

▲ Cashiers bag items at the Potonggang department store in Pyongyang, stocked with foreign goods.

A Consumer Class Wields New Power in North Korea

Kim Jong Un spurred the upwardly mobile 'money masters' to seek foreign deals to boost the economy. Now they want him to make a foreign deal, too

By Travis Jeppesen

DURING MY FIRST visit to North Korea, in April 2012, my tour group's North Korean guides suddenly stopped in their tracks at the door of a seafood restaurant one evening. We all joined the restaurant staff and diners, drawn to the glow of a plasma TV that had been hastily positioned on two wobbly dining tables by the entrance. There on the screen, giving his first public speech, was the country's new leader, Kim Jong Un, about whom the outside world knew little and most North Koreans knew even less.

After 10 minutes spent acknowledging his paternal predecessors and the military, with frequent interruptions for applause, the young Mr. Kim made a surprising pronouncement about the country's priorities: He officially elevated economic development to an equal status with its nuclear weapons program. He promised that his people would "not tighten their belts again" and would "enjoy the wealth and prosperity of socialism as much as they like." Western economic sanctions tied to the nuclear effort had put these dual aims in direct conflict, so Mr. Kim's pledge created expectations and pressures within North Korea: Would he be able to strike a deal with the West?

In four subsequent trips since 2012, I have seen an increasing display of wealth on the streets of Pyongyang—Hermes handbags, Rolex watches, faces powdered in French cosmetics—and fewer tell-tale signs of poverty. Mr. Kim has overseen the evolution of a new socio-economic class in North Korea, known locally as the *donju*, or money masters. They are denizens of Pyongyang and other large cities who are focused on making lucrative deals and attaining personal wealth—but who also pay lip service to the doctrines of North Korea's ostensibly state-run economy, which has been crumbling for decades. As one of my guides once gushed to me, "Our style of socialism is unique in the world."

As a novelist and art critic, I was drawn to North Korea after exploring the contemporary art scene in neighboring China, lured by the chance to explore an isolated society where everyday life is shrouded in propaganda. Eventually I enrolled in language courses at Kim Hyong Jik University in Pyongyang—the only American taking advantage of a program offered to Westerners for the first time.

My studies enabled me to spend weeks in the "capital of the revolution," as it has been deemed by the government, and to get to know a handful of North Koreans there. Though none of my guides ever criticized the government directly, during my later visits they felt no need to hide their love of luxury brands, personal wealth and business deals with foreigners. That was certainly not the case back in 2012.

The capitalist roots of the *donju* were established in the famine years of the 1990s. A series of natural and policy disasters, along with the collapse of the country's then-chief benefactor, the Soviet Union, sent the North Korean economy into free fall. The public food distribution system ceased functioning for all but the elites in Pyongyang. Until then, the populace had relied on these essential rations as a means of sustenance, because "official salaries are meaningless and are scarcely more than token payments," according to Seoul-based North Korean studies professor Andrei Lankov. To survive, North Koreans had to go into business for themselves. Traders began crossing what at the time was a very porous border into China and bringing back goods to sell. It was a brutal lesson in free-market economics: Do or die.

> "Black markets lifted the country out of famine and never went away."

The widespread opening of *jangmadang*, as the black markets are known, eventually lifted the country out of the famine, and the new outlets never went away. The state periodically attempted to intervene under the reign of Mr. Kim's father, Kim Jong Il, by shutting markets down, regulating prices or initiating currency reforms that decimated private wealth. Yet the unofficial economy took over as the official one failed to recover: The Seoul-based website Daily NK estimated from the reports of defectors that, by 2008, over two-thirds of North Korean employment was in the black market. In a 2015 survey of defectors by a Seoul University professor, over half said those markets had been their main source of food.

The smaller and more elite *donju* class is made up of individuals who have been assigned to (or have bought their way into) the most prestigious jobs in the official state economy—where they enjoy an unofficial license to go into business for themselves. Under Kim Jong Un, it is increasingly easy for them to travel abroad to cut deals, and they have engineered any number of covert ways of violating sanctions. "If you have money, you can buy anything you want in North Korea nowadays," one recent defector told me in South Korea.

In 2016, one of my North Korean guides, a *donju*, pitched me: Perhaps I knew some businessmen in Berlin, where I live, who might be of a riskier disposition and willing to covertly violate the sanctions. (For the record, I didn't.) "We can do virtually anything," the guide asserted. "I know some guys who are IT programming geniuses. But it doesn't have to be computers. We can sell hair for wigs, for instance. Artwork—sure, we can provide. More than anything, we need foreign partners."

My last visit to Pyongyang was just over a year ago, before the U.S. travel ban was imposed. One afternoon in my hotel room, I saw on the international news that the North had just fired a short-range ballistic missile into the Sea of Japan. That night, I had dinner with two *donju* working in tourism, to whom I broke the news, since it had not yet been on state media. Their reaction was not the ecstatic jubilation with which North Koreans are supposed to greet such events.

"What was the reaction of the Western media?" they asked with concern. I told them the truth: "Commentators suggest that more sanctions are on the way." My companions looked down into their bowls of cold noodles, and a somber atmosphere permeated the rest of the dinner. The message, though unspoken, was clear: All this saber-rattling is bad for business.

My experiences in North Korea have taught me that the *donju* are the closest thing North Korea has to a dissident class. They are savvy and worldly and certainly don't conform to the outside world's image of the brainwashed Kim Jong Un fanatic; they don't buy into the state's propaganda. As for Mr. Kim, in April he declared that the country had met its nuclear goals and would now make economic development the top priority. In seeking a deal with South Korea and the U.S., Mr. Kim has perhaps joined the ranks of the *donju* himself.

Mr. Jeppesen's new memoir is "See You Again in Pyongyang," published by Hachette Books.

Science Prizes Add Intrigue to The Race For the Nobel

By Amy Dockser Marcus

THESE DAYS, high-profile prizes in science seem to be everywhere. The prizes usually bring glitzy award ceremonies, lucrative purses and a modicum of public acclaim.

More tellingly, they also produce buzz about who might be in line to win science's most coveted award, the Nobel Prize. That's why the announcement on Thursday that the prestigious 2018 Kavli Prize in nanoscience is going to Emmanuelle Charpentier, Jennifer A. Doudna and Virginijus Siksnys for helping discover the Crispr-Cas9 gene-editing tool is likely to make a splash.

The award comes with a trip in September to the Norwegian Academy of Science and Letters in Oslo to receive a gold medal and $1 million cash in each of three fields. (Astrophysics and neuroscience are the other two.) It also comes with an impressive record: Six previous Kavli winners have gone on to win the Nobel Prize.

"It's like having a mantle," says Harriet Zuckerman, professor emeritus of sociology at Columbia University, who has written about the proliferation of science prizes. "Once you win one prize, you are in line to win others."

The Norwegian Academy's choice of Crispr scientists this year brings it into a contested, and often contentious, arena. Crispr (which stands for clustered regularly interspaced short palindromic repeats) serves as the immune system of bacteria and has been the subject of study by researchers for decades. In 2012, a group of scientists led by Dr. Charpentier, then at the University of Vienna, and Dr. Doudna of the University of California, Berkeley—and a few months later, a group led by Dr. Siksnys of Vilnius University in Lithuania—published papers reporting that Crispr and the Cas9 enzyme it produces could be adapted as a tool to edit DNA in plants, animals and humans.

The Broad Institute of MIT and Harvard's Feng Zhang, working with a team of scientists, showed in 2013 how to use Crispr in this way. Drs. Charpentier and Doudna and their institutions also claim the invention, but the Broad holds the patent in the U.S. The Berkeley group has filed an appeal in federal court, with a ruling expected this year.

FROM LEFT: ALEXANDER HEINL/DPA/ZUMA PRESS; SUSAN WALSH/ASSOCIATED PRESS

▲ Jennifer Doudna, left, was a winner of the Kavli Prize; Feng Zhang was not.

Whatever the outcome of the patent dispute, scientific awards often reflect how the scientific community views a discovery. Dr. Zhang has fared well, winning a number of prestigious prizes as one of a group of other scientists, including Drs. Charpentier and Doudna. Dr. Zhang was the sole winner of the $500,000 Lemelson-MIT Prize last year.

But on the prize front, Drs. Charpentier and Doudna appear to be in the lead. The two have also won the 2017 Japan Prize (which earned them $420,000 each), the 2015 Breakthrough Prize in Life Sciences (a hefty $3 million prize), and other awards that are considered harbingers of a possible Nobel.

Some observers say the Kavli solidifies the status of Drs. Charpentier and Doudna as leading candidates for a Crispr-related Nobel. Since the Nobel is granted to a maximum of three people for each category, that leaves one open spot.

Jacob Sherkow, a visiting scholar at Stanford Law School who closely follows Crispr, believes that the Kavli bolsters Dr. Siksnys's claim for the third spot. In his opinion, he says, "these scientists were the first to understand this system could be engineered as a genome-editing tool with ease and flexibility and precision that could not have been achieved previously. I think that is what the Nobel will be for."

Still, David Pendlebury, an analyst with Clarivate Analytics, says that other prizes don't always tell the full story in predicting the Nobel. Since 2002, Clarivate has named 300 "Citation Laureates"—scientists whose work is Nobel-worthy and whose papers represent major advances that are regularly cited by their peers. The company has a good record with prediction: 46 of the Citation Laureates have gone on to win a Nobel. In the field of Crispr, four scientists have received the Citation Laureate: Drs. Charpentier, Doudna and Zhang, and George Church, a professor of genetics at Harvard Medical School. Dr. Church's team published a 2013 paper demonstrating the use of Crispr to edit genes in human cells.

Prizes like the Kavli, first awarded in 2008, get started partly in recognition of the limits of the Nobel. There are more worthy scientists than could ever possibly win, and some fields are so new that they aren't eligible for the prize at all. The newer prizes also reflect the scientific community's effort to engage the public more.

Cori Bargmann, a scientist at the Rockefeller University and winner of a Kavli, compares the prizes to an Oscar that leads people to see a movie they might have missed. As she puts it, "A prize for Crispr says there is something really good out there, and people who are not scientists should learn about this because it could affect them, and very soon."

WILCZEK'S UNIVERSE

FRANK WILCZEK

Page-Turners For a Physics Summer

WHEN I WAS growing up, my father offered me a deal that changed my life. From time to time he'd drive the family to a big bookstore a few miles from our apartment. I could buy any book I wanted using my (very limited) allowance, but he'd chip in half, or sometimes the whole price, for books he approved of. This made a big impression on me, because in general my father didn't like to spend money—and I didn't use up my allowance lightly. The store carried a full line of books published by Dover Press, including a lot of reprints of scientific classics. My father generally approved of those, and I took advantage.

In one of those subsidized books, I found an inspiring role model. Niels Henrik Abel (1802-1829) did not live long, but he left a lasting legacy in math. I took the following passage to heart, and it has stuck with me: "It appears that if one wants to make progress in mathematics one should study the masters and not the pupils." It's good advice for physics, too, and for other fields. (Darwin, when he's not going on about barnacles, is a great read.)

There's nothing quite like the experience of interacting with great minds at their best. Apart from the technical content, they teach you how to think and how to express yourself. Let me mention a few examples, which you can take as summer reading suggestions.

There's still no better introduction to special and general relativity than Einstein's original papers. These are reprinted, in translation, in Dover's "The Principle of Relativity," which also contains the remarkable lecture by Hermann Minkowski, a teacher of Einstein's, in which he introduced the modern concept of space-time. For aspiring students of general relativity, Einstein's paper, short by modern standards, provides a clearer yet more profound introduction than modern textbooks a hundred times its length.

The early part of each of these works is deeply conceptual and broadly accessible. In those halcyon days, people took the trouble to explain why they were doing what they were doing.

Similarly, the best place to start with quantum theory is the early part of Paul Dirac's "Principles of Quantum Mechanics." Legend has it that when he lectured on quantum theory at Cambridge, Dirac recited long passages from memory. Once a student asked, "Professor Dirac, your explanation is very similar to what you wrote in your book, and I still don't understand it. Can you explain it in a different way?" Dirac thought this over and replied, "You know, when I wrote that book, I thought very hard about everything I wrote in it. There are no clearer explanations."

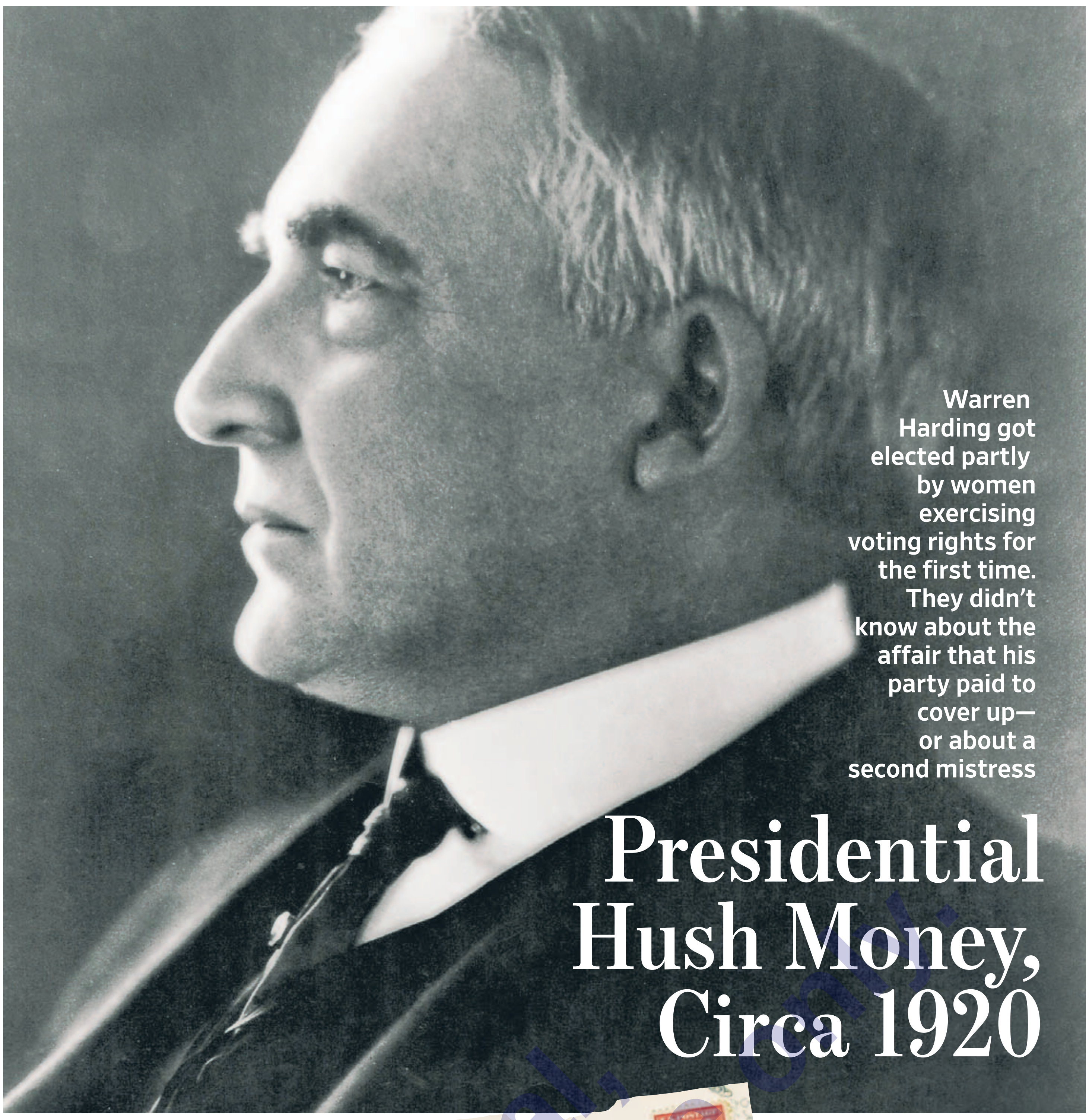
For a popular introduction to physics it's hard to beat Richard Feynman's "Character of Physical Law." As with the other masterworks I've mentioned, and the music of Mozart, the surface simplicity emerges from hidden depths. My own initiation into physics came through "The Feynman Lectures on Physics." These are meant for aspiring professionals, but the early chapters in each volume and the early parts of most chapters are relatively easy and nonmathematical.

Recently I had a rewarding experience rereading another Dover book by a master: "An Introduction to Information Theory," by John Pierce. Together with Claude Shannon's original papers, it's the best introduction to that subject. (Pierce prepares you for Shannon.) It's an old book by now, but that adds to the interest. It's fun to find that many recent developments in artificial intelligence were anticipated and that some apparently promising directions have not been pursued—yet.

Let me close with a striking insight from Pierce about the human condition: "We will never again understand nature as well as Greek philosophers did. A general explanation of common phenomena in terms of a few all-embracing principles no longer satisfies us. We know too much."

Eating directly from the Tree of Knowledge can reduce one's taste for lesser stuff. Still, I recommend it.

ILLUSTRATION BY TOMASZ WALENTA; PHOTO: LIBRARY OF CONGRESS



FROM TOP: EVERETT COLLECTION; LIBRARY OF CONGRESS; THE GRANGER COLLECTION; BETTMANN ARCHIVE/GETTY IMAGES

Warren Harding got elected partly by women exercising voting rights for the first time. They didn't know about the affair that his party paid to cover up—or about a second mistress

Presidential Hush Money, Circa 1920

By Elaine Weiss

THE REPUBLICAN presidential candidate had a problem: a looming sex scandal that could derail his White House campaign. One of his mistresses was blackmailing him, threatening to tell all about their extra-marital affair. She was going to sell her story—with documentary evidence—to the press. Something had to be done.

A team of political fixers was dispatched to negotiate a hush-money agreement with the mistress, and they succeeded: She kept mum. The candidate won the election and, with the help of millions of women voters, rode to victory under the campaign slogan "America First."

The president paying his way out of trouble is not the one you're probably thinking of: It was Warren G. Harding, winner of the White House in the 1920 election. But there are remarkable parallels to today's unfolding revelations about presidential fixers and payments to talkative former sex partners.

Harding had a "woman problem" that needed to disappear. Actually, there were several Harding affairs to keep under wraps during the campaign. The assiduous application of money, intimidation and non-disclosure contracts kept the candidate's troublesome lovers squelched.

Harding was the bland—but randy—Ohio Senator who became the surprise compromise candidate of a deadlocked Republican convention in the summer of 1920. In the days before party primary contests, he was the empty suit chosen by party honchos in the famous "smoke-filled rooms" of the Blackstone Hotel in Chicago. Harding was a weak-willed and pliable bloviator—the perfect candidate for a weary nation's "return to normalcy" (Harding's other campaign slogan) ushering in a new era of corporate avarice.

Harding had been a small-town newspaper publisher and parlayed his civic boosterism into a successful political career; his wife Florence was the brains and ambition in the family. With her help, Warren progressed from the local Kiwanis to the Ohio statehouse to the U.S. Senate, where he waffled on issues, skipped tough votes and made little impression—but few enemies, according to Harding biographer John Dean.

All through his political ascent, for more than a decade, he'd been carrying on with a family friend and neighbor, Carrie Fulton Phillips, wife of a prominent department store owner in Marion, Ohio. When they were apart, the pair exchanged steamy love letters, and Warren's florid odes to their erotic exploits became the ammunition that Carrie was aiming at his presidential ambitions.

Warren had long promised to leave Florence and marry Carrie, but by early 1920, when Harding's name began to pop up in chatter about a possible presidential race, Carrie realized that once her lover threw his hat in the ring, divorce and remarriage would be out of the question, according to historian David Pietrusza's account of the presidential race.

Even more aggravating, Carrie had discovered that Warren was two-timing her, indulging in an affair with a woman less than half his age. As a teenager, Nan Britton had developed an inexplicable crush on Harding, who took her as his "bride" in a seedy New York City hotel room when she was 20 years old, as she wrote in her memoir. When the Republican convention gathered in June 1920, their 9-month-old baby daughter was tucked safely away in a Chicago apartment.

▲ One of 240 items of correspondence between Harding and his mistress Carrie Phillips, all unsealed in 2014.

Back in Marion, Carrie Phillips was not coy about her intentions: She demanded money from Harding or else she would out him as a philanderer. On a sheet of U.S. Senate stationery now kept in the Library of Congress, he pleaded with her: "I can pay with life or reputation, but I can't command such a sum."

But if she kept quiet and he won the White House, he tried to persuade her, he would be in a better position to meet her demands: "If you think I can be more helpful by having a public position and influence...I will pay you $5,000 per year, in March each year, so long as I am in that public service."

No deal, said Carrie. Finally, with his presidential campaign about to launch, Harding had to fess-up to the Republican National Committee about his predicament. RNC Chairman Will Hays was furious but had to quickly defuse the situation. He met with Carrie Phillips in Ohio to propose a generous financial arrangement, according to Mr. Pietrusza's account.

Phillips and her husband were paid $25,000 to leave the country and keep silent.

Days later, Carrie's husband (she'd told him everything) was brought to Washington to meet with Harding campaign officials. They struck a bargain: The Phillipses would be paid $25,000 (equivalent to more than $300,000 today) to travel to the other side of the world—Japan, China, Korea—remaining out of sight and out of reach of the press. They would also receive a $2,000 monthly stipend (about $25,000 today) to keep their silence for as long as necessary.

How the money was raised is not known, but by the time Harding kicked off his campaign in mid-July 1920, the Phillipses were far away and would not return until Harding was safely ensconced in the White House. Nan Britton was also being paid to hush herself and her baby. Knowing nothing of Harding's sexual escapades, American women—newly enfranchised by the 19th Amendment—helped to give him a landslide victory.

Nan Britton (left) unveiled her 'presidential daughter' in a memoir after Harding's death.

As president, Harding surrounded himself with an unsavory batch of cabinet secretaries and advisors who gleefully enriched themselves and their corporate allies at public expense. His presidency has become synonymous with the Teapot Dome scandals, which involved his secretary of the interior accepting bribes from oil companies for sweetheart leasing deals on federal land in Wyoming. The secretary went to prison.

Collecting her payments, Carrie Phillips kept her silence and her distance from the White House, but Harding invited Nan Britton in for frequent romps in an Oval Office closet, as she described their liaison.

Harding did not complete his term, dying of a heart attack in 1923. Though his administration's corruption scandals were well reported, nothing of his sexual shenanigans and hush payments was revealed at the time, though there were insistent rumors whispered among the press corps. It was a time when the personal affairs of candidates were not considered fair game in quite the same way as they are today, and mass media didn't exist quite yet.

How did the Harding secrets and payments finally emerge? After Harding died, Nan Britton lost the child support payments that he had promised and, desperate for income, wrote an X-rated memoir of their relationship. The book was a bestseller, but Harding's friends and the Republican establishment denounced it as fiction and attacked Britton viciously, calling her a degenerate home-wrecker. She withdrew from public view but until her death in 1991 maintained that her story was true. In 2015, genetic testing proved her right: Warren Harding was the father of her daughter.

Meanwhile, in 1964, a shoe-box filled with 250 of Warren Harding's love letters to Carrie Phillips was discovered in a locked closet of her home in Marion, Ohio, according to news reports. The letters were given to the Ohio Historical Society but put under lock for another 50 years. In 2014, the Library of Congress released digital copies of Harding's purple-prosed testimonials to his lover's charms; they are available online for all to see.

"It may prove to be the most talked about secret payment in American political history" declares one recent newspaper column, referring to the current hubbub surrounding news of hush payments made by candidate Trump's fixers to the actress known as Stormy Daniels. But that distinction might have belonged to Warren Harding's dollars-for-silence scheme—if only the public had known at the time.

Ms. Weiss's latest book, "The Woman's Hour: The Great Fight to Win the Vote," was published in March by Viking.

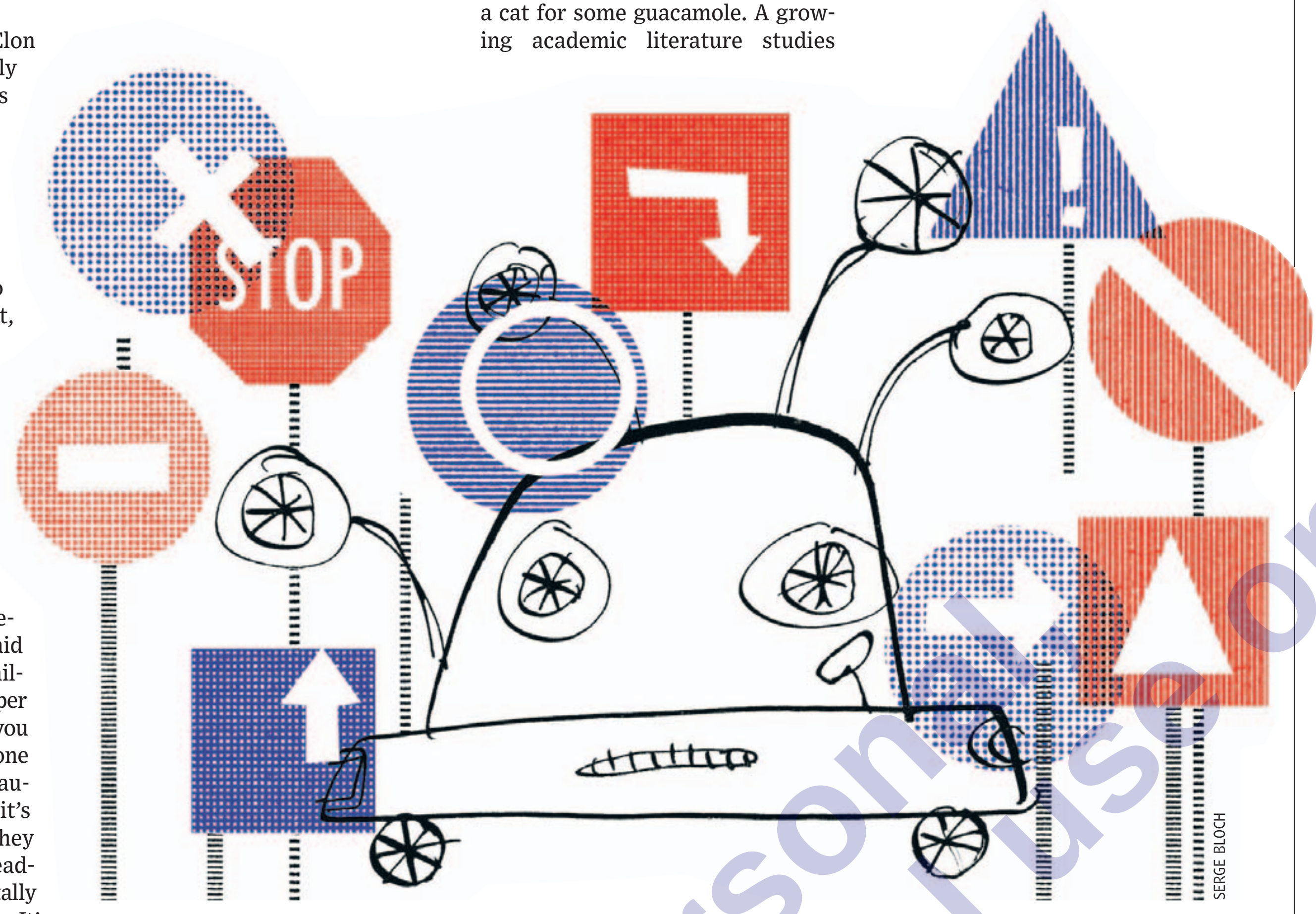
Why We Find Self-Driving Cars So Scary

Take note, Elon Musk: Even if autonomous cars are safer overall, the public will accept them only when they fail in predictable ways

By Jerry Kaplan

TESLA CEO Elon Musk recently took the press to task, decrying the "holier-than-thou hypocrisy of big media companies who lay claim to the truth, but publish only enough to sugarcoat the lie." That, he said, is "why the public no longer respects them."

Mr. Musk's frustration is fueled in part by widespread media attention to accidents involving Tesla's self-driving "autopilot" feature. On the company's most recent earnings call, he said that "there's over one million...automotive deaths per year. And how many do you read about? Basically, none of them...but, if it's an autonomous situation, it's headline news.... So they write inflammatory headlines that are fundamentally misleading to the readers. It's really outrageous."


SERGE BLOCH

But not all accidents are created equal. While most experts on the subject (including me) agree with Mr. Musk that autonomous vehicles can dramatically reduce auto-related deaths overall, his criticism of the press betrays a misunderstanding about human nature and the perception of risk: Even if self-driving cars are safer overall, how and when they fail matters a lot.

If their mistakes mimic human errors—such as failing to negotiate a curve in a driving rain storm or neglecting to notice a motorcycle approaching from behind when changing lanes—people are likely to be more accepting of the new technology. After all, if you might reasonably make the same mistake, is it fair to hold your self-driving car to a higher standard? But if their failures seem bizarre and unpredictable, adoption of this nascent technology will encounter serious resistance. Unfortunately, this is likely to remain the case.

Would you buy a car that had a tendency—no matter how rare—to run off the road in broad daylight because it mistakes a glint off its camera lens for the sudden appearance of truck headlights racing toward it at close range? Or one that slams on the brakes on a highway because an approaching rain storm briefly resembles a concrete wall?

Suppressing these "false positives" is already a factor in some accidents. A self-driving Uber test vehicle in Tempe, Ariz., recently killed a pedestrian walking her bike across the street at night, even though its sensors registered her presence. The algorithms interpreting that data were allegedly at fault, presumably confusing the image with the all-too-common "ghosts" captured by similar instruments operating in marginal lighting conditions. But pity the hapless engineer who fixes this problem by lowering the thresholds for evasive action, only to find that the updated software takes passengers on Mr. Toad's Wild Ride to avoid imaginary obstacles lurking around every corner.

Unfortunately, this problem is not easily solved with today's technology. One shortcoming of current machine-learning programs is that they fail in surprising and decidedly non-human ways. A team of Massachusetts Institute of Technology students recently demonstrated, for instance, how one of Google's advanced image classifiers could be easily duped into mistaking an obvious image of a turtle for a rifle, and a cat for some guacamole. A growing academic literature studies these "adversarial examples," attempting to identify how and why these fakes—completely obvious to a human eye—can so easily fool computer vision systems.

> "Even the best AI programs don't interpret the world the way humans do."

Yet the basic reason is already clear: These sophisticated AI programs don't interpret the world the way humans do. In particular, they lack any common-sense understanding of the scenes they are attempting to decipher. So a child holding a balloon shaped like a crocodile or a billboard displaying a giant 3-D beer bottle on a tropical island may cause a self-driving car to take evasive actions that spell disaster.

As the six-decade history of AI illustrates, addressing these problems will take more than simply fine-tuning today's algorithms. For the first 30 years or so, research focused on pushing logical reasoning ("if A then B") to its limits, in the hope that this approach would prove to be the basis of human intelligence. But it has proved inadequate for many of today's biggest practical challenges. That's why modern machine learning is trying to take a holistic approach, more akin to perception than logic. How to pull that off—to achieve "artificial general intelligence"—is the elusive holy grail of AI.

Our daydreams of automated chauffeurs and robotic maids may have to wait for a new paradigm to emerge, one that better mimics our distinctive human ability to integrate new knowledge with old, apply common sense to novel situations and exercise sound judgment as to which risks are worth taking.

Ironically, Mr. Musk himself is a major contributor to misunderstanding of the actual state of the art. His ceaseless hyping of AI, often accompanied by breathless warnings of an imminent robot apocalypse, only serve to reinforce the narrative that this technology is far more advanced and dangerous than it actually is. So it's understandable if consumers react with horror to stories of self-driving cars mowing down innocent bystanders or killing their occupants. Such incidents may be seen as early instances of malevolent machines running amok, instead of what they really are: product design defects.

Despite the impression that Jetson-style self-driving cars are just around the corner, public acceptance of their failures may yet prove to be their biggest speed bump. If proponents of autonomous technologies—from self-driving cars to military drones to eldercare robots—are to make their case in the court of public opinion, they will need more than cold statistics and controlled testing. They must also address the legitimate expectation of consumers that the new generation of AI-driven technology will fail in reasonable and explainable ways.

As the old joke goes, to err is human, but it takes a computer to really foul things up. Mr. Musk would be well advised to hear that message before shooting the messenger.

Dr. Kaplan teaches about artificial intelligence at Stanford University. His latest book is "Artificial Intelligence: What Everyone Needs to Know."

HISTORICALLY SPEAKING

AMANDA FOREMAN


THOMAS FUCHS

The Gym, for Body and Soul

GOING TO the gym takes on a special urgency at this time of year, as we prepare to put our bodies on display at the pool and beach. Though the desire to live a virtuous life of fitness no doubt plays its part, vanity and body envy are, I suspect, the main motivation for our seasonal exertions.

The ancient Greeks, who invented gyms (the Greek *gymnasion* means "school for naked exercise"), were also body-conscious, but they saw a deeper point to the sweat. No mere muscle shops, Greek gymnasia were state-sponsored institutions aimed at training young men to embody, literally, the highest ideals of Greek virtue. In Plato's "The Republic," Socrates says that the two branches of physical and academic education "seem to have been given by some god to men...to ensure a proper harmony between energy and initiative on the one hand and reason on the other by tuning each to the right pitch."

Physical competition, culminating in the Olympics, was a form of patriotic activity, and young men went to the gym to socialize, bathe and learn to think. Aristotle founded his school of philosophy in the Lyceum, in a gymnasium that included physical training.

The Greek concept fell out of favor in the West with the rise of Christianity. The abbot St. Bernard of Clairvaux (1090-1153), who advised five popes, wrote, "The spirit flourishes more strongly...in an infirm and weak body," neatly summing up the medieval ambivalence toward physicality.

Many centuries later, an eccentric German educator named Friedrich Jahn (1778-1852) played a key role in the gym's revival. Convinced that Prussia's defeat by Napoleon was due to his compatriots' descent into physical and moral weakness, Jahn decided that a Greek-style gym would "preserve young people from laxity and...prepare them to fight for the fatherland." In 1811, he opened a gym in Berlin for military-style physical training (not to be confused with the older German usage of the term gymnasium for the most advanced level of secondary schools).

By the mid-19th century, Europe's upper-middle classes had sufficient wealth and leisure time to devote themselves to exercise for exercise's sake. Hippolyte Triat opened two of the first truly commercial gyms in Brussels and Paris in the late 1840s. A retired circus strongman, he capitalized on his physique to sell his "look."

But broader spiritual ideas still influenced the spread of physical fitness. The 19th-century movement Muscular Christianity sought to transform the working classes into healthy, patriotic Christians. One offshoot, the Young Men's Christian Association, became famous for its low-cost gyms.

By the mid-20th century, Americans were using their gyms for two different sets of purposes. Those devoted to "manliness" worked out at places like Gold's Gym and aimed to wow others with their physiques. The other group, "health and fitness" advocates, expanded sharply after Jack LaLanne, who founded his first gym in 1936, turned a healthy lifestyle into a salable commodity. A few decades later, Jazzercise, aerobics, disco and spandex made the gym a liberating, fashionable and sexy place.

More than 57 million Americans belong to a health club today, but until local libraries start adding spinning classes and CrossFit, the gym will remain a shadow of the original Greek ideal. We prize our sound bodies, but we aren't nearly as devoted to developing sound mind and character.

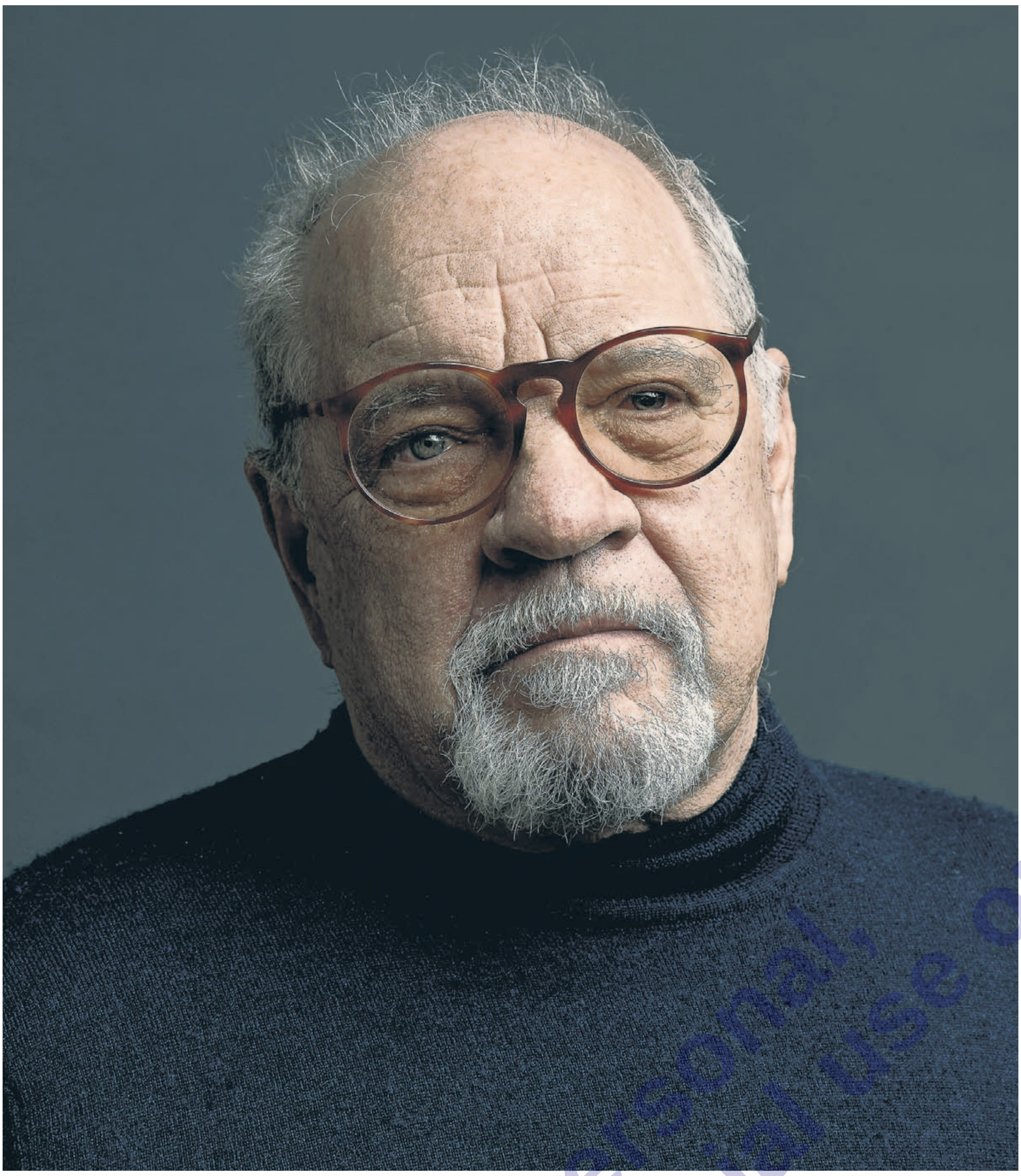
PRITZKER MILITARY MUSEUM & LIBRARY (2)

EXHIBIT

The Art of War

ONE HUNDRED YEARS AGO, on May 28, the U.S. won its first victory in World War I, in the German-occupied French village of Cantigny. A new book published by the Pritzker Military Museum & Library, "Lest We Forget: The Great War" ($60), commemorates that moment and other events of the war years with nearly 350 prints, photographs and maps. (An accompanying exhibit is running at the museum in Chicago through mid-2019.) Though the U.S. declared war against Germany in 1917, it lacked the funds and resources to fully enter the war. Posters were a way to sway public opinion and to raise money. The 1918 print at left encouraged women to knit for the troops. The 1919 poster at far left, of a bandaged but victorious American carrying German helmets, aimed to convince citizens to buy bonds to help pay for the war. The posters "definitely helped build a patriotic fervor and really got people to think about the U.S. as a force in the world," says Kat Latham, the Pritzker's director of collections management.

—*Alexandra Wolfe*


MATTHEW SCOTT GRANGER FOR THE WALL STREET JOURNAL

WEEKEND CONFIDENTIAL

Paul Schrader

The director revisits his Calvinist roots

SCREENWRITER AND DIRECTOR Paul Schrader, of "Taxi Driver" and "American Gigolo" fame, didn't see a movie at the theater until he was a teenager. He was raised in Grand Rapids, Mich., by strict Calvinist parents who forbade him from going to the cinema, listening to rock music, dancing or working on the Sabbath. Finally, at 14, he sneaked out to see "The Absent-Minded Professor."

By Alexandra Wolfe

These days, Mr. Schrader is no longer a Calvinist, but he's still deeply religious. He converted to Episcopalianism after his children were born. "Calvinism was all the guilt and none of the ritual, and Episcopalianism was the opposite," he says. Three years ago, he became Presbyterian, mostly because his local church had a music program that he enjoyed.

Now 71, Mr. Schrader is revisiting his Calvinist roots. "First Reformed," a film he wrote and directed about a despairing minister in the Calvinist tradition, opened May 18.

He considers it his magnum opus, after having directed nearly 20 films. His screenplays, including for "Taxi Driver" and "Raging Bull," are best known for their combustible, self-destructive male characters. He has written or co-written screenplays for four Martin Scorsese films, including "The Last Temptation of Christ," and has been nominated twice for the Golden Globe for best screenplay.

For him, his latest film ties the two parts of his life together. "There was a connection between my sacred past and my profane present," he says. "It was a connection of spirituality and cinema."

"First Reformed" follows the struggles of a reverend, played by Ethan Hawke, who has lost his son in the Iraq war. He tries to find solace in the ministry, where he meets a young environmental activist couple, one of whom shows signs of becoming violently dedicated to the cause. The reverend sympathizes with their views and begins to fall apart himself as he despairs about the state of the environment. The film touches on themes of faith, guilt and self-destruction, and the viewer is left to wonder what the minister's true motivations are. Mr. Schrader intentionally left some questions unanswered in the film. "It's not didactic," he says.

> "There was a connection between my sacred past and my profane present."

Mr. Schrader went to seminary school at Calvin College in Michigan, but he decided against becoming a minister. He had long had an interest in storytelling and headed to the University of California, Los Angeles, where he earned a master's degree in film studies. After graduation, he became a film critic for the Los Angeles Free Press and later Cinema magazine.

In 1969, he attended a screening of Robert Bresson's 1959 film "Pickpocket," which inspired his current movie's style. He thought the stark perspectives, sparse scenes and minimal feel of the camerawork evoked a spiritual reaction in the viewer. "It wasn't a connection of content," he says. "It was a connection of style."

He started writing "Taxi Driver," his first film, in 1972. His first marriage had fallen apart, and he was out of a job and deeply in debt. He thought he'd try to channel his despair into a film. "You need to externalize this," he told himself.

Mr. Schrader had been reading and writing scripts for studios to make extra money, so he knew the format. Within a couple of weeks, he'd written two drafts. "I just wrote continuously," he says. "I'd lie down on the sofa, then get up and go back to work."

He went on to write "American Gigolo," the 1980 drama starring Richard Gere as a male escort who gets caught up in a murder case, then directed and co-wrote "Mishima: A Life in Four Chapters," a fictionalized biography of actor and director Yukio Mishima in 1985.

He was surprised when his screenplay for "The Last Temptation of Christ" (1988) provoked controversy and boycotts among some Christian groups, who called the movie blasphemous for its characterization of a struggling, doubting Jesus. Even his father participated in local protests. "I said, 'Are you part of the movement to block the film?'" Mr. Schrader says. "He said, 'Yes, but only locally.'"

Mr. Schrader is being more careful with his latest film. He screened "First Reformed" for some seminary audiences before its wide release in May to gauge their reactions, which he says were favorable. "I've gotten burned by 'The Last Temptation of Christ' thing," he says.

Mr. Schrader still goes to church regularly. "I do appreciate the structure of the Sunday service," he says. "Organizing your week and taking time out to be quiet I think is very useful."

After 14 years in Los Angeles, he splits his time today between Manhattan and his country home north of the city with his wife, actress Mary Beth Hurt. His son teaches history at a high school in Michigan, and his daughter works for a specialty wood mill company in New York City.

He worries about the state of the film industry, saying it's hard to get independent films made, and is concerned about the environment and political instability. "I think that if you're optimistic, you're not paying attention," he says.

MOVING TARGETS

JOE QUEENAN

Skip the Selfie and Run: Busy Locales Get Tough With Tourists

> Put the giant tortoises in cold storage and drain the Trevi Fountain.

SEEKING TO STEM the tide of tourists overrunning their beautiful cities, pristine hamlets and immensely photogenic rain forests, localities from Venice to Queenstown, New Zealand, are begging tourists to stay away, as a Journal article reported last week. Whether stampeding drunk through St. Mark's Square at midnight or scaring off the monkeys in the Amazon, out-of-control vacationers are wreaking havoc everywhere.

So far, the victims of marauding visitors haven't had much luck stemming the barbarian tide. Fodor's has a list of places that tourists have been implored to avoid, but a lot of tourists can't read. My peerlessly placed, absolutely authoritative sources all say that the time has come to play hardball.

"Ban alcohol in the fiords," says Edvard McMunchkin, *the* expert in Scandinavian ecotourism. "The fiords are great, *ja*, sure, but without a few jolts of liquor to get you going in the morning, Norway can get boring in a hurry."

"Frisky rodents in the gym work wonders," says Fats di Machiavelli, director of public mayhem in Verona. "Add that to a few bedbug surprises and visitors lose interest in the question: 'Wherefore art thou Romeo?' They saddle up and ride." Cairo residents plan to send tourists to the Spanx instead of the Sphinx. In Fiji, extra sharks will be brought in during the high season.

Another strategy is to shut the sights down. Long into the night, tourism officials are debating whether to drain Rome's Trevi Fountain and fill it with mud and whether to cover the Blarney stone with poison ivy. "Put the giant tortoises in cold storage," suggests Chiquita La Bonita, founder of the animal-rights group Doctors Without Turtles. "You know how annoying it is when you get to the zoo and the lions are locked up for the day? Well, try flying across the world to the Galapagos, only to find that the giant tortoises aren't coming out for the next three years."


NISHANT CHOKSI

Leaders in cities that took pre-emptive antitourist measures years ago have little sympathy for today's beleaguered communities. "Peter Jackson wanted to film 'The Lord of the Rings' here in Cleveland, but we told him to forget it, we already have enough traffic problems as it is with the Rock & Roll Hall of Fame and LeBron," says Sid Hartha, a retired malingerer who grew up in the Mistake by the Lake.

"The New Zealanders welcomed Jackson with open arms. So now, if they've got a million school kids tramping all over the vegetation looking for Frodo, that's their problem."

Antitourist measures go back a long way. In the Middle Ages, the Little Garden Club of the Dardanelles actually imported bubonic plague to discourage pilgrims from stopping by picture-perfect Constantinople on their way to the Holy Land, before things got out of control. The Anglo-Saxons covered Stonehenge with filthy scaffolding for 350 years. And the original proposed site of the Eiffel Tower was not Paris, but Helsinki.

"The city fathers knew that Helsinki could not possibly retain its aura of cool if they let Eiffel build his stupid tower there," says Toots Sibelius, author of "You're Finnish in This Town." He adds, "So they let those clowns in France build it. Well, you can see the results."

The attitude voiced by Mr. Sibelius is prevalent among cities without problems—or sights. "Those jokers in Venice should just shut their pie holes," says Ashley Ash of Crockpot, U.K., famous for its now-closed steel plant. He adds, "My feeling is: If you don't want tourists swarming all over the Bridge of Sighs, don't build the Bridge of Sighs."

GETTY IMAGES; INTERNATIONAL CENTER OF PHOTOGRAPHY

Moment of passion at the Palace Theater, captured by Weegee's infrared camera in 1943.

New York After Dark

A snappily written life of Weegee the Famous, an ever-ready on-the-spot news photographer with a taste for sex and death—and the soul of a voyeur

Flash
By Christopher Bonanos
Holt, 379 pages, $32

By Ben Yagoda

ONE OF THE many iconic photographs taken by Weegee appeared in the New York newspaper PM on July 22, 1940. The picture is brimming with swimsuited figures—tens of thousands? *hundreds* of thousands?—stretching from the sea to the horizon. At the top is a sliver of sky and a distant glimpse of Coney Island's tallest ride, the Wonder Wheel. The people in the foreground are all peering up at the camera, most with their arms up to shield their eyes from the sun. But despite the discomfort, they are willing, maybe eager, to be part of the spectacle of near-naked humanity en masse.

BEATING THE HEAT 'Yesterday at Coney Island,' a Weegee classic from July 1940.

The words atop the photo in the newspaper read "Yesterday at Coney Island." Christopher Bonanos, city editor of New York magazine and now Weegee's biographer, makes the case that, in all probability, the headline was a lie. He tracked down a little girl who appeared in the photo, and that girl, now an elderly woman, is pretty sure that she and her family were at the beach not on July 21 but two weeks earlier, for the holiday weekend. If she's correct, Mr. Bonanos writes, "Weegee made the picture at his leisure on a reasonably warm afternoon (the high on July 5, 1940, was eighty degrees) that was sure to be crowded because it fell across the holiday. Then he banked it, waiting for a scorcher, and offered it to his editor as fresh material when it was two weeks old." He concludes, "That might not be a firing offense, but it's certainly a cheat."

That's just one of several bits of good detective work in "Flash," Mr. Bonanos's judicious, snappily written life of the prototypical New York street photographer, whose influence and stature have only grown since his death in 1968 at age 69. Mr. Bonanos's shoe-leather reporting is especially welcome since many of the stories Weegee told about his exploits were dubious, and some were contradictory.

That most obviously applies to the whole name thing, and Mr. Bonanos starts his book with an investigation of how Arthur (Usher) Fellig, who was born in the current Ukraine and emigrated to the Lower East Side at age 10, became Weegee. The photographer often claimed the name stemmed from his seemingly clairvoyant knack, as a young freelancer, for showing up just as news was about to break: It was as if he had a built-in Ouija board—and a common pronunciation of the word is "Weegee." But Mr. Bonanos unearths a more plausible origin story. In the 1920s, before he started selling photos to newspapers, Fellig had a job in the New York Times darkroom drying off prints with a squeegee. His next job was more elevated but his co-workers still mockingly called him "squeegee boy."

"Over time," Mr. Bonanos writes, "as he gained their respect and as his technical skills became evident, the mockery flipped into praise. 'Squeegee boy' turned into 'Mr. Squeegee' and eventually became Weegee." The end of the appellation trail came in 1941, when Weegee, vaulted from anonymity by his work in PM, started rubber-stamping the back of his photos with a demand that they be credited to "Weegee the Famous."

"Yesterday at Coney Island" is in some ways an atypical Weegee photograph. For one thing, it's a happy scene, instead of depicting calamity or vice. It also frames a capacious landscape, and Weegee specialized in shots that literally got in his subjects' faces. (He didn't have to worry about focus, because he almost always took pictures from either 10 or 6 feet, and he could apply the settings for either in an instant on his 4-by-5-inch Speed Graphic camera.) Finally, it was taken in the light of day, and Weegee was a nighttime street crawler. Not for nothing is Mr. Bonanos's book titled "Flash"; when shooting after dark, Weegee always threw out a blast of light, giving his photos their flat harshness. His illuminated subjects, sometimes with a startled look in their eyes, are usually surrounded by darkness, as if in a painting by Georges de La Tour.

But in another way the Coney Island photo is also characteristic. The word I'm thinking of is "skin." Weegee's lifelong photographic project was to intimately *expose* his subjects, and shooting them without their clothes on was just one way to do so. (His first published book of photos was called "Naked City," which inspired the 1948 film noir.) Others were to snap them when they were drunk, asleep, grieving, in police custody or dead. He once said of his many photos of corpses, usually lying on the street, "I gave them all my love and care, made 'em look like they were just taking a little rest." In the introduction, Mr. Bonanos writes of Weegee, "He was, like most photographers, a voyeur. Maybe more than most." Definitely more than most, I'd say. But Mr. Bonanos doesn't come back to this idea till an aside in a late chapter. My one criticism of "Flash" is that it doesn't explore Weegee's penchant for flouting the assumption that people are entitled to their privacy.

The last half of the photographer's career—more or less after he dubbed himself Weegee the Famous—is, in Mr. Bonanos's telling, a sad story. On the one hand, his artistry started to be recognized: In the '40s he published "Naked City" and another collection, "Weegee's People," and was represented in two exhibitions at the Museum of Modern Art. On the other, the quality of his work declined. He stopped doing spot news, and spot news was his métier. He experimented with special lenses and other technology that produced not especially interesting distortion effects, and he found the main market for his pictures were men's magazines that were like Playboy but about two rungs down the market, with names like Stag, Eye and Candid.

After a brief unhappy marriage, Weegee was fortunate to find a loving companion, Wilma Wilcox. He treated her poorly, but she stayed around and, after his death, kept the Weegee flame alive. In 1993, she donated his entire archive—some 19,000 photographs and 6,000 negatives—to the International Center of Photography. That ensured his legacy: It's led to several exhibitions and monographs; to a "rediscovery" of his tabloid genius every few years, like clockwork; and now to this fine biography.

Mr. Yagoda, the author of "Memoir: A History" and other books, conducts the blog MoviesInOtherMovies.com.

The Ambitious Dr. Hosack

American Eden
By Victoria Johnson
Liveright, 461 pages, $29.95

By Penelope Rowlands

IT WAS A CITYSCAPE so striking that visitors, arriving by sea, turned rapturous. "A lovely sweep of notched shoreline" is how Tocqueville described it, with "blossoming trees on greensward sloping down to the water, a multitude of small, artfully embellished candy-box houses in the background." It was New York in the early 19th century, before Manhattan's beautiful hills were leveled, its winding lanes forced into a grid.

The city was as yet a backwater, lacking the cultural and scientific institutions that a great city requires. Ninety miles to the south, Philadelphia led the way in civic infrastructure and sheer sophistication. Within a few decades, all of that would change, in large part due to the efforts of one man, Dr. David Hosack, a botanist, an educator and, in the words of one colleague, a physician of "zeal, Industry and Talents." Above all else, he was a civic-minded, forward-thinking visionary—and one extraordinarily adept at turning his dreams into reality.

In her captivating biography "American Eden: David Hosack, Botany, and Medicine in the Garden of the Early Republic," Victoria Johnson describes how, at a time when "Philadelphians thought they inhabited the Athens of America," Hosack helped to tip the scales in New York's favor. Along the way, she restores this attractive polymath—who today is mainly remembered, thanks to a small role in a certain hip-hop musical, as the doctor-in-attendance at the 1804 duel between two of his patients, Aaron Burr and Alexander Hamilton—to his rightful place in American history. The rescue from oblivion is long overdue.

> Early America's foremost botanist was also New York's greatest institution builder, a man of 'Industry and Talents.'

Hosack was born on Manhattan Island in 1769, the son of a Scottish merchant. He grew up in a New York under British occupation and, in Ms. Johnson's words, "came of age just when the newly independent nation was most in need of his energy, intellect, and prodigious talent for organizing other people." Formal medical education in America was then in its infancy. Even after receiving his M.D. from the University of Pennsylvania, he felt so poorly prepared for medical practice that he headed to London and Edinburgh for further study. There he learned the latest surgical techniques and, as he later confessed to his adult son, was "very much mortified by my ignorance of botany." Until Hosack visited the university gardens of Great Britain, he had considered plant-based *materia medica* mere supplies to be purchased from apothecaries. Now medical botany became his obsession, a body of rapidly developing scientific knowledge that he was eager to master and bring to America.

Upon his return to New York in 1796, the city of 60,000 seemed decidedly provincial: "There was no Royal Society [of Medicine], no Linnean Society, no Brompton Botanic Garden," Ms. Johnson writes. "Hosack turned the situation over

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ALAMY

PLANTING SEEDS David Hosack as painted by Rembrandt Peale, ca. 1826.

BOOKS

'My own suspicion is that the Universe is not only queerer than we suppose, but queerer than we can suppose.' —J.B.S. HALDANE

SCIENCE SOURCE

RELATIVISTIC The semicircular 'Einstein ring' in this image from the Hubble Space Telescope is formed by light from distant stars bent by the gravity of the yellow galaxy inside it.

Stop All the Clocks

The Order of Time
By Carlo Rovelli
Riverhead, 240 pages, $20

By Priyamvada Natarajan

HUMANS HAVE always been obsessed with time and have marked its passage in part by measuring it with ever increasing accuracy, yet its true nature has remained elusive. We all know from our subjective experience that when we are placed on hold while waiting for a representative, even a few minutes feel like eternity, while time appears to hurtle on when we are in the midst of a pleasurable activity. Though physics, philosophy and metaphysics have all grappled with the concept of time, we are still confounded by it.

The physicist Carlo Rovelli takes a fresh stab at the conundrum in "The Order of Time" (beautifully translated from the original Italian by Erica Segre and Simon Carnell). A masterly writer who succeeded in explaining some extraordinarily complex ideas in his last book, "Seven Brief Lessons on Physics," he now turns to tackle and demystify perhaps the most profound mystery of all—time. Mr. Rovelli is one of the founders of loop quantum gravity (LQG), a theory that attempts to unite quantum mechanics with gravity. This unfinished task, to which string theory also aspires, is part of physicists' quest for a theory of everything. In his own research, Mr. Rovelli has focused on trying to explain the emergence of time in LQG. Unriddling the enigma of time is his forte and very much part of his day job.

In this little gem of a book, Mr. Rovelli first demolishes our common-sense notion of time. He then examines where that leaves us and how a deeper understanding of gravity might help ascribe meaning to time. He concludes the second section of the book with a description of what a world without time might look like. In the final part, he resurrects time, diving off from his own LQG research to explain how time could emerge and flow as we are accustomed to its doing.

Mr. Rovelli deftly leads us through some of the most profound ideas in Einstein's theories of special and general relativity, explaining these concepts in his characteristically lyrical style with numerous apt analogies. Here is an example, where he expounds on Einstein's insight that gravity, the shape of space and the motion of bodies are intricately linked. Starting with the question of how the Earth and sun can attract each other from afar without touching, Mr. Rovelli describes how this tug is transmitted indirectly to each via their effect on what lies between them—space and time. Each object affects the space and time that surrounds it, "just as a body immersed in water displaces the water around it."

Mr. Rovelli explains how gravity mediates the modification of the structure of time, causing time to lose its universality and unity. He clarifies how gravity in turn dictates the passage of time, and he shows that time therefore passes faster in the mountains than it does at sea level. (Clocks run more quickly at higher altitudes because they experience a weaker gravitational force than clocks on the surface of the Earth.) Before you start worrying about resetting your watches when hiking up a mountain, be assured that this difference is measurable in principle but is imperceptibly small. Mr. Rovelli also provides interesting examples of how we can all witness the slowing down of time. According to physics and Einstein's theories, time passes more slowly in some places than others, and it transpires more slowly for moving objects. Einstein inferred these effects before we even had clocks accurate enough to make such measurements. His predictions have all been validated since with atomic clocks.

Incidentally, these effects on the flow of time are essential for accurate navigation on Earth using the Global Positioning System. GPS consists of satellites orbiting 12,400 miles above the Earth at a speed of 8,700 miles per hour, with precise atomic clocks on board. Special relativity predicts that these moving clocks run about seven microseconds slower per day than clocks on Earth. According to Einstein's theory of general relativity, on the other hand, the orbiting clocks should tick faster than the ones on Earth, due to the difference in the strength of Earth's gravity. The net difference is a daily gain of 38 microseconds compared with terrestrial clocks, a difference for which the GPS system automatically corrects.

> An elegant grapple with one of physics' deepest mysteries: Is time just an illusion caused by the limits of human perception?

Recasting the rhythm and flow of time, Mr. Rovelli shows that a common present simply does not exist. "The world is not like a platoon advancing at the pace of a single commander," he writes. "It's a network of events affecting each other." Asking which "local time" is correct, he adds, is meaningless. "We might just as well ask what is *most* real—the value of sterling in dollars or the value of dollars in sterling."

In the second part of the book, he investigates what makes the past and the future distinct, rendering a direction for time. The arrow of time is of consequence for us humans, since there is a tangible difference "between past and future, between cause and effect, between memory and hope." Meanwhile, for the laws of physics, there is no such distinction: A set of equations that describes the evolution of a system in time is equally valid going forward or backward.

This symmetry is obeyed by all laws bar one. It is in this portion of the book that Mr. Rovelli's explanatory power shines, when he describes the notion of entropy. Entropy is a measure of the disorder of a system, and "it is entropy, not energy, that drives the world." The universe is moving from low entropy (orderliness) to higher entropy (disorder) as time passes. The 19th-century Austrian physicist Ludwig Boltzmann showed us that entropy exists because we are unable to distinguish between the many possible configurations of a system—that is, our descriptions are inherently blurry. The arrow of time is intimately connected to this blurring: If we could perceive the world in all of its minute detail, Mr. Rovelli explains, the notion of time would vanish.

He moves on to talk about his own work in loop quantum gravity and explains that the theory does not describe how things evolve in time but rather how things are with respect to each other. LQG doesn't have time explicitly in its equations, yet the concept of time, he argues, can naturally arise and emerge in these equations. Here the reader might find it challenging to stay with Mr. Rovelli, since LQG is an abstruse and complicated subject.

The final part of the book veers into metaphysical territory as Mr. Rovelli takes on the question of why we perceive time in our minds and bodies if in fact it doesn't exist. Quoting freely from Buddhist texts, the Mahabharata, Kant, Shakespeare and Proust, Mr. Rovelli suggests that the initial conditions of the particular universe that we inhabit make us, in effect, "beings made of time."

The closing chapter is worth a read in and of itself. Here Mr. Rovelli describes how our awareness of the passing of time is actually internal. Ultimately, he writes, "this being between past and future events is central to our mental structure—this for us is the 'flow' of time." He concludes: "Inexorably, then, the study of time does nothing but return us to ourselves."

This is an ambitious book that illuminates a thorny question, that succeeds in being a pleasurable read even if it does not conclusively solve the riddle of time.

Ms. Natarajan, a professor of astronomy and physics at Yale University, is the author of "Mapping the Heavens: The Radical Scientific Ideas That Reveal the Cosmos."

Plato, Physics And Brains In Space

When Einstein Walked With Gödel
By Jim Holt
FSG, 368 pages, $28

By Steven Poole

WE ALL feel pressed for time, but how much time is actually left on a grand scale? If in fact the universe is going to keep expanding forever, then you might very well be a "Boltzmann brain." This is a collection of particles winking into existence thanks to random fluctuations in the interstellar vacuum. Since we are assuming time is infinite, these structures will sometimes form disembodied human brains, and at least one of them will be an identical copy of your current state of consciousness.

Such is one of the mind-bending ideas explored in this collection of previously published essays by Jim Holt, who is one of the very best modern science writers.

Some chapters are elegant profiles of scientists and mathematicians: Benoit Mandelbrot, coiner of the term "fractals," who inspired a generation of hippies with graphics of his "Mandelbrot set"; Alan Turing, the World War II code breaker and inventor of many basic concepts in modern computing; Francis Galton, the cousin of Darwin who pioneered statistics and also coined the term "eugenics."

Other essays are about particular puzzles, for example whether consciousness is a fundamental property of all matter (an ancient idea known as panpsychism, now undergoing a serious revival), or the four-color problem, which asks whether four colors is the most we need for any conceivable map to avoid areas of the same color touching. Here Mr. Holt introduces us to the lovely concept of "criminal maps"—not atlases of prospective bank jobs but maps that, if they existed, would violate the four-color hypothesis.

Some pieces limn the history of a certain idea—for instance, the concept of the infinitely small, or the notion of forces that can act on something without touching it, long shunned as (in Einstein's words) "spooky action at a distance." Other chapters are long book reviews, as when Mr. Holt describes the abstrusely beautiful hierarchy of infinities discovered by the mathematician Georg Cantor and then gently savages ("a book that prizes difficulty but not rigor") a book on the topic by David Foster Wallace. Another book he describes as "full of the sort of excess detail that mathematicians call 'hair.' " In this sense it is a pleasure to report that, aside from a few inevitable repetitions between essays, Mr. Holt's book is perfectly bald.

GETTY IMAGES

GIANT STEPS Kurt Gödel and Albert Einstein in Princeton, N.J., 1954.

Two large problems dominate the volume: the nature of time and the nature of mathematics itself. The wonderful title essay begins in 1933, the year Einstein settled down to spend the last two decades of his career at the Institute for Advanced Study in Princeton, N.J. There, 10 years later, he made friends with a younger man, the great logician Kurt Gödel. In Mr. Holt's telling, they make a delightfully odd couple. Gödel believed in ghosts and "had a morbid dread of being poisoned by refrigerator gases," but Einstein went to work just to have the privilege of walking home with him.

Gödel pointed out to Einstein that the equations of general relativity appeared to allow time travel. From this, Gödel drew the moral that time could not really exist. Einstein, for his part, hewed to the "block universe" picture of space-time, according to which the future already exists, as much as the past does. But time itself proves very difficult to pin down. Perhaps the best definition of it is the one semi-jokingly quoted by the physicist John Wheeler: "Time is nature's way to keep everything from happening all at once."

What, meanwhile, are numbers? Mr. Holt writes of the French neuroscientist Stanislas Dehaene, who believes that "we have a sense of number that is independent of language, memory, and reasoning in general." What does this imply for the millennia-long philosophical dispute about whether numbers really exist, independent of human minds? Most great mathematicians have been "Platonists," believing that numbers have a real if abstract independent existence, which means that a new mathematical result really is a discovery rather than a clever invention. But if that is true, how can purely physical animals like us gain access to the Platonic domain?

Mr. Holt himself comes down squarely on the side of the anti-Platonists in an essay lucidly charting the hunt for patterns in the distribution of prime numbers (those that cannot be divided by anything except themselves and 1). One researcher says that the sequence of primes "has a reality that is far more permanent than the physical reality surrounding us." But Mr. Holt demurs. Mathematics, he insists, is "man-made, a terrestrial artifact." A million years from now, he asserts, "mathematicians will have awakened from their collective Platonist dream."

It's one point in the book where the author boldly goes against the consensus of the research community he is reporting on. I would bet he'll turn out to be wrong, but then neither of us will be around in a million years. Unless we meet in space as Boltzmann brains, a prospect I doubt either of us would relish.

Mr. Poole is the author of "Rethink: The Surprising History of New Ideas."

BOOKS

'Invention, it must be humbly admitted, does not consist in creating out of void, but out of chaos.' —MARY SHELLEY

BRUCE HUTCHISON

HER 'HIDEOUS PROGENY' The composition of 19-year-old Mary Shelley's classic tale about creating life coincided with her third pregnancy.

The Mother of Frankenstein

In Search of Mary Shelley
By Fiona Sampson
Pegasus, 304 pages, $28.95

By Elizabeth Lowry

In her 1831 introduction to the third edition of "Frankenstein," the Gothic masterpiece she wrote when she was only 19, Mary Shelley tries to answer the question "frequently asked" by her readers: "How I, then a young girl, came to think of and to dilate upon so very hideous an idea?" She goes on to recall the by-now-legendary circumstances of its conception: Mary and her lover (later husband) the poet Percy Bysshe Shelley, while staying at Lake Geneva with Lord Byron and his doctor, John Polidori, were drawn one rainy night into a competition to see who could write the most terrifying ghost story—a contest Mary surely won hands down with her tale of an overreaching scientist and his uncontrollable creature. But the 34 year old, looking back, neatly sidesteps what we really want to know: How exactly did this inexperienced teenager, who had never published anything before, manage to create the most enduring horror story of all time? How did someone so apparently sheltered conjure a literary archetype that speaks with visceral directness, as Shelley herself saw, "to the mysterious fears of our nature"? And why, having launched herself on what promised to be a triumphant writing career, did she never match that first success again?

By the time of Mary Shelley's death in 1851 at age 53, she'd been widowed for three decades, having devoted herself to editing her late husband's verse and prose while raising their only surviving child. Her own later works—including five further, rather pedestrian novels and some worthy but dull historical and travel writing—had met with mixed reviews. Yet the fame of "Frankenstein" simply grew, persisting well beyond her lifetime, until its reputation eclipsed her own. Until the mid-20th century, critics have tended to see Mary Shelley as a one-book wonder.

Her resurrection as a subject for serious intellectual inquiry began with Muriel Spark's spirited 1951 biography of the author—and even then, sympathetic as Spark was to Mary's overall creative development, her most famous work was treated as the byproduct of an immature intelligence. "Frankenstein" was wonderful, declared Spark, in a verdict that has proved hard to shake, "not despite Mary's youth, but because of it. *Frankenstein* is Mary Shelley's best novel, because at that age she was not yet well acquainted with her own mind."

Subsequent biographies have been of two types: those, like Anne K. Mellor's carefully considered "Mary Shelley: Her Life, Her Fiction, Her Monsters" (1988) and Miranda Seymour's stunningly comprehensive "Mary Shelley" (2000), which try hard to rouse our enthusiasm for Mary's output post-"Frankenstein," and others, like Daisy Hay's racy "Young Romantics" (2010), that regard the period marking the start of Mary's career as a writer, which also happens to feature her sensational elopement with Percy Shelley, as the most vital. British poet and academic Fiona Sampson's new study "In Search of Mary Shelley," focusing almost exclusively on her subject's youth, belongs squarely in the second camp.

Ms. Sampson maintains that "the later years of a life—of anyone's life—do not build a personality, and they don't go on to affect a future," but this is just window dressing. She wants to tell us about what she calls the "chewy" bits—the sex scandals, the haunted nights in Swiss villas, the *Sturm und Drang*. And she does it in a way that is unapologetically selective, giving us her Mary in a series of "freeze frames" or tableaux: biography by lightning flashes. Anyone who is looking for a balanced account of Mary Shelley's troubled life should begin with Ms. Mellor or Ms. Seymour. If you are after bravura scene-setting, however, and an ardent inhabiting of the book's subject, Ms. Sampson can't be bettered.

> How exactly did an inexperienced teenager create the most enduring horror story ever? And why could she never match it?

Ms. Sampson throws herself wholeheartedly into satisfying our curiosity about the psychological triggers behind "Frankenstein." Little of what she says is new, but the way in which it is presented is hair-raisingly immediate. "Frankenstein" offers us a chilling picture of the horrors of birth and the failure of youthful ideals, and by the time she came to write it, Mary was already painfully familiar with the first and was rapidly becoming acquainted with the second.

Her parents were William Godwin, the anarchist philosopher, and the trail-blazing feminist Mary Wollstonecraft, author of "A Vindication of the Rights of Woman" (1792). Within 11 days of Mary's birth in London in 1797, however, Wollstonecraft lay dead of puerperal fever, leaving Godwin on his own to raise the new baby and her half-sister, Fanny (Wollstonecraft's daughter by a previous lover). Ms. Sampson gives full weight to the effect of this bereavement on Mary, who would go on to lose four of her own five children and for whom gestation and childbirth became sources of torment. She began "Frankenstein" after being delivered the previous year of a premature infant who did not survive, and only five months after the birth of her eldest son, William. Her writing of the book coincided with a third pregnancy, during which she must have been plagued by fears. They course through her agonized description of Victor Frankenstein's struggle to "infuse a spark of being into the lifeless thing that lay at my feet," and when we read that at last "a convulsive motion agitated its limbs," it's hard not to agree with Ms. Sampson that the detail seems "better suited to a deathbed than to a birth."

If, as Anne Mellor pointed out, "Frankenstein" articulates, "perhaps for the first time in Western literature, the most powerfully felt anxieties of pregnancy,'" it also explores the catastrophic consequences of bad parenting. Godwin was a distant father, whose remarriage when Mary was 4 to a Mrs. Clairmont, a woman his daughter came to loathe, left Mary feeling sidelined. Ms. Sampson reveals that, as a teenager, Mary sometimes suffered from a mysteriously swollen arm: "rigid, and huge with bandages," her limb resembled "a monstrous appendage stitched from some other body onto her own." Mary's self-disgust and her longing for parental love are channelled in the monster's anguished plea to its creator for compassion and care—a plea that Victor Frankenstein rejects.

By the time her father's glamorous young disciple, the budding poet Percy Shelley, appeared on the scene, Mary's emotional isolation was extreme. She was 16; he was 21, the rebellious heir to a baronetcy, a self-proclaimed atheist and radical, and a proponent of free love. He was also married, with one child and another on the way, and when he and Mary eloped to Europe they left a chain of wreckage behind them. The stigma attaching to the Godwins ruined the prospects of Mary's half-sister Fanny, who took a fatal overdose of laudanum in October 1816. Two months later, Percy's wife Harriet—pregnant, possibly by Percy, who had earlier invited her to join him and his lover abroad—drowned herself in the Serpentine.

Ms. Sampson is scathing about the hypochondriac, self-centered yet undeniably charismatic Percy, deftly anatomizing the predicament in which Mary found herself "of being simultaneously unable to reason with him yet duty-bound to protect his particular fragility." His manic doggedness, always teetering on the brink of hysteria, went straight into her depiction of the obsessive Victor Frankenstein. After Harriet's death they married and Mary, having failed to grasp her husband's commitment to his free-love project, had to stand by while he pursued her own stepsister, Claire Clairmont (who was also, for a time, the mistress of Byron), and a string of other women.

Ms. Sampson doesn't minimize Percy's infidelities, depicting them as foully traumatic for Mary. The coldness in her which he later complained of reads like the by-product of the numbing and settled depression from which she was suffering by her 20s. Ms. Sampson observes shrewdly that for the second Mrs. Shelley, "Percy has to mean a great, undying love or else the sacrifices she's already made are pointless." These sacrifices would eventually include the deaths of both her son William and daughter Clara, who fell victim, during successive disease-ridden summers in Italy in 1818 and 1819, to their father's indefatigable need for travel and stimulation and his failure to get proper medical care for them when they fell ill.

There was worse to come. Mary was appalled to discover, after Percy's own death by drowning in the Gulf of Spezia in 1822, that his friends had been coached by him to believe that she had failed him as a wife "just as she was coached, eight years earlier, to believe that Harriet had failed him." Ms. Sampson argues that Mary never understood "that her youthful decision to run away with Percy could be misread as self-indulgence rather than passionately held moral and political principle," but this contention is belied by the guilty sympathy she would express for "poor Harriet, to whose sad fate I attribute so many of my own heavy sorrows as the atonement claimed by fate for her death."

Mary's 29 years as a widow, in which she settled down to domesticity in England, earning her living by writing those solid but stodgy novels, are covered by Ms. Sampson in a single chapter and a coda. This tends to reinforce the notion, partly suggested by Mary's own middle-aged romanticizing of Percy, that her marriage to him had been the central event of her existence. But there are other relationships apart from those with husbands or books by which to measure the success of a life. Though Mary Shelley never again produced anything to equal "Frankenstein," which she referred to as "my hideous progeny," she undoubtedly succeeded—as, arguably, none of the other adults around her ever did—in being a loving and committed parent to her actual flesh and blood, resolutely supporting the only son left to her, also called Percy, by her literary labors, scraping together the money to see him through school and university, and welcoming his wife into their family when he married. This quietly heroic achievement makes her no less a feminist than her mother.

Ms. Lowry's second novel, "Dark Water," will be published this fall.

The Founding Myth of the Scientific Age

By Michael Saler

Like its 8-foot creature, Mary Shelley's "Frankenstein" has had long legs since its publication 200 years ago. She deemed it a mere "ghost story," but it has since been rebranded as the first science-fiction novel and even "the first modern myth," according to the foreword of "The New Annotated Frankenstein" (Liveright, 352 pages, $35), edited by Leslie S. Klinger. That laurel, I would argue, belongs to Goethe's 1808 "Faust, Part One," but in this volume's afterword, Anne K. Mellor makes a more defensible claim: that Frankenstein is *"the* myth of modern science," illustrating how humanity's attempts to harness nature can have unintended and horrific consequences.

Indeed, the novel is more relevant than ever, given the scientific advances in biotechnology and artificial intelligence that make Victor Frankenstein's aim of creating a new species more than conceivable. "Frankenfoods" made from genetically modified organisms are just shelves away from Franken Berry cereal. Both are signs of how universal Shelley's myth has become.

There are manifold editions of the novel, more than 90 films with "Frankenstein" in the title, and innumerable Frankenstein tchotchkes to warm the heart and freeze the blood of children and adults alike. Partly a fable about the Industrial Revolution, "Frankenstein" itself has become a scholarly and commercial industry, and a host of electrifying new works has been issued to celebrate the bicentenary of its publication. Mr. Klinger's volume is a wonderfully capacious introduction to the 1818 edition and its historical, literary and biographical contexts: As his annotations demonstrate, Shelley undercut this version's starkly existentialist themes when she revised it in 1831. And subsequent interpreters would emphasize other aspects of her creation.

Christopher Frayling's "Frankenstein: The First Two Hundred Years" (Reel Art Press, 208 pages, $39.95) is especially strong in its "visual celebration" of the iconography of Shelley's creation. Half of the book's glossy pages are devoted to evocative images, some published here for the first time. They illuminate the unusual byways the work has traveled in its mass-media incarnations. We see, for example, that Elsa Lanchester's unforgettably bizarre hairstyle in "The Bride of Frankenstein" (1935) was inspired by the ancient Egyptian bust of Nefertiti, displayed prominently in Berlin during the 1920s. Mr. Frayling's detailed cultural history of "Frankenstein," which comprises the book's other half, is no less illustrative of "a creation myth which works for today."

Those seeking to delve further will find intelligent essays on the novel's origins, appropriations and scientific relevance in "Frankenstein: How a Monster Became an Icon," edited by physicist Sidney Perkowitz and filmmaker Eddy von Mueller (Pegasus, 239 pages, $28.95). Bringing together the "two cultures" of art and science just as Shelley did in her novel, this collection also provides insights into this modern myth by those who have contributed to its expansion, such as John Logan, creator of the brilliant "Penny Dreadful" TV series. Kathryn Harkup's "Making the Monster: The Science Behind Mary Shelley's *Frankenstein*" (Bloomsbury, 304 pages, $27) lucidly illuminates Shelley's investment in the rapidly expanding knowledge of chemistry, biology and electricity of her times, and reminds us of how "Frankenstein" helped inspire technological developments, such as the pacemaker.

The last words should be left to Nick Groom, whose introduction to "Frankenstein or 'The Modern Prometheus': The 1818 Text" (Oxford, 226 pages, $22.95) encapsulates the work's many interpretations. He sees "Frankenstein" as, among other things, "a creation myth about the origin of stories." This is precisely what modern myths do: open the world to new questions, rather than establish answers. They are truly generative, an apt term for a novel that queries a selfish inventor, his damaged creature and science's threat to arrogate creation to itself.

Mr. Saler is the author of "As If: Modern Enchantment and the Literary Prehistory of Virtual Reality."

THE FRANKENSTEIN BOOKSHELF

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Edited by Leslie S. Klinger

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Edited by Nick Groom

BOOKS

‘Our concern for victims is the secular mask of Christian love.’ —RENÉ GIRARD

Who Was René Girard?

Evolution of Desire
By Cynthia L. Haven
Michigan State, 317 pages, $29.95

By Marilyn Yalom

ALAMY

NON Though atheism was de rigueur among French intellectuals, Girard came out as a believer.

RENÉ GIRARD (1923-2015) was inducted into the French Academy in 2005. Many of us felt this honor was long overdue, given his international prominence as a French intellectual whose works had crossed the boundaries of literature, history, psychology, sociology, anthropology and religion. Today his theories continue to be debated among “Girardians” on both sides of the Atlantic. He is now the subject of a comprehensive biography by Cynthia Haven called “Evolution of Desire.”

The title is apt. A key concept in Girard’s philosophy is what he called “mimetic desire.” All desire, he argued, is imitation of another person’s desire. Mimetic desire gives rise to rivalries and violence and eventually to the scapegoating of individuals and groups—a process that unites the community against an outsider and temporarily restores peace. Girard believes that the scapegoat mechanism has been intrinsic to civilization from its beginning to our own time.

My personal acquaintance with René Girard began in 1957, when I entered Johns Hopkins as a graduate student in comparative literature at the same time that he arrived as a professor in the department of Romance languages. With his thick dark hair and leonine head, he was an imposing figure whose brilliance intimidated us all. Yet he proved to be generous and tolerant, even when I announced that I was to have another child—my third in five years of marriage.

Whatever his private feelings about maternal obligations—he and his wife, Martha, had children roughly the same age as ours—he always showed respect for my perseverance in the dual role of mother and scholar. Under his direction, I managed to finish my doctorate in 1963 and commenced a career as a professor of French.

Fast forward to 1981, when Girard came to Stanford University. I had been a member of the Stanford community for two decades, first through my husband, then on my own as a director of the Center for Research on Women. On campus, Girard quickly became a hallowed presence, a status he maintained long after his official retirement.

Among the people drawn into his life at Stanford was Ms. Haven, who formed a close friendship with Girard that eventually inspired her to write “Evolution of Desire.” Having already written books on the Nobel Prize-winning poets Czeslaw Milosz and Joseph Brodsky, Ms. Haven is no stranger to the challenges of presenting a great man’s life and ideas to the public. Her carefully researched biography is a fitting tribute to her late friend and one that will enlighten both specialists and non-specialists alike.

Ms. Haven rightly advises readers unfamiliar with Girard’s work to begin by reading his 1961 opus “Deceit, Desire, and the Novel.” This book demonstrates how the “romantic lie” underlying the belief in an autonomous self is punctured by the “fictional truth” found in such writers as Cervantes, Stendhal, Flaubert, Dostoevsky and Proust. In their novels, the protagonist comes to realize that his dominating passion is what Girard alternately calls “mimetic,” “mediated” or “metaphysical.” The fictive hero’s mimetic desire leads to social conflict and personal despair until he renounces the romantic lie and seeks some form of self-transcendence. Readers of Proust may remember Swann’s ultimate reflection: “To think that I ruined years of my life . . . for a woman who wasn’t even my type.”

Ms. Haven calls mimetic desire the linchpin of Girard’s work, equivalent to Freud’s fixation on sexuality and Marx’s focus on economics. In her discussion of Girard’s 1972 book “Violence and the Sacred,” she traces a trajectory from desire to conflict and ultimately to the scapegoating of entire groups. Think of the lynching of African-Americans, the systematic extinction of Jews in Nazi Germany, the murder of Christians in Muslim countries, and the current animus toward immigrants in Europe and America.

Ms. Haven credits the French psychiatrist Jean-Michel Oughourlian with bringing Girard’s mimetic ideas into the social sciences. She relates the amusing story of how Mr. Oughourlian crossed the Atlantic impulsively in 1973 so as to find the author of “Violence and the Sacred” in New York. He was dismayed to discover that Girard was not in New York City but in faraway Buffalo at the State University of New York, where the former Hopkins professor of French had accepted a position in the English Department. When Mr. Oughourlian and Girard finally met in Paris, they experienced a mutual sympathy that led to collaboration on “Things Hidden Since the Foundation of the World,” first published in French in 1978. The title, taken from the Gospel of Matthew, reflected Girard’s increasing concern with Christianity, which he saw as a source for ending history’s perpetual cycles of violence.

Ms. Haven’s ability to interweave Girard’s life with his publications keeps her narrative flowing at a lively pace. For a man who woke every day at 3:30 a.m. and wrote until his professorial duties took over, it would be enough for any biographer to focus on his intellectual life, without linking his thoughts to a person ambulating in the world. Fortunately, Ms. Haven portrays Girard as he interacted with colleagues, students, friends and family.

The list of his close associates throughout his long career at Hopkins, Buffalo and Stanford is impressive. It includes such distinguished scholars and critics as John Freccero, Richard Macksey, Eugenio Donato, Jean-Pierre Dupuy, Michel Serres, Hans Gumbrecht and Robert Harrison. A complete list would run close to 40 or 50 men.

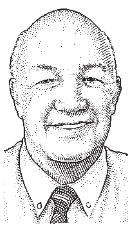
Yes, all men. I can’t refrain from noting the exclusively male nature of Girard’s intellectual network, as well as the predominance of men in competing movements, like structuralism and deconstructionism. The chapter Ms. Haven devotes to a major conference organized by Girard and his Hopkins associates in 1966 reads like an uproarious movie script featuring the oversize egos of the all-male cast, most notably the French psychoanalyst Jacques Lacan.

Even as Girard negotiated the politics of American academe and international rivalries, he drew strength from his Catholic faith. Ms. Haven sympathetically recounts his conversion experiences in 1958 and 1959. At a time when atheism was practically de rigueur among French intellectuals, Girard came out not only as a believer but also as a spokesman for what he called the “truths of Christianity.” Among them, nonviolence headed the list, for he believed that Jesus, unlike earlier scapegoats and sacrificial victims, offered a path to lasting peace. Ms. Haven adds her own eloquent words: “The way to break the cycle of violent imitation is a process of *imitatio Christi*, imitating Christ’s renunciation of violence. Turn the other cheek, love one’s enemies and pray for those who persecute you, even unto death.” This message is as radical today as it was 2,000 years ago.

Ms. Yalom is a senior scholar at the Clayman Institute for Gender Research at Stanford University. Her most recent book is “The Amorous Heart: An Unconventional History of Love.”

SCIENCE FICTION
By Tom Shippey

Fables Remade For the Modern Age



JULIA FINE’S novel “What Should Be Wild” (Harper, 350 pages, $26.99) is set in the borderlands between myth and fairy tale, between life and death. Her heroine, Maisie, was born from a dead mother. In a way Maisie is like King Midas. Everything she touches dies, if alive, or comes back to life, if dead. As a child, clearing some weeds from her garden, she touches a leaf, and sees “dead gray eat its way across the green.” She has to be walled off from the world, a barrier of thorns between her and the wood outside, just like Sleeping Beauty, all human contact carefully monitored, just like Rapunzel.

But the wood outside is even stranger. In it live—are they alive?—her female ancestors, all of them images of ancient cruelty inflicted on women. “Nothing promises revival like a fairy tale,” says Ms. Fine, but can even Maisie revive or appease these angry ghosts? Even deeper in the wood, there is another power stirring, and Maisie’s well-meaning protectors, father Peter the anthropologist and lover Matthew the historian, have no answer to it in theory or in practice.

THIS WEEK’S BOOKS

What Should Be Wild
By Julia Fine

The Queen of Sorrow
By Sarah Beth Durst

The Brothers Grimm gave us the fairy tales; many years later Tanith Lee gave us “Tales From the Sisters Grimmer.” In this astonishing debut, Ms. Fine bids fair to be the Sister Grimmest.

It’s the spirits that make Sarah Beth Durst’s world of Renthia distinctive in “The Queen of Sorrow” (Harper Voyager, 432 pages, $21.99). The idea that nature is animate is all but universal, of course. But Ms. Durst’s spirits aren’t like the flimsy oreads and dryads of Greek myth. They are not in harmony with humans, but bitterly hostile. The big ones bring avalanches, hurricanes and volcanoes, the little ones practice petty malice. They can all be controlled only by queens—and if a queen dies without an heir, it’s disaster.

Two previous volumes set the stage for the climax in “The Queen of Sorrow,” but once again it’s not the standard Last Battle or military apocalypse. Queen Naelin’s children have been kidnapped, Queen Daleina has to go to the rescue, with what spirits she can muster against those of Queen Merecot, the kidnapper. Here it’s not war between kings, but agreement between queens that brings peace. The Renthia trilogy stands old beliefs, and even old myths, on their heads. Ms. Durst has given us a refreshing, provocative and ultimately convincing remake of modern fantasy conventions. The wonder is that we ever saw things the other way round.

The Monologues of Friends and Strangers

FICTION
By Sam Sacks

RACHEL CUSK’S breakout work, a trilogy of novels that the appearance of “Kudos” (Farrar, Straus and Giroux, 232 pages, $26) now completes, draws its striking force and originality from what a speaker in the first volume, “Outline” (2016), calls “the power of silence.” The narrator is an English writer named Faye, but Ms. Cusk’s ingenious gambit is to make Faye a passenger in her own vehicle. The books are instead filled by the monologues of friends and strangers. We glimpse her through “a reverse kind of exposition”—she’s a blank slate whose shape becomes discernible as the details around her are filled in.

The purpose of that process is to test “the human possibility of self-creation,” as Faye puts it in “Kudos.” In “Outline,” Faye, a mother of two, is re-entering the world after a traumatic divorce. The novel takes place in Athens, where she is teaching a creative-writing course, and the stories she listens to revolve around relationship breakdowns, writer’s block and other crises of identity. The second volume, “Transit” (2017), returns to London, where Faye is renovating an old apartment, and the stories concern people in the messy midst of rebuilding.

“Kudos” completes the narrative arc, albeit ambiguously. Set during a writing conference in a hot-weather European country (it’s unnamed but clues point to Portugal), its stories offer variations on the themes of arrival and success. To Ms. Cusk, art, parenthood and marriage are analogous avenues of self-expression, so the stories she relates cover an enormous breadth of experience. One writer, who co-authors best-selling mysteries, has become rather smug about his professional fortunes; another, a critically lauded novelist, suffers from “intense guilt” whenever he’s celebrated. On her flight Faye sits beside a man with an emotionally fragile daughter who describes the redemptive moment when he heard her playing music in a school concert. But for a woman at the conference, having a child marked a terminus, an irreversible erasure of the self: “You survive your own death and then there’s nothing left to do except talk about it.”

The trademark style of these monologues is an aphoristic refinement that makes it sound as though each speaker has suddenly begun channeling Oscar Wilde. “History goes over the top like a steamroller,” one writer says, contemplating forms of suffering, “whereas childhood kills the roots.” A woman on an all-female panel of intellectuals laments that “when a group of women get together, far from advancing the cause of femininity, they end up pathologising it.”

The cause of femininity points us back to Faye and the formidable power she wields from her ongoing silence. Toward the end of “Kudos,” one of Faye’s interlocutors discusses the artist Louise Bourgeois, whose inimitable paintings reflected her embrace of “female invisibility.” Ms. Cusk seems to tacitly endorse that method. In “Outline,” Faye’s invisibility was a result of personal catastrophe, but in “Kudos” it has transformed into a positive virtue, a stratagem for artistic freedom. Faye makes others bear the weight of self-exposure while she remains undescribed and indefinable.

THIS WEEK’S BOOKS

Kudos
By Rachel Cusk

Upstate
By James Wood

This important trilogy, then, through its eloquent polyphony of voices and opinions, arrives at an idea of feminist art in opposition to the confessional mode that has long been in ascendance. Ms. Cusk’s tools are evasion and elusiveness—or, to rearrange James Joyce’s terms of independence: exile, cunning and silence.

James Wood’s novel “Upstate” (Farrar, Straus & Giroux, 214 pages, $26) enacts a family drama in the poky college town of Saratoga Springs in northern New York. The dynamics of this modern-day pastoral are simple. Alan Querry, a 68-year-old English property developer, has traveled to America to see his daughter Vanessa, a philosophy professor, after an email from her boyfriend hints that she may be suffering from depression and in danger of harming herself. Joining him is his younger daughter, Helen, an outspoken Sony music executive and the soulful yin to Vanessa’s intellectual yang.

Mr. Wood is perhaps the leading book critic in the English-speaking world, and he’s clearly aware of the prejudices that precede novels by famous critics. Such books, it is assumed, will be talky and analytical, essentially essays thinly disguised as fiction. This was a fair characterization of Mr. Wood’s first novel, “The Book Against God,” from 2003, but with “Upstate” he has checked his natural urge to hold forth by couching most of the book in the point of view of Alan, a practical-minded businessman who says of himself, “I don’t think about life too much.”

It has to be said: He’s a bit boring. In contrast to Mr. Wood’s trenchant literary essays, Alan’s observations are prosaic and overfamiliar. Manhattan is like “heaven and hell combined, infernal but glittering with lights,” he muses, as every tourist has done before him.

But what the novel loses in insight it gains in feeling. Alan is, above all else, a fond and fretful father, and “Upstate” touchingly explores the conundrum of being a parent to adults. What duties does that changed role demand? “Though your child was only briefly a child, you never quite got used to seeing her no longer one,” Alan thinks about Vanessa: “there she was—what strange—a formidable grown-up.” Little happens in this novel—too little, I think—but there is genuine sweetness in its lack of pretense, its tender insularity. What “extraordinary power family had,” Alan marvels, “to blot out all other considerations, all other desires and dissatisfactions.”

BOOKS

'Color is my daylong obsession, joy and torment.' —CLAUDE MONET

The Wonderful World of Color

CHILDREN'S BOOKS
By Meghan Cox Gurdon

"NO TWO PEOPLE, even if they are standing next to each other, ever see exactly the same rainbow, and each eye of each observer actually sees a different one," David Scott Kastan writes in "On Color" (Yale, 254 pages, $28), a sparkling and erudite meditation on the properties and meanings of the hues that surround us. "And, in fact, the rainbow is constantly being re-formed as the light strikes different water droplets. The rainbow is not an object; it is a vision—a vision dependent upon sunlight, water, geometry, and a sophisticated visual system. Like color itself, even explained, it remains a wonder."

Written in collaboration with artist Stephen Farthing, "On Color" isn't aimed at young readers—or at least not at any but the most precocious. For teenagers and adults, though, it offers a rich perspective that will, in the case of parents, undoubtedly inform the way they talk about color when looking at art and illustration with their children. So the book is a win for everyone, and gorgeous to look at, too, with its photographs and reproduced paintings (see a detail from Monet's "Water Lilies," right).

YALE UNIVERSITY PRESS

Over 10 chapters, each inspired by a different color (along with color's fellow travelers of black, white and gray), the authors explore the ways that we see color and how our perceptions have varied across time and cultures. Like the world, our language and symbolism are saturated with color. An American turns green with envy; a Hungarian turns yellow. A "blue" movie in English is "green" in Spanish and "pink" in Japanese. Societies have shaken under "green" and "orange" revolutions, and, of course, for much of the 20th century the revolutionary east was "red." Until the late 16th century, with the introduction into Europe of the citrus fruit, English speakers had no name for the color "orange" (in the 1390s, Chaucer had to describe a fox having "color betwixe yelow and reed"). In the late 19th century, scandal swept the French art world at the Impressionists' distasteful use of the color violet ("their retinas were diseased," sniffed a prominent critic). Drawing from art, science and semiotics, with fascinating side trips into politics and history, Messrs. Kastan and Farthing summon a full-spectrum discussion of a phenomenon as wondrous as it is commonplace.

The marvel of color and its varieties comes to young children in two snug little books by James Fulford and Tamara Shopsin. The first, "These Colors Are Bananas" (Phaidon, 28 pages, $14.95), widens the idea of the natural color of natural things. We think of clouds as being white or gray, but they can also be red or gold or blue. Fire, also, burns blue, as well as red and yellow and lemony-green. "Your hand is a color, too," the authors note on the book's last page, which has a cutout to allow children to see their own skin as a daub on the human palette.

The second Shopsin and Fulford collaboration, "Find Colors" (Phaidon, 28 pages, $14.95), is a scavenger hunt shaped like a board book. There's a color-familiar shape cut out of every other page, which children are encouraged to fill by locating a certain color in the world around them. For "find purple," there's a void shaped like a bunch of grapes, and "find pink" features three squiggly cutout worm silhouettes. The book encourages children to become color hunters, prowling and pouncing and, we can hope, developing an appreciation for the hues they discover.

Something of the same sort seems at first to be happening in the enigmatic and complicated pages of "The Forest" (Enchanted Lion, 58 pages, $25.95). There's no color to begin with, just blank creamy paper embossed with the head and shoulders of a baby, with little cutouts for the eyes and nostrils. "It is an enormous, ancient forest that has not yet been fully explored," Riccardo Bozzi writes (his words translated from the Italian by Debbie Bibo). On the next page we see tentative green fronds: "In the beginning, the forest is a grove of young pine trees. It is usually free of danger and quite fun to wander through."

As the pages turn, we alternate between more blank embossed portraits and ever more lush, jungly, colorful paintings, as children explore the forest, paying no attention to time. As the foliage thickens, we see that the figures moving in it are growing up. The faces in the portraits, too, are getting older, and the forest, we come to realize, is life itself. Like Thomas Cole with his four "Voyage of Life" paintings, illustrators Violeta Lopíz and Valerio Vidali are leading us through the cycle of human experience, from our "salad days," as Shakespeare described them, when we are "green," through the autumnal shades of old age to, perhaps, a place of renewal beyond.

Writer Minh Lê and illustrator Dan Santat bring us full circle in a different and more immediately sentimental way in "Drawn Together" (Disney Hyperion, 40 pages, $17.99), a picture book aimed at 4- to 8-year-olds that will reverberate with readers who are considerably older. Here, too, vivid color predominates: A glow emanates from the pages as a little boy gets dropped off at his grandfather's house. From the start, we see a chasm between man and boy that is not so much generational as cultural and linguistic. The boy speaks English, the grandfather speaks Vietnamese, and the two of them appear to have no vocabulary in common. But when the boy retreats to his markers and paper to escape the awkwardness, his grandfather surprises him by picking up pen and ink of his own and "revealing a world beyond words. And in a flash," the boy tells us, "we see each other for the first time." In their dynamic drawings—the old man's in black and white and the boy's in color—the two find a joyful place of encounter where words are superfluous.

THIS WEEK'S BOOKS

On Color
By David Scott Kastan with Stephen Farthing

These Colors Are Bananas
By Jason Fulford & Tamara Shopsin

Find Colors
By Tamara Shopsin & Jason Fulford

The Forest
By Riccardo Bozzi,
illustrated by Violeta Lopíz & Valerio Vidali

Drawn Together
By Minh Lê, illustrated by Dan Santat

David Hosack's American Eden

Continued from page C7

in his mind and decided it suited him perfectly." The city, in a sense, was his to create. At a time when "overt ambition was frowned upon," he kept a "breakneck professional pace." While meeting the demands of a burgeoning medical practice and a professorship at Columbia, he also helped conceive, found, lead or improve many institutions that exist to this day, including the New-York Historical Society, the New-York Horticultural Society, the American Academy of Fine Arts, Bellevue Hospital and the medical school that would become Columbia University's College of Physicians and Surgeons.

Hosack's greatest achievement, however, was an entity that has disappeared altogether and been largely forgotten—the Elgin Botanic Garden, which he founded, in 1801, on a hilly, wooded 20-acre area of Manhattan, now the site of Rockefeller Center. Named after Hosack's father's birthplace in Moray, Scotland, it was the first public garden in the United States, the first research institution devoted mainly to the cultivation and study of native plants, and a scientific laboratory of vital importance to the future of America. In the 1740s, Benjamin Franklin had despaired that America's "Mountains and Swamps" were filled with plants "whose Virtues and proper Uses are yet unknown to Physicians." Until Hosack, little research had been done on the medicinal possibilities of American flora.

Hosack purchased the land for Elgin from the City of New York for what today would be about $100,000. He did so parcel by parcel, with his own money, through 1810. His plan was to develop it, manage it as a working farm and horticultural classroom, and eventually sell it back to the city as a public trust. By the summer of 1803, he had begun to build a great greenhouse, one of the largest in all of North America. In June of that year, he gave a spirited lecture at Columbia, which was then located in Park Place. He explained that, just as he was teaching medical students at that college the rudiments of surgery, he would soon also be training medical botanists at Elgin. He also spoke, writes Ms. Johnson, "about the thousands of plants he was collecting from around the world—medicinal, agricultural, commercial, and ornamental. . . . He intended to collect every known species native to the continent, and . . . would safeguard specimens of each one at the garden. He reminded his audience of the critical medicines and crops the nation was forced to import each year from 'distant quarters of the globe.' These very plants, Hosack promised, would soon be growing less than four miles north of where they now sat."

"Some of the earliest systematic research in the United States on the chemical properties of medicinal plants" took place at Elgin, Ms. Johnson notes. Thomas Jefferson, William Bartram, Meriwether Lewis and other luminaries "sent Hosack plants and seeds for his garden and lavished praise on him," while visiting European scientists, such as Baron Alexander von Humboldt, François André Michaux and Alire Raffeneau Delile, botanist to Emperor Napoleon, marveled at the range of specimens he had assembled.

> Hosack hosted John Jay, Washington Irving and others at his legendary salon.

The grounds grew incrementally, by the acre and by the building. But by 1805, Ms. Johnson writes, "half of the Elgin Botanic Garden was still trapped inside Hosack's head, the other half was a mess of clay pots and manure." He devised many schemes to keep the garden afloat and moving ahead. For years he pleaded with Columbia to fund Elgin for pedagogic purposes. For a time they did. Later, he turned to the New York state legislature, in Albany, a place he found "opaque and infuriating." Politicians, including New York Gov. Morgan Lewis and Hosack's close friend DeWitt Clinton, backed the project, only in the end to betray it. Petitions were drawn up. The telling of this is dry stuff, yet Ms. Johnson holds our interest as Hosack wheedles and cajoles, desperate to keep his beloved garden alive.

ALAMY

NEW-YORK LINNEANUM Elgin Botanic Garden, ca. 1810, artist unknown.

At last, Ms. Johnson writes, Elgin collapsed for lack of funding, just as it was "beginning to make its mark on American medicine." In the fall of 1812, a carriage rolled up near the site and a young civil servant emerged, there to map out a grid of new streets. It was the garden's death knell. The "Middle Road" on which its front gates stood would soon be renamed Fifth Avenue.

As his dreams for the garden faded, Hosack wove himself ever deeper into the fabric of his native city. Described by some contemporaries as "the first citizen of New-York," the doctor could hardly walk a Manhattan street without passersby stopping to pay their respects. A noted bon vivant, he for years held a legendary Saturday-night salon at his home near Wall Street, where such notables as Washington Irving and John Jay turned up. Letters from around the globe, addressed only to "Dr. Hosack, New York," found their way to his door.

Hosack's accomplishments, early and late, are so numerous that a biography of the man risks becoming a spreadsheet, fact-heavy and unreadable. Yet so many deserve mention. He had a string of medical innovations to his credit, including being the first physician to tie off the femoral artery in the treatment of aneurisms. He was also the first in the United States to treat a swelling of the scrotum by injection—a technique he'd learned in Britain and the only one that alleviated that painful condition. Perhaps most dramatically, in 1795, as yellow fever closed in on New York, he faced off against his medical colleagues by insisting that the disease—which had ravaged Philadelphia two years earlier, reducing its population by a third—was contagious and could be curtailed by general hygiene and cleaning up the city's filth, particularly around its docks. While he was wrong in the first instance—the disease was caused by mosquitoes, something that wouldn't be understood for another half-century—he was correct in the latter. Even so, the actions he recommended destroyed mosquito breeding grounds, with many lives saved as a result.

Ms. Johnson, an associate professor of urban planning at Hunter College and an authority on botanic gardens, never allows her subject's many achievements to weigh down her narrative. She writes trippingly, with engaging fluency and wit. She has a lovely way of conjuring up early New York and its denizens—the workers calling out as they unload cargo at the docks; the gentlemen crowding into the Tontine Coffee House for the news of the day. The book's botany-related passages are particularly vivid. The author writes of plants delightedly, precisely—as Hosack himself might have done. The lovingly described "tall grass called Job's tears (*Coix lacryma*) for the pearly little tear-shaped grains that grew at the end of its stalks" is but one of many such examples.

The book also offers fascinating glimpses of early New Yorkers responding to world events, such as when, at the outbreak of the War of 1812, the city's residents fall "into a frenzy of fear and recrimination." Who knew that, at the time of the French Revolution, sympathetic crowds of Democratic-Republicans paraded through Manhattan singing the "Marseillaise" and sporting the red liberty caps favored by the revolutionary mobs across the Atlantic? On a much smaller scale, the city's residents fumed—Hosack prominent among them—when a mastodon fossil excavated in the Hudson Valley was spirited across state lines for the glory of that rival city, Philadelphia.

After the garden's demise, Hosack continued working at his usual, feverish pace. In 1816, he was named a Fellow of the Royal Society, an almost unheard of honor for an American; other accolades, including an honorary degree from Princeton, rolled in. Toward the end of his life—he died of a stroke, at age 66, in 1835—Hosack married an immensely wealthy woman (he had been twice a widower) and became the proprietor of an estate in Hyde Park-on-Hudson, where he—no surprise there—was "captivated by every aspect of farming and country living."

By then, New York City was firmly on the map. In a gracious letter to Hosack, Charles Willson Peale, the artist, naturalist and very personification of Philadelphia high culture, conceded that the rival city to the north was now more "advanced in learning, arts & science" than his own. For the ambitious Dr. Hosack, it must have been sweet vindication.

Ms. Rowlands is the author of "A Dash of Daring," a life of fashion editor Carmel Snow. She is a great-great-great-great-great grandniece of David Hosack.

BOOKS

'If the nineteenth century was the age of the editorial chair, ours is the century of the psychiatrist's couch.' —MARSHALL MCLUHAN

Turning Each Card As It Comes to Her

The Death of Mrs. Westaway
By Ruth Ware
Scout Press, 368 pages, $26.99

Fall of Angels
By Barbara Cleverly
Soho, 372 pages, $26.95

By Tom Nolan

CUSTOMERS GO to Harriet "Hal" Westaway, a 21-year-old tarot-card reader with a booth on the Brighton Pier, in hopes of getting a peek into their futures. But it's Hal's own future that seems hexed: She's in hock to a loan shark who has given her seven days to pay up—or else. In Ruth Ware's "The Death of Mrs. Westaway," fate seems to deal Hal a trump card when a lawyer's letter arrives informing her that she's a beneficiary in the will of her just-deceased grandmother, a Cornwall woman who has left a sizable estate.

This must be a mistake: Hal's grandparents have been dead for years. Yet the lawyer has all Hal's particulars and expresses no doubts. Given her dire financial straits, Hal resolves to attend this supposed relative's funeral and then accept whatever bequest comes her way—hoping against hope that she'll escape prosecution for fraud.

When the will is read, it's announced that Hal—to the anger of her alleged relations—inherits the bulk of the estate: a spooky, remote, mansion where Hal and the rest of the family members are all temporary guests. Hal soon intuits that someone wants her out of this family picture, especially when, coming down the stairs one night from her attic room, she trips on a deliberately strung trap, a hazard that disappears before she can show it to the others.

The circumstances surrounding Hal's inheritance suddenly seem even more mysterious. But the motive for harming her, Hal believes, is not simple greed. With her inquiries, Hal threatens to expose long-hidden secrets in this dysfunctional family's past—possibly related to Hal's own mother, who died in a hit-and-run accident just before Hal turned 18. Using job tradecraft as inspiration, Hal tells herself to take things "with the slow, measured pace of a reading. She had to turn each card as it came." And at the end of Ms. Ware's captivating and eerie page-turner, Hal finds herself saying "the last thing she had intended. The truth."

Another young Englishwoman suspiciously trips down a staircase—this one backstage at a university concert hall—in Barbara Cleverly's lively "Fall of Angels," the first book in a new series featuring Detective Inspector John Redfyre, a rising star with the Cambridge police. The year is 1923, and the woman in distress is a trumpet virtuoso at a time when female musicians are not commonly permitted on U.K. stages. It seems that this bold horn player has provoked the ire of a stage-door Igor not at all eager to see chauvinistic conventions come tumbling down.

Fortunately present when the trumpeter has her tumble—not fatal—is Redfyre, who quickly takes charge of the scene. Alas, the inspector is miles away when a second woman is attacked that night and her strangled corpse thrown into a river. The two women were acquainted, it seems: Both were members of a discreet sorority promoting a "new and muscled brand of feminism," one that would use the forces of modern media to shape public opinion in favor of their post-suffragette goals. The maniac-at-large is aware of this savvy group and seems bent on eliminating its talented sisters one by one.

In determined opposition to this shadowy murderer is the redoubtable Redfyre, a Great War veteran with a handsome face that displays "distress, concern, enquiry and resolve" in the presence of violent injury. As Redfyre himself puts it: "I pick up the dead and the desecrated. The battered, the poisoned and the strangled. . . . I mourn for them. And I vow to find and deal with the person who has killed them."

The inspector's earnestness is well-tempered by a good deal of wit and charm. And Ms. Cleverly displays a sure knowledge of the personal attitudes, social conditions, science and slang of a fascinating transitional period in history.

Mr. Nolan reviews crime fiction for the Journal.

ALAMY

FIVE BEST 21ST-CENTURY NOVELS ABOUT THE 19TH CENTURY

Randall Fuller

Professor of 19th-century American literature and author of 'The Book That Changed America'

March
By Geraldine Brooks (2005)

1 Geraldine Brooks's Pulitzer Prize-winning novel doesn't so much rewrite Louisa May Alcott's "Little Women" as it assesses the bloody Civil War that was that novel's obscured backdrop. Told from the perspective of the absent Mr. March, the father of the "little women" and a fervent abolitionist who survives the Battle of Ball's Bluff in Virginia in 1861, Ms. Brooks's novel is a meditation on the conflict between the idealism that prompted the war and the inevitable horrors that proceeded from it. Sometimes the novel verges on allegory—March just happens to meet a black woman named Grace whom he had secretly loved in his youth—but Ms. Brooks's language is a freshet of poetry, and her precise depictions of the antebellum South, where March traveled as a young peddler (much like Amos Bronson Alcott, Louisa May's father and the model for the titular hero), are like a view of the era through an old brass microscope. Like other 21st-century Civil War novels—E.L. Doctorow's "The March" among them—Ms. Brooks's "March" captures an American landscape empty, wild and latent with violence.

Lincoln in the Bardo
By George Saunders (2017)

2 Nothing in George Saunders's distinguished career as a short-story writer quite prepares us for the tour de force that is "Lincoln in the Bardo," which isn't so much a narrative as an oratorio for disembodied voices from beyond the grave. The time is February 1862; the setting is the Oak Hill Cemetery, in Georgetown, where President Lincoln's recently deceased 11-year-old son, Willie, has been interred. Composed of hundreds of ghostly voices lamenting their lives' missed opportunities (bardo is the Buddhist equivalent of purgatory), the novel mostly focuses on Lincoln himself, who is austere in his grief and burdened with the responsibilities of a conflict unprecedented in its violence (the Battle of Shiloh is just two months away). Mr. Saunders's genius is to show us Lincoln's developing sense that, while "everyone labored under some burden of sorrow," his own melancholy "must be defeated," at least to the extent that he may work to end, as swiftly as possible, the suffering caused by the Civil War.

Pym: A Novel
By Mat Johnson (2011)

3 Although it takes place in the 21st century, Mat Johnson's novel—part academic spoof, part adventure tale—is a riff on Edgar Allan Poe's flawed but fascinating "The Narrative of Arthur Gordon Pym of Nantucket." Mr. Johnson's narrator, an African-American professor denied tenure at a "historically white college" because he refuses to serve on the Diversity Committee, discovers that Poe's wildly improbable novel is based on actual events. In a series of bizarre and hilarious episodes, he winds up in Antarctica, following the footsteps of Poe's titular character and ultimately discovering a group of giants at the South Pole. Mr. Johnson has arguments to make about race, literature and the academy, but none is as compelling as the sheer verbal energy of his narrative. That's especially true of his lively, extended commentary on Poe's strange account of shipwrecks, mutinies and cannibalism: a "book that at points makes no sense, gets wrong both history and science, and yet stumbles into an emotional truth greater than both." No wonder Poe's potboiler inspired Herman Melville, Jules Verne and H.G. Wells.

The Good Lord Bird
By James McBride (2013)

4 One of American history's seminal events is transformed into rowdy comedy in James McBride's "The Good Lord Bird," a National Book Award winner that recounts the experiences of centenarian Henry Shackleford, nicknamed Onion, who as an escaped slave in his early teens will disguise himself as a girl and become "the only Negro to survive . . . John Brown's raid on Harpers Ferry, Va., in 1859." Mr. McBride, a musician as well as a novelist, locates in Onion's voice a melody that combines Huck Finn's jaunty vernacular with the more jaundiced tones of an elderly black man—Onion tells his story at age 103—aware that his racial identity is freighted by history. In Onion's telling, John Brown is a wild-eyed zealot, a cartoonish madman who talks like Yosemite Sam and prays for hours on end but whose madness and prayers are nevertheless devoted to the abolition of slavery. No matter how many times Onion tries to escape the old man, he finds himself drawn inexorably into the spiraling events at Harpers Ferry, much like Melville's Ishmael, circling in the wake of the sinking Pequod.

THE WHITE HOUSE HISTORICAL ASSOCIATION

BATTLEGROUND A detail from Alfred Wordsworth Thompson's 'Cannonading on the Potomac' (1861), depicting soldiers on the eve of the Battle of Ball's Bluff.

The Signature of All Things
By Elizabeth Gilbert (2013)

5 Born in Pennsylvania in the first days of the 19th century, Elizabeth Gilbert's heroine, Alma Whittaker, encapsulates that era's insatiable hunger to understand the natural world—to make legible "the signature of all things." Because her father has made a fortune in botanical drugs, Alma has the time and resources to develop into a first-rate scientist, although as a woman she is unable to travel freely, and her world, an echo of Emily Dickinson, "had scaled itself down into endless inches of possibility." Nevertheless, Alma's study of mosses enables her to arrive independently at a theory of natural selection like that of Darwin. Along the way, there is an unconsummated marriage, a trip to Tahiti and a meeting with Alfred Russel Wallace, the historical co-discoverer of natural selection. Ms. Gilbert's prose has a kind of evolutionary development of its own as it sprawls in unexpected directions, propelled by the excitement of scientific discovery that is one of the enduring legacies of the 19th century.

Best-Selling Books | Week Ended May 27

With data from NPD BookScan

Hardcover Nonfiction

TITLE / AUTHOR / PUBLISHER	THIS WEEK	LAST WEEK
Magnolia Table Joanna Gaines & Marah Stets/William Morrow & Company	1	1
The Restless Wave John McCain and Mark Salter/Simon & Schuster	2	New
The Soul of America Jon Meacham/Random House	3	2
How to Change Your Mind Michael Pollan/Penguin Press	4	3
Barracoon Zora Neale Hurston/Amistad Press	5	6
Facts and Fears James R. Clapper/VIking	6	New
12 Rules for Life Jordan B. Peterson/Random House Canada	7	7
The Subtle Art of Not Giving a F*ck Mark Manson/Harper	8	8
A Higher Loyalty James B. Comey/Flatiron Books	9	5
Three Days in Moscow B. Baier & C. Whitney/William Morrow & Company	10	4

Hardcover Fiction

TITLE / AUTHOR / PUBLISHER	THIS WEEK	LAST WEEK
The Outsider Stephen King/Scribner Book Company	1	New
Oh, the Places You'll Go! Dr. Seuss/Random House Books For Young Readers	2	1
The Cast Danielle Steel/Delacorte Press	3	3
The Trials of Apollo Book Three Rick Riordan/Disney-Hyperion	4	5
The Fallen David Baldacci/Grand Central Publishing	5	6
An Elephant & Piggie Biggie! Mo Willems/Disney-Hyperion	6	10
Dog Man and Cat Kid (Dog Man 4) Dav Pilkey/Graphix	7	7
The 17th Suspect James Patterson & Maxine Paetro/Little, Brown and Company	8	4
War Storm Victoria Aveyard /Harper Teen	9	2
Beach House Reunion Mary Alice Monroe/Gallery Books	10	New

Methodology

NPD BookScan gathers point-of-sale book data from more than 16,000 locations across the U.S., representing about 85% of the nation's book sales. Print-book data providers include all major booksellers (now inclusive of Walmart) and web retailers, and food stores. E-book data providers include all major e-book retailers. Free e-books and those sold for less than 99 cents are excluded. The fiction and nonfiction lists in all formats include adult, young adult, and juvenile titles; the business list includes only adult titles. The combined lists track sales by title across all print and e-book formats; audio books are excluded. Refer questions to Peter.Saenger@wsj.com.

Nonfiction E-Books

TITLE / AUTHOR / PUBLISHER	THIS WEEK	LAST WEEK
The Perfect Horse Elizabeth Letts/Random House Publishing Group	1	–
The Restless Wave John McCain and Mark Salter/Simon & Schuster	2	New
Facts and Fears James R. Clapper/Penguin Publishing Group	3	New
Bad Blood John Carreyrou/Knopf Doubleday Publishing Group	4	New
Educated Tara Westover/Random House Publishing Group	5	5
I'd Like to Apologize to Every Teacher... Tony Danza/Crown/Archetype	6	–
The Soul of America Jon Meacham/Random House Publishing Group	7	7
The Subtle Art of Not Giving a F*ck Mark Manson/HarperCollins Publishers	8	6
Gold Run Robert Pearson/Casemate	9	–
Building A Storybrand Donald Miller/HarperCollins Leadership	10	–

Nonfiction Combined

TITLE / AUTHOR / PUBLISHER	THIS WEEK	LAST WEEK
The Restless Wave John McCain and Mark Salter/Simon & Schuster	1	New
Magnolia Table Joanna Gaines & Marah Stets/William Morrow & Company	2	1
The Soul of America Jon Meacham/Random House	3	3
Facts and Fears James R. Clapper/Viking	4	New
How to Change Your Mind Michael Pollan/Penguin Press	5	2
12 Rules for Life Jordan B. Peterson/Random House Canada	6	8
The Subtle Art of Not Giving a F*ck Mark Manson/HarperOne	7	7
Barracoon Zora Neale Hurston/Amistad Press	8	6
Bad Blood John Carreyrou/Knopf Publishing Group	9	New
A Higher Loyalty James Comey/Flatiron Books	10	5

Fiction E-Books

TITLE / AUTHOR / PUBLISHER	THIS WEEK	LAST WEEK
The Outsider Stephen King/Scribner	1	New
Rogue Royalty Meghan March/Meghan March	2	New
Rebel Heart Vi Keeland & Penelope Ward/Penelope Ward	3	New
The Red Ledger Meredith Wild/Meredith Wild	4	New
Fall Of Giants Ken Follett/Penguin Publishing Group	5	–
Marriage of Inconvenience Debbie Macomber/MIRA Books	6	–
Beach House Reunion Mary Alice Monroe/Gallery Books	7	New
Buried Prey John Sandford/Penguin Publishing Group	8	–
The Fallen David Baldacci/Grand Central Publishing	9	5
Step on a Crack James Patterson/Little, Brown and Company	10	–

Fiction Combined

TITLE / AUTHOR / PUBLISHER	THIS WEEK	LAST WEEK
The Outsider Stephen King/Scribner Book Company	1	New
Oh, the Places You'll Go! Dr. Seuss/Random House Books for Young Readers	2	3
The Fallen David Baldacci/Grand Central Publishing	3	7
The 17th Suspect James Patterson & Maxine Paetro/Little, Brown and Company	4	6
The Cast Danielle Steel/Delacorte Press	5	2
Princess James Patterson/Grand Central Publishing	6	4
Beach House Reunion Mary Alice Monroe/Gallery Books	7	New
Rogue Royalty Meghan March/Meghan March	8	New
The Trials of Apollo Book Three Rick Riordan/Disney-Hyperion	9	8
Rebel Heart Vi Keeland & Penelope Ward/Penelope Ward	10	New

Hardcover Business

TITLE / AUTHOR / PUBLISHER	THIS WEEK	LAST WEEK
StrengthsFinder 2.0 Tom Rath/Gallup Press	1	1
Total Money Makeover Dave Ramsey/Thomas Nelson	2	2
Bad Blood John Carreyrou/Knopf Publishing Group	3	New
Emotional Intelligence 2.0 Travis Bradberry & Jean Greaves/TalentSmart	4	3
The Five Dysfunctions of a Team Patrick Lencioni/Jossey-Bass	5	6
The Energy Bus Jon Gordon/Wiley	6	8
Purposeful Jennifer Dulski/Portfolio	7	New
Extreme Ownership Jocko Willink and Leif Babin/St. Martin's Press	8	5
The Graduate Survival Guide Anthony ONeal with Rachel Cruze /Ramsey Press	9	4
Principles: Life and Work Ray Dalio/Simon & Schuster	10	7

PLAY

NEWS QUIZ DANIEL AKST

From this week's Wall Street Journal

1. AOL co-founder Steve Case sold his Virginia estate, once the childhood home of Jacqueline Kennedy Onassis, for $43 million—to whom?

- A. Time Warner
- B. The kingdom of Saudi Arabia
- C. The federal government
- D. The College of William and Mary

2. Indian government price controls have created a massive glut—of what?

- A. Sugar
- B. Lentils
- C. Rice
- D. Microchips

3. There's a lot riding on the Trial of the Pyx. But just what is it?

- A. The comeback album of the Pixies
- B. The internet's biggest online role-playing game
- C. A Royal Mint process of weighing, used to assess variations in coins
- D. An age-old Anglican ritual for defrocking a priest

4. Which big pork producer is the target of a North Carolina lawsuit challenging its farming practices?

- A. Cargill
- B. Hormel
- C. Smithfield
- D. Manischewitz

5. When they can, corporate borrowers are tying their debt payments to slow-rising benchmarks. Which of these is an example?

- A. The one-month U.S. dollar London interbank offered rate
- B. The three-month Libor
- C. The euro unsecured overnight interest rate
- D. The Sheboygan interbank offered rate

6. ABC canceled Roseanne Barr's hit sitcom after she sent a racist tweet—aimed at whom?

- A. Valerie Jarrett
- B. Michelle Obama
- C. Oprah Winfrey
- D. Condoleezza Rice

7. Global markets were rattled by developments in Italy. What happened?

- A. European Central Bank chief Mario Draghi opted for a career in Formula One racing.
- B. Italian newspapers revealed government deficits.
- C. German regional elections were won by euro-bailout opponents.
- D. Investors feared a euro-skeptic government would take hold in Rome.

8. In Japan, Coca-Cola launched Lemon-Do, its first alcoholic drink. Which actor is featured in ads for the drink?

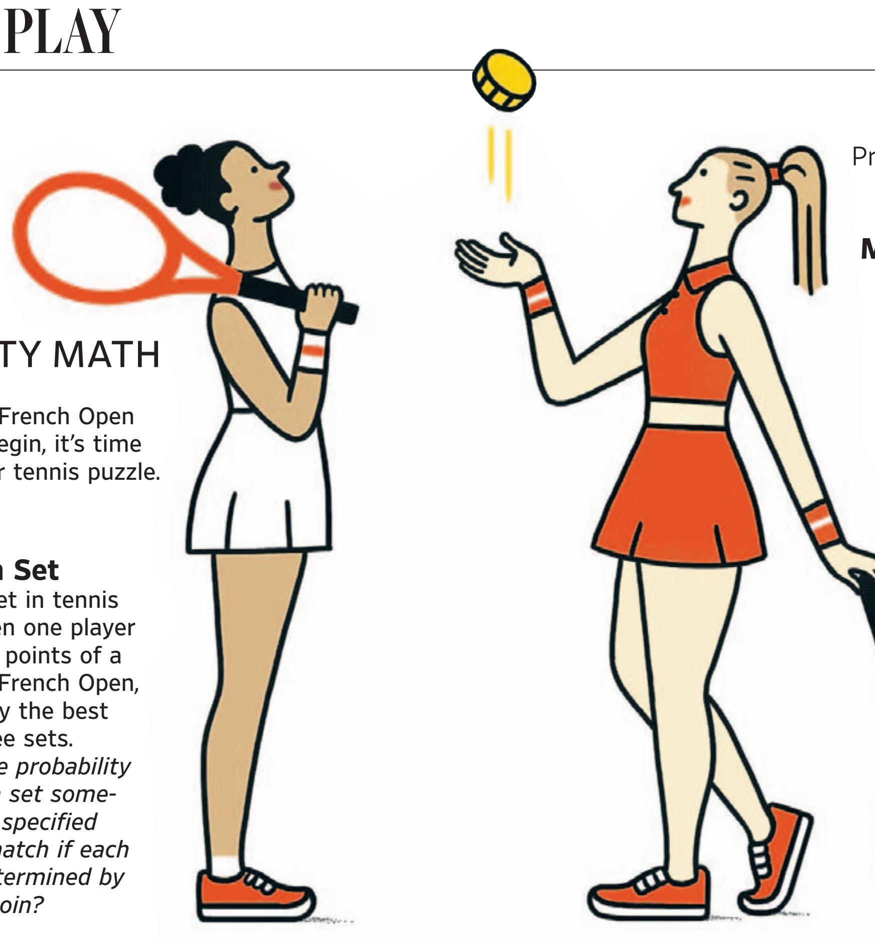
- A. Yasuo Fukuda
- B. Hiroshi Abe
- C. Shohei Ohtani
- D. Kazuki Kitamura

FROM TOP: GLOBE PHOTOS/ZUMA PRESS; ISTOCK

Answers are listed below the crossword solutions at right.

VARSITY MATH

Provided by the **National Museum of Mathematics**



WITH the French Open about to begin, it's time for another tennis puzzle.

A Golden Set

A golden set in tennis occurs when one player wins all 24 points of a set. In the French Open, women play the best two of three sets. *What is the probability of a golden set somewhere in a specified women's match if each point is determined by flipping a coin?*

Learn more about the National Museum of Mathematics (MoMath) at momath.org

LUCI GUTIÉRREZ

Combining Rule

In the set of numbers below, 72 and 99 are "combined" to produce 27. Then 27 and 45 are "combined" to produce 18 and so on. The final 7 is not a misprint. *What is x?*

99 45 39 36 28 21

72 27 18 21 x 13 7

For previous weeks' puzzles, and to discuss strategies with other solvers, go to WSJ.com/puzzle.

SOLUTIONS TO *LAST WEEK'S* PUZZLES

A River Runs Through It

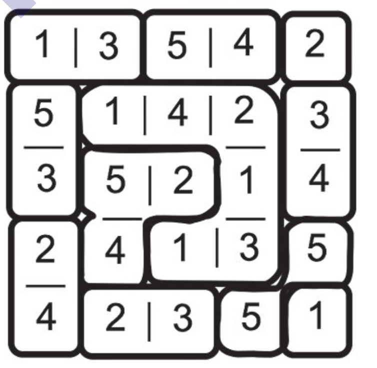
M	A	S	K	■	■	■	A	G	E	N	T	■	E	L	B	E	■	C	B	S
A	S	L	E	E	P	■	R	E	N	E	E	■	G	E	A	R	■	L	O	P
C	H	A	R	L	I	E	B	R	O	W	N	■	O	E	N	O	L	O	G	Y
R	I	P	T	O	R	N	■	■	S	C	A	M	■	W	A	D	E	S	■	■
O	P	S	■	■	A	R	A	L	■	A	C	U	R	A	L	E	G	E	N	D
■	■	■	■	S	T	O	L	I	■	R	I	L	E	Y	■	■	■	S	O	U
M	I	D	D	L	E	N	A	M	E	■	O	L	D	■	B	E	F	E	L	L
A	N	E	R	A	■	■	■	I	N	D	U	S	■	C	A	P	I	T	A	L
D	A	N	U	B	E	■	E	T	O	N	S	■	■	O	D	E	R	■	■	■
A	R	I	B	■	N	O	V	E	L	A	■	T	I	N	G	E	■	E	P	S
M	U	S	S	E	L	B	E	D	S	■	F	I	N	D	U	S	E	F	U	L
A	G	E	■	M	A	I	N	S	■	R	O	M	N	E	Y	■	L	I	R	A
■	■	■	D	I	C	E	■	■	A	I	L	E	S	■	S	M	I	L	I	N
T	U	R	T	L	E	S	■	M	U	S	I	C	■	■	■	A	D	E	N	T
A	R	I	S	E	S	■	G	O	D	■	C	A	T	H	O	D	E	R	A	Y
L	A	G	■	■	■	S	T	A	I	D	■	R	H	O	N	E	■	■	■	■
C	L	O	V	E	R	H	O	N	E	Y	■	D	U	D	E	■	■	T	I	C
■	■	R	O	G	U	E	■	A	N	N	E	■	■	A	L	A	B	A	M	A
G	O	I	N	G	M	A	D	■	C	A	L	L	E	D	A	N	U	B	E	R
I	R	S	■	E	B	R	O	■	E	M	A	I	L	■	P	U	L	L	A	T
N	E	T	■	D	A	S	H	■	S	O	L	E	S	■	■	■	L	E	N	A

Labyrinth

O	B	R	I	E	N	A	R	A	M	I	S
L	I	A	I	S	O	N	C	A	S	K	S
I	T	U	N	E	S	C	E	L	I	N	E
P	O	R	T	E	R	S	H	E	E	T	S
A	S	I	D	E	Y	A	R	N	D	Y	E
V	E	R	A	W	A	N	G	W	O	L	F
O	M	E	N	S	E	M	E	S	T	E	R
O	V	I	N	E	S	U	M	M	A	R	Y
D	R	O	S	S	A	T	L	A	R	G	E
O	C	T	A	D	S	E	A	B	A	S	S
D	E	C	L	A	R	E	P	R	E	S	S
D	I	A	L	O	G	T	H	E	N	E	T
A	P	P	S	T	O	R	E	T	A	T	A

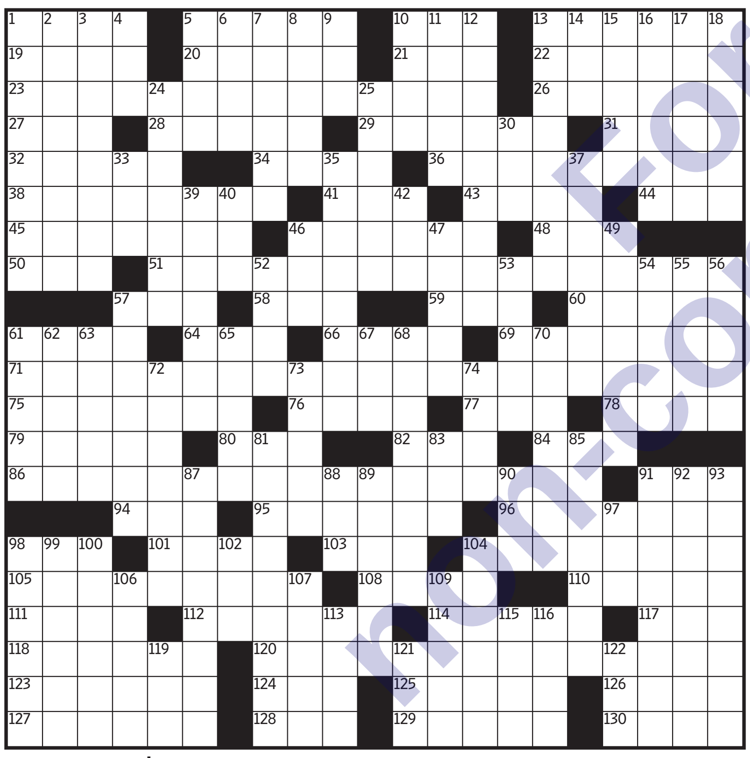
Varsity Math

The solution to **Sudoku Variant** is shown below. In **Making 8 and 16**, 8 = $4^{7 + .8}$ and 16 = $(.7 - .2)^{-4}$



Answers to the News Quiz: 1.B, 2.A, 3.C, 4.C, 5.A, 6.A, 7.D, 8.B

THE JOURNAL WEEKEND PUZZLES Edited by MIKE SHENK



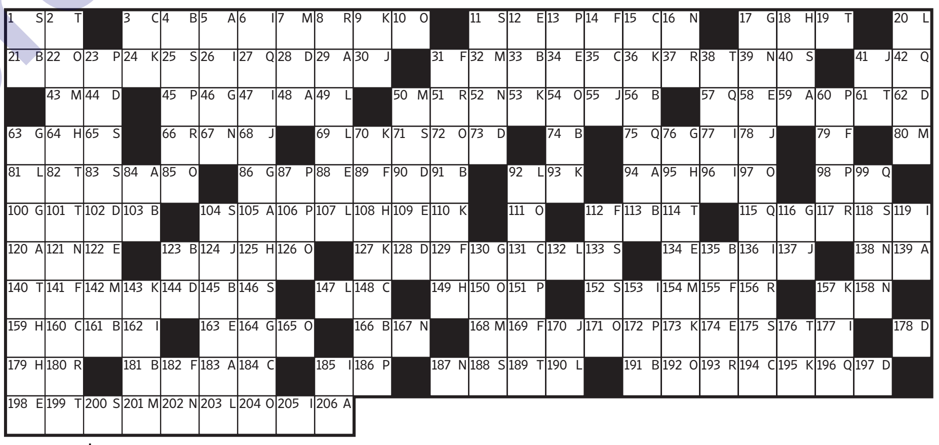
Identity Theft | *by Samuel A. Donaldson*

Across

1 "Highway to Hell" band
5 Shares a side with
10 Jerk
13 Greets with respect
19 Sporty Camaro
20 They brought down Nixon
21 "The Cask of Amontillado" writer
22 Reagan staffer who was "in control" briefly
23 Dashes to open the only Christmas gift?
26 Creating less mess
27 Aglow, maybe
28 Old Dodges
29 Like distant lands
31 Yield control of
32 "This ___!" (fighting words)
34 Cyan sibling
36 Sun, water and good soil?
38 Erasmus's is June 2
41 Probe site, perhaps
43 Green subj.
44 Wii predecessor
45 Radioactive hydrogen isotope
46 Butter portions
48 Christmas tree, often
50 The Concorde, for short
51 What a seamstress might do after perfectly cutting a dozen patterns?
57 "Thought this would be of interest," for short
58 Guillermo's gold
59 Singer DiFranco
60 Marsh of mysteries
61 Drive, e.g.
64 The Ice Bucket Challenge benefited it: Abbr.
66 End piece?
69 2016 Republican candidate Carly
71 Wi-Fi icon?
75 Most loose-limbed
76 Head start, e.g.
77 Coaching legend Parseghian
78 Gets hitched
79 Like some routines
80 Manipulate
82 Glass part
84 Starter starter
86 Reassurance from a voice acting coach?
91 JFK predecessor
94 Twist in flight
95 Like a library book, at times
96 Apply generously
98 Mil. assistant
101 Seized wheels
103 Whopper topper
104 Go-betweens
105 Fine freestyles?
108 With no particular purpose
110 Redden, perhaps
111 It flows into the Rhine near Koblenz
112 Works, as dough
114 First page of el calendario
117 Concubine's chamber
118 Do some weaving
120 Submarine crew's mantra?
123 It makes for a very nice setting
124 Koblenz conjunction
125 Stock holder?
126 List abbr.
127 Coastal notches
128 Stat in a triple-double
129 Wagner in Cooperstown
130 Some PC connections

Down

1 Certain evacuations
2 Squad cars
3 Infomercial appeal
4 Loops in on an email
5 Small matter
6 Lofty place?
7 A little too good for everybody
8 Hardly long-winded
9 Calgary-to-Helena dir.
10 Top
11 Curtailed oath
12 Gets cozy
13 Mrs. Robinson portrayer
14 Encouragement for el torero
15 Ice, in the mob
16 Shiny fabric
17 Woodstock wear
18 Fiona, e.g.
24 Add vitamins to
25 Arm's-length product?
30 Gp. scheduled to convene in Tokyo in 2020
33 P.R. hours
35 Penned
37 Property seller, in law
39 Stinky Asian fruits
40 G.P. gp.
42 Tenth pg. abbr.
46 Bering or Cabot: Abbr.
47 Uniform color
49 Like hair after some tonics
52 Royals manager Ned
53 More abundant
54 Far from sophisticated
55 Pointed, at the table
56 White coats
57 Ace of Kiss
61 Gene's "Haunted Honeymoon" co-star
62 Seminal supercomputer
63 Story that's often scary
65 "We'd be happy to do that for you"
67 Web address ender
68 Like a shot-putter's throw
70 Home of a "tall and tan and young and lovely" girl
72 Fox of fables
73 Escort from the entrance
74 Pitch a tent, say
81 Eagerly seized
83 Golf's Poulter
85 Substitute driver
87 Ones vigorously shaking cans
88 J.D.'s foreign counterpart
89 Thelma's pal
90 Fork-shaped letter
91 GED seekers
92 Fait accompli
93 Tangles
97 "___ live and breathe!"
98 First man to achieve a Career Golden Slam
99 Entice
100 Oscar nominee for "Foxcatcher"
102 Go for gold
104 Lady Bird's spouse
106 Temerity
107 One of the good guys
109 Slow, in scoring
113 Redbox items
115 Camel kin
116 Eurasian grazers
119 Turkey tender
121 Pompeii coverer
122 Proof ending



Acrostic | *by Mike Shenk*

To solve, write the answers to the clues on the numbered dashes. Then transfer each letter to the correspondingly numbered square in the grid to spell a quotation reading from left to right. Black squares separate words in the quotation. Work back and forth between the word list and the grid to complete the puzzle. When you're finished, the initial letters of the answers in the word list will spell the author's name and the source of the quotation.

A. Current indicator, of a sort (2 wds.) — 94 59 183 29 139 84 48 120 5 206 105

B. The U.S.'s Ronald Reagan or George H.W. Bush, e.g. (2 wds.) — 191 74 161 33 135 113 123 181 56 166 145 91 21 103 4

C. Obstinate or inscrutable person (2 wds.) — 148 15 35 3 131 184 160 194

D. Sandy in 2012, for one — 62 128 178 90 73 28 144 44 197 102

E. Solid whose geometric dual is the cube — 34 12 134 174 58 198 122 88 163 109

F. Beatles title character of whom it's asked "Isn't he a bit like you and me?" (2 wds.) — 169 14 112 182 31 129 155 141 79 89

G. They may help when studying different cultures (2 wds.) — 17 116 100 130 63 164 86 46 76

H. It began as the Great West Aerodrome — 18 108 95 159 179 64 125 149

I. Painter whose "Music in the Tuileries Gardens" hangs in London's National Gallery (2 wds.) — 119 177 205 136 153 96 6 26 47 162 77 185

J. Marks for misconduct — 78 137 41 170 124 55 68 30

K. At a very high level; extremely awesome (3 wds.) — 93 127 70 9 195 110 173 24 53 36 157 143

L. Landlocked Asian nation surrounded by five other landlocked nations — 81 107 20 132 190 147 203 92 69 49

M. Abundant — 80 50 168 32 43 142 154 7 201

N. Easy-listening music genre reminiscent of Sinatra and Mancini — 16 158 67 167 52 121 138 202 187 39

O. Right of a government over the private property in its jurisdiction (2 wds.) — 10 97 111 54 72 85 165 171 22 126 150 204 192

P. Miniature human — 13 186 60 98 106 23 87 45 172 151

Q. Person of refined taste — 196 99 27 57 75 115 42

R. Peninsula named for a Portuguese explorer who mapped its coasts in the late 1490s — 117 8 66 156 37 180 193 51

S. Children's song usually accompanied with matching finger motions (3 wds.) — 188 175 83 146 104 1 71 11 65 152 200 118 40 25 133

T. Purported production of an offspring that is unlike either of its parents — 199 140 82 101 38 19 2 176 189 61 114

▶ **Get the solutions** to this week's Journal Weekend Puzzles in next Saturday's Wall Street Journal. Solve crosswords and acrostics online, get pointers on solving cryptic puzzles and discuss all of the puzzles online at **WSJ.com/Puzzles.**

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ICONS

A Century of Fashion and Photographic Genius

An ambitious Getty exhibition includes Steichen, Avedon and Penn, and celebrates the little known

By Brenda Cronin

WHEN HARPER'S BAZAAR asked the photographer Hiro to shoot a sandal in 1963, he almost turned them down, expecting that the magazine wanted a static portrait of a shoe made of satin and mock pearls.

Now 87 years old, Hiro recently recalled the assignment, which in the end he took on. He discussed the project with Harper's editors. Then, in the New York studio that he shared with his mentor, Richard Avedon, Hiro took a bulky Deardorff camera and clambered up to a trap door in the building's stairwell, so he could shoot from overhead. Hiro recalled that though he didn't precisely envision the final photo, he "knew the essence of what…it could and *should* be."

The result was an energetic masterpiece, "Black Evening Dress in Flight, New York," in which a model, seen from above, strides forward with her sandaled right foot. The image made the final cut of more than 160 photographs in "Icons of Style: A Century of Fashion Photography, 1911–2011," opening June 26 at the Getty Center in Los Angeles.

Such flashes of instinct and inspiration infuse the history of fashion photography, from Edward Steichen's painstaking 1911 portraits of Paris couture, through years shadowed by war and financial depression, to the smartphone snapshots flowing through Instagram and Snapchat.

"Rather than building a show that…would focus in on the most popular, well-known photographers, I decided to do the opposite," said Paul Martineau, the associate curator in the Department of Photographs at the J. Paul Getty Museum and the exhibition's organizer. "To highlight lots of photographers who are deserving but just aren't out there."

Among these 89 photographers, unusually, are 15 women, including the boundary-pushing Louise Dahl-Wolfe, whose 1946 shot "Model amid Ruins, Paris" captures a woman in gloves, fur-trimmed suit and high heels picking her way gingerly through the rubble of a bombed-out building.

The opening gallery covers the tumultuous period from 1911 to 1929. The "fathers of modern fashion photography," Mr. Martineau said, are the triumvirate of Steichen, Baron de Meyer and Vogue publisher Condé Nast. Early in the 20th century, as magazines evolved to photographs from illustrations, photographers honed signature styles. De Meyer, a maestro of backlighting, crafted lush, silvery tableaus of socialites, including his 1913 "Mrs. Gertrude Vanderbilt Whitney, in a Costume by Léon Bakst." By contrast, Steichen "simplifies everything," Mr. Martineau said, in coolly elegant images such as "Actress Caja Eric Modeling a Gown by Chanel, New York," made in 1928 at Condé Nast's Park Avenue apartment.

> "Among these 89 photographers, unusually, are 15 women.

Supplementing the exhibit's photographs are period clothes from the Los Angeles County Museum of Art, including an ethereal low-waisted Chanel dress from 1924. The clothes demonstrate that after a period of more-daring fashion, the 1929 stock-market crash and the subsequent Great Depression whipsawed styles. "Whenever there's some kind of turmoil economically, there's kind of a backlash," Mr. Martineau said. Fashion's about-face is evident in George Hurrell's 1932 "Joan Crawford Wearing the Letty Lynton Dress," in which the actress poses with hands clasped in a head-to-toe explosion of white ruffles. Adrian, a designer for Metro-Goldwyn-Mayer, created the demure costume. "This dress was copied by Macy's and sold over 50,000 copies, at the height of the Depression," Mr. Martineau said.

'The Dress-Lamp Tree' is a 2002 photo shot by London-based Tim Walker, born in 1970.

The curator has also included German-born Erwin Blumenfeld, who shot to prominence as a photographer in the 1930s. The onetime leather-goods shop-owner broke through a locked door in the space he was renting "and found a full darkroom," Mr. Martineau said. A born experimenter, Blumenfeld tried scratching, freezing and even burning his negatives as well as shooting through textured glass or gauze. In less than a decade, he was photographing one of the first supermodels—documented in the exhibit by 1938's "Fashion Study, Lisa Fonssagrives, Paris."

Despite their different styles, Mr. Martineau said, Irving Penn (1917-2009) and Avedon (1923-2004) "set the tone for everything that happened after the 1950s." Penn's hallmarks were stillness and poise, using studio lights to capture models as paragons of elegance. By contrast, the peripatetic Avedon plunged his models into unusual settings, where he peppered them with images to embody. "He would tell them stories," Mr. Martineau said, "like, 'Pretend you're a crow on an icy branch in the middle of winter.'"

One of those striking settings is "Dovima with Elephants, Evening Dress by Dior, Cirque d'Hiver, Paris, August 1955." In it, the Queens-born Dorothy Juba, who took the mellifluous name Dovima, appears at the circus in Paris. Avedon sought to juxtapose "the elegance of the model and the unusually gritty location," Mr. Martineau said. Dovima, the highest-paid fashion model of her time, is wearing "the first dress that Yves Saint Laurent made" for the House of Dior, Mr. Martineau said. In the picture, Dovima rests a hand on one elephant's trunk and reaches out toward another's ear. She exudes a rapturous serenity, Mr. Martineau said, despite being "leery of being knocked over or stepped on."

The exhibition's final sections include Jamel Shabazz's glimpses of early hip-hop styles in Brooklyn in the early 1980s as well as edgy works by Helmut Newton and others, where a tone of sex and violence often leaves the clothes in the background. By the 1990s, technology took over. Digital retouching spread after Photoshop's introduction. A decade later, fashion bloggers were ascendant, abandoning artful focus and giving sidewalk dandies a flicker of fame. The show wraps up with images of snappy dressers from Milan and New York.

MASTERPIECE | 'FAMILY OF SALTIMBANQUES' (1905), BY PABLO PICASSO

Hidden Figures

By E.A. Carmean Jr. and Ann Hoenigswald

THE OFTEN ROMANTIC THEME of itinerant entertainers and street performers enjoys a long history in France, going back to the royal court of Louis XIV. Among this king's amusements was the *commedia dell'arte*, a troupe of Italian actors—dressed as characters Harlequin, Pierrot and Columbine—as well as jugglers and acrobats, these latter called *saltimbanques* from their jumping motions.

When the king's mistress Mme. de Maintenon dismissed them from court in 1697, these actors and saltimbanques performed in public, traveling to newer locations. Their descendants appear in works from Honoré Daumier to Edouard Manet to Georges Seurat. Perhaps the most famous is Pablo Picasso's "Family of Saltimbanques" (1905).

The grandest picture of his pre-Cubist period—it measures over 7 by 7½ feet—this work has been in the National Gallery of Art's collection since 1963, a bequest of patron Chester Dale. It moved to the Gallery's East Building when it opened 40 years ago this weekend. There, in 1979, we began a joint art-history and technical study of the picture.

"Who are these rambling acrobats?" the poet Rainer Maria Rilke asked in his "Fifth Duino Elegy" (1923) after seeing it in the summer of 1915. Far from being a random, anonymous group as they are in other treatments of the subject, the figures here have specific identities. Harlequin bears Picasso's features; that of the small acrobat those of his friend, the poet Max Jacob. The deep-browed acrobat and the ample jester resemble, respectively, colleagues André Salmon and Guillaume Apollinaire.

▲ Technology has revealed the earlier versions of the work and its evolution.

But the painting did not originally appear as it does now. Freely brushed and near-transparent paint areas in the foreground and the woman's hat suggested to us that Picasso had made changes to an earlier composition. So in 1980 we made X-radiographs of the entire picture, a process that, combined with subsequent art-historical research, disclosed the painting's complex metamorphosis.

A crucial clue about Picasso's original intentions came from Fernande Olivier, who recalls in her published journal that Picasso painted "a large canvas, a group of acrobats on a plain. Some are resting, the others working.... If I remember correctly, this canvas was repainted several times."

Although she didn't mention what happened to that "large" picture, Olivier's description fit the "Circus Family" (1904-05), a small drawing in the Baltimore Museum of Art. Looking at the X-radiographs, we found the lost painting embedded under the surface of "Family of Saltimbanques."

The spectral presence of the "Circus Family" was one of many stunning discoveries that we made. In penetrating all the layers of "Saltimbanques," these technical images captured a second picture, this one the mirror image of a mid-sized gouache, "Two Acrobats With a Dog" (1905), now owned by the Museum of Modern Art. Pervaded with a blue tonality, this work is closer to the current "Family of Saltimbanques," presenting two costumed performers standing in a barren landscape.

The X-radiographs also disclosed that changes had been made to the third composition, or the topmost layer of the painting.

Three separate galaxies of saltimbanques now formed, serving to navigate us through Picasso's months-long campaign on the National Gallery's painting. The first group is from the initial "Circus Family" layer, a second set is related to the composition of two young acrobats, and a third is connected to the present state of the painting.

One of us (Ms. Hoenigswald), after technically examining Picasso's work for decades, has found a pattern of his compositions evolving directly from his earlier imagery. We see that in the "Family of Saltimbanques," where one layer morphs into a second and a third. Moreover, he intentionally leaves clues, so-called *pentimenti*, revealing, for example, a shift in the woman's hat, or the thin leg under the boy's puffy pants, and cracks revealing unrelated colors or obscured textures, all to draw the viewer's attention to the picture's process.

Picasso's life played a role in the "Family of Saltimbanques." Already noticed as part of the avant garde in Barcelona, he moved to Paris in 1900 seeking recognition in this center of Modernism. A year of obscurity led next to his traveling between the cities until 1904, when he returned to Paris, meeting Olivier, Salmon and Apollinaire (he knew Jacob earlier). In December of that year, these friends became regular visitors to the Cirque Medrano, a local small circus show where Picasso sketched many acrobats backstage.

Picasso transformed this experience into his large canvas's initial layer of a "Circus Family." But the genius of the "Family of Saltimbanques" came when he portrayed his artist friends in the final picture, and transformed their status as outsiders by identifying his characters with the historic, wandering troupe of once royal entertainers. The isolation of Picasso's figures, presented in this virtual frieze of symbolic and poetic images, lifts the work to greatness.

Mr. Carmean is a former curator and Ms. Hoenigswald is a former paintings conservator, both at the National Gallery of Art.

ESTATE OF PABLO PICASSO/ARTISTS RIGHTS SOCIETY (ARS), NEW YORK/NATIONAL GALLERY OF ART

A plea for nude shoes that aren't tacky or crude **D4**

OFF DUTY

FASHION | FOOD | DESIGN | TRAVEL | GEAR

THE WALL STREET JOURNAL. * * * *

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The juice is loose: Why you'll want a wireless charging pad **D11**

FEDERICA DEL PROPOSTO

Swing Shift

Golf resorts in top travel destinations are breaking with tradition, offering time-pressed vacationers quicker, more playful ways to tee off

By John Paul Newport

GOLF, AS EVERYONE knows, is an extremely serious game. Golf announcers whisper. Players line up their putts as if they were heart surgeons preparing to operate. The primary golf emotion seems to be anguish.

And yet, what's this? Rising from a pint-size, sand-sculpted golf course near the stately Pinehurst Resort clubhouse in North Carolina is the unmistakable sound of...gaiety and laughter! Undisguised frivolity! Spontaneous good cheer!

The tiny, nine-hole short course is called the Cradle. Since opening in October it has transformed the vibe around Pinehurst, one of America's most esteemed and storied golf institutions. The Cradle is a par-three course, just 789 yards long and almost always packed. Who plays it? Beginners and casual golfers on vacation. Parents with their children and grandchildren. Gangs of unaccompanied kids. Husbands and wives. But also, in approximately equal number, serious golfers after their super-serious rounds on Pinehurst's regular courses. Grown men sometimes play the Cradle barefoot and are often the ones doing the whooping and hollering.

The Cradle is at the forefront of a trend to give golfers, nongolfers and those in between quicker, more enticing ways to experience the game. The efforts include an emphasis on fast nine-hole rounds instead of the standard 18, motorized golfboards on which players can "surf" the course rather than walk or ride in a cart, and llamas and goats used as caddies (don't expect reliable shot advice from either). The new breed of par-three courses are a far cry from the flat, featureless par-three courses many people remember from their childhoods. Most of the holes at the Cradle—designed by Gil Hanse, a celebrated golf architect whose credits include the 2016 Olympics course in Brazil—are short. The longest, a down-

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Voyage down the Nile and into the past in this historic steamship **D7**

THE INSTAGRAM EFFECT
Why is loud, attention-getting fashion selling? Blame social media **D2**

IN SINKS
These days, the trendiest kitchen basins are neither stainless nor steel **D10**

CHICKEN NOT SO LITTLE
A lemon-thyme take with star quality and a backup chorus of croutons **D6**

Most Like-ly To Succeed

As designers discover that loud, attention-getting men's clothes stand out the most on Instagram, garishness is driving sales. Is subdued style doomed?

F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS (CLOTHING); SEAN MCCABE

By Jacob Gallagher

DUSTIN OTTON took the bait. The 28-year-old barista was idly scrolling through Instagram when a pair of pastel-colored Asics sneakers (a collaboration with Boston boutique Bodega) caught his eye. The sneaker's sunset palette and speckled sole leapt off the screen, and Mr. Otton's scrolling thumb went into park. He bought the shoes.

For Julian De Sevilla, 24, a social media manager in Tallahassee, Fla., it was an arresting yellow hoodie from John Elliott that gave him pause. The instagram post in question actually showed an array of colored hoodies, and Mr. De Sevilla ultimately bought a subtler blue iteration. But it was the effervescent yellow one that lured him in.

Such calculatedly attention-snagging designs are just one way Instagram, Twitter and Facebook are increasingly guiding buying decisions among a generation that can't remember pre-internet life. In the past three years, the number of shoppers who say social media impacts their purchases has risen from 4% to 21 percent, said Marshall Cohen, an analyst at the market research firm NPD Group. "Social media has become a critical driver" in influencing consumption, said Mr. Cohen. When developing their collections, savvy brands and designers are strategizing accordingly. What will cut through the noise on a phone's browser window, so much smaller than a magazine spread or billboard? Clothing that's bold, colorful, clicky—which is to say shamelessly distracting. The result? Men's fashion is getting louder.

"Peak visibility," is how Ben Banks, the director of Four Marketing, a fashion conglomerate that includes the stores 18Montrose, Oki-Ni and Present, described this design approach. Clothes today, he said, tend to be "very colorful," with "lots of very visible branding." Brands like Gucci—which boasts impressive growth—promote products that look great on small screens. Saturated in cotton-candy colors and rife with double-G logos, Gucci's recent collections deliver high-impact visual stimulation at any scale, even on a tiny iPhone 6 screen. Click-worthy items from other brands include a shirt from Prada's spring collection covered in comic-strip imagery; and a pair of white Calvin Klein jeans, screen-printed with reproductions of Andy Warhol artworks. While these pieces are targeting the influential social media audience, the move toward more colorful and graphically antic clothing might confound men who spend more time staring at spreadsheets than at their Instagram feeds. It's a risk designers appear willing to take.

Brands are not the only culprits prioritizing digital eye candy at the expense of quieter, conventionally palatable clothes. Stores, editors and influencers are all getting in on the game. When GQ editor Noah Johnson featured a pair of conspicuously bright yellow sunglasses in an Instagram Story he posted, Matt McAllister, a 24-year-old advertising associate, was so drawn to the shades that he direct-messaged Mr. Johnson to find out how to buy them. Now Mr. McAllister, who says he generally likes his clothes "a bit more subdued" has added the frames by Swedish label Sun Buddies to his summer wardrobe as a join-the-social-media-crowd citrusy touch.

Then there's the hope that the more clickily over-the-top your clothing is, the more successful your selfies will be on social media. Some fashion-obsessed guys are painstakingly curating their outfits based on the loud pieces they scout on Instagram, hoping that when they purchase these pieces they'll get as many likes as the brand did. As Mr. McAllister said, hyperbolically, "You have kids spending their college tuition to buy a Supreme box logo in the rarest coolest colorway, and it's all just for social media."

Fair enough if you find that idea ridiculous, but some of the clothing that's come out of this attention-grabbing design ethos is actually worth integrating into your own summer wardrobe. We like Brain Dead's collaged T-shirts, Acne Studios's chewing gum-printed dress shirts and Prada's futuristic Cloudbust sneakers—pieces that may have been designed to be Instagram-friendly but could add a splash of provocative fun to the looks of even the more conservative among us. Wear just one of these pieces at a time, and balance it with your usual unremarkable standbys, and you won't raise too many eyebrows. When it comes to both screen-time and fashion statements, moderation is advisable.

QUIETER RIOTS / SOCIAL-ENGINEERED DESIGNS THAT AREN'T TOO LOUD FOR NON-INSTAGRAM JUNKIES

1. A Tee Change
A T-shirt that can be the life of any party. CDGCDGCDG & Brain Dead T-shirt, *$120, doverstreetmarket.com*

2. On Script
Not for ditsy millennials, this shirt is printed with a Kipling poem. Shirt, *$595, Alexander McQueen, 212-645-1797*

3. G-Man
The discreet logo print on this piece is more class than crass. Cardigan, *$1,480, gucci.com*

Fresh Foot Forward

Going sockless rocks except for the smelly shoes. Tricks to sweeten the deal

F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY JILL TELESNICKI

SPRING IN YOUR STEP Products won't make your shoes smell like flowers, but they'll help.

OF ALL THE smells in the air, stinky feet rank high on the "Most Odious" list, edging out halitosis by a breath. Though many men are plagued by foul feet, few will cop to it—even to their podiatrist, said Hannah K. Kim, a New York foot specialist. "People feel embarrassed and don't even want to admit it to themselves," said Dr. Kim.

That proved to be the case when I gently asked friends to join my focus group. "I don't have smelly feet!" replied retired financial writer Jerry Hertz, explaining that he fastidiously takes measures to switch up shoes every other day to air pairs out, and dons thin cotton no-show socks on "sockless days."

Bromodosis—the (no kidding) medical term for bros with odorous toes—arises from hyperhidrosis, excessive sweating of the feet that can stem from genetic, stress-related or hormone-related factors, or simply be a side effect of a medication, according to Dr. Kim. "Combine the sweat from the 250,000 sweat glands in our feet with bacteria or fungus in moist shoes, and you have a smelly foot," she said.

You can tackle a serious problem by adopting an intensive daily regimen: washing feet with an antibacterial soap, then drying them thoroughly; applying an antifungal oil, such as tea tree oil, between the toes to keep moldiness at bay; misting your feet's soles with an antiperspirant spray; and finally wearing moisture-wicking socks.

You can civilize pungent shoes, too, with products that employ apple cider vinegar, cedar or charcoal to absorb rather than mask the acrid smell. A spritz of Lumi Outdoors Natural Shoe Deodorizer Spray (*$15, lumioutdoors.com*), a blend of apple cider vinegar and essential oils, refreshes fusty footwear. The ever-vigilant Mr. Hertz places odor-banishing cedar shoe-trees in his loafers, but Zederna's super-thin cotton-backed cedar wood insoles (*$17, zederna.com*) wick moisture to keep shoes fresh *while* you wear them. Pete Karras, a 30-something Brooklyn creative director, tucks Jason Markk bamboo charcoal shoe fresheners (*$12, jasonmarkk.com*) into his shoes between wears. "I moved in with my girlfriend recently and needed to assess some of my single-man behaviors," he said.

—Donna Bulseco

LOVE STORY

A Blazer of Glory

Sloane Crosley, author of the new essay collection 'Look Alive Out There,' on the unlikely joys of finding an affordable Italian wool jacket in the midst of a sweltering Louisiana summer

WESTON WELLS FOR THE WALL STREET JOURNAL

MY COUNTERINTUITIVE BUY Ms. Crosley wears her jacket—which became her secret weapon when pitching ideas—at the Strand bookstore in New York.

WHEN IT comes to savvy bargain shopping, one must be a salmon swimming upstream. Look for linen in February. Look for T-shirts in the kid's section. Look for discount designer dresses that have been wedged into the wrong rack. This shopping philosophy dovetails nicely with my life philosophy. When I needed to finish my most recent book, I flew to a friend's house in New Orleans in mid-August with the idea that the oppressive heat outside would keep me pinned to my desk inside—a theory once proven in upstate New York in mid-January, where my phone confirmed I was producing more pages than steps. Still, one needs to come up for air eventually, no matter how inhospitable the temperature. So, one day, I took a pore-expanding stroll from Uptown to the French Quarter, in search of UAL, shorthand for the cult outlet store United Apparel Liquidators. This was no nebulous excursion. I figured that UAL, which only exists in the Deep South, would have an excess of especially cheap jackets, parkas and boots—items better suited to winter winds than summer breezes.

In a regional retail twist, this UAL was much smaller than its northern counterparts (I was weaned on New York's legendary Woodbury Common outlet minimall). Here I found a cramped space consisting of a few circular racks of clothing and a corner of impractical shoes. Yet I managed to spend an hour in the place, consoling myself that at least I was using undertapped muscles to yank elaborate dresses off my body. I was determined to find myself an unseasonal unicorn. Surely, one southerner's "When are you going to wear that?" is another northerner's "I should've bought three." Just when I had given up the hunt, I noticed a wine-colored sleeve poking out from the middle of the jackets. There were five glossy brown buttons sewn in a row near the cuff. It was thick without being puffy, spotted with houndstooth checks and it bore the faint fuzz of cashmere. It turns out it was not cashmere. It was 47% wool, 34% cotton, 15% acrylic and 100% love at first sight.

The jacket is made by Eleventy, an Italian company that excels in wardrobe staples and prides itself on tailoring. For women, or at least for this woman, jacket and blazer tailoring is more flexible than it is for men. If a blazer is too big for me, it's a boxy blazer. If a trench is too long, I wear heels with it. This is the Julia Child principle of rolling with it: If the hot soup turned out cold, guess what? Now it's cold soup. I did not understand the benefits of good tailoring on everyday items before The Blazer. The seams looked straightforward on the hanger, as in: yes, that sure is a lapel and those sure are sleeves. But the second I put The Blazer on, I noticed how it gently swooped in at my waist and brushed my hip at a flattering angle. It gave me instant style with minimal effort. This is to say nothing of the shoulders, which are intentional but not business-lady intentional...more I-woke-up-French intentional. Minutes later, I was walking home, sweating, a woolen article of clothing over my arm.

So deep was my faith in The Blazer, I debuted it during two television pitch meetings in Los Angeles that fall. I was nervous about the pitches, having flown into town a day early to pace and memorize two separate plots. But the jacket made me feel confident. For one thing, it had been purchased during a time when I was at my most creative and was therefore a reminder of that creativity. For another, I had hunted it down on a hunch. And what is pitching if not following a hunch? It also made me feel sartorially correct. Los Angeles is not a formal dressing culture. There is perhaps no greater outfit challenge for someone who freelances from her ratty sofa in New York than walking into a meeting at a large corporation where she is the focus—and yet? Everyone is casually dressed. And yet? No one is wearing pajamas. And yet again still? It's always 65 degrees.

In the end, I wore my favorite jeans (freshly laundered!), my most respectable shoes and The Blazer. I pulled my hair out from the collar as I checked myself in the mirror before leaving the house. I am not one for pep talks, but the blazer served as a visual pep talk. It was lucky because I had decided it was lucky. Somewhere in the bedroom closet was the second outfit I had brought in case the first meeting went poorly. In case The Blazer wasn't magic. In case I was informed that I should not be a writer of any kind or any genre and, technically, it's not too late for law school. I never unpacked the second outfit.

FRESH PICKS

Triple Threat

Three's a charm for Cartier's Panthère. The iconic women's chain-link watch, which made its relatively traditional debut in 1983 and relaunched last year, has been updated to loop around one's wrist three dramatic times. Of note for the more delicately limbed: Its dainty square face offsets the hefty gold bracelet—a still-substantial look that doesn't move into bulky boyfriend-watch territory. *—Rebecca Malinsky*

Fringe Magnets

"It's not often that fashion can help someone else at the other end of the planet," said designer Pierre Hardy of his collaboration with model Liya Kebede's do-gooder Lemlem line. With alluring sandals, sneakers and bags—like this flirty fringe-y clutch—finished in striped cotton made by worthy female artisans in Ms. Kebede's native Ethiopia, this summery collection makes altruism fun. *—Lauren Ingram*

F. MARTIN RAMIN/THE WALL STREET JOURNAL

Above: Triple Loop Panthère de Cartier Watch, *$35,800, 800-227-8437.* Left: Pierre Hardy & Lemlem Bag, *$345, pierrehardy.com*

Nude Shoes? Boo!

Heralded by fashion magazines and celebrities for their supposed leg-lengthening powers and versatility, shiny skin-colored pumps have become a misguided go-to that must be replaced

By Christine Lennon

NAKED TRUTH Shiny, nude platform pumps are the easy, unimaginative crutch of women's wardrobes.

F. MARTIN RAMIN/THE WALL STREET JOURNAL

AS A GENERAL RULE, I try to avoid anything that reminds me of imitation skin. At the top of that list is the ubiquitous nude, patent-leather platform pump. Flesh-like and plasticky, slightly blunt at the toe, it can make a human limb resemble that of a blowup doll. And that's just not my thing.

Closed-toed, with an inch-thick sole (more or less) under the ball of the foot and a spiky stiletto heel, these shiny shoes have become a staple for women searching for dressy, neutral, go-with-everything footwear. Champions of the style claim that the color creates an unbroken visual line from the foot to the knee or even thigh, creating the illusion of length and height. These pumps are everywhere: You can spot them on daytime TV, at bars full of bachelorette partyers and, yes, at the office. Jennifer Lopez and Jessica Simpson—both of whom have issued nude shoes from their eponymous brands—wear them often. The shoes have also become a style signature for Kate Middleton, who favors a subtler platform from L.K. Bennett with only slightly shiny leather. Fueled by these celebrity endorsements, the shoe has come to represent the herd-like mentality of women's fashion.

> Flesh-like with a rounded toe, it can make a human limb resemble that of a blow-up doll.

Let's be clear: These shoes are uncomfortable. Pookie and Louisa Burch, founders of the accessories brand Trademark, told me that they would never wear them, partly for the discomfort factor. Pookie Burch said, "For us, evening shoes have to be comfortable. We like flats for evening. There is a lot of confidence in a flat shoe. Struggling to walk in your shoes is not elegant at all."

When I see someone wearing vertiginous, squeaky nude pumps, it makes me think she is risk-averse and really needs to dress more creatively. The shoe also re-triggers the childhood trauma of seeing Barbie's foot, frozen in an exaggerated tiptoe extension for eternity. My arches cramp just thinking about it. "It's like a disembodied, naked Barbie leg," agreed Catherine Stellin Waller, a Los Angeles-based marketing executive in her 40s.

Barbie, originally a strictly Caucasian doll, embodies a Western beauty ideal that is exclusive and outdated. Some brands have tried to diversify the nude shoe: In 2013, Christian Louboutin introduced a more inclusive collection of five shades. (There are now seven.) And last year Ghanaian-American designer Jamela Acheampong launched Kahmune, a line with 10 shades. Less evolved, most other designers make no nod to the fact that pale beige equals "nude" only for light-skinned women.

Like many trends that confuse me, I can trace the origins of this shoe to the mid-2000s, an era when Real Housewives and Kardashians were nascent obsessions. Back then, pole dancing was a "fitness" trend, and layers of fake eyelashes and lip gloss—anything that made human features more closely resemble those of a perversely sexy anime character—were inching toward mainstream. A patent leather platform is an expression of this idea, and in beige rather than say, Lucite, it is both ladylike and trashy at the same time. That could explain why Kate Middleton has gravitated toward the style, which is appropriate for her many appearances yet still feels just the tiniest bit subversive for a younger royal. (The new American duchess has recently chosen more modern twists on a neutral shoe, including a beige suede Aquazurra pump with a crisscross heel strap.)

Does my aversion to this shoe make me a loafer-wearing prude? Canvassing opinions of the look via a quick, informal Instagram Stories poll eased my mind. "Hate" was the most frequent one-word response I got. "No one's skin really looks like that," said Anna Roth-Milner, a stylist who is rarely seen after 5 p.m. in anything lower than a 4-inch heel. "It feels like a plastic sex doll."

There were a few dissenters. "We are actually really into these shoes," said Mariel Haenn, who, with her partner Rob Zangardi, dresses Gwen Stefani, Lily Collins and Ms. Lopez. "When we are in a fitting and have tried on 10 different shoes and none of them work, we break out the nude heels."

The celebrities Ms. Haenn and Mr. Zangardi tend to dress embrace the exaggerated, hyper-feminine aesthetic that the shoe represents, which doesn't appeal to everyone. Ms. Haenn suggests that if the shine is a turnoff, there are more muted choices, like suede. Which brings me to the many, many alternatives to the shiny nude pump for recovering addicts. If you're looking for shoes that go with nearly everything in your wardrobe, always look appropriate yet slightly sexy and that lengthen the leg, there are plenty of more elegant alternatives. (See "The Multitudes of Nude," below.)

Hooked on the dressy glimmer of patent leather? Try a metallic shoe: Gold, silver and bronze are all seasonless and go with most colors. For sensuality that feels less forced—ideal for women who want to bring a bit of drama to the office or an event—try a sandal in beige or brown. And for those who devotedly follow Hilaria Baldwin, the yoga teacher and Alec Baldwin's wife, on Instagram and insist that the nude pump is the height of leg elongation, I beg you to consider the more elegant shape of a narrow, classic stiletto (such as the Manolo Blahnik BB). Let's expand our definition of versatile colors, too. "The idea of a neutral shoe can be a little broader. To us, olive, burgundy and certain shades of blue can also be neutral," said Louisa Burch.

While I was writing this story, an editor sent me a photo that was almost too perfect: It depicted a pair of unrealistically heeled nude platform shoes tossed into a literal gutter alongside a squashed lemon and a deflated plastic bag. I guess for that particular woman on that particular night, walking home comfortably trumped fitting in.

THE MULTITUDES OF NUDES / LESS-EXPECTED ALTERNATIVES TO THE REGRETTABLE SHINY PUMP

For Spunk
If you love the peppy feeling of your pumps, try them bowed. Fringe Bow Pumps, *$675, Salvatore Ferragamo, 212-759-3822*

For Versatility
Silver boasts go-with-everything style sans banality. Gattino Metallic Pumps, *$298, mgemi.com*

For Sophistication
These leg-lengthening heels have delicately detailed flair. Manolo Blahnik Carolyne Slingbacks, *$825, nordstrom.com*

For Flirtiness
These have the tall heel you're drawn to but an ergonomic sole for surprising comfort. Lewis Sandals, *$650, marionparke.com*

EATING & DRINKING

WHAT A SPREAD Brooks Headley's new 'Superiority Burger Cookbook' is equal parts irreverence and serious culinary technique.

BOOKS COOKED

Red-Blooded Vegetarian

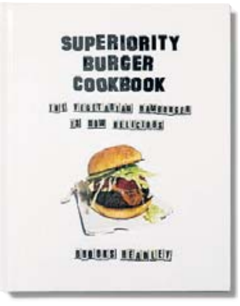
A fine-dining dropout brings gusto, rare finesse and an even rarer dash of wit to meatless recipes

By Adina Steiman

IT'S A UNIVERSAL TRUTH that the best vegetarian food is the kind that doesn't even try to mimic meat. Tofurky, soy bacon and textured-vegetable-protein "burger patties" always turn out to be pale, industrialized imitations of the red-blooded originals. But groundbreaking cookbooks like Deborah Madison's "Vegetarian Cooking for Everyone" have helped meatless meals move beyond those fake foods, reminding everyone how delicious actual vegetables (and beans and grains) really are.

One might therefore be skeptical of the "Superiority Burger Cookbook" (*W.W. Norton & Company, June 5*) with its ominous subtitle, "The Vegetarian Hamburger Is Now Delicious." Fortunately, the author, Brooks Headley, has earned some suspension of disbelief: He was the pastry chef at New York's acclaimed Del Posto restaurant before decamping several years ago to open Superiority Burger, a casual, affordable, postage-stamp-size, downtown-Manhattan restaurant devoted to meatless cooking. There, folks line up for a veggie burger that, thankfully, doesn't even try to taste like meat. "Think of these as grain and vegetable croquettes that get put on buns," Mr. Headley writes. "The Luddite response to the modern gaggle of vegetable patties that bleed and squirt and ape."

Other recipes in the "Superiority Burger Cookbook" are unequivocally the sort of craveable (if not carnivorous) food you might find yourself scarfing at 2 o'clock in the morning. We're talking a vegetarian version of the Sloppy Joe called the Sloppy Dave, after one of the restaurant's regulars; the Yuba Philadelphia, a take on the Philly cheesesteak that features ribbons of yuba, aka tofu skin, instead of thin-sliced ribeye; and the Saturated Party Sub, a sandwich loaf stuffed entirely with vegetables and nary a slice of capicola. Regarding the latter, Mr. Headley assures the reader that "the end result is a terrinelike slab that's sliceable, juicy, no longer a sandwich, and terrific to eat."



Fortunately, this pastry chef who lost patience with the high cost of fine dining and the blood sport that is vying for Michelin stars hasn't lost his finely honed sense of flavor, or his technical skill. Each savory recipe deploys honest ingredients and a few perfectly accessible cooking sleights-of-hand to achieve an umami-rich depth that everyone from carnivores to raw vegans can't help but hanker for. Instead of simply crumbling tofu straight from the package into his Sloppy Dave, he browns the tofu first to give it extra flavor and a bit of meat-like chew.

The Saturated Party Sub can go toe-to-toe with the famous muffuletta at Central Grocery in New Orleans thanks to a combination of deeply roasted, homemade pickled cauliflower, torn Castelvetrano olives and semolina-bread bookends drenched in oregano vinaigrette. And when you flip past the seductive sandwich section that kicks off the book, you land in a wonderland of crazy-creative, approachable vegetable dishes that don't even give meat a backward glance.

Many restaurant cookbooks assume that readers have an army of prep cooks to help them produce the hopelessly complicated recipes in their pages. But Superiority Burger is a tiny restaurant with an even tinier kitchen, and the recipes in this book are equally compact—even though they're packed with cheffy finesse. You'll find chervil, that anise-scented herb, in the Home-Style Potato Salad instead of the more expected parsley or scallions. A simple-sounding summer dish, Corn and Tomatoes With Bruised Basil and Olive Oil Croutons, is built on a luscious base of "creamless creamed corn," made from a quick corn-cob stock simmered with corn kernels and sweet onions, and then blended until "it resembles a loose polenta." And the Ice-Cold Herbed Melon and Cucumber Salad takes full advantage of the brilliant but little-known affinity between two botanically related but rarely paired fruits to deliver a salad "more satisfyingly hydrating than one of those curved aseptic boxes of coconut water."

The same creative spirit that animates the dishes is also discernible in the writing, making each recipe more of a lively conversation with an overly articulate vegan ex-punk who has a feel for food than a lesson from a macho, buttoned-up chef. Mr. Headley's pen renders even an unglamorous brownish-red lentil stew in Technicolor: "One twist of a spoon," he writes, "and the whole thing collapses into a chewy mess."

When it comes to desserts, unsurprisingly, Mr. Headley's skill shines even brighter than his way with words. He calls for dextrose (a type of specialty sugar widely available online) in his roster of coconut, grapefruit and "deli melon" sorbets, since it "aids with the texture that is the hallmark of a finessed sorbet."

Sound too technical? Then go for his Peach-Blueberry Breadstick Crumble, which features barely sweetened fruit baked with a touch of instant tapioca for thickening without any floury taste. The crumble part also breaks from tradition, featuring pulverized sesame breadsticks, drenched in olive oil and brown sugar, sprinkled with coarse sugar, and baked until the top is a sparkly brown and the filling inside bubbles over with jammy fruit. It's just enough of a rethink of a beloved original to make it new while scratching the same itch.

Peach-Blueberry Breadstick Crumble

This one is very simple and the payoff is huge. A good Italian deli will have a serviceable sesame breadstick, either packaged or house made. Always put a larger baking sheet underneath to catch the eruptions of molten fruit magma.

Total Time: 1¼ hours
Serves: 8

6 cups blueberries and diced peaches
3 tablespoons instant tapioca
2 tablespoons (more or less) cane sugar
Fresh lemon juice or verjus
2 cups sesame breadstick crumbs ground in a food processor
6 tablespoons dark brown sugar
2 teaspoons kosher salt
¾ cup extra-virgin olive oil
2 tablespoons raw sugar

1. Preheat oven to 375 degrees. Combine cut fruit, tapioca, cane sugar (as needed), acidity in the form of lemon juice or verjus, and a pinch of salt in a large bowl. Let sit and macerate as you prepare the topping. In a medium bowl, mix together breadstick crumbs, brown sugar and salt. Pour in olive oil and stir until mixture resembles wet sand.

2. Transfer fruit filling to a 9-inch square baking pan (or something comparable), and sprinkle generously with breadstick topping. Sprinkle a little raw sugar on top (it will add a nice crunch to the topping), and bake until the top is well browned and the fruit filling looks gooey, jammy and bubbling, about 40 minutes. Let cool at least 20 minutes before digging in. This also tastes really good straight out of the refrigerator—cold and congealed—like eating jam straight out of the jar.

—Adapted from "Superiority Burger Cookbook" by Brooks Headley (W.W. Norton & Company)

▶ Find the Saturated Party Sub recipe at **wsj.com/food.**

SUNNY SHOKRAE, REPRINTED WITH PERMISSION OF W.W. NORTON & COMPANY, INC. (CRUMBLE); F. MARTIN RAMIN/THE WALL STREET JOURNAL (BOOK COVER AND INTERIOR)

A LITTLE SOMETHING SWEET

All the Chocolate

Entirely flourless but lavished with butter, the boldly bittersweet torta di capri delivers maximum richness along with its vertiginous cacao count

FULL OF BEANS This intense chocolate cake calls for 85% cacao or higher.

F. MARTIN RAMIN/ THE WALL STREET JOURNAL, STYLING BY JILL TELESNICKI

VARIOUS LEGENDS detail the origins of torta caprese, aka torta di capri. Whether created by a baker who forgot to add flour to his batter or invented for an Austrian princess who married the King of Naples—or both, or neither—this chocolate-nut torte has become a staple on the island of Capri for good reason. Without the diluting influence of flour, it is a singular pleasure for chocolate lovers and more particularly a pleasure for lovers of very, very dark chocolate. My preference is for Abinao, a chocolate from Valrhona with a formidable 85% cacao and a tannic depth that prevails even in the face of the lavish quantities of butter and sugar in a torta di capri.

My favorite recipe for this cake comes from Ruth Rogers, chef-owner of River Cafe in London and the author, along with her head chefs Sian Wyn Owen and Joseph Trivelli, of the recently published "River Cafe London: Thirty Years of Recipes and the Story of a Much-Loved Restaurant" (Knopf). This lovingly curated collection of favorites includes only five cakes; they happen to be my desert-island five. I'd venture to add that they'd be the top picks of many a Londoner too. While Ms. Rogers keeps her menu seasonal and fluid, rethinking it according to the produce she flies in from Italy twice a week, were she to remove the torta di capri from her menu she'd surely face a revolt.

"River Cafe London" includes handwritten notes on the recipe dating from 1994, wherein Ms. Rogers, an American, marvels at the impossibility of obtaining unsweetened and intensely dark chocolate in London. For years she enlisted friends traveling from the U.S. to bring chocolate in suitcases to supply the restaurant. Much has changed. Chocolate is now sold with its cacao percentage listed prominently on the label, and high-quality dark chocolate holds sway on both sides of the Atlantic. Moreover, the rise of diners going gluten-free has only increased the appeal of this flourless dessert.

I think of it as an anytime cake, terrific with an afternoon espresso and equally fitting after dinner. When serving it as a dessert, you might want to add a dollop of crème fraiche or a billowy combination of that and whipped cream. A dusting of powdered sugar is pretty too, but the sight of this deep, dark chocolate torte unadorned reliably raises the pulse.

—Aleksandra Crapanzano

Torta di Capri

Total Time: 1 hour
Serves: 8

Unsalted butter for the pan
¾ pound blanched whole almonds
¾ pound bittersweet chocolate, preferably 85% cacao or higher
½ pound unsalted butter, at room temperature
1 cup plus 2 tablespoons granulated sugar
5 large eggs, separated

1. Preheat oven to 300 degrees. Butter an 8-inch round springform cake pan and line bottom with parchment.

2. Finely grind half the almonds in a food processor. Set aside in a bowl. Coarsely grind remaining almonds together with chocolate.

3. Use an electric mixer to cream butter and sugar together until pale and light. Add egg yolks, one by one, beating well between each addition, then beat in all nuts and chocolate.

4. In a large bowl, whisk egg whites until they form soft peaks. Fold a quarter of whites into stiff chocolate mixture to loosen, then fold this mixture into remaining whites. Pour into prepared pan and bake until set and a skewer comes out clean, 45 minutes. Let cool in pan.

—Adapted from "River Cafe London" (Knopf)

ON WINE / LETTIE TEAGUE

Book a Ticket Back to This Italian White

WHY IS VERDICCHIO so little known or loved by American drinkers? Surely this grape deserves a bit more affection. In his book "Native Wine Grapes of Italy," Italian wine expert Ian D'Agata describes it as "arguably Italy's greatest native white grape variety." But even he adds, "That statement may come as a surprise."

Outside Italy, Verdicchio has something of a checkered past: The mediocre Fazi Battaglia Verdicchio was a hugely popular import stateside a few decades ago, thanks in large part to the way it was packaged, in an emerald-green amphora-shaped bottle that came with a rolled-up scroll attached.

The 1970s and '80s were great decades for weird Italian wine packaging—which included both Verdicchio and Orvieto in fish-shaped bottles—but it wasn't a great time for Italian whites. Most of them were vapid, dilute and/or oxidized due to poor winemaking techniques. It seems American consumers finally tired of the insipid old Fazi Battaglia Verdicchio; I couldn't find a bottle in any of the stores I visited. Still, even though the quality of Italian white wines overall is quite high today, a new generation of ambitious Verdicchio producers is fighting both the battle of obscurity and the old stereotype of a cheaply produced commercial wine notable only for its novelty bottle.

Verdicchio's flavor profile presents another challenge. The wines can be a touch bitter and green. Even the best examples have a bitter tinge, which some consider interesting (as I do) and others find off-putting. The name can be confusing, too. More than one wine drinker I know has mistaken Verdicchio for Vermentino, a white grape grown all over Italy and in other countries too, whereas Verdicchio is grown almost exclusively in the Marche region of Italy.

Verdicchio is actually a remarkably versatile grape that can be vinified as a dry or sweet or sparkling wine. It ripens easily and well. Furthermore, as Mr. D'Agata notes in his book, "It is also the white grape variety that has the greatest affinity for oak aging."

Leonard Rankin, wine buyer of Eataly Vino in New York, is a fan. He stocks a comparatively large number of Verdicchios (four versus the standard wine-shop offering of one). He also stocks a range of Verdicchio styles: oak-aged versions that he can recommend to customers partial to Chardonnay as well as more minerally, high-acid Verdicchios aged in stainless steel that are more to his personal taste. "I like the clean, smoky, mineral style of the coastal wines," Mr. Rankin said.

The best Verdicchio is grown in the clay and limestone soils of Castelli di Jesi and Matelica, the two most important sub-regions for the grape. The former is a much larger zone, and its wines are more readily found in stores. Verdicchios from Jesi are usually softer and rounder, a bit riper in character with fruity, even floral aromas, while Matelica Verdicchios are more mineral, more citrusy in aroma.

According to Kevin Russell, Italian portfolio manager for David Bowler Wine in New York, more and more sommeliers are embracing Verdicchio and exploring the complexities of its terroir, as they have other obscure Italian white grapes such as Ribolla Gialla and Fiano di Avellino. Yet Mr. Russell, a Verdicchio fan, is "consistently surprised" by consumers' unawareness or misunderstanding of the grape. Winemaker Leopardo Felici of the Andrea Felici estate feels much the same way. Mr. Felici, who worked as a sommelier in London before returning to Italy to take over winemaking duties at his father's estate, calls Verdicchio "a gem well known and loved by the experts but still hidden to the larger public."

At the Garofoli estate, one of the oldest in the Marche, the Garofoli family has been instrumental in raising the profile of the grape. In 1981, they were the first to put Verdicchio in a Bordeaux-style bottle instead of the traditional amphora. "It was a break with the past," said Gianluca Garofoli, who has traveled the world on behalf of his family's estate. Ten years later, the family launched Podium, an old-vine Verdicchio created to demonstrate the ageability of Verdicchio. "My uncle wanted to make a Verdicchio that would age like a Chablis," said Mr. Garofoli. It's a wine "you can drink at 32 years of age."

The 2014 Garofoli Podium Verdicchio was one of 12 wines I purchased from seven different stores in the greater New York area. Few stores, as noted, had more than one or two different Verdicchios, but the ones I did find were pleasingly inexpensive. Podium was the priciest at $24 a bottle; the others were priced between $12 and $22.

The wine styles were surprisingly diverse, from soft and lush with a touch of oak to crisp and mineral, almost saline. The shape of the bottle usually offered a clue: The crisp, bright wines tended to come in straight-sided Bordeaux bottles while the softer, lusher ones were in Burgundy bottles. The wines I liked included both types, and even the lesser examples weren't aggressively bad, just simple and dilute.

On the bright, mineral, high-acid end of the spectrum, the 2017 La Staffa Verdicchio dei Castelli di Jesi DOC Classico Superiore ($22) from young winemaker Riccardo Baldi stood out—intensely mineral, almost saline, with an intriguing green olive note. The 2016 Cantine Politi "Loretello" Verdicchio dei Castelli di Jesi ($15) was almost as good, with a zippy acidity though it was a bit more herbal and green. And the 2016 Andrea Felici Verdicchio dei Castelli di Jesi Classico Superiore ($12) was an easy-drinking delight.

> **Verdicchio is actually a remarkably versatile grape that can be vinified as a dry or sweet or sparkling wine.**

I liked a few softer, rounder Verdicchios almost as much as their more mineral counterparts. The lush 2015 Bucci Verdicchio dei Castelli di Jesi Classico Superiore ($18), aged in large (not new) oak barrels, might convert a Chardonnay drinker. The 2016 Umani Ronchi Casal di Serra Verdicchio dei Castelli di Jesi ($16) was even richer thanks to aging on the lees, but also well-balanced with fruity aromas. The 2014 Garofoli Podium Verdicchio dei Castelli di Jesi Classico Superiore ($24) was decidedly the most complex of the wines, with layers of flavor, a rich texture and notes of stone fruit and minerals. It was easy to imagine it enduring for several years, even decades.

When will more wine drinkers discover Verdicchio? Prices are reasonable and quality is high, but production is small, so the wines can be harder to find. Yet Mr. Felici sounded an optimistic note. "We Verdicchio producers feel the moment for acclimation is very close," he said. I hope he's right.

► Email Lettie at wine@wsj.com.

OENOFILE / 5 PARTICULARLY PLEASING AND WELL-PRICED VERDICCHIOS

2017 La Staffa Verdicchio dei Castelli di Jesi DOC Classico Superiore
$22
This is a fresh, minerally take on the grape from the talented, 27-year-old Riccardo Baldi, who is already making some of the most noteworthy Verdicchios in Marche.

2016 Andrea Felici Verdicchio dei Castelli di Jesi Classico Superiore
$12
Leopardo Felici is another young talent making vibrant Verdicchios in the Castelli di Jesi appellation. This approachable wine has lively acidity and a pleasing bitter note.

2016 Umani Ronchi Casal di Serra Verdicchio dei Castelli di Jesi
$16
The Casal di Serra bottling was first produced in 1983. Aged on lees in stainless steel tanks, this is a soft, medium-bodied wine with a bit of a tropical note.

2015 Bucci Verdicchio dei Castelli di Jesi Classico Superiore $18
The Bucci name has long been synonymous with high-quality Verdicchio, and this elegant, full-bodied wine is no exception, with notes of white peach and bitter almond balanced by juicy acidity.

2014 Garofoli Podium Verdicchio dei Castelli di Jesi Classico Superiore $24
Made from a special selection of grapes from a single vineyard and aged on lees, this is a rich and textured Verdicchio with notes of bitter almond and green olive.

F. MARTIN RAMIN/THE WALL STREET JOURNAL (BOTTLES); ILLUSTRATION BY CARMEN SEGOVIA.

SLOW FOOD FAST / SATISFYING AND SEASONAL FOOD IN ABOUT 30 MINUTES

The Chef
Katianna Hong

Her Restaurant
The Charter Oak, in St. Helena, Calif.

What She's Known For
Mastering live-fire cooking and maximizing California's bounty. Translating her Michelin-star-studded training into accessible, full-flavored dishes.

Lemon-Thyme Skillet Chicken Roasted Over Croutons

YOU MIGHT THINK cooking in a three-Michelin-starred kitchen would prepare a chef for most anything. But when Katianna Hong left the very haute Restaurant at Meadowood in St. Helena, Calif., to cook at its low-key spin-off, the Charter Oak, she faced another sort of learning curve. "It took me a minute to feel comfortable paring dishes back enough so the ingredients could speak for themselves," she said.

This recipe, her second Slow Food Fast contribution, calls for marinating chicken thighs 15 minutes in a blend of olive oil, lemon, thyme and shallots. (If possible, Ms. Hong recommends marinating the thighs a day or so before cooking. The longer the chicken drinks up that bright herbal flavor, the better.) Then you line a skillet in cubed crusty bread, douse it in stock and roast the chicken on top with a scattering of lemon slices, whole cloves of garlic and a few more sprigs of thyme. By the end of roasting you have succulent chicken, its skin caramelized to a gratifying deep-golden-brown, on a bed of flavorful croutons.

"I like to squeeze the lemon all over when it's warm and juicy," said Ms. Hong. Go ahead and serve this right out of the skillet. Or just invite everyone to grab a fork and dig right in.—*Kitty Greenwald*

Total Time: 45 minutes
Serves: 4

6 bone-in, skin-on chicken thighs
Kosher salt
1½ lemons, zested and juiced, plus ½ lemon sliced into thin rounds
¼ cup olive oil
3 whole shallots, roughly chopped
Leaves from 20 thyme sprigs, plus 8 whole thyme branches
3 tablespoons butter
6 cups crusty bread, diced
¼ cup chicken stock
6 whole, skin-on, garlic cloves

1. Pre-heat oven to 450 degrees. Generously season chicken with salt.
2. Make marinade: In a blender, combine lemon juice, lemon zest, olive oil, shallots and thyme leaves, and blend until smooth.
3. Toss chicken in marinade. Let chicken marinate at least 15 minutes. (This can be done up to a day in advance.)
4. Butter a 12-inch cast-iron pan or ovenproof dish, and pack bread in snugly in a single layer. Pour chicken stock over bread. Arrange marinated chicken on top of bread, making sure that chicken completely covers bread. Pour enough remaining marinade (about ¼ cup) all over pan to leave about 1/4-inch of liquid at base. Scatter garlic cloves, thyme branches and lemon rounds over top.
5. Roast until bread crisps at pan's base and chicken cooks through and caramelizes on surface, about 25 minutes. Before serving, use a spatula to loosen bread from the base. Serve straight from pan.

WAITING TO INHALE Lemon juice, lemon zest and a scattering of thyme make this simple chicken dish incredibly fragrant.

DAVID MALOSH FOR THE WALL STREET JOURNAL, FOOD STYLING BY EUGENE JHO, PROP STYLING BY NIDIA CUEVA, ILLUSTRATION BY MICHAEL HOEWELER

Life After Death on the Nile

A cruise aboard a vintage steamboat offers an Agatha Christie-style exploration of Egypt's ancient ruins—without the fatal plot twist

By Tara Isabella Burton

OLD IS GOOD, Madame," an Egyptian tourist told me, nodding vigorously. She'd stopped me among the ruins at Karnak, the monumental temple complex built 4,000 years ago during Egypt's triumphant Middle Kingdom period. She gestured again to the broken columns. "Old is good."

The same lesson had been impressed on me many times that week as I traveled from Luxor to Aswan on the SS Sudan, the Nile's last remaining steamboat. A floating grand hotel, the Sudan was first built in 1885 as a private vessel for King Fuad before being bought by Thomas Cook and recommissioned as a passenger ship in the 1920s. Until it was abandoned after World War II, it temporarily housed generations of Egyptian nobles and Egypt-bound travelers. King Farouk sailed on the Sudan, as did Agatha Christie, whose voyage allegedly inspired her 1937 novel "Death on the Nile." (The 2004 television movie adaptation was filmed almost entirely aboard the Sudan). In 2006, the French Luxury travel company Voyageurs du Monde rediscovered and painstakingly restored the boat.

The Sudan's sense of nostalgia, though, is rooted in more than just its history. From the wood-paneled tea room to the rotary phones in the 23 cabins (the décor of each inspired by a different historical figure, from fashion designer Lady Duff Gordon to novelist Naguib Mahfouz), the Sudan, still powered by steam, seems to stubbornly resist updating. Its liveried crew still change uniforms daily—purple robes in the morning, black in the evening—with complementary red felt tarboosh hats. Twice-daily, too, staffers anoint the outdoor stairs with a protective oil designed to preserve the original hardwood floors. Sure, it makes things a bit slippery for inattentive guests, said Omar—the grey-moustachioed steward who so closely resembled the Egyptian actor "Omar Sharif" that he insisted we address him as such. But, he noted with a smile, the historical integrity of the boat comes first.

Few places are better suited to getting lost in the past. Although the Sudan is normally available on a cabin-by-cabin basis, I was traveling with a group of friends, all vintage-clothing collectors. We'd booked out the entire boat, and were determined to spend the entire trip in Agatha Christie-appropriate 1920s and '30s attire. I'd worried a little, beforehand, that the Sudan's 63-strong crew might find our dusty style statements eccentric, or off-putting. Instead, they were delighted to find people who cared as much about the boat's history as they did, pointing out King Farouk's wedding photos on the walls and insisting on taking snapshots of us pulling the 19th-century chain that would send steam puffing from the ship's stacks.

> Few places are better suited to getting lost in the past than the SS Sudan.

It would have been tempting to spend the whole five-day-cruise without leaving the Sudan's hardwood decks: lounging in the wicker chairs on the roof-terrace, sipping gin and tonics and Turkish coffee, watching the Nile's shores as squat, concrete village houses gave way to rural marshland: palm trees and reeds, punctuated from time to time by turtles or gazelles. But the Luxor-Aswan passage of the Nile is also home to the most archaeologically significant ruins of Ancient Egypt. Modern-day Luxor is the site of Thebes—the de facto religious capital during Egypt's Middle and New Kingdoms (roughly 2000—1000 B.C.).

Unsurprisingly, the ruins are even more potently redolent of the past than the boat, especially the tombs: the pyramids and necropolises devoted to memorializing the pharaohs and their families as gods, designed to give them something close to immortality. Witnessing the adornments inside—the bright indigo and onyx-colored pictographs of the falcon-headed god Horus at the Temple of Ramses III and the obsidian-dark depiction of the night goddess Nut in the Tomb of Rameses VI—feels strangely intimate. They were never meant to be seen by human eyes.

The SS Sudan's Lady Duff Gordon cabin.

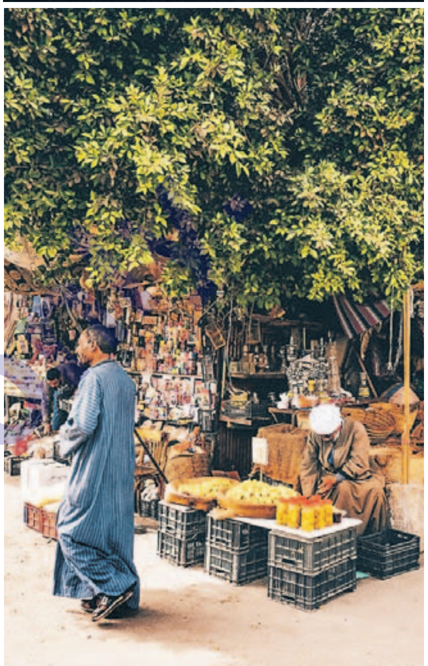
The temples of Karnak and Luxor, along with the Valley of the Kings, are among the most popular sites in Egypt, and with good reason. Their scale is staggering, serving as a stark reminder of just how far humans will go to keep the past alive. Still, I found myself falling in love with the less-famous ruins: those that our leisurely pace allowed us to explore in depth.

We spent one night moored in the shadow of Kom Ombo, a Ptolemaic temple from the 2nd century B.C. devoted to the cult of the crocodile god Sobek. (Mummified crocodiles, worshiped in their lifetime as the embodiment of Sobek, can be found in the museum next door.) Another day, we headed via narrow, colorful motorboat to the labyrinthine complex at the island of Philae: a bougainvillea-strewn temple believed to be the last site devoted to the Egyptian gods. Another evening in Aswan, I spent hours learning to play Nubian drums from an instrument-seller in the souk who remained stubbornly unimpressed with my sense of rhythm.

The relative lack of fellow tourists made these excursions even more memorable. Tourism in Egypt has fallen drastically after a series of terrorist attacks in the wake of political unrest following the 2011 Arab Spring, including some specifically targeting tourists at Red Sea resorts. Some 5.4 million tourists came to Egypt in 2016, compared with 14.7 million in 2010. A quiet sense of freneticism permeates many of the major tourist sites: vendors hawking postcards and jewelry in the souks can be aggressive, desperate to make a sale. That said, I've rarely felt safer at a tourist site than in Egypt. At most sites, visitors must pass through several levels of security, and the Egyptians I met were invariably welcoming: as eager to take photographs of foreigners as I was to photograph ruins.

But back on the boat, it could have been 1937. On our last night, an impromptu concert unfolded in the dining room as waiters began playing flutes, drums and an oud in honor of a passenger's birthday. On the deck above, I tried to steady myself on the slippery, newly polished stairs, attempting in vain to keep the beaded hem of my 1920s evening dress from catching on the railing. With a bow, Omar Sharif took my arm. Slowly, delicately, he led me down to dinner.

▶ For more details on cruising the Nile, **see wsj.com/travel**.



JEROME GALLAND

PAST INTENSE Clockwise from above: The deck of the SS Sudan steamship, built in 1885; Luxor Temple, among the most iconic monuments of Ancient Egypt, is no less imposing after three millennia; a market in the city of Edfu, on the banks of the Nile and the site of the Temple of Horus.

Playing Fast And Loose On the Links

Continued from page D1

hiller, extends only 127 yards. Six of the other holes are between 56 and 92 yards. All nine can be successfully negotiated with a putter off the tee, assuring the course's popularity with beginners and low-skill players. It's real golf, but you don't have to be a real golfer.

But accomplished golfers also consider the Cradle a worthy challenge with its undulating greens and their surrounding humps, runoffs and sand bunkers. Skilled players are invited to carve shots that bank off the slopes just so and roll up right next to the holes tucked in tricky locations. That's why you hear so many expert players cheering—that and the old-timey beverage cart called the Pinecone, which is parked at a central crossroads of the course and serves cocktails and four kinds of draft beer. In the late afternoon, baby boomer-friendly music wafts across the course, piped in through speakers disguised as rocks.

It costs $50 to play the Cradle, which might seem steep but not when compared with the $400-plus rate to play the nearby Pinehurst No. 2 course. Same-day replays are free (if they can fit you in) and the fee is waived entirely for kids under 18 when accompanied by a paying adult, encouraging family fun. Imagine a golfing getaway with the brood, not just the buddies.

Next to the Cradle, smack next to the clubhouse, is a rolling, 75,000-square-foot putting green called Thistle Dhu (for "this'll do," attributed to an early Pinehurst resident on first seeing his home and a golf course there). Like the Cradle, Thistle Dhu is typically crawling with golfers, especially at the end of the day. Groundskeepers lay out an ever-changing putting course of 18 holes, whose starting points are marked by posts that double as drink holders. You'd be surprised how intense the competition sometimes gets between grandmas and their teenage grandkids at Thistle Dhu, which is free for resort guests. Completing the picture is the adjacent, feature-rich short-game practice area, fun to goof around on for golfers of a certain persuasion, and the driving range and golf school. "For someone to leave Pinehurst without playing any golf would be like visiting a vineyard and not drinking any wine," said Tom Pashley, the resort's president. These days, even nongolfers have no reason to miss out.

High-quality, well-designed par-three courses as adjuncts to regular-length courses are not new but historically most were found at rich private clubs. Three of the top four courses on Golf Digest's top 100 in the U.S.—Pine Valley, Augusta National and Shinnecock—have associated par-three courses. In recent years, however, par-threes have started popping up at golf resorts to cater to vacationers.

Bandon Dunes, on the southern coast of Oregon, opened its 13-hole Bandon Preserve par-three course in 2012. Designed by Bill Coore and Ben Crenshaw, who also built the resort's Bandon Trails course and many other sought-after tracks, the Preserve occupies a prime spot of real estate overlooking the Pacific. The resort also has a well-used, 100,000-square-foot putting green much like Thistle Dhu, with a nearby bar.

Mike Keiser, the force behind Bandon Dunes, tapped Messrs. Coore and Crenshaw to build another par-three course, called the Sandbox, at his newest multicourse resort, Sand Valley, in the rolling sandy-soil terrain of central Wisconsin. The Sandbox opened for play in May. Both of the Coore-Crenshaw short courses are meant to be walked with a few clubs only and pose clever challenges for golfers at all skill levels.

The latest resort to emphasize par-three courses is Big Cedar Lodge, surrounded by 3,000 acres of Ozark Mountain wilderness 8 miles south of tourist magnet Branson, Mo., with its theme parks and country music bars. Big Cedar's developer and owner, Johnny Morris, the billionaire founder of Bass Pro Shops, recently developed a sweet tooth for golf courses and is bent on making Big Cedar a golf Mecca. Two of the resort's three existing courses are par-threes, but two more courses by big-name designers are in the works. A Coore-Crenshaw course will open this fall, followed by a Tiger Woods design next year.

Neither of the par-threes is as cuddly as the Cradle, but both have grand views of the Ozarks and are the only par-three courses ever to have been used in an official PGA Tour-sanctioned competition. Top of the Rock, by Jack Nicklaus, is a serious golf course that opened in 2014. From the back tees, its holes range from 202 yards to 114 yards, with several requiring shots over water. Players take carts because of the steep changes in elevation. Chiseled out of granite atop a pristine wooded mountain, the course abounds in flowers. Swans glide across the ponds. Many of the holes look west over Table Rock Lake, making a late afternoon round followed by sunset drinks and dinner on the clubhouse terrace an ideal choice. It will cost you, however. The green fee is $135 for nine holes, $90 for a replay.

Next to the Rock is a unique driving range designed by Arnold Palmer, featuring tier upon tier of artificially turfed greens surrounded by bunkers and ponds. Immediately adjacent, originally, was a sprawling Tom Watson-designed putting green called the Himalayas, named after the mother of all recreational putting greens at St. Andrews in Scotland. But in May 2015 an enormous sinkhole opened up and swallowed the Himalayas. Undeterred, Morris rebuilt the Himalayas green at his other par-three course, Mountain Top, 9 miles away. Also perched atop a mountain, albeit not a forested one, it's much more beginner-friendly. The green fee here is a slightly more reasonable (although perhaps temporary) $75, with replays for $50. Mountain Top will share a clubhouse with Tiger Woods's new course. Mr. Woods is a big fan of par-three courses. He has talked movingly about his first golf experiences on par-three courses in Southern California and has incorporated new-style par-threes at two of his recent projects, private Bluejack National in Houston and the Diamante Resort in Cabo San Lucas, Mexico.

Travelers can find other par-three course innovations scattered across the country in places where they can easily combine a golf game with other diversions. At Arizona's Wickenburg Ranch, 70 miles northwest of Phoenix, the Li'l Wick par-three course surrounds an open-air bar and 8-acre lake. Music streams across the greens, the final four holes are lit for night play and golfers wearing flip-flops and cutoffs are warmly welcomed. In Las Vegas, the low-key Cloud 9 par-three course, with holes mimicking famous short holes from around the world, is also lit at night, as is the adjacent nine-hole, natural grass putting course. The Heartwell par-three course in Long Beach, Calif., where Tiger learned to play, stages Friday evening "glow ball" events, where players hit luminescent balls.

If such departures from tradition strike "true golfers" as a sacrilege, Pinehurst author and historian Chris Buie begs to differ. He noted that whimsically titled events called "frolics" were popular among American golf's early devotees. In one such competition at Pinehurst called "monkey golf," each player carried a single club and catcalls during backswings were actively encouraged.

"The lighthearted aspect of golf got lost along the way," Mr. Buie said. "Somehow the game's core narrative shifted from health-based to one of intense competition. These new courses are helping to bring things back into balance." For vacationers looking to fill their holiday with more fun and less formality (and zero anguish), these new-breed courses might just strike the best balance of all.

An old-timey beverage cart parked on the course serves cocktails and four kinds of draft beer.

WICKENBURG RANCH GOLF & SOCIAL CLUB; ILLUSTRATIONS BY FEDERICA DEL PROPOSTO

HAPPIER HOUR The Li'l Wick par-three course at Arizona's Wickenburg Ranch, surrounds an open-air bar; music streams across the greens.

EASY PICKINGS / PAR-THREE COURSES AT TOP RESORTS WITH ENOUGH DIVERSIONS TO KEEP EVEN NEWBIES ENTERTAINED

The Cradle at Pinehurst Resort, Pinehurst, N.C.
This short and quirky course caters to all skill levels. Adjacent: the 75,000-square foot Thistle Dhu putting course and a short-game practice area. Non-golf attractions: spa and pool complex, shopping in quaint nearby towns, available skeet-shooting and fishing and a chance to read in a rocking chair on the famous veranda. *Hotel stay from $399 a night at the Carolina Hotel, pinehurst.com.*

Bandon Preserve at Bandon Dunes, Bandon, Ore.
Bandon Preserve, one of the five courses at this remote, immensely popular golf resort, encompasses 13 holes overlooking the Pacific. The course requires strategy to play well, but the proudly mediocre can delight in the scenery. Non-golf attractions: massage, gym, hiking, fishing, bird watching. Comfortable, no-frills rooms. *Hotel stay from $280 a night in summer for a four-bedroom suite, bandondunesgolf.com.*

Top of the Rock and Mountain Top, Big Cedar Lodge, Ridgedale, Mo.
Beautifully landscaped Top of the Rock delivers great sunset views of Table Rock Lake. Mountain Top, with long views of the Ozark Mountains, is more beginner-friendly. Non-golf attractions: pools, spa, lake activities and a buzzing kids center with laser tag and bumper cars; live music and amusement parks in nearby Branson. *Hotel stay from $310 a night in summer, bigcedar.com.*

Threetops at Treetops Resort, Gaylord, Mich.
Part of a five-course resort in northern Michigan, Threetops is a gorgeous, well-designed, hilly challenge through hardwood forests. For many years it was the site of ESPN's Par-3 Shootout with famous Tour players. Non-golf attractions: spa, horseback riding, watersports, tennis, biking. *Hotel stay from $129 a night or from $250 for a two-bedroom condominium, treetops.com.*

Oasis Short Course, Diamante Resort, Cabo San Lucas, Mexico.
With its innovative Tiger Woods design, lush vegetation and an eight-acre lake, Oasis can be played as a 12-hole par-three course or in various loops of longer holes. Non-golf attractions: beach, spa, nearby shopping, restaurants and party bars; available fishing and diving. *Hotel stay from $400 a night for a standard room, from $1,700 for a villa, diamantecabosanlucas.com.*

Peter Hay Golf Course, Pebble Beach Resort, Calif.
The holes at this public nine-holer, built in 1957 and across the street from the famed Pebble Beach Links, are simple and short (the longest is 104 yards) but the location is divine. You might be paired with caddies before or after rounds at the big course. Green fees run just $30 for adults, $10 for ages 13 to 17 and free for 12 and under. *Hotel stay from $900 a night at the Lodge at Pebble Beach, pebblebeach.com.*

NOVELTY GAMES / NON-TRADITIONAL WAYS TO PLAY A ROUND

TOPGOLF
What began as a fancy driving range has morphed into a chain of glitzy social clubs. Hitting microchipped balls to concentric-circle targets is still TopGolf's core idea, with results flashed to a screen in your hitting bay. It's a fine way to work on your game. But TopGolf's 38 (and growing) U.S. locations are often busiest at night, with cocktails and food delivered to your bay and separate lounges for those who'd just as soon skip the golf. The Las Vegas TopGolf features two pools and live entertainment. Orlando has a rooftop terrace and 200-plus HDTVs. *For locations visit topgolf.com.*

GOLFBOARDS
Championed by surfing legend Laird Hamilton, these motorized, surf-board-like contraptions with wheels can speed up play and are relatively easy to master, especially for anyone with experience on a skateboard. The golf bag goes up front, players hold on to a handle and lean to "surf" the course. Golfboards are popular at resorts out west like Tetherow in Bend, Ore., and Omni La Costa in Carlsbad, Calif., but also at courses in the Las Vegas, Phoenix and Chicago areas, northern Michigan and Florida. *For locations visit golfboard.com.*

SIMULATORS
In South Korea, more rounds of golf are played on indoor simulators than at outdoor courses. Simulator golf, with famous courses projected onto massive screens, has been slower to catch on in the U.S. but it's coming. Golfzon, a Korean outfit, now operates in 20 places around the U.S., including Swing Zone in Houston, which offers six simulators. *swingzonegolf.com.* TopGolf is creating a network of virtual-golf Swing Suites at hotels, resorts and fitness clubs. An 11-bay complex will open in late June at the Ocean Resort Casino in Atlantic City, N.J. *swingsuite.topgolf.com*

DESIGN & DECORATING

MY FAVORITE ROOM

You've Got Male

Australian interior designer Greg Natale deconstructs a space he's always found inspiring, a macho but sophisticated 1970s den in Madrid

JOSÉ LUIS PÉREZ/CONDÉ NAST (ROOM); F. MARTIN RAMIN/THE WALL STREET JOURNAL (THROW, FABRIC)

A STUDY IN MASCULINITY This sanctum created by Spanish designer Paco Muñoz mixes a swarthy color scheme with elegant antiques.

By Tim Gavan

IT LOOKS LIKE quite a man's room, don't you think?" asked Australian interior designer Greg Natale of this swaggering, strategically indelicate study fashioned by the late Spanish designer Paco Muñoz (1925-2009) for his home in Madrid. It's a space Mr. Natale has long admired. "But refined," he added. "I really like a man cave as long it's sophisticated."

The room, completed in the 1970s, offers a firm handshake rather than a fist bump, a color scheme invested in browns, black and white rather than muscle-car reds and playing-field greens. Muñoz relied on assertively patterned curtains and a geometric rug courtesy of the renowned English designer David Hicks, who met Muñoz on a business trip to Spain.

"David Hicks did a lot of work internationally, and he teamed up with local designers," said Mr. Natale. He considers Muñoz—whose clients ranged from businessmen to royalty—"sort of the David Hicks of Spain."

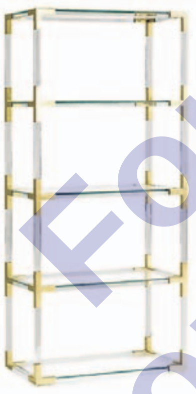
Muñoz's son, Javier, also a Madrid-based designer, recalled, "My father met David Hicks and was influenced by the use at that time of geometrics and steel elements." The younger Muñoz noted that his father also adopted the technique of combining modern and antique furniture.

In this room, for example, a stainless steel cube sits icy and uncompromising next to a more organic Louis XVI armchair. Mr. Natale likes the way the minimalist, metallic "plinth side table adds an exciting edge." Its brushed surface faintly reflects some of the room's many patterns, and its simple shape relates to other pure forms in the study. "The clean geometry of the cube and the globe's sphere really speak to each other," Mr. Natale said.

The room is not oppressively or simplistically macho. Softer elements like plants and a fur throw rug support the femininity of the armchair, and a combination of furniture, prints, and accessories that span time periods and continents suggest a well-read, well-traveled inhabitant. Men's studies can be elegant, said Mr. Natale. "This one feels classic but current, too."

The room could pass as a project in the Sydney-based designer's coming book "The Patterned Interior" (*Rizzoli, Sept. 4*), which illustrates Mr. Natale's Hicks-like method. "I layer, layer, layer personality through pattern and color," he said of his approach. "I champion dark interiors and"—as did both Hicks and Muñoz—"put different kinds of furniture together, from midcentury modern to classic and traditional styles."

It's no surprise he cited this room, an unstereotypically masculine den that's mature and timeless, as an inspiration. Here, Mr. Natale sheds light on some of the defining elements of this gentleman cave.



LACE THE CASE

Unlike a solid bookcase, the brass and silver lines of the room's étagère function like an elegant drawing, relating to other geometric elements and acting as a modern counterpoint to traditional furnishings. To add warmth, Mr. Natale advocates that you not be too sparing in stocking the shelves with books and accessories. Jacques Étagère, *$2,400, jonathanadler.com*

LOOK SMART

An 18th century English slant-front desk serves as a work station or polished display case for treasures, and adds substance to a room that might otherwise be mistaken for a playboy's lair. For a similar effect, invite an antique into your modern den. George I Walnut and Burl Slant Front Desk from Antiquario, *$6,800, 1stdibs.com*

BUST OUT

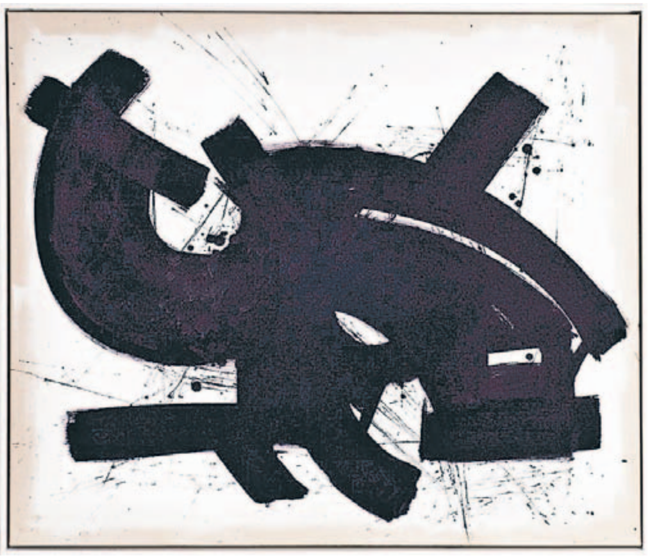
The younger Munoz identified the room's 19th-century busts as Spanish bishops, and Mr. Natale noted, "If they were marble they might be a bit dull and old-fashioned, but the silver makes them feel modern and adds a sparkle that's very playful and sexy." Try this headless, decidedly unreligious version: Cubiste, *$2,755, christopherguy.com*

FIND A RUGGED FUR

"I'm a child of the '80s, so fur reminds me of 'Dynasty,'" Mr. Natale said. "It's very rich." The roughness of the room's throw rug skews Davy Crockett, however, better suited to the library of that soap-opera's oil tycoon than the shoulders of one of his wives. No animals were harmed in the making of this alternative: Donna Salyers Chinchilla Faux Fur Throw, *from $329, fabulousfurs.com*

SET A STRONGER SCENE

The Navajo-inspired motif on the room's David-Hicks-designed curtains is geometric but intricate and cultured, for the man who knows there's a world beyond his backyard. When mixing prints, Mr. Natale suggests choosing ones with "different scales so patterns don't clash." A similarly worldly pattern: Kravet Design Odani Carob Fabric, *$108 per yard, ladesignconcepts.com*



THINK IN THE ABSTRACT

"Black and white are always in, and abstract art never dates," Mr. Natale said of the room's painting, which recalls Franz Kline's work. "That it's largely white also lifts the room out of the darkness and keeps it from feeling like a nightclub." Similarly emphatic: this untitled work by Jose Buelo from Art Angler, *$2,950, 1stdibs.com*

GO FOR A SPIN

If you're looking to toss something with the guys that's a little more substantial than a baseball, why not the world? A massive walnut globe—from the 18th or 19th century—is likely too large for a game of catch, but it's a distinguished, bookish addition well-placed by the antique walnut desk and approximately echoing the octagons in the carpet. A similarly stately globe: Baroque Terrestrial 30-Inch Diameter Floor Globe, *price upon request, georgeglazer.com*

Greg Natale's Resume

The Australian designer has twice been named the Belle Coco Republic Interior Designer of the Year—a notable hometown honor. His new book, "The Patterned Interior," follows 2014's well-received "The Tailored Interior," and his adventurous projects—which he said tend to attract a younger client—take him from Sydney, where his eponymous interior and exterior design firm is based, to New York, London and, recently, a farmhouse in Oklahoma. Hey, not everything needs to follow a pattern.

THROW IN A CURVE

Louis XVI chairs might not seem a standard choice for a man cave, but that's the point. This regal but curvy perch not only provides a seat but introduces welcome softness to a mostly masculine space. Hold the door open for this similarly elegant Rococo Marquis Chair, from *$4,539, ralphlaurenhome.com.*

WILLIAM ABRANOWICZ (LEFT); WATERWORKS

KITCHEN SWITCH Designer Kathryn Scott opted for an unusual grigio adige marble in her Brooklyn kitchen, as seen in her book 'Creating Beauty' (*Rizzoli*). Above right: Waterworks Normandy hammered-copper sink.

Sinks Outside The Box

Refreshingly atypical materials for kitchen basins are ousting drippy stainless steel and white porcelain

BY CATHERINE ROMANO

I DIDN'T WANT anything conventional," said interior designer Kathryn Scott of the kitchen sink in her Brooklyn townhouse. The showstopper she chose, made of grigio adige marble, met her two key criteria: It could pass for a vintage find and telegraphs distinguished personality. "It needed character," she said.

Once reserved for specialty spaces like wet bars and powder rooms, basins made of fetching alternatives to stainless steel and white porcelain are migrating into the kitchen. Copper, granite, concrete and marble are slaking people's thirst for interiors that don't look like wearying generic condos.

Peter Sallick, CEO and Creative Director of Waterworks, believes sales of its copper and stone sinks have increased 100% over five years because warm-metal faucet, tap and hardware options have proliferated—from brass that patinates to antique nickel: "Copper sinks, which are plated in many metal finishes, and stone sinks, which have a range of color and tonality, marry better to those new finishes."

Charleston designer Tyler Hill likes the pop of a copper sink—two of which his firm, Mitchell Hill, have lately installed—against a soothingly neutral kitchen. "I want the sink to speak," he said.

New basin products include NativeStone, a jute-reinforced concrete that has seen 40% to 50% growth year over year. HamatUSA's sinks of CeraSteel, porcelain-enameled stainless steel available in eight colors, are up 29% year to date, while U.K.

firm Kast offers concrete sinks in voguish hues such as sage and brick.

With customized stone and cement, you can use the same material for counters and basin. The effect: sweeping continuity. "Quartz and Corian are very durable, and you can book match the veins into the sink," said Houston designer Nina Magon. "It looks like one very beautiful furniture piece."

Many such integrated sinks feature water-sluicing ridges in the adjacent counter top. Said San Francisco designer Grant Gibson, who installed an integrated sink of Calacatta marble in his home in 2016, "Everyone in the world has an ugly plastic or metal dish drainer, and I didn't want that." So far, the sealed marble has resisted staining, though he noted that he wouldn't risk leaving, say, beets on it.

Bespoke sinks, which can set you back $10,000 or more, obviously aren't for everyone. Ready-mades offer better buys. At Kentucky-based Signature Hardware, for example, you can upgrade a $579 stainless farmhouse sink to a copper one for $260. If you *must* have Carrara marble, you'll need an extra $890. But as Mr. Sallick pointed out, you're usually only buying one.

FAST FIVE

Stars of Storage

Because your pasta and sugar merit more than mundane canisters

Summer Seasonal Containers with White Oak Lids, *from $34 for 6 oz., heathceramics.com*

Holmegaard Scala Storage Jar, *from $20 for approx. 34 oz., shophorne.com*

Jenev Jar with Cover by Jerome and Evelyn Ackerman, *$75 for approx. 34 oz., dwr.com*

Richard Ginori 1735 Oriente Italiano Pharmacy Jar, *$375 for approx. 24 oz., Bergdorf Goodman, 888-774-2424*

Carved Agate Canister, *from $285 for approx. 64 oz., victoriamorrispottery.com*

Market Editor: Kelly Michèle Guerotto

F. MARTIN RAMIN/THE WALL STREET JOURNAL

THE ARRANGEMENT

A similarly toned riot of species, from roses to orchids, echoes the low-contrast palette of Edouard Vuillard's 'Buste De Femme Assise (Misia Natanson)' (c. 1898). *Vessel, designer's own*

THE INSPIRATION

FLOWER SCHOOL

To Blur With Love

Floral designer **Lindsey Taylor** riffs on the cloudy tonality in a summery painting by Edouard Vuillard

JUNE FLOWERS CAN bring out the girlie in me, with all the soft pinks and pastels of roses and peonies at their peak. To inspire this month's arrangement, I wanted an equally feminine, subdued work of art and found it in "Buste De Femme Assise (Misia Natanson)" (c. 1898) by French painter Edouard Vuillard (1868-1940)—a portrait that had stuck in my mind since a visit to the small but wonderful Frances Lehman Loeb Art Center, at Vassar College in Poughkeepsie, N.Y.

The meditative, seemingly preoccupied woman, her ornate clothes and the interior décor blur into a nearly monochromatic canvas. To imitate Vuillard's darting brush strokes, I went for an arrangement busy with many varieties of flower but all close in color. I tend to stick to seasonally logical blooms, but here I threw that tenet out the window to do something a little more "floristy," pulling flowers from the market that would never bloom concurrently, or even in June. Standing in for the woman's hair are brown-toned sweet peas; for her dress and complexion, blush-colored ranunculus, white lilac and soft pink roses; and to reflect the interior, Queen Anne's lace, check-patterned fritillaria and—unexpectedly—mustard-yellow orchid specked with maroon. In a low, wide and footed dark-brown vessel, I set the stems of the horizontal bouquet so no flower assumed greater importance, the overall mushiness alluding to the way the subject and setting in the painting blend nearly into one.

STEPHEN KENT JOHNSON FOR THE WALL STREET JOURNAL, FLORAL STYLING BY LINDSEY TAYLOR, PROP STYLING BY CARLA GONZALEZ-HAT (ARRANGEMENT); EDOUARD VUILLARD, "BUSTE DE FEMME ASSISE (MISIA NATANSON)" C. 1898, OIL ON BOARD, FRANCES LEHMAN LOEB ART CENTER, VASSAR COLLEGE, POUGHKEEPSIE, NY

GEAR & GADGETS

Charging Ahead

Don't tie yourself down with charger wires. Now a handsome pad can juice up many of your devices at once—whether you're at home or even on the road

By Joshua Fruhlinger

JAMES GILLEARD

WE ALL KNOW that guy, let's call him David, whose smartphone battery is always perilously on the brink of being dead. He'll ask you to hold on for 20 minutes while he charges and later bug the waiter to see if there's an outlet behind the bar. He just needs a *little* juice before heading to the next spot. "That cool?" he asks as the table collectively rolls their eyes.

David is everyone's problem. But a solution is already on its way: Available at a range of public venues from swanky Starbucks cafes to McDonald's restaurants to Marriott and SPG hotel locations are wireless charging pads that can power up nearly all the devices you carry daily—your phone, e-reader, smartwatch, tablet, laptop and so on. And the latest pads are changing the way we charge at home, too.

When on the go for business or a summer getaway, you may no longer need to schlep that burdensome kit of chargers. Many airport lounges feature wireless charging pads and in 2019 the Panasonic Waterfront, a premium-class airline seat, will have one built into its armrest, letting you power up your struggling devices all at once while you fly. A handful of cars—including the Cadillac CT6, Chevrolet Malibu, Toyota Prius and BMW 7-series—also carry wireless charging pads built in, some even standard. Soon there might be one in the middle of restaurant tables and the edges of bar tops. You're welcome, David.

Don't worry about playing catch up. Chances are, if you bought a smartphone in the past year or so, it's already compatible. Apple's energetic entrance into the wireless charging space with its iPhone 8 and X (along with Apple Watch and AirPods) has accelerated the technology. Now most phones by Samsung, LG, Google and Nokia support wireless charging.

How Wireless Works

Wireless charging uses what's called "resonant inductive coupling" in which energy is sent out from the charger via electromagnetic rays that alternate an induction coil inside your device. This microscopic "wiggling" creates the energy that fuels your battery. For now your device and the pad need to be very close—effectively touching—to do this dance. But it's likely that we'll eventually see far-field wireless charging, in which a central hub could seemingly top off all the devices in a room using radio-frequency waves—though that is at least a few years off.

The industry standard for wireless charging is called "Qi" (pronounced "chee," meaning "energy flow" in Chinese). This is what Apple, Samsung, LG and other smart brands now use. The adoption of this standard achieved two aims: First, it's made it easy to find a charging pad compatible with your fleet of devices; second, it's helped reduce the price of pads, making the barrier to entry low enough to hop right over.

What's the Real Difference?

Yes, plugging a device into a charging cable, which is then plugged into the wall, is pretty simple. But it isn't always terribly convenient. One outlet equals one device and many of us juggle several toys that all need to be charged. Have you ever sat in the dark waiting for your phone to blink on because the sole accessible outlet was the one you plug your lamp into? Now you could empty a purse of devices onto your charging pad and still be able to see where you're walking.

Those of us with new iPhones that were deprived of standard headphones jacks in the name of progress can get our batteries out of the red while using our phones' single remaining port for our buds.

Wireless charging is also much easier on the eyes (and on your smartphone's fragile ports). A charging pad on a desktop, even cluttered with devices, looks divine compared with a tangled mess of cables, each iteration—USB, USB-C, Lightning, Micro USB—infuriatingly different from the next. Try sorting those out in a dimly lit bedroom when all you want to do is plug your stuff in and get some sleep. Instead, get a charging pad for your nightstand, plop all your devices down on it and sail off to dreamland.

Your Next Device

While most modern smartphones are compatible with wireless charging, and most new headphones, smartwatches and tablets are obliged to follow suit, devices don't generally come with charging pads included in the box. The plus is that you'll be able to choose the one(s) that fit your aesthetic. Each brand markets its own and third-party companies from Legrand to IKEA are getting in the game with designer options (see "Cut the Cord," below) that look great on a counter top, coffee table, or nightstand. No more excuses, David.

CUT THE CORD / QI-COMPATIBLE CHARGING PADS THAT WILL LET YOU DITCH YOUR CABLES

For the Design-Conscious
Perhaps the nicest thing about wireless charging is its simplicity. These minimalist charging pads from Grovemade are made using stainless steel and device-friendly cork that is hand-stained using Japanese calligraphy ink. *$79, grovemade.com*

For Cleaner Counters
If standard charging pads still create too much clutter for you, Radiant's in-wall units turn most outlets into a stand-up charger. The simple clip props up your phone or tablet so you can keep an eye on mom's recipe while you charge. *$80, legrand.com*

For a Speedy Charge
Samsung's Fast Charge stand blasts compatible devices with a powerful 9W charging speed that promises to top off your phone faster than competitive chargers. But you don't get these added benefits unless you own Samsung devices. *$69, samsung.com*

For Those on a Budget
IKEA's affordable Nordemärke charging pad isn't just attractive in birch and white, it also comes packed with benefits including the ability to charge three devices wirelessly—and a fourth via USB cable if friends drop by. *$59, ikea.com*

For Apple Devotees
The soon-to-be-released AirPower will charge your iPhone, Apple Watch and AirPods all at the same time. It's a case study in convenience: Drop all your devices off at the end of the day and pick them up in the morning, fully charged. *$200, apple.com*

The Hide-a-Treadmill

A low-rise model that fits under your bed is no longer a dream

PAJAMAS SOLD SEPARATELY Before you turn in, tuck the Treadly under your bed. Pajama Pants, *$128, sleepyjones.com*; Slippers, *$15, uniqlo.com*

F. MARTIN RAMIN/ THE WALL STREET JOURNAL (TREADMILL)

WHEN LIVING IN a studio apartment, you need to create lines of delineation. The kitchen is not the living room is not the bedroom, even if you lack niceties like walls and doors. That space over there between the couch and closet, just past the parlor—that's my home gym, big enough for me to fit in a few push-ups, crunches and my fantasy treadmill—streamlined, efficient and easy to tuck neatly under the bed when not in use.

If you face the same dilemma, good news. The new Treadly model, about 5 inches at its tallest point, appeals to urban runners whose dwellings lack a fitness wing. It gives you the option of exercising at home rather than in a boutique gym or in the streets, whether you're avoiding tricky terrain or bad weather, have safety concerns or just a compulsion to binge "GLOW" on Netflix.

Despite the feeble silhouette of what looks like a gargantuan iPhone, the Treadly is built firm on an aluminum alloy frame and features what the brand generically refers to as its "super shock absorption system." After logging a week of runs on my own terms, I found it offers just the right amount of give and bounce for a comfortable stride. I also didn't get any complaints from the downstairs neighbors even though I was clocking miles well after midnight.

The stripped-down Treadly is not an elite machine so don't expect the standard bells and whistles of modern treadmills: It skimps on heart monitors, HD screens and smart consoles to log your stats. While Treadly does display your time and distance as well as count your steps, the data vanishes soon after you step off. And, while it's ideal for recovery jogs or a brisk morning walk, this treadmill won't help runners prepping for races; it redlines at 5 mph when its optional hydraulic safety bar is up.

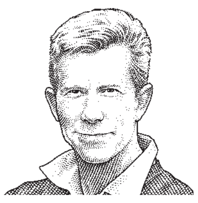
But the truly dodgy issue is Treadly's innovative yet obnoxious speed zones. Sets of infrared lights divide the track into three areas; how your feet land controls the machine's pace. When Treadly senses you move toward the front, it gently speeds up. As you slide to the back, it slows down. But the middle zone, where you want to land to maintain a constant pace, is so minuscule that you're constantly stepping outside it. Result: erratic speeds. Loping is much more graceful since you can stick to the forward two zones—fast and constant—but Treadly's design would be improved if it let you dial in a preferred pace.

Still, you can't beat its size. Even exhausted by an afternoon run, I easily rolled the 64-pound machine under my bed, then headed to my "drawing room" for a snack and a quick nap. *$1,197, treadly.co* —*Matthew Kitchen*

GEAR & GADGETS

RIGHT ON TRACK This pet racecar for billionaires can go 0-62 in a blistering 2.7 seconds.

RUMBLE SEAT / DAN NEIL



2019 McLaren Senna: The Homely Hypercar

BECAUSE CLOTHES maketh the man, McLaren issued me a drivers suit to strut around in during its April press event at Silverstone Circuit in central England, while I waited to drive the company's newest *ne plus ultra*, the Senna. Woefully underdrive is more like it.

This was a rare audience. The F1 racing and luxury sports car concern based in Woking, England, will build a mere 500 of these zero-altitude aeroships, which are all already sold, thank you, for about $1 million apiece. Many will then disappear into private collections of billionaire hoarders, to resurface once every few years, maybe, like "Brigadoon."

The Senna is the latest salvo in the hypercar wars, delivering the latest set of scarcely believable, once-unthinkable telemetry: 0-62 mph acceleration in 2.7 seconds; ¼-mile of 9.9 seconds; 0-187 mph in 17.5 seconds; top speed 211 mph. With its twin-turbo 4.0-liter 789-hp V8 and seven-speed transaxle in the back, the McLaren's dry weight-to-power pencils out to an astounding 3.35 lbs./hp—compared with, say, the current Nürburgring champ, the Porsche 911 GT2 RS (4.3 lbs./hp, thereabouts). But then the Senna does cost more than three times as much.

With the help of its wangling, dangling rear wing/air brake, the Senna's deceleration is likewise world-historical: from 187 mph to 0 in the space of 705 feet. Take that squirrel home. That is one lucky squirrel.

Yes, the Senna is ugly, but it's ugly with purpose. What you are looking at is effectively two cars, one peeking through the ribs of another. The inner, based on the company's mid-engine masterpiece 720S, can be thought of as the thermal layer. It is largely concerned with extracting surface-of-the-sun temperatures from the dual twin-scroll turbos, dual-clutch transaxle and carbon ceramic brakes the size of manhole covers.

The Senna's outer layer is all about downforce, a stabilizing pressure exerted on the car as it moves through the air, holding it to the track in corners like an invisible hand. By virtue of its ventilated pontoons, ground-skimming underbody diffuser and automated flight control surfaces—the variable pitch flaps in front, the dancing kite of a wing in the rear—the Senna generates proper racecar-quality downforce. This pressure is palpable in the suede-like grip steering wheel from about 80 mph, building to a crescendo of aerodynamic pressure at 155 mph, hissing with the force of 1,760 pounds.

What's that feel like around Silverstone, home of the British Grand Prix? Godlike.

You know how in videogames the track comes at you in one hell-bent, world-slewing blur and you hardly slow down for corners? Like that, except for the asymmetrically bulging eyeballs. The Senna corners so hard it hurts. On its barely legal, flypaper-sticky Pirelli P Zero Trofeo R tires, the Senna just rages through the majestic curves at Stowe and Club at more than 2g lateral loading—that is, once I was shamed into it by the McLaren pro in the right seat. Lighting up the brakes at Vale made my nose tickle, as if I'd sneezed my brains out.

To do these tricks, the road-legal Senna must first make some adjustments. I was standing beside one of the cars when a colleague pressed the Race mode button in the overhead console. BANG! The car's body dropped 1.53 inches to its hovercraft-like ride height of 2 inches, nearly catching my toe. At this height the Senna's double diffuser is fully entrained (higher downforce and less drag) due to a phenomenon pilots know as ground effects.

As soon as the aero starts to come in it squishes what little suspension travel and spring there is in the multiplexed hydraulic suspension. The Senna goes rock-hard and no roll. It feels as if the wind were peeling back its road-car disguise. The optional transparent door panels only underscore the Senna's interdimensionality.

You might wonder why, if so-called ground effects are so great, they have not been applied to sports cars before? They have been and are, to an extent, but it's tricky and potentially hazardous. As the last Indy 500 vividly demonstrated, the problem with high aero is controllability at the limit. When Danica Patrick described a "little lift" in the corner before she spun out, she was talking about a tiny throttle adjustment inducing just enough yaw angle to suddenly dissipate the downforce over the rear wing. Around she goes.

The Senna's breakthrough is what one might call luxury downforce, by way of its amazing, telemetry-linked flight surfaces and huge articulations of downforce. As the car orbits the circuit its active front flaps (largely hidden in the pyramidal cutouts) and vast double-element rear wing dance together, balletically, sometimes frantically, to move the car's aerodynamic center of balance back and forth, nulling out incipient oversteer and understeer, self-stabilizing like someone balancing a broom in his hand.

This is really noticeable under hard braking, when the sinuous rear wing flicks up to nearly vertical. As it does, the computer automatically feathers the front flaps,

> The Senna is ugly, but it's ugly with purpose. What you're looking at is two cars, one peeking through the ribs of another.

making very fine adjustments to compensate for forward weight transfer that would otherwise have the car sliding into the Kitty Litter.

This goes back to the car's aesthetics: That long, fairly ungainly front overhang allows it to more effectively leverage aero forces.

The automated aero balancing above is brilliantly mind-melded with the other systems below, most particularly the elaborate suspension: double wishbones and hydraulically interconnected, reciprocally compensating dampers at the four corners, and separate hydraulic anti-roll plumbing across both axles. It all imbues the Senna with the an eerie stability, refinement and drivability at limits once reserved for elite race cars.

McLaren doesn't call these interventions driver's aids—billionaires egos can be fragile—but that is what they are. It is only by dint of these calculations and real-time actuations that McLaren can put such awesome dynamics in the hands of civilians.

Bearing in mind the Senna has just enough stowage for two helmets and driving suits; and that ingressing the driver's seat is like falling ass-first into a suede-filled laundry basket; and that the exquisitely fragile carbon-fiber front splitter sticks out a half foot and rides a mere 4 inches high at its highest; you may ask why does it have to be road legal at all?

"That's where the market is," one McLaren exec told me. "If you can't drive in London or to Cars & Coffee, it won't sell."

2019 MCLAREN SENNA

Price, as Tested $958,966
Powertrain Dual twin-scroll turbocharged 4.0-liter DOHC flat-plane crank V8 with dry sump lubrication; seven-speed transaxle; rear-wheel drive
Power/Torque 789 hp at 7,250 rpm/590 lb-ft at 5,500-6,700 rpm
Dry Weight 2,641 pounds
Curb Weight 2,800 pounds (estimated)
Length/Width/Height/Wheelbase 186.8/77.1/48.4 (standard ride height)/105.1 inches
0-62 mph 2.7 seconds
0-187 mph 17.5 seconds
Top Speed 211 mph
Braking Distance, 62-0 mph 97 feet
Braking Distance, 187-0 mph 705 feet
EPA Fuel Economy 13/18 mpg (estimated)
Cargo Capacity Exactly 0 cubic feet

BOOKSHELF

Summer Reads for Perfectionists

Humans have long pursued the perfect, despite a propensity for screwing up—a state of affairs three new books explore

F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY JILL TELESNICKI

FALLING FLAT These books cover the eerie precision of machines and the flaws of our own bodies.

The Perfectionists
By Simon Winchester

Elevator Pitch What do telescopes and cannons have in common? A lot, as it turns out: Aside from their barrel shape, they're both the products of precision engineering, the method by which machines are designed to be as close to perfect as humanly possible. This surprising—and at times unsettling—history of the discipline by Simon Winchester illustrates just how much of modern society was built on the obsessive pursuit of technological perfection.
Very Brief Excerpt "I would gaze in either admiration or puzzlement at machines that cut and notched the teeth for tiny brass gearwheels."
Surprising Factoid Turns out Eli Whitney was a bit of a fraud. Sure he invented the cotton gin. But he also scammed the U.S. government with fake precision manufacturing techniques to invent fail-proof muskets. Surprise: They failed.

Human Errors
By Nathan H. Lents

Elevator Pitch Most engineers would tell you that the human body is a nightmare of design flaws, from our throats (why would the same tiny tube be used for breathing *and* eating?) to our ankles (why do they contain seven pointless but still quite breakable bones?). Whether our imperfections come from a changing environment or the limits of evolution, Nathan H. Lents argues that we should appreciate them and harness them to create a better future for humankind.
Very Brief Excerpt "How boring would our lives be if each of us were a purely rational, perfect specimen? Our flaws are what make us who we are."
Surprising Factoid Unlike those of other animals, human sinuses drain upward, which leads to a preponderance of bacteria and infections—another reason your dog's nose is more dependable than yours.

Chemistry
By Weike Wang

Elevator Pitch The quest for unobtainable perfection and human error come together in Weike Wang's first novel, in which an over-achieving Ph.D. candidate is foiled by her own brain chemistry when she has a nervous breakdown at her university lab. The aftermath is equal parts poignant, hilarious and deeply affecting, and the science sprinkled throughout is accessible enough to understand, equipping readers to seem roughly 58% smarter at dinner parties.
Very Brief Excerpt "Emotionally charged experiences, particularly those linked to fear, activate parts of the brain responsible for long-term memory. This makes sense."
Surprising Factoid Diamond is no longer Earth's hardest mineral. That honor now belongs to lonsdaleite, a metal that forms when a meteorite strikes the planet.

—Alison Murphy