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# THE WALL STREET JOURNAL.

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DJIA 21006.94 ▲ 0.26% NASDAQ 6100.76 ▲ 0.42% NIKKEI 19445.70 Closed STOXX 600 394.54 ▲ 0.65% BRENT 49.10 ▲ 1.49% GOLD 1224.80 ▼ 0.14% EURO 1.0998 ▲ 0.11%

## What's News

### Business & Finance

The IPO market has rebounded this year but some big-name startups are holding off, concerned that prices won't match private valuations. A1

◆ **Berkshire is looking** at ways to benefit from a proposed cut in the corporate tax rate, Buffett said at the annual meeting. B1

◆ **Indian outsourcers** are applying for fewer U.S. work visas and bringing employees home as Trump tightens immigration curbs. B1

◆ **Profits at S&P 500 firms** jumped an estimated 13.9% last quarter, in part because they are keeping a lid on capital spending. B2

◆ **GE is placing** Germany's Concept Laser and Sweden's Arcam at the core of a new 3-D metal printing unit. B3

◆ **Morgan Stanley** is considering pay changes for its financial advisers that could discourage them from Vanguard funds. B7

◆ **A labor shortage** in the U.S. commercial real-estate industry is driving up the costs of some projects. A7

◆ **Some analysts** are keeping their bullish forecasts for oil prices, despite a 13% plunge in crude over the past three weeks. B8

◆ **Iron-ore prices** have tumbled on concerns about excess supply and weakening Chinese demand. B8

### World-Wide

◆ **French voters** elected Macron president, handing him a mandate to overhaul the economy and stem a tide of nationalism. Early projections gave the ex-banker 65.5% of the votes to rival Le Pen's 34.5%. A1

◆ **Merkel's party** secured a surprisingly big victory in German state elections, dashing the hopes of the rival Social Democrats. A3

◆ **Boko Haram freed** 82 of the nearly 300 schoolgirls that it seized three years ago, in a swap by Nigeria for detained militants. A3

◆ **The Pentagon** endorsed a plan to invest nearly $8 billion to bulk up the U.S.'s Asia-Pacific presence over the next five years. A3

◆ **The property developer** owned by Kushner's family is targeting wealthy Chinese to invest for a chance to secure U.S. visas. A3

◆ **Trump's former** acting attorney general is set to testify before a Senate panel probing alleged Russian election interference. A7

◆ **Pyongyang detained** a second U.S. citizen tied to a Christian-backed university in North Korea, according to state media. A3

◆ **China's foreign reserves** rose for the third month in April, edging up on the back of a less-bullish dollar. A3

**Journal Report**

Finding the answer to a basic investing question—how much you're paying in investment fees—can elicit confusion and frustration. **Investing in Funds & ETFs, B4-5**

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U.S. Military (Eur.) $2.20

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# Macron Elected French President

PHILIPPE HUGUEN/AGENCE FRANCE-PRESSE/GETTY IMAGES

Emmanuel Macron, 39, above with supporters in Le Touquet in northern France, will become the youngest president in French history.

Victory of novice over Marine Le Pen marks major success for pro-EU establishment

BY WILLIAM HOROBIN AND STACY MEICHTRY

PARIS—Emmanuel Macron was elected president of France Sunday in a watershed victory that hands the political newcomer a strong mandate to overhaul France's economy and stem a tide of nationalism sweeping the European Union.

Early projections showed 65.5% of voters cast ballots for Mr. Macron, a 39-year-old former investment banker who has vowed to undertake contentious labor reforms in France as part of a push for greater economic convergence among the EU's fractious member states.

Marine Le Pen, who ran on a plan to pull the country out of the euro and close its borders to migrants, took 34.5%. She conceded minutes after early projections were announced.

Mr. Macron will become the youngest president in French history at a time when France and the EU, the 60-year political project it helped found, face major

Please see VOTE page A4

**French Election**

Second round projections

**Emmanuel Macron**
En Marche (centrist party)
66%

**Marine Le Pen**
National Front (far-right party)
34%

Note: Average of projections as of 2:55 p.m. E.T.
Sources: Ipsos and Kantar, unofficial
THE WALL STREET JOURNAL.

# Europe's New Deal Faces Old Doubts

BY MARCUS WALKER

**ANALYSIS**

BERLIN—Emmanuel Macron's big idea for Europe is to deepen the euro currency union, whose incomplete design he likens to "half-pregnancy."

His success—or failure—in France and Europe may well go hand in hand. But to get what he wants he will first have to convince a skeptical Germany.

The victor of Sunday's French presidential election, according to preliminary projections, is a staunch defender of the euro and European integration in general. At campaign rallies he waved the European Union flag. He argues, however, that the status quo works better for Germany than for others—a widespread view in France and Europe's indebted South.

The 39-year-old's call for deeper integration, including the creation of a common eurozone budget for investment and for supporting crisis-hit countries, flies against firm German convictions. The prevailing view in Berlin is that, given the current antiestablishment mood in much of the continent, more steps toward a federal Europe would inflame anti-EU populism, rather than counter it.

Germany's political establishment has looked upon French ideas for collective, state-directed investment programs doubtfully for decades.

Yet Berlin is also keen for Mr. Macron to succeed at home where outgoing President François Hollande failed: in shaking up a sluggish economy. Economists say France needs to overhaul its heavily regulated labor market, where restrictions have contributed to stubbornly high unemployment of around 10%.

Please see EUROPE page A4

**France Chooses**



## INSIDE

AN EXISTENTIAL THREAT TO UBER

BUSINESS & FINANCE, B1

# VENEZUELA IS STARVING

Hobbled by economic policies, Latin America's once-richest country can no longer feed its people

BY JUAN FORERO

YARE, Venezuela—Jean Pierre Planchart, a year old, has the drawn face of an old man and a cry that is little more than a whimper. His ribs show through his skin. He weighs just 11 pounds.

His mother, Maria Planchart, tried to feed him what she could find combing through the trash—scraps of chicken or potato. She finally took him to a hospital in Caracas, where she prays a rice-milk concoction keeps her son alive.

"I watched him sleep and sleep, getting weaker, all the time losing weight," said Ms. Planchart, 34 years old. "I never thought I'd see Venezuela like this."

Her country was once Latin America's richest, producing food for export. Venezuela now can't grow enough to feed its own people in an economy hobbled by the nationalization of private farms, and price and currency controls.

Venezuela has the world's highest inflation—estimated by the International Monetary Fund to reach 720% this year—making it nearly impossible for families to make ends meet. Since 2013, the economy has shrunk 27%, according to local investment bank Torino Capital; imports of food have plunged 70%.

Hordes of people, many with children in tow, rummage through garbage, an uncommon sight a year ago. People in the countryside pick farms clean at night, stealing everything from fruits hanging on trees to pumpkins on the ground, adding to the misery of farmers hurt by shortages of

Please see STARVE page A6

# As IPOs Accelerate, Star Firms Hold Off

BY CORRIE DRIEBUSCH AND MAUREEN FARRELL

A soaring stock market, historically low volatility and a rally in technology shares has fueled a rebound in the U.S. market for initial public offerings. But the biggest, highest-profile startups are still hanging back, reflecting broader concerns about whether they can match the rich valuations offered by private investors.

A slew of firms are preparing to go public this year, as the volume of new listings reaches levels not seen since 2014. U.S.-listed IPOs raised more than $18 billion in the first four months of the year, four times as much as in the same period last year and nearly double the comparable 2015 total, according to Dealogic.

Among the companies preparing for IPOs, according to people familiar with the matter, are MongoDB Inc., which has hired Goldman Sachs Group Inc. and Morgan Stanley to lead an offering that is expected to value the data-analytics provider at more than its last valuation of $1.6 billion; Switch Ltd., an operator of data-storage facilities that recently hired Goldman and J.P. Morgan Chase & Co. for a debut that's expected to carry a valuation of more than $2 billion; and Axiom Global Inc., a tech-based legal-services provider that recently held a bake-off for potential underwriters.

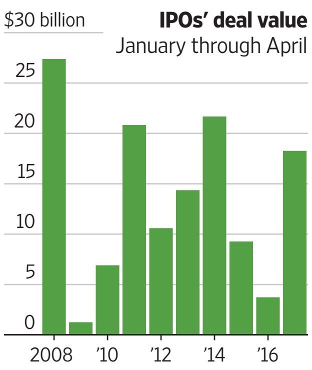
Altice USA filed paperwork last month for an offering that could raise more than $1 billion and value the Cablevision owner at more than $20 billion.

"It feels like some companies are rushing to go because there's a window in the market," said Jim Callinan, portfolio manager at Osterweis Capital Management in San Francisco.

Please see IPO page A2

**Pickup**

U.S. IPOs have raised the most money in the first four months of the year since the same period in 2014.




Source: Dealogic
THE WALL STREET JOURNAL.

OLAMIKAN GBEMIGA/ASSOCIATED PRESS

# Boko Haram Frees 82 More Girls

**SWAP:** Eighty-two of the 276 girls kidnapped in 2014 by the jihadist group have been released in exchange for detained Boko Haram members. The girls, left, arrived Sunday in the Nigerian capital of Abuja to meet the country's president. **A3**

# This Arctic Village Loves Visitors, Unless They're Car Spies

* * *

In Sweden's Arjeplog, photographers of auto tests get the cold shoulder

BY CHESTER DAWSON

ARJEPLOG, Sweden—When Andreas Mau started coming to this village of about 3,000 near the Arctic Circle, the photojournalist quickly learned of a deep local bias against one particular group of outsiders: strangers with cameras.

While trying to complete assignments, the 50-year-old Mr. Mau says, he was physically threatened, had drivers try to run him off the road and was blacklisted from some local hotels. "It was like the Wild, Wild West."

There was a reason for Arjeplog's chilly attitude: This town in the Lapland wilderness is where many auto makers bring new models and prototypes for winter testing—to the town's economic benefit.

As a "spy" photographer, Mr. Mau nabs shots of top-secret cars going through their paces. Desirable shots, according to people at publishers that buy them, command anything from $300 to more than $1,500 depending on their rarity.

Some residents of Arjeplog (pronounced AH-rreeyeh-ploog) say they worried that snoops like Mr. Mau might drive off auto makers.

To protect their carefully

Please see SPIES page A6

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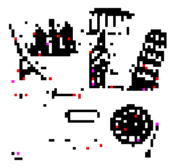
# The Arctic: Source of Conflict or Cooperation?



EUROPE FILE
By Simon Nixon

KITTILA, Finland—In normal times, a meeting of the Arctic Council wouldn't usually attract much attention.

The intergovernmental forum was established 20 years ago to enable the eight countries with territory inside the Arctic Circle—the U.S., Canada, Russia, Sweden, Finland, Denmark, Norway and Iceland—to discuss how to protect the polar region's unique environment.

But at a time of heightened geopolitical tension, this week's meeting in Fairbanks, Alaska, carries extra significance. With U.S. Secretary of State Rex Tillerson and his Russian counterpart, Sergei Lavrov, due to attend, the meeting that begins on Wednesday could have broader strategic consequences—both for the Arctic and the world.

The formal agenda includes a review of initiatives to improve living conditions for Arctic communities, enhance stewardship of the Arctic Ocean and assess the latest evidence on climate change before the U.S. hands over the two-year chairmanship to Finland. But an unspoken objective is to ensure geopolitical tensions elsewhere don't spill over into the Arctic.

Fears that the Arctic could become a source of conflict have been growing in recent years. Those anxieties first surfaced when Russia planted a flag on the Arctic seabed under the North Pole in 2007. They have been further fueled by increased Russian military activity in the region, including the expansion of its Northern fleet based in Murmansk, the reopening of old Soviet military bases and a large-scale Arctic military exercise last year.

At the same time, some analysts have been concerned that melting of the polar ice could spark a scramble to exploit commercial opportunities in the Arctic in areas such as energy, shipping and fishing, which could contribute to rising tensions. Over the past 30 years the area covered by Arctic sea ice has declined by more than half.

LEV FEDOSEYEV/TASS/ZUMA PRESS

**An icebreaker in Russia's seaport of Dudinka this month. The Arctic Council will meet this week.**

Nonetheless, the Arctic isn't yet the arena for a new Great Game between global powers. Unlike in other geopolitical hot spots, there are no serious territorial disputes in the Arctic. International law, including the United Nations Convention on the Law of the Sea—which sets out the rules regarding the use of the world's oceans—have been respected by all countries.

Nor has Russia's military activity so far extended beyond legitimate defensive border and infrastructure protection. Its military presence in the region is still far short of its Cold War peak.

And while the Russian navy has 41 icebreakers, it has only one nuclear-powered icebreaker capable of operating in the Arctic. Much of Russia's military buildup consists of an expanded coastguard operation which in other countries would be provided by a civilian agency and which Russia claims is for the benefit of all Arctic shipping.

Meanwhile, the expected Arctic economic boom hasn't materialized, according to business leaders at the Arctic Bridge Summit in Kittila, Finland, last week. A U.S. government report in 2008 estimated that 13% of the world's easily recoverable oil reserves and 30% of its natural gas reserves are in the Arctic. Yet the combination of the collapse in oil prices and Western sanctions has stalled much Arctic oil and gas exploration, particularly offshore.

Other commercial activities have been held back by lack of infrastructure. A warmer climate can create problems as well as opportunities in the Arctic, including increased risks to pipelines from thawing permafrost and risks to shipping from icebergs.

In reality, the Arctic has so far been a place of cooperation rather than conflict. The challenge is to keep it that way.

At a time of mutual suspicion between the West and Russia, the concern among military planners is that misunderstandings might destabilize the North Atlantic Treaty Organization's northern flank at a time when the Western military alliance is already facing tension with Russia in Ukraine and the Middle East.

In this respect, the Arctic Council can play an important role in promoting transparency and communication. As a science-led organization with no rule-making powers, it is a forum for dialogue between Russia and the West.

But could the Arctic Council be more than simply a vehicle for preserving the Arctic as a conflict-free zone? Could cooperation in the Arctic contribute to easing tensions elsewhere?

With no normalization of relations between the West and Russia appearing possible without a resolution of the crisis in Ukraine, the Arctic Council's role as a forum for dialogue could become even more valuable in the years ahead—particularly now that the chairmanship is passing to Finland, a country with its own long record of acting as a bridge between Russia and the West.

## 85-Year-Old's Attempt at Record-Setting Climb Ends in Mourning

NARENDRA SHRESTHA/EUROPEAN PRESSPHOTO AGENCY

**REMEMBRANCE: A funeral was held in Kathmandu for Nepalese mountaineer Min Bahadur Sherchan, who died Saturday while attempting to regain his title as the oldest person to climb Mount Everest. He died of altitude sickness, the expedition organizer said.**

# Troubled Chinese Police Get Cameras

By Josh Chin

BEIJING—China has mandated the use of body cameras or other video recorders by a law-enforcement agency often accused of thuggish behavior, in a bid to mute criticism with an unusual embrace of transparency.

China's *chengguan*, or urban-management officers, handle nonpolice matters such as enforcing sanitation rules and keeping sidewalks clear. A reputation for violence has made them a lightning rod for public ire, particularly in the smartphone era when accusations often come with visual evidence.

The central government put regulations into effect last week requiring chengguan officers nationwide to keep their own recordings of enforcement actions to help settle responsibility in case of a conflict.

The nod to transparency comes as the ruling Communist Party, under pressure from slowing economic growth, seeks to address sources of popular discontent and reclaim its reputation as a defender of the poor.

Of the range of security agencies in China, the urban-management force is the one that ordinary people are most likely to confront on a regular basis. The chengguan are managed directly by cities rather than the Ministry of Public Security, which manages the police, making them a natural priority for a government trying to centralize control over law and order.

"'Chengguan beating people' is practically a part of everyday vocabulary," said a commentary posted to the website of the state-run Sichuan Daily newspaper. "Recording an entire enforcement action is not just being responsible to the masses, it's also being responsible to the chengguan themselves."

ASSOCIATED PRESS

**Officers of the urban-management bureau demand a beggar and his child leave a Guiyang street in 2011.**

Chengguan officers contacted by The Wall Street Journal argue that incidents of violence are few and often initiated by the public, not the officer. Neither the Beijing Office of Urban Management nor China's Ministry of Housing and Urban Development, which introduced the new rules, responded to requests for comment.

China is following a similar path as the U.S., where many police departments have equipped officers with body cameras in response to rising public anger over police shootings.

The chengguan were set up to maintain order in urban areas in the late 1990s, when downsizing of the state sector led to widespread unemployment and an explosion in street commerce. They have developed a reputation for rough treatment of unlicensed street peddlers, beggars and other urban poor.

Criticism of the agency mounted in 2013, after state media said chengguan in central China's Hunan province had killed a watermelon vendor by kicking him and hitting him with his scale.

A steady stream of incidents since then has continued to feed public outrage. Searches in Chinese for the phrase "chengguan beating people" turn up links to thousands of videos on YouTube and the Chinese search engine Baidu, though it couldn't be determined how many separate videos were available.

Chengguan officers said they are themselves victims of violence and are criticized unfairly on the basis of a few extreme incidents. At least one officer has worn Google Glass while on duty to prove that point.

Du Wei, 30, a chengguan officer in the city of Xuchang, in Henan province, said she is glad to be wearing a body camera. "It's great. If you're on duty and there's a conflict, at least now you have evidence," she said.

Footage shot by the palm-sized body cameras can't be edited or deleted, according to Ms. Du, who says officers in her unit turn on the cameras, which can film for four hours before needing to be recharged, whenever they go into the streets to work.

In April, rumors circulated online that chengguan in the eastern province of Anhui had beaten an elderly vegetable seller. City officials later posted video from a body camera that showed the vendor had initiated the aggression after having her goods confiscated, at one point biting an officer.

*—Lilian Lin contributed to this article.*

# IPO

*Continued from Page One*

Yet the market still has a long way to go to return to full health. Conspicuously missing from the current IPO pipeline are some of the highest-profile private companies, such as **Uber Technologies** Inc. and **Airbnb** Inc., which aren't expected to come to market before 2018. Several investment bankers say there have been fewer bakeoffs than they'd expect given the favorable market conditions.

Shares of newly public firms are doing well, with this year's batch of IPOs trading 11% above their offering price on average through Friday's close, according to Dealogic. Last year's batch of IPOs have gained an average of 29%, Dealogic data show.

The flurry of activity is a sign the new-issue market that has languished in recent years may be in the midst of a sustained rebound. **Snap** Inc. successfully debuted in March at a valuation of $24 billion, far above the Snapchat parent's latest private funding round. Although the shares have fallen from their highs, they still trade well above the price at which they were first offered to the public.

It's a change from much of last year and late 2015, when investors and corporate boards stepped back from the IPO market, wary that the stock market would value their companies at less than prior fundraising rounds. That fear still permeates private-company boards, according to bankers, investors and analysts. And together with cheap funding that is widely available for private companies, it helps explain why many richly valued startups and others aren't rushing to go public.

"The good news is we have an IPO market," said Matthew Sperling, a managing director who runs the equity advisory business at Rothschild & Co. "But issuers and owners are looking at it with a measured level of enthusiasm."

**Cloudera** Inc. stoked those concerns last month when the big-data software startup debuted at a level far below its last private valuation of more than $4 billion. Meanwhile, shares of **Twilio** Inc., a software company that went public last June, fell 27% last week on the back of soft first-quarter results. Still, the company remains valued at more than $2 billion, well above its last private round.

So far the IPOs that have debuted "have been priced to sell, but once investors get a taste of success, the companies that come next don't have to offer quite as much of a discount," said Scott Sandell, a managing general partner at venture-capital firm New Enterprise Associates. He added that he expects a robust pipeline for IPOs in the balance of the year, but warned that some companies could still get scooped up by corporate buyers seeking growth opportunities in a sluggish economy.

Indeed, some investors and underwriters say there's concern that the public markets are being used as a last resort. Some of the companies debuting have tried to sell themselves and failed. It is symptomatic of a decadeslong trend that has seen the total number of public firms in the U.S. decline sharply as more entrepreneurs and others choose to avoid the increased disclosure and other perceived drawbacks of broad ownership.

## WeWork, Spotify Eye Different Paths

One of the most closely watched private companies, shared-office-space provider WeWork Cos., is soon expected to close on a new round of private funding in excess of $3 billion—more than any U.S.-listed IPO has raised this year and last, other than Snap. The investment will likely keep WeWork from tapping the public markets for more than a year, according to people familiar with its plans.

The likely path for **Spotify** AB, the music-streaming service last valued at $8.5 billion, is yet another sign of the antipathy some companies have toward raising money in the public markets and the IPO process. Spotify is considering a so-called direct listing of its shares, in which the Swedish company wouldn't sell stock and raise capital or use underwriters, unlike in a typical IPO, The Wall Street Journal has reported.

*—Corrie Driebusch and Maureen Farrell*

## CORRECTIONS & AMPLIFICATIONS

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# WORLD NEWS

## Merkel Secures Big Win in State Election

### Christian Democrats prevail in Schleswig-Holstein with 33.3% of the ballots cast

By Andrea Thomas


CHRISTIAN CHARISIUS/DPA/ASSOCIATED PRESS

Daniel Günther, the conservatives' top candidate in the poll, smiles after first projections in Kiel.

BERLIN—Chancellor Angela Merkel's conservative party secured a surprisingly big victory in Germany's northernmost state, according to initial results, dashing the hopes of the rival center-left Social Democrats ahead of the national vote in September.

Ms. Merkel's mainstream conservative Christian Democrats got 33.3% of the vote in Schleswig-Holstein, according to initial results published on Sunday by broadcaster ARD.

The Social Democrats had governed this small state, which shares a border with Denmark, since 2012 and had hoped to emerge as the front-runner but the party won only 26.5% of the vote.

Despite the clear victory for the Christian Democrats, it is still unclear which party will lead the next coalition government. The Social-Democrats could form a government with the Greens, who received 12.9% of the vote and the Free Democrats, which tallied 11.2%.

But the Christian Democrats could also lead the government by forming a coalition with the Greens and perhaps also the Free Democrats. An alliance of the two mainstream parties is also an option.

Many opinion polls ahead of Sunday's vote had predicted a neck-and-neck race between the two mainstream parties, with some seeing a small lead for the conservative party.

"Nobody had expected the lead to be that big," said German Deputy Finance Minister Jens Spahn, who is also a senior official of the Christian Democrats.

The vote in this state is usually insignificant for national politics, but its proximity to the Sept. 24 national poll and its role as a second test run for Ms. Merkel's challenger from the Social Democrats, former European Parliament President Martin Schulz, means Berlin will pay more attention to the outcome than usual.

Mr. Schulz said the outcome in Schleswig-Holstein was "sad."

"I am disappointed, I believe we all here are," Mr. Schulz said in his address to the Social Democrats. "We all had expected a better result."

The defeat was the second failure for the party after it lost an election in the state of Saarland in March.

The main focus will now be at next Sunday's vote in the state of North-Rhine Westphalia, which is Germany's most-populous state and is also governed by the Social Democrats.

"This is the Social Democrats' heartland," said Social Democrat Secretary-General Katarina Barley. "This will be a different game."

Analysts said it would have been crucial for Mr. Schulz's Social Democrats to have a good run in the Schleswig-Holstein and also more importantly in North-Rhine Westphalia next week, because both states were governed by his party.

"Schulz failed for the second time with his hope to promote the Social Democrats," said Oskar Niedermayer, professor for political science at the Free University in Berlin. "If things go wrong (in North-Rhine Westphalia), it could become extremely dangerous also in a psychological sense for the party."

A recent national poll by the Forsa institute of 2,502 people April 24-28 predicts Ms. Merkel's conservative bloc leading with around 36%, with the Social Democrats securing 28% of support. In February, shortly after Mr. Schulz's appointment, the SPD reached 31% while the conservatives got 34% support.

## Nigerian Militants Free 82 Girls in a Swap

By Joe Parkinson and Gbenga Akinbule

OLAMIKAN GBEMIGA/ASSOCIATED PRESS

Chibok girls recently freed from Boko Haram captivity assembled in Abuja, Nigeria, on Sunday. Many more remain unaccounted for.

ABUJA, Nigeria—Eighty-two of the nearly 300 Chibok schoolgirls seized three years ago by Boko Haram have been freed in exchange for detained members of the jihadist group, Nigeria's government said, marking the biggest breakthrough in the effort to recover the insurgency's most-prominent captives.

News of the swap came early Sunday from office of President Muhammadu Buhari.

The fate of the girls—whose April 2014 kidnapping in the town of Chibok kindled the #BringBackOurGirls campaign—fixed global attention on the rampage of the Boko Haram insurgency across swaths of northern Nigeria.

Then-first lady Michelle Obama tweeted a picture of herself holding a placard with the #BringBackOurGirls appeal. Mr. Buhari, elected in 2015, pledged to defeat the Islamic State-affiliated group and free the girls, the highest profile of the estimated 30,000 people the group has taken hostage.

The news follows the release of 21 of the Chibok girls in October after talks with the militants brokered by the International Committee of the Red Cross and the Swiss government.

Nigerian officials denied they had made a prisoner exchange or paid a ransom.

The president's office on Sunday said "some Boko Haram suspects held by authorities," were released but offered no further detail.

One official with knowledge of the operation said girls were released near the town of Banki close to the border with Cameroon.

Sunday's release means that of the 276 girls kidnapped, 113 remain unaccounted for.

Some relatives didn't live long enough to see their daughters go free.

For the families of those that remain, the news that 82 girls would be released was met with joy but also trepidation. Some captive girls have been forced into marriage, some raped, some enlisted as child soldiers. One escaped with a baby daughter born in captivity.

"This is very, very exciting news. For us, for the parents, for the Chibok community," said Bukky Shonibare, a founding member of the Bring Back Our Girls group, in Abuja.

Emmanuel Yakubu, father to one of the kidnapped girls, traveled to Abuja from Chibok on Sunday morning in anticipation of the release.

"I don't know whether or not my daughter, Dorcas, is among the released girls. But whatever be the outcome, as a parent, I'm very happy at this huge number of released girls after three years in captivity," he said.

Nigeria's military, along with forces from Cameroon and Chad and the help of Western powers including the U.S. and France, has been gaining back territory from Boko Haram.

An internal battle for control between Abu Musab al-Barnawi, declared by Islamic State to be the group's new leader, and longtime Boko Haram leader Abubakar Shekau—has also slowed the group, which under Mr. Shekau pledged allegiance to Islamic State last year.

After his election, Mr. Buhari directed a forceful offensive against the group, driving it deep into the Sambisa forest in northeastern Nigeria.

## Military to Build U.S. Presence In Asia

By Gordon Lubold

WASHINGTON—The Pentagon has endorsed a plan to invest nearly $8 billion to bulk up the U.S. presence in the Asia-Pacific region over the next five years by upgrading military infrastructure, conducting additional exercises and deploying more forces and ships.

The effort is seen by backers as one way to signal more strongly the U.S. commitment to the region as Washington confronts an increasingly tenuous situation on the Korean Peninsula, its chief security concern in the area.

The Trump administration is still formulating its larger policy for Asia after essentially discarding former President Barack Obama's so-called Asia pivot, which was disparaged by critics as thin on resources and military muscle, and dropping U.S. support for the Trans-Pacific Partnership, a 12-nation trade deal.

Given President Donald Trump's recent overtures to Chinese President Xi Jinping, any plan to expand the U.S. military presence in Asia eventually may require steps to reassure Beijing that new military measures aren't directed at the Chinese. A spokesman for China's embassy in the U.S. didn't immediately respond to a request for comment.

The proposal, called the Asia-Pacific Stability Initiative, was first floated by Sen. John McCain (R., Ariz.) and has been embraced by other lawmakers and, in principle, by Defense Secretary Jim Mattis and the head of U.S. Pacific Command, Adm. Harry Harris. Proponents haven't developed details of the $7.5 billion plan.

"This initiative could enhance U.S. military power through targeted funding to realign our force posture in the region, improve operationally relevant infrastructure, fund additional exercises, preposition equipment and build capacity with our allies and partners," Mr. McCain told Adm. Harris in an April hearing.

Dustin Walker, a spokesman to Mr. McCain, described the plan in an email as a way to make the American posture in the region more "forward-leaning, flexible, resilient and formidable."

Supporters liken the initiative to an Asia version of the European Reassurance Initiative, or ERI, begun after Russia's 2014 intervention in Ukraine and funded at $3.4 billion in this year's U.S. budget.

Backers haven't spelled out how they plan to get funding. The Trump administration has asked for additional money for military spending in the current fiscal year and is seeking a $54 billion increase for fiscal 2018.

## Kushner Cos. Pushes Visas

By James T. Areddy


ASSOCIATED PRESS

An event touting EB-5 investment in Shanghai, China.

SHANGHAI—New York property developer Kushner Cos. launched a weekend marketing campaign for a New Jersey development, targeting major Chinese cities for wealthy individuals to invest a combined $150 million for the chance to secure U.S. immigration rights.

The developer, owned by the family of Trump administration senior adviser Jared Kushner, is trying to draw investment into twin 66-floor commercial-and-residential towers called One Journal Square that would cost almost $1 billion to build, according to marketing materials. As many as 300 individuals who put $500,000 each into the project could be eligible for green cards under a U.S. investment-for-immigration program called EB-5, the materials said.

The China marketing push, being led by Mr. Kushner's sister, Nicole Meyer, began in Beijing on Saturday and shifted to Shanghai on Sunday.

It is the latest sign the Kushner family is looking to China for funding to support its U.S. property development. In March, Kushner Cos. ended talks with Beijing-based Anbang Insurance Group Co. over participation in a $7.5 billion redevelopment of a Manhattan tower amid an outcry over possible conflicts of interest involving the Trump administration.

Mr. Kushner, who is married to President Donald Trump's daughter Ivanka, had been running the family-controlled Kushner business before last year's election, but to protect against potential conflicts he resigned from the business and sold his personal stake in some projects and assets to family members and others.

Blake Roberts, an attorney at WilmerHale, which provides personal counsel for Mr. Kushner, on Sunday said his client "has no involvement in the operation of Kushner Cos. and divested his interests in the One Journal Square project by selling them to a family trust that he, his wife, and his children are not beneficiaries of, a mechanism suggested by the Office of Government Ethics. As previously stated, he will recuse from particular matters concerning the EB-5 visa program."

At Shanghai's Four Seasons Hotel on Sunday, organizers barred media from the two-hour marketing event, which attendees said included a brief presentation by Ms. Meyer, a principal at Kushner Cos. Before the event, a woman staying in the hotel identified herself over the telephone as Ms. Meyer, but hung up when a reporter for The Wall Street Journal identified himself.

Organizers tried to keep reporters from interviewing attendees, with a representative from QWOS Group, a local partner of Kushner Cos., telling one not to discuss details with reporters. Representatives of QWOS, an immigration-services provider, declined to comment.

## WORLD WATCH

NORTH KOREA

### Authorities Detain Another U.S. Citizen

State media said Pyongyang had detained a U.S. citizen tied to a Christian-backed university in North Korea two weeks after arresting one of his colleagues.

The arrest on Saturday of Kim Hak-song for committing "hostile acts" brings the number of known U.S. citizens detained in North Korea to four, adding another twist to troubled relations between Washington and Pyongyang as the U.S. seeks to slow the North's nuclear and missile program.

According to the report on Sunday published by North Korea's official Korean Central News Agency, Mr. Kim works for the Pyongyang University of Science and Technology, an institution founded in 2010 by James Kim, a Korean-American Christian businessman.

Two weeks ago, North Korea detained Tony Kim, a Korean-American accounting professor at PUST, as he was preparing to depart North Korea at Pyongyang's main international airport, citing "hostile acts."

In 2014, American Jeffery Fowle was detained and held in North Korea for six months after leaving a Bible in a nightclub bathroom.

*—Jonathan Cheng*

CHINA

### Foreign Reserves Increased in April

China's foreign-exchange reserves rose for the third straight month in April, edging up on the back of a less-bullish U.S. dollar and Chinese government controls on money moving offshore, economists said.

The foreign-currency reserves increased by $20.45 billion from the previous month to $3.03 trillion, according to numbers released by the People's Bank of China on Sunday. Economists surveyed by The Wall Street Journal had expected an $11 billion rise following March's $3.96 billion increase.

Some economists attributed April's increase to a dollar that lost some ground after President Donald Trump said the U.S. currency "is getting too strong."

The value of other currencies in China's reserve hoard—including the euro, the British pound and Japan's yen—played a significant role in the rise, said Yan Ling, an economist with China Merchants Securities.

Also contributing to the reserve accumulation are the tight controls on capital outflows that the central bank began ratcheting up late last year to defend a weakening yuan, some economists said.

*—Pei Li*

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**CAPITAL ACCOUNT** | By Greg Ip

# Macron's Projected Win Offers a Reprieve for the Euro

Emmanuel Macron should thank the euro. While there were a lot of things French voters didn't like about Marine Le Pen, leader of the National Front, perhaps foremost was her promise to ditch the common currency and bring back the franc, with the implicit threat of inflation and devaluation.

Yet there is an irony to this. While Ms. Le Pen never offered a plausible path out of the euro and the European Union, her critique of both was sound. The rigidity of the euro coupled with strict budget rules enforced by Brussels impose one-size-fits-all policy on every country in the union no matter how divergent its circumstances. That planted the seeds of the last crisis and could create the conditions for another.

The eurozone today remains fragile, like a building constructed on an earthquake fault. Ms. Le Pen's solution, to simply tear it down, was brutal. But it was no less logical than the status quo, which amounts to hoping another earthquake doesn't happen.

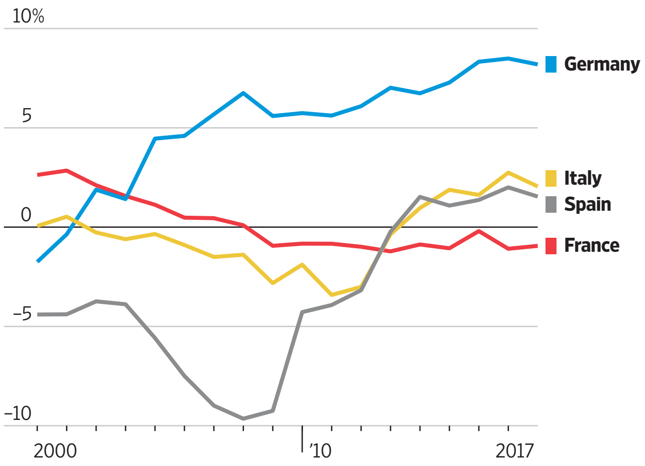
Mr. Macron's plan is to reinforce it against future earthquakes by deepening its governance and economic ties. Yet that risks inflaming the grievances that sustain nationalist movements like Ms. Le Pen's.

The low inflation and steady growth of the euro's early years masked growing imbalances. Until 2000, French and German labor costs largely tracked each other. But with the introduction of the euro and German labor market reforms, French costs began to rise much more sharply, and those in Spain, Italy, Portugal and Greece even more so. The result was a large and growing trade imbalance in Germany's favor which its neighbors couldn't cure through the usual mechanism, devaluation.

The public and private debts taken on to finance those trade deficits proved unsupportable, yet member countries' central banks could no longer act as lender of last resort to guarantee that governments and their biggest banks wouldn't default. The euro crisis was the result.

**Left Behind**

Current account balances as a share of GDP




Source: IMF THE WALL STREET JOURNAL.

The acute phase of the crisis subsided once the European Central Bank decided it would act as lender of last resort to its members. Since then, a moderate recovery has ensued. Trade imbalances have also closed sharply; the current account, which includes trade and investment income, is in surplus in Spain, Ireland and Italy and the deficits of Greece and Portugal have narrowed dramatically. Only in France has the deficit deepened. Germany's surplus has grown, though largely with the rest of the world rather than Europe.

But those imbalances have been replaced by others. Unemployment has fallen to historic lows in Germany yet remains in double digits throughout the southern periphery and in France. Government debt has fallen steadily in Germany thanks to balanced budgets while rising elsewhere. It has stabilized at more than 100% in Italy and around 100% in Spain. It is just below 100% in France, and still climbing. It isn't a stretch to think that a few years from now the ECB will be raising interest rates because Germany is overheating. Yet those same rates saddle its highly indebted and moribund neighbors with snowballing interest costs that must be met with another dose of austerity.

That probably won't produce another sovereign debt crisis. The ECB will remain lender of last resort, a €500 billion European Stability Mechanism now exists to bail out indebted governments and banks, and a more independent regionwide bank supervisor ensures banks are better insulated from their governments' troubles. This "makes potentially a huge difference," says Nicolas Veron, an expert on the eurozone at Bruegel, a Brussels-based think tank. Even a severe fiscal crisis will be "much more manageable."

But flaws will persist: the failure of the eurozone's underlying economies to converge and their inability to calibrate macroeconomic policy to their own needs.

Mr. Macron would address the euro's flaws by deepening its governance and creating a common budget that can stimulate growth as needed via infrastructure spending financed by Eurobonds. His approach would also stop members such as Germany from using fiscal policies, such as tax changes, that hurt their neighbors. At the same time, he will try to complete the work he began under departing president François Hollande: injecting more flexibility into France's labor market. In theory, this will allow French unemployment to fall and productivity to catch up to Germany's, closing the competitiveness gap.

But labor reform is deeply unpopular in France. Moreover, Ms. Le Pen struck a chord with working-class voters by linking France's industrial decline to the impositions of the EU: free trade, immigration and prohibitions on government intervention.

Mr. Macron has five years to prove her wrong by overhauling both the French labor market and the EU. If he fails, voters at the next election may find Ms. Le Pen's siren song of nationalism irresistible.

# VOTE

*Continued from Page One*

challenges.

Nearly a decade of lost economic growth for many EU countries has fueled the rise of Ms. Le Pen and other nationalists across the Continent, emboldened by the British vote to leave the EU, or Brexit, and the election of U.S. President Donald Trump.

"I know the divisions in our nation, which led some to vote for extremist parties. I respect them," Mr. Macron said in a somber address after the victory. "I will work to recreate the link between Europe and its peoples."

Still, the scale of Mr. Macron's victory provides a shot in the arm to the pro-EU establishment. He ran as a staunch defender of the bloc, positioning himself as a bulwark against Europe's nationalist wave. The strategy broke with parts of France's political mainstream that had been gravitating toward more populist positions.

The euro rose by around 0.2% to $1.102 against the dollar following the results, taking the common currency to its highest level since the U.S. presidential election in November.

LAURENT CIPRIANI/ASSOCIATED PRESS

**Supporters of centrist Emmanuel Macron reacted to the election results outside the Louvre museum in Paris on Sunday.**

In conceding defeat Sunday, Ms. Le Pen said her far-right National Front party was in need of "deep transformation...to build a new political force."

Ms. Le Pen said the election cemented her status as the leading opposition figure of a new political order centered around "the divide between patriots and globalists."

In the coming weeks, Mr. Macron will face a scramble to build his fledgling political party, En Marche, or "On the Move," into a political force capable of winning a majority in June's legislative elections. En Marche has so far refused to forge alliances with mainstream parties and has only named a handful of candidates it intends to field in the 577 seats up for grabs.

If Mr. Macron fails to secure a majority, he would have to seek ad hoc alliances with opposition parties or could even be forced into a so-called cohabitation—a form of power-sharing under which a prime minister from the opposition runs the government.

Mr. Macron built a political base around support from urban professionals who embrace his prescription of loosening France's labor code to make it easier to hire and fire workers. Such measures aim to create a workforce that can more easily adapt to disruptions caused by globalization and technological change.

Mr. Macron has said the EU's future depends on whether its shaky architecture can undergo a root-and-branch overhaul to correct stark economic imbalances among wealthier Northern and poorer Southern members and develop a security apparatus able to protect the bloc from terror attacks and control a recent wave of migration.

For that to happen, he says, France needs to set an example among countries that have been slow to embrace economic restructuring by loosening its own rigid labor market to become more competitive with stronger neighbors.

Those mammoth tasks fall to a relative newcomer to politics. Until now, Mr. Macron has never held elected office. He was trained in elite French academies to become a high-ranking civil servant, but switched to a career in investment banking, joining Rothschild & Cie. at the height of the financial crisis.

On Sunday, supporters of the mainstream parties knocked out in April coalesced behind Mr. Macron to secure his victory. Voters appeared unmoved by the massive leak of emails and documents purportedly from the Macron campaign, which were posted to the internet on Friday evening.

Once in office, however, Mr. Macron faces possible fallout from the data dump, which his campaign said mixed real and phony documents with the aim of "sowing doubt and disinformation." For months, Mr. Macron had said his camp was being targeted by Russian government hackers. The Kremlin denied any involvement.

The early results, based on samples of votes cast at hundreds of polling stations across France, could change as more ballots are counted, but surpassed pollsters' predictions that the pro-EU Mr. Macron would win by 60% to 40% over Ms. Le Pen.

THIERRY CHESNOT/GETTY IMAGES

**Far-right candidate Marine Le Pen making a statement after her defeat in the runoff election.**

The rise of both Mr. Macron and Ms. Le Pen stems from a meltdown of the political establishment that has ruled France for decades. No candidate from the country's main conservative or center-left parties survived the first round of voting last month. François Hollande, the incumbent president, didn't run, and the candidate of his party captured just 6.4% of the first-round vote.

Mr. Hollande tapped Mr. Macron as a top aide in 2012 and later promoted him to economy minister. Those posts have given him insight into policy-making but have provided scant experience on the sort of parliamentary coalition-building needed to pass difficult legislation—of the type that will be needed to move ahead with his agenda.

The projections Sunday indicate Ms. Le Pen still managed to pick up millions of supporters who backed mainstream candidates in the first round. That breaks with the pattern in past elections, when big majorities overwhelmingly rallied against the National Front, tainted by the xenophobia of Ms. Le Pen's father, Jean-Marie Le Pen.

The Sunday projections show Ms. Le Pen nearly doubled the 17.8% of the vote her father won in 2002, the only previous occasion a National Front candidate reached the final round of a French presidential election.

The EU's goal of binding its member countries in an "ever closer" union has also placed many of its weaker economies in a straitjacket. The sovereign-debt crisis that swept the bloc's southern economies—from Greece and Italy to Spain and Portugal—has left the Continent struggling to kick-start growth.

# EUROPE

*Continued from Page One*

The price if Mr. Macron were to fail, many policy makers across the EU fear, could well be victory in the 2022 presidential elections for Sunday's defeated candidate, the far-right, anti-EU nationalist Marine Le Pen.

"For Macron to succeed, he needs a partner in Germany," said former European Central Bank director Jörg Asmussen. "If Macron can show that he is able to shape change in Europe, that would also help him domestically," he said. But he cautioned: "It doesn't solve the problems of the French labor market. But success in one area helps success in another."

Last week, Mr. Asmussen joined with numerous, mainly left-of-center German politicians, economists and other public figures in a public call for Berlin to engage with Mr. Macron and not rebuff his ideas. The strength of anti-EU voter sentiment in France partly reflects the perception that Germany dominates Europe, the joint statement said.

German Foreign Minister Sigmar Gabriel, who recently stepped down as leader of the center-left Social Democrats, has also welcomed Mr. Macron's initiative. But his party, the junior partner in Chancellor Angela Merkel's governing coalition in Berlin, is deeply ambivalent about putting more of German taxpayers' money at Europe's disposal. Ms. Merkel's conservative Christian Democrats are even less eager.

Neither of Germany's two major parties is campaigning for deeper European integration ahead of the country's elections this September. Political strategists for both parties believe there are no votes in it. Even Social Democrat candidate for chancellor Martin Schulz has been circumspect, despite his pro-federalist stance in his previous post as president of the European Parliament.

Aware of the prevailing skepticism, Mr. Macron made his pitch to Germany in a speech at Berlin's Humboldt University in January. His language was diplomatic, but the subtext was clear: Germany's huge trade surpluses and fixation on fiscal austerity have hurt growth and support for the EU elsewhere in the continent.

Offering a "New Deal," Mr. Macron suggested France needed to win Germany's trust through overhauls to meet eurozone fiscal rules—and that Germany should accept that it can't sustain economic growth if other nations in the euro are struggling. "The euro is incomplete and cannot last without major reforms," he said.

Concretely, he proposed a common eurozone budget, funded from both tax revenues and common borrowing, which would finance investment programs, and support countries hit by economic crises.

Economists close to Mr. Macron say he knows that to gain more credibility with Germany than Mr. Hollande had he must show he can push through difficult economic overhauls in France.

Germany's powerful finance minister, Wolfgang Schäuble, has said repeatedly over the past year that the time isn't right for deeper integration of the EU or eurozone, because public support for a federal Europe is lacking. He has called instead for more ad hoc cooperation between governments that are willing to act together in areas such as defense. Mr. Schäuble is seen throughout the eurozone as the toughest foe of proposals for common fiscal policies that could create new liabilities for Germany.

Germany's September election might lead to Mr. Schäuble leaving the finance ministry, if the Social Democrats demand the ministry in return for serving again under Ms. Merkel. However, the Social Democrats have rarely strayed far from German orthodoxy on finance, fearing that the Christian Democrats would attack them for handing German taxpayers' money to Southern Europe.

"Macron is not blind to German views," says Nicolas Veron, a French economist and fellow at Brussels think tank Bruegel. "His aim is not fiscal union, but to start a meaningful conversation about how to strengthen the eurozone. His idea for a eurozone budget is an opening gambit."

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> **"In support of the President's outstanding leadership in further making America the greatest place in the world to manufacture, I'd like to announce that Pratt Industries pledges to invest an additional $2 billion over the next decade, doubling our rate of investment in America to create 5,000 high-paying manufacturing jobs mainly in the Midwest."**
>
> **— Anthony Pratt**
>
> *Executive Chairman,*
> *Pratt Industries*


NATHAN EDWARDS/NEWS CORP AUSTRALIA

*President Donald Trump thanking Anthony Pratt for his pledge.*

Pratt Industries Chairman Anthony Pratt made this pledge last Thursday night in New York City at an event with President Trump. Pratt Industries currently employs 7,000 Americans in high-paying manufacturing jobs.

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# STARVE

*Continued from Page One*

seed and fertilizer. Looters target food stores. Families padlock their refrigerators.

Three in four Venezuelans said they had lost weight last year, an average of 19 pounds, according to the National Poll of Living Conditions, an annual study by social scientists. People here, in a mix of rage and humor, call it the Maduro diet after President Nicolás Maduro.

## 'This is an epidemic'

For more than a month, Venezuelans have protested against the increasingly authoritarian government of Mr. Maduro; by Sunday, more than 35 people had been reported killed in the unrest. The country's Food Ministry, the president's office, the Communications Ministry and the Foreign Ministry didn't return calls or emails requesting comment for this article.

"Here, for the government, there are no malnourished children," said Livia Machado, a physician and child malnutrition expert. "The reality is this is an epidemic, and everyone should be paying attention to this."

Dr. Machado and her team of doctors are seeing a dramatic increase in emaciated infants brought to the Domingo Luciani Hospital in Caracas, where they work.

The problem is no better in towns like Yare, south of Caracas, where the government's leftist movement was long popular. "To eat," said Sergio Jesus Sorjas, 11 years old, "I sometimes go to the butcher and I say, 'Sir, do you have any bones you can give me?' "

The boy receives nutritional formula or a traditional Venezuelan corncake from the parish priest. Sergio said he hasn't tasted meat in months: "Sometimes, I don't eat at all."

The Catholic charity Caritas and a team led by Susana Raffalli—a specialist in food emergencies who has worked in Guatemala, Africa and other regions tormented by hunger—are monitoring conditions here.

The most recent Caritas study of 800 children under the age of 5 in Yare and three other communities showed that in February nearly 11% suffered from severe acute malnutrition, which is potentially fatal, compared with 8.7% in October. Caritas said nearly a fifth of children under age 5 in those four communities suffered from chronic malnutrition, which stunts growth and could mark a generation.

"What's serious is not that we're at the crisis threshold, but rather the velocity at how we got there," Ms. Raffalli said.

By World Health Organization standards, Caritas's findings constitute a crisis that calls for the government to marshal extraordinary aid. But authorities have resisted offers of food and aid from abroad.

The country's growing malnutrition is made worse by a breakdown in health care, the spread of mosquito-borne illness and what the Pharmaceutical Federation of Venezuela has called a severe shortage of medicines.

Belkis Diaz watched her newborn, Dany Nava, wither away last summer from lack of food. There was no baby formula, and Ms. Diaz couldn't nurse, said Albertina Hernandez, the baby's grandmother.

"We couldn't find food, we couldn't find the milk, and he began to get thinner and thinner," Ms. Hernandez said.

By the time Dany arrived at the hospital, he had a serious cough and soon died. "He was so, so tiny," his grandmother said.

In past years, the farms south of here produced at capacity, everything from chickens to soybeans.

Alberto Troiani, 48 years old, still works the hog farm that his father, an Italian immigrant, founded in the 1970s. His business has now been battered by price controls, a shortage of supplies and criminal gangs.

The farm has gone from 200 female pigs, each producing a dozen piglets, to 50. Mr. Troiani can't afford the high-protein feed and medicines he once used. Full-grown pigs now weigh 175 pounds instead of 240 pounds. What is worse, he said, walking past half-empty pens, is seeing his pigs sometimes bite off the tails and ears of others.

"We used to send 120 to 150 pigs a month to slaughter," Mr. Troiani said. "Now it's 50, 60 animals, a joke." He makes 93 cents per kilogram, or 2.2 pounds, of meat, he said, but needs $1.17 to make a profit. Since 2012, 82% of Venezuela's pig producers have closed, and production has fallen 71%, according to industry representatives.

Mr. Troiani talked about leaving Venezuela with his mother, Yolanda Facciolini, 69 years old, who arrived from Italy in the 1960s. He said he would have no buyers: All around him, people are abandoning their farms. Thieves take what is left behind, he said—copper wire, tractors, weed killer.

The agricultural companies the government has taken over, including milk factories and distributors of fertilizer and feed, are closed or barely operating, according to economists and farm groups.

"The system is created so you can't win," said Alberto Cudemus, who heads the national association of pig farmers. "The government thinks its survival is in communism, not in us, not with production. And that's where they're wrong."


MIGUEL GUTIERREZ FOR THE WALL STREET JOURNAL

**Keithy Olivo's infant daughter, Thaikelys, above, suffers from severe malnutrition; below, the Palma family outside their home in Yare.**


WIL RIERA FOR THE WALL STREET JOURNAL

## Survival skills

Diogenes Alzolay, 65 years old, once had two small construction companies and later drove a cab. He is now trying to sell the freezers of the small store he once ran along with his books, lamps, photocopier and taxi.

He and his wife, Nidea Cadiz, need money to feed their children, who include a 2-year-old boy and a 7-year-old girl. He also has three teenagers, ages 13, 16 and 19.

On a recent day, Mr. Alzolay was frying sardines. To stretch the food they have, a couple of family members skip eating one day to leave enough for the others. Meals are sometimes the local corncakes known as arepas, vegetables, mangoes and the occasional canned fish.

"I've thought about running away, but I can't do it because of our very little kids," Mr. Alzolay said. "Getting to this extreme makes me want to cry."

Nine in 10 homes said they don't make enough money to buy all their food, according to the poll of living conditions. Nearly a third of Venezuelans, 9.6 million people, eat two or fewer meals a day, up from 12.1% in 2015, the poll found; four of out five in the nation are now poor.

Cesar Augusto Palma, 75 years old, lays out the grim arithmetic of high inflation on a fixed income. His pension is now worth about $10 a month, he said, enough to buy four boxes of milk.

His grown daughter and three grandchildren are financial dependents. Mr. Palma and his grandson Germain, 11 years old, eat less food to leave more for the two younger children. Germain's once-thick hair is turning yellow.

"They need it more than me," said Germain, who weighs 50 pounds instead of 70 pounds, about the average for a boy his age. Nearby, his brothers, Cesar Augusto, 10 years old, and Angel Jose, age 4, try to fly a handmade kite.

"I am hungry," Germain said. "I feel like a pain in my belly." Asked his favorite meal, he said, "Arroz con pollo," rice and chicken, which he last ate in 2015.

## Bits of corn or bread

At the Domingo Luciani Hospital in Caracas, Ms. Planchart cried when she recalled the ways she tried to feed baby Jean Pierre and her four other children. She went through trash bags, searching for bits of corn or bread free of maggots. "I'd stand there and say, 'I can't do it,' " she said, worried of being seen by neighbors. "I said to myself, 'If I don't do it, this, what will I take to my children?' "

Ms. Planchart had a string of jobs: cashier, hair salon worker, cook. Then the work disappeared; inflation and food shortages made everything worse. At one point, she said, a neighbor cooked a dog.

As she watched Jean Pierre grow thinner and then stop moving, she decided to seek help from Dr. Machado and other malnutrition experts at the hospital. The doctors don't have vitamins, antibiotics or serum for sick babies.

"We're not feeding him well in this hospital," Dr. Machado said. "No boy like this is going to get better with bananas and cheese."

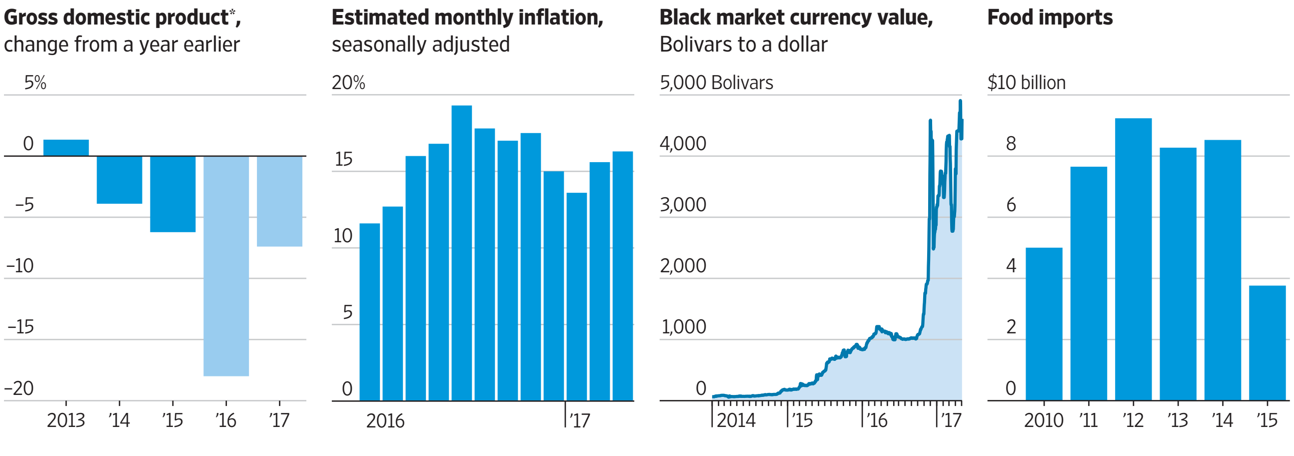
Ms. Planchart, meantime, rocked Jean Pierre in her arms, a balm for both.

"He hasn't fully recovered," she said of her baby, who now has chickenpox. "The idea is for him to get his weight up and that we get his metabolism to where it should be. But he's delicate."

*—Maolis Castro in Caracas contributed to this article.*

## Venezuela's High-Speed Crash

Once Latin America's richest country, Venezuela now has the world's highest inflation rate, making it nearly impossible for families to make ends meet. The economy has contracted by more than a quarter since 2013.




*estimates start in 2016
Sources: IMF (GDP); Torino Capital (inflation); DolarToday (currency); World Trade Organization (food imports)

THE WALL STREET JOURNAL.

# SPIES

*Continued from Page One*

scripted car-debut plans and avoid tipping off rival manufacturers, auto makers perform camouflage tricks on vehicles such as fake grilles, sheets of black plastic cladding and full-body wraps in dizzying geometric patterns to trick the eye.

They also do their endurance testing in such places as Spain's undulating mountains and Death Valley's scorching dunes, away from all but the most dogged prying eyes.

"When they do use public roads, they do so in remote locations," says Colum Wood, vice president at VerticalScope Inc., a Toronto company that owns auto-news sites AutoGuide.com and The Truth About Cars.

Nevertheless, trying to hide a 14-foot long, 4,000-pound piece of machinery from someone with a telephoto lens and time to spare is often a losing battle.

"They are everywhere," says Tobias Moers, chairman of Daimler's Mercedes-AMG high-performance division. "I met the same people in Death Valley that I met in Spain and in Sweden," he says. "There was always a lady from the U.S."

In Arjeplog, roughly 500 miles northwest of Stockholm, "There are more snowmobiles than women," according to an official town "Fun Facts" sheet. The town, which also claims it posted the lowest temperature on record in any of the Nordic countries (minus 62 degrees Fahrenheit), has developed a specialty preparing tracks on iced-over lakes for car tests.

Many auto makers have secured long-term leases and made investments in nearby garages and workshop facilities. Lakeside residents rent out their homes to auto engineers during the three-month winter testing season.

Arjeplog doesn't have an official stance on car spies, says town spokesman Fredrik Westerlund. "We realize that they sometimes are a nuisance or worse, and that they sometimes are part of the business."

Those mixed feelings are shared by Johan Fjellström, an Arjeplog resident and founder of a local print newsletter that until several years ago featured a regular column with mug shots of car spies to warn test drivers.

"The spies are back!" Mr. Fjellström wrote in a Facebook post in December.

Local businesses in the past sometimes circulated lists of photographers and their vehicle license-plate numbers, townspeople say, to hotels and auto makers. "We thought of spy photographers as the most wanted, heinous criminals," says Mr. Fjellström.

Car spy photographers have a difficult job, even without vigilantes pursuing them. They lug telephoto lenses while trekking among sand dunes and rocky ledges or plowing through snowy woods in white snowsuits. "We try to blend in as much as we can," says Brenda Priddy, a semiretired U.S.-based car spy photographer. Scoping out Death Valley, she says, requires several gallons of water, a wide-brimmed hat and thick-soled shoes that don't melt on the hot sand.

Getting to winter sites, she says, can require a snowmobile or cross-country skis.

During test season, Mr. Mau drives about 80 miles from his home to Arjeplog, sometimes parking near a key intersection and waiting for a lucky break. Other times, he hikes through knee-deep snow in white camouflage into the woods to a test track's edge.

His cover was blown once by a rival dressed in bright red, who followed Mr. Mau and then strode onto the test-track ice in plain sight.

> *'We thought of spy photographers as the most wanted, heinous criminals.'*

Photographers say they learned to keep a low profile by using fake names to book hotel rooms and avoiding sit-down restaurants. Townspeople sometimes threatened to report them to local police or car companies, say Mr. Mau and some locals.

Lore among auto-industry officials in the area has it that someone found a motion-sensing camera installed on a gas pump by an unknown car spy to catch prototype vehicles as they stopped to refuel.

Mr. Fjellström kept a close watch for interlopers. "There is a car spy on the prowl in Arjeplog right now!" he wrote in a 2013 post after being tipped off by a car tester. "He has been seen near Porsche in Kuorrokveik and also by the kindergarten."

A Swedish author, Jakob Mjöbring, was so fascinated by photographers' clashes with residents and car testers that he wrote a 2016 novel, "Köld" (translation: "cold"), in which police investigate the murder in Arjeplog of a car spy tied up naked in a vehicle and left to freeze with eyelids propped open.

"I was fascinated by these cars," he says, "and the idea of paparazzi sneaking around, risking getting beat up."

The cold war in Arjeplog appears to have thawed somewhat in recent years. Some residents say they feel more secure that the auto makers aren't going to leave even if there are car spy photographers lurking.

Mr. Mau says he no longer gets dirty looks from townspeople. Stefano Vigolo, recently appointed manager of the company that runs the local Hotell Silverhatten, says there is no ban on car spies at the hotel today, "but there might have been at one time."

Even Mr. Fjellström in an introspective moment in February posted a semi-confessional saying he "did something unusual" by helping a car spy transfer images of a prototype car.

"This made me think of the moral dilemma of such action," he wrote. "If I help a spy photographer I might irritate someone in some car company, but on the other hand pictures of new models serves the interests of people looking to buy a new ride."

Meanwhile, some auto makers have figured out how to turn the tables, some car spies say, using snooping photographers to drum up a bit of free publicity.

"Sometimes I know they've spotted my hiding place, but then a few minutes later a really hot prototype comes rolling out," Mr. Mau says. "That's when you know they want the images out there."

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# U.S. NEWS

# Labor Shortage Squeezes Builders

By Peter Grant

A growing labor shortage in the commercial real-estate industry is driving up the costs of some projects and could complicate lawmakers' plans for a $1 trillion infrastructure-spending program, contractors say.

"Ever since we came out of the great recession, many folks in our industry have been saying: It's coming, it's coming, it's coming," said George Nash Jr., director of preconstruction for Branch and Associates, a Roanoke, Va., contractor. "Today the problem is there."

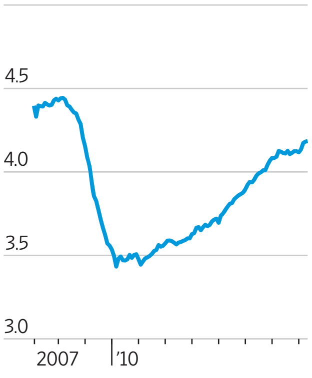
Construction businesses, excluding those building single-family homes, employed close to 4.2 million workers in April, up 3,000 from March, according to an analysis by the Associated Builders and Contractors, a trade group. That was the highest employment level since November 2008, though still below the record 4.4 million workers employed in the nonresidential construction segment in February 2008, the analysis said.

Labor pressures are increasing in the construction industry as hiring overall accelerates across the U.S. economy.

Among the hot pockets of construction activity are office development in New York and condominium and rental-housing projects in downtown Los Angeles, Boston and Miami. Big infrastructure projects include the modernization of Chicago's O'Hare International Airport.

### Bouncing Back

Nonresidential construction employment




Source: Associated Builders and Contractors Inc.
THE WALL STREET JOURNAL.

Contractors throughout the country said that as the workload grows, they are beginning to see shortages of electricians, carpenters and other subcontractor laborers.

When they bid out jobs two years ago, several contractors said, two or three subcontractors would typically respond for each part of the project. Today they are running into situations in which there is only one bid, making it harder to hold down costs, they said.

Subcontractors said they also are feeling the pinch. Gaylor Electric Inc. of Indianapolis has opted against bidding on some jobs "because we didn't have the people," said Chuck Goodrich, the company's president.

Gaylor has added 70 employees in the last two months but still has about 200 empty positions, Mr. Goodrich said.

Construction labor costs are rising an average of 4% to 5% annually, outpacing inflation, according to Anirban Basu, chief economist of the Associated Builders and Contractors.

Overall, the association said the industry needs 500,000 more workers. The trade group estimates 600,000 additional workers would be needed for the $1 trillion in infrastructure building and improvement for which President Donald Trump has said he would seek funding.

The Trump administration has been preparing a major workforce development initiative as part of its infrastructure program, a White House spokesman said.

Industry executives said the scarcity stems partly from many workers idled by the downturn finding other jobs and retiring. Also, fewer young people are choosing construction as a profession.

THE OUTLOOK | By Josh Zumbrun

# Fiscal Plans Could Fuel Rates Surge

Two of the most powerful economic forces in Washington could be aligning in coming years to put considerable upward pressure on long-term interest rates.

President Donald Trump is flirting with tax and spending plans that could widen the budget deficit, just as the Fed flirts with plans to shrink its $4.5 trillion portfolio of bond and other holdings. Larger deficits could mean that the supply of U.S. Treasury securities hitting the markets is rising just as demand for these securities diminishes with the Fed unwinding.

More supply and less demand tends to mean lower prices, and with bonds, lower prices mean higher yields and interest rates.

"The bond market is about to get hit all at once," said Stephen Stanley, chief economist of Amherst Pierpont Securities.

This will be a remarkable reversal.

The U.S. deficit exploded during the 2007-09 recession as tax receipts collapsed. In 2009, the deficit topped $1 trillion for the first time in history. It began to narrow but remained over $1 trillion from 2010 to 2012, as tax collections remained depressed from the era of high joblessness, and as President Barack Obama enacted an $800 billion stimulus plan.

During that era of high deficits, demand soared world-wide for the safety of U.S. government bonds. The Treasury also had a big buyer for its debt in the form of the Fed, which began purchasing billions of dollars a month worth of Treasury securities in March 2009, under the program that became known as "quantitative easing," or QE.

Though not intended to finance the deficit, the Fed's first QE program sucked in $300 billion of Treasury debt. The second program, launched in 2010, added another $600 billion of Treasurys. In the third round of QE, from 2012 to 2014, the Fed added another $800 billion. Deficits eventually started narrowing, thanks to a reduction in war spending and new caps on spending combined with rising tax revenue.

Now the tide is poised to turn.

The Congressional Budget Office projects deficits will reach $1 trillion again by 2023 under current law. This owes largely to the baby boom generation, born in the years after World War II, hitting retirement en masse and claiming Social Security and Medicare benefits. Medicaid and Medicare spending are set to rise to 7.3% of gross domestic product over the next decade, from 5.8% now, according to CBO estimates. Social Security is set to rise to 6% of GDP from 5%. Mr. Trump has said he doesn't plan to alter these entitlements.

Some plans, such as for tax cuts, could widen deficits. The University of Chicago regularly polls leading academic economists on important public policy issues. Asked this month if Mr. Trump's tax plan would pay for itself through higher economic growth, not one respondent thought that it would. Instead, it could force the Treasury to issue significantly more debt.

"Absent offsetting tax increases, it would be a fiscal disaster," said David Autor, the Massachusetts Institute of Technology economist.

One estimate from the Penn Wharton Budget Model, which calculates the effects of tax plans, projects the current version of Mr. Trump's tax plan would increase U.S. debt by 31% more than current policy.

This could all happen at precisely the moment the Fed is getting out of the market. Since its large-scale bond-buying program ended in 2014, the **Federal Reserve** has continued to buy new Treasury securities when its existing holdings mature.

Fed officials are eager to move away from these crisis-era policies and are considering allowing their bondholdings to mature later this year, without being replaced. That will leave about $400 billion of debt hitting the market as it rolls off the Fed balance sheet, according to a Fed estimate.

"We will have to see the specifics of the Fed's implementation of balance-sheet reduction, but all indications are that they will be very cautious and gradual," said Roberto Perli, a former Fed economist and partner at Cornerstone Macro. "If true, that should reassure markets and reduce the odds of any tantrums."

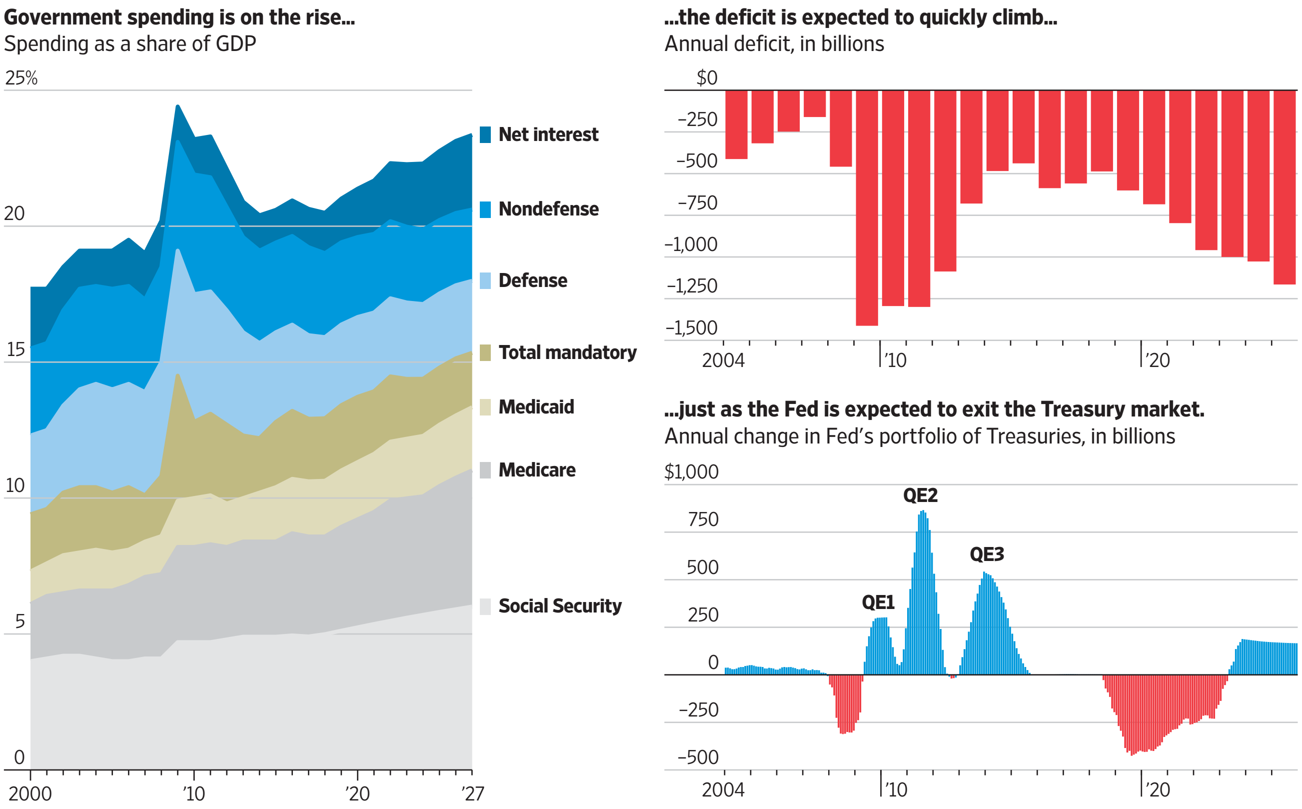
Treasury Secretary Steven Mnuchin and his staff are already considering how to handle the challenge of raising large amounts of debt. Last week, the Treasury sought the counsel of its Borrowing Advisory Committee, composed of major Wall Street bond market participants.

The committee cautioned that under plausible scenarios, the Treasury might have to more than double the amount of debt it auctions for 10-year and 30-year bonds.

Right now the market seems unperturbed by all of this. Yields on 10-year Treasury notes, at 2.35%, aren't far from historic lows, held down by a range of forces including low inflation and global demand for safe assets. Most forecasters have long expected rates to rise, and been embarrassed by those forecasts when interest rates stayed stuck in a rut. But the market risks becoming complacent about the idea that the old logic of low rates will last forever.

### Rising Pressure

Increased deficits in coming years will coincide with the Fed's withdrawal from the market for Treasury bonds




Note: Figures for 2017-2027 are forecasts.
Sources: Congressional Budget Office (government spending, deficits); Federal Reserve (change in Fed's portfolio)
THE WALL STREET JOURNAL.

# Yates Is Set to Testify in Russia Inquiry

By Del Quentin Wilber and Byron Tau

Testimony from a former acting attorney general on Monday could shed new light on the largely secretive investigations into Russia's alleged interference in the 2016 election.

Sally Yates, a top Justice Department official in the Obama administration, was serving as President Donald Trump's acting attorney general when she told a White House official about conversations between former national security adviser Mike Flynn and a Russian diplomat. The White House has said Ms. Yates provided a "heads up" to the official, White House counsel Donald McGahn, about the conversations, without describing the nature of them.

Ms. Yates, who had access to intelligence transcripts of the calls, will say that she told Mr. McGahn explicitly that Mr. Flynn hadn't been truthful about the conversations and that his actions could put him at risk of being compromised by Russian intelligence services, according to people familiar with her account.

Ms. Yates will be joined by James Clapper, Mr. Obama's director of national intelligence, at a hearing before a Senate Judiciary subcommittee headed by Sen. Lindsey Graham (R., S.C.) to examine alleged Russian interference in the election. Mr. Graham last year urged congressional leaders to create a special committee to investigate Russia's purported role, but they declined.

The Federal Bureau of Investigation is leading a probe into any collusion between members of the Trump campaign and Russian operatives. The House and Senate Intelligence Committees are also conducting high-profile inquiries into any Russian interference, but those investigations have been slow to gain momentum.

J. DAVID AKE/ASSOCIATED PRESS

Ms. Yates was fired in January for refusing to defend an executive order on visas and refugees.

Mr. Graham, more than most other Republicans, has been outspoken in calling for an in-depth examination of Moscow's actions.

"Based on evidence presented by our intelligence and law enforcement communities, I believe Russia interfered in our election," Mr. Graham said in a statement late last week, adding, "I think it's important we hold them accountable."

Russia has denied any election interference, and Mr. Trump has rejected allegations that anyone connected to his campaign coordinated with Russian officials to influence the election.

Mr. Graham was coy recently when pressed by reporters on why he was holding Monday's hearing, given the intelligence committee probes, and inviting journalists to attend the session. "We have jurisdiction over the Department of Justice and FBI," Mr. Graham said.

Later he added, "Y'all need to stop asking me about hearings. Come. I'm not going to talk about them."

The hearing is likely to focus intensely on the actions of Mr. Flynn, who isn't testifying, and Ms. Yates. Mr. Flynn spoke to the Russian envoy, Sergei Kislyak, on Dec. 29, the same day the Obama administration levied sanctions on Moscow for alleged meddling in the U.S. election.

U.S. intelligence intercepts of Mr. Kislyak's cellphone revealed that the two discussed sanctions, according to former U.S. officials familiar with the calls.

Ms. Yates is expected to testify that she expressed alarm to Mr. McGahn about the conflict between what transpired in the phone calls and how the White House was describing the conversations, according to people familiar with her account.

Vice President Mike Pence, relying on Mr. Flynn's assurances, had told CBS that Mr. Flynn hadn't discussed sanctions. After the nature of the contacts and Mr. Flynn's misleading of Mr. Pence became public, the national security adviser was forced from his job on Feb. 13.

The White House has said Mr. McGahn informed Mr. Trump about the matter, and the president ultimately asked Mr. Flynn for his resignation.

The general outlines of Ms. Yates's account of the events have been reported, but Monday will be the first time she airs them in public. Ms. Yates, deputy attorney general under Barack Obama, was elevated to acting attorney general after the departure of Attorney General Loretta Lynch at the end of the last administration.

Ms. Yates, who couldn't be reached for comment, was fired Jan. 30 for refusing to defend Mr. Trump's executive order on visas and refugees, which has since been suspended by courts.

**Some key dates in the Flynn saga**

**Dec. 29.** Then-national security adviser Mike Flynn and Sergei Kislyak, Russia's ambassador to the U.S., have a series of phone calls. They occur on the same day the Obama administration levies sanctions on Moscow for interfering in the U.S. election.

**Jan. 15.** Vice President-elect Mike Pence tells CBS that Mr. Flynn has told him that he and the Russian ambassador didn't discuss sanctions.

**Jan. 20.** President Donald Trump takes office.

**Jan. 26.** Sally Yates, the acting attorney general, raises concerns about Mr. Flynn's conversations with the Russian ambassador and how the White House has described them.

**Jan. 30.** Mr. Trump fires Ms. Yates.

**Feb. 9.** The Washington Post reports that Messrs. Flynn and Kislyak did in fact discuss sanctions.

**Feb. 13.** Under pressure for having misled Mr. Pence, Mr. Flynn resigns. The White House says Mr. Trump requested the resignation.

*—Source: WSJ Research*

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# LIFE & ARTS

JEREMIE SOUTEYRAT FOR THE WALL STREET JOURNAL

A guide led new employees of TDK-Lambda, below, through the mountains of Japan last month for a session of 'forest bathing,' to derive health benefits from nature, such as the Fuki shoot, below.

HEALTH

# Turning to Trees to Curb Stress

'Forest bathers' immerse themselves in nature to derive health benefits from chemicals emitted by plants and trees

BY SURYATAPA BHATTACHARYA

*Shinano, Japan*

**ON A TREK** through a snowy western mountain range, a forest guide points to a grove of evergreen Japanese red-cedar trees, and hikers gather around to take deep breaths.

The hikers are actually forest bathers, part of a growing movement that believes immersing oneself in nature and in the chemicals plants and trees emit has unexpected medical benefits. The trip is part of their orientation as new employees of a maker of power devices.

"Even if you can't smell them, they are there," the guide, Kazuhiro Kouriki, says of phytoncides, or chemicals emitted by some plants to protect themselves from insects and germs. Studies suggest that taking in the air around certain kinds of trees lowers stress and increases focus, Mr. Kouriki says.

The research isn't definitive, but from Japan to Hollywood, forest bathers swear by the therapeutic effects of trees. Justin Bieber is a fan, posting photos of himself on Instagram enjoying nature. Gwyneth Paltrow recommended it in her newsletter, and some resorts in the U.S. have started to offer forest-bathing programs.

Japan's government has spent millions of dollars promoting forest bathing, a term translated from the Japanese *shinrinyoku*, and it funds research into the possible benefits. Some 62 forests and wooded paths have passed a gauntlet of tests to be designed therapeutic by the Forest Therapy Society, a Tokyo-based nonprofit.

Local authorities sometimes organize checkups by medical doctors under a canopy of cedars, while companies send new employees into the woods for a therapeutic stroll ahead of the grinding workload new hires here face.

"At any company, people feel stress and we thought perhaps we could keep our new recruits better and longer if we gave them the opportunity to learn what stress is and how to cope with it," says Chieko Uchiyama, a personnel manager at TDK-Lambda, the TDK Corp. unit that organized the recent mountain trip.

Scientists studying forest bathing focus on the compounds trees emit. They reason that if swallowing certain plants can have medicinal effects—aspirin, for example, is derived from a substance in willow bark—breathing in the compounds may similarly be therapeutic.

A study published last year by Qing Li of Nippon Medical School in Tokyo had a group of 19 middle-aged men walk through an urban area in Tokyo and, a week later, take a forest walk. The men had higher levels of a fat-burning hormone after the walk in the forest.

Earlier studies, including one published in 2008 in the Journal of Biological Regulators and Homeostatic Agents, analyzed findings of forest bathing from 13 female nurses between ages 25 and 43. It showed exposure to phytoncides increased the activity of antimicrobial proteins released by killer cells of the immune system. That could have implications for research into anticancer proteins, Dr. Li says, although little follow-up has been done. In 2018, he will embark on a multiyear study to measure the effect of forest bathing on high blood pressure and mild depression.

"My goal is to get it listed as therapy, so it can be prescribed," Dr. Li says.

For his studies, he has struggled to recruit subjects who are willing to travel several hours from Tokyo and have their blood taken after some time in the mountains. Local volunteers take regular walks in the forest or have some exposure, so the results "are not as dramatic," he says.

Some believe forest bathing was imported to Japan from Europe and adopted by the government in the 1980s, while others trace the practice to Japan's native Shinto religion, which advocates communing with nature.

In Yoshifumi Miyazaki's office at the environmental-science department of Chiba University near Tokyo, a photo shows him speaking with the Crown Prince Naruhito and Princess Masako. The heir to the Japanese throne and his wife stopped by the university last year for a presentation on the physiological effects of flowers, forests and trees, in particular the *hinoki*, a Japanese cypress.

For more than a decade, Dr. Miyazaki has studied measures like heart-rate and cortisol levels to determine whether breathing in compounds from *hinoki* oil can affect stress. His most recent research looks at how to reduce stress in wheelchair-bound seniors in need of rehabilitation so they can do physical therapy better.

He says he wants to recreate the outdoors for people too old or sick to venture out. "It will be a way to raise the quality of life," says Dr. Miyazaki, whose business card is printed on a sliver of *hinoki*.

Back in the mountains, Tsubasa Funanami, a 22-year-old TDK-Lambda new employee, looks up at the 60-foot-tall trees and takes several deep breaths. Before the trip, he had questioned whether there was much point in forest bathing, but now he stares at the cluster of cedars and smiles.

Mr. Kouriki, the guide, then leads the forest bathers to the shore of Lake Nojiri. He pulls out a stethoscope and invites the trekkers to take turns listening to underwater sound. Mr. Funanami places the stethoscope's chestpiece against a rock submerged in the lake and listens.

"I've never been there but it sounds like space," he says. Moments later, seated on a rock and staring out at the lake, he adds: "I feel like time is flowing slower than usual."

*—Chieko Tsuneoka contributed to this article.*

Tomoya Oya, left, took a nap during the three-hour forest-bathing session last month; on the same excursion, his colleague, Shota Igarashi, listened to underwater sounds through a stethoscope.

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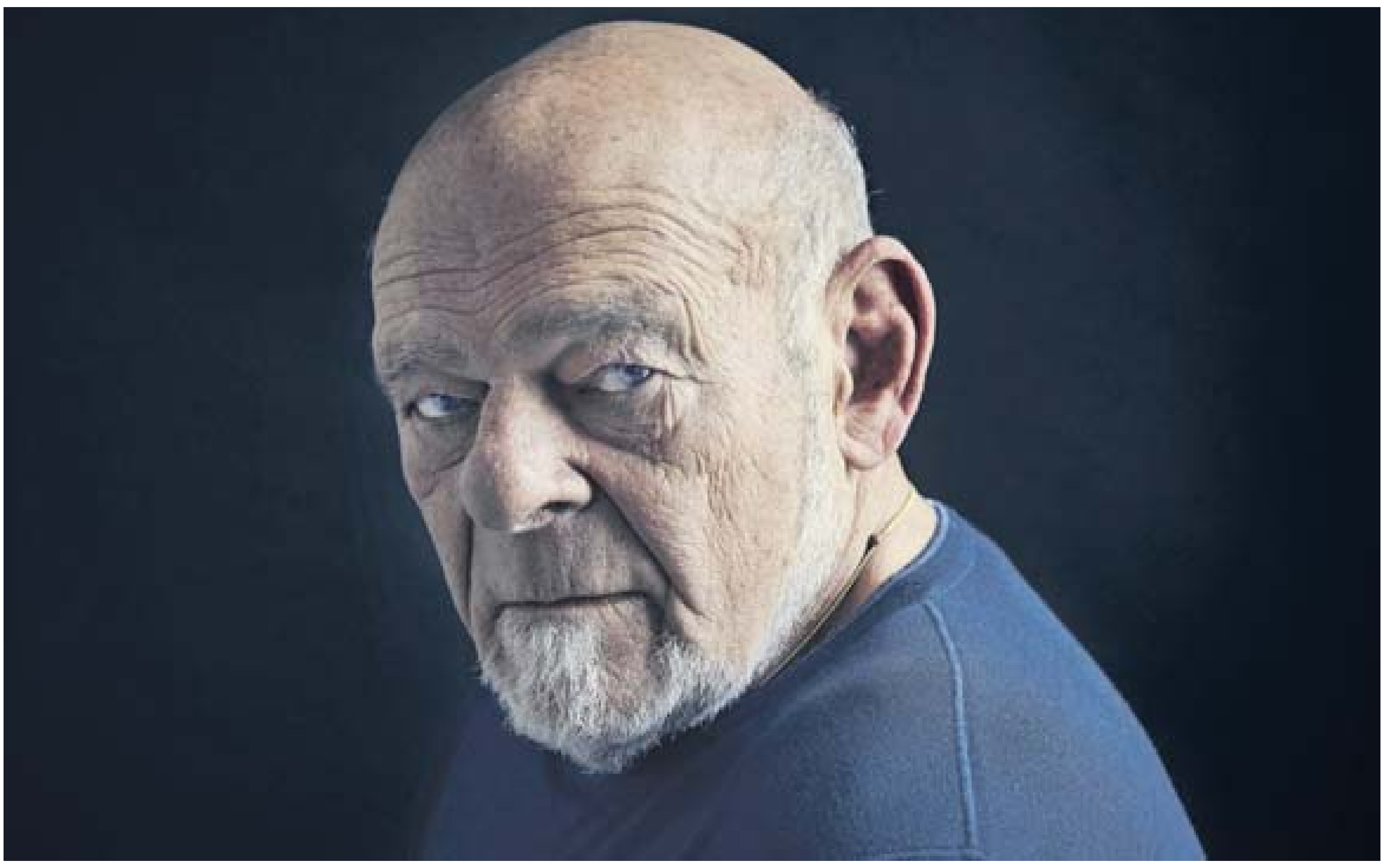
WEEKEND CONFIDENTIAL | By Alexandra Wolfe

# Sam Zell Looks Back

The notoriously blunt real-estate magnate on the lessons that he's learned



SAVERIO TRUGLIA FOR THE WALL STREET JOURNAL

**FORTY-FIVE MINUTES** into our interview, billionaire real-estate investor Sam Zell uses the F-word. He is a bit surprised at himself, having kept it clean up to that point. "I've done really well!" he says. Sometimes when he's on a panel, participants who know him bet on how long it will take before he curses.

Mr. Zell, 76, built one of the biggest real-estate empires in the country; he is especially known for turning around distressed properties and troubled assets. The notoriously blunt businessman shares the ups and downs of his career and the lessons he's learned in business—with just a little profanity—in a new book, "Am I Being Too Subtle?"

Worth an estimated $5 billion, Mr. Zell has also been involved in such industries as health care, energy and media. Over his long career, he says, "the thing I'm most proud of is nobody has ever left a meeting with me and said, 'What do you think he meant?' A lot of times you don't agree, and a lot of times...you could be irate, but you're not going to come back and say, 'What did you say?' "

The book, he says, is an attempt to "lay it all out there" for his three children and nine grandchildren. He talks about the importance of being hungry and contrarian. The most successful people go right when everyone else goes left, he says: "These are the people who excelled beyond belief, and did so because they in effect didn't follow conventional wisdom."

The advice on offer in his book includes: be ready to pivot, stay loyal and ethical, and obey what he calls the "11th Commandment"—not taking oneself too seriously. He writes that a successful person always says "no problem" when faced with a challenge or difficult request.

Mr. Zell learned to take risks in part from his parents, Jews who escaped from Poland just before the Nazis bombed their hometown. His father, a grain merchant, and his mother, a homemaker, moved to Seattle and then to Chicago, where Mr. Zell was born. He remembers once setting up a chess board with the pieces arranged in a way that he thought would stump his father—who checkmated him in one move, shrugged and left the room. "I was crushed," writes Mr. Zell. "He didn't make anything easier or softer. That just wasn't who he was."

Mr. Zell took to entrepreneurship early. At age 12, he bought Playboy magazines for 50 cents at a newsstand in the city and sold them to friends in the suburbs at a steep markup. As a student at the University of Michigan, he developed a taste for real estate. When he found out that a friend's landlord was planning to tear down two houses and build an apartment building for students, he and his friend pitched the landlord on letting them run it. The landlord agreed. Mr. Zell and his friend designed the interiors of the units and managed the building after it was done—later adding two other buildings that the landlord built.

After earning his undergraduate degree from Michigan in 1963 and his law degree there three years later, Mr. Zell went to work for a law firm in Chicago. He lasted four days before deciding to go into business for himself. In 1968, he started the predecessor to his current firm, the privately held Equity Group Investments, which has stakes in a mix of private and public companies. His deals within the past few years include selling off more than 23,000 apartments controlled by his firm Equity Residential for $5.4 billion to Starwood Capital Group in 2015.

One of his biggest stumbles was his 2007 leveraged buyout of the Tribune Co., a media group including the Chicago Tribune and Los Angeles Times newspapers, Tribune Broadcasting and a number of radio stations. It declared bankruptcy less than a year later. (The company emerged from bankruptcy in 2012 with new owners and a new board. Mr. Zell lost his $315 million investment and is no longer involved in the company.)

Tribune employees criticized him for cutting jobs while rewarding executives with bonuses, for saddling the company with debt and for blurring the line between advertising and editorial. Mr. Zell says that the main problem was a culture that said, "But we've always done it this way," in response to any suggestion of change.

Mr. Zell lives mainly in Chicago with his wife, Helen, but they also have homes in New York and Malibu, Calif., among other places. He spends a lot of his time reading both news and novels.

He wears jeans to work—something he's done since the 1960s. "If I'm comfortable with who I am and I'm comfortable with the decisions I've made, then I don't need a suit and tie to protect me," he says. "To a lot of people, a perk is the bathroom key, but to me, the real perk is freedom."

That is why he likes riding motorcycles. He has a group of friends he rides with called Zell's Angels who take trips around the world to places such as Poland, Abu Dhabi and Chile. "That's what riding a motorcycle is—freedom," he says.

PLAYLIST | By Paula Poundstone

# STANDUP AND SALAD

Despite mystifying lyrics, 'Chuck E's in Love' cheered a budding comedian bussing tables

*Paula Poundstone, 57, is a comedian and actress. She is the author of "The Totally Unscientific Study of the Search for Human Happiness" (Algonquin). She spoke with Marc Myers.*

WARING ABBOTT/GETTY IMAGES

**RICKIE LEE JONES performing in 1979.**

At 18, I was on my own and busing tables in 1979 at a salad-bar restaurant in Boston. The concept of making your own salad was just catching on then. That's where I first heard Rickie Lee Jones's "Chuck E's in Love."

The best part about my restaurant job was Mary, the manager. She had this great work ethic and a motivating sense of humor. She made everyone laugh, and everyone worked hard for her.

A cassette stereo system provided the restaurant's music. One morning, when I was setting up tables, I heard "Chuck E's in Love" on the radio. I went out and bought the album on tape so we could hear the song every day before the restaurant opened.

"Chuck E's in Love" is a happy song. It opens with a strong beat and a slinky, twangy acoustic guitar. Then Rickie Lee Jones's raspy voice comes in and sings the song's lyric, something about Chuck E being in love. I loved Rickie Lee Jones's quirky articulation. It was both rural and street and hard to pin down. But it was tough to sing along with her. I could never figure out what she was saying.

Even when I read the lyrics, they didn't make much sense. Lines like, "And how come he turn off the T.V. / And he hang that sign on the door?" But when it was time to sing the chorus, "Chuck E's in Love," I'd wail away, usually just before she did.

Eventually, Mary and many of my work friends moved on. I was heartbroken. Clearing salad-strewn tables had lost its charm. By then, I had tried stand-up at open-mic nights in Boston and was hooked.

With barely enough money for two consecutive months of unlimited travel tickets and a bag of Oreos, I boarded a Greyhound bus.

Once I got where I was going, I'd work a comedy club and then take the bus on long trips so I could sleep. It was cheaper than a hotel. During those lonely nights, I longed for my restaurant friends.

The Sony Walkman hadn't come out yet, so late at night on the bus, to avoid disturbing anyone, I'd press my ear against the tiny speaker of my small cassette player so I could hear "Chuck E's in Love." The challenge was to avoid singing along or crying too loud.

BURNING QUESTION | By Heidi Mitchell

# CAN SODA SOOTHE YOUR STOMACH?

**FOR MANY PEOPLE** who grew up in the 1970s, mom had a quick remedy for an upset stomach: a few sips of soda. Those little bubbles and hit of sugar were said to alleviate the queasy feeling that comes from eating a massive meal or not-too-fresh fish. Is there any science to back up this claim? One expert, Alexandra Gutierrez, a gastroenterologist at **Washington University in St. Louis**, explains how the stomach "feels" upset and the historic significance of the kola bean.

## Gut Check

Humans don't have pain receptors in their gastrointestinal (GI) tract. "The only thing your stomach, intestines and colon feel are distention," says Dr. Gutierrez, who specializes in inflammatory bowel disease. The stomach should only hold about 8 oz. of food at one time—though it has the ability to distend to carry a full gallon. After gulping down a meatball sub, most people become over-full and bloated, which feels like pain or queasiness. A meal high in fat also decreases motility, further enhancing that stuffed, nauseous sensation.

"If you eat bad or poorly prepared food with toxic bacteria in it, your body will eject it one way or another. But if you overeat, you'll likely have gas and distention, which can feel awful," says Dr. Gutierrez. The only way to eradicate that feeling is to get the food out of the stomach and into intestinal tract through chemical breakdown and physical movement of the food.

## Mom's No-So-Scientific Cure

There is no medical evidence to suggest that drinking a carbonated soda will calm the stomach, says the medical school professor, but the power of persuasion can be strong. Plus, there is anthropological lore buried in the age-old remedy: Coca-Cola was originally made with real kola berries, which some African cultures would chew during celebrations where big meals were served.

"The berries are naturally caffeinated, and caffeine activates the GI tract," says Dr. Gutierrez. These days colas no longer use kola beans, and there are other ways to get GI-tract-jumpstarting caffeine, such as coffee," says Dr. Gutierrez. There may also be an upside to the effervescence: as those tiny bubbles pop, they may encourage motility by triggering the GI tract to move into high gear. Still, she says, the nausea-relieving benefits might be offset by the high volume of sugar in a typical soda.

## Nature's Cure

The feeling of an upset stomach can also be caused by bacteria-induced inflammation that might be triggered by various medications, and there are plenty of natural anti-inflammatories that can take the place of sugary, fizzy sodas. Turmeric or saffron can be boiled and drank as a tea to help bring down distention. Fresh ginger sliced into water or club soda should also soothe the stomach. Ginger ale typically doesn't contain real ginger, though ginger beer might (check the label), and could help.

When her stomach doesn't feel quite right, Dr. Gutierrez, whose license plate reads "GUT DOC," will typically grab an over-the-counter antacid like Tums, Zantac or Pepsid, all of which block the histamines that cause inflammation. If it is available in the drugstore, the doctor will instead take Gaviscon, a British antacid that coats the stomach. In a pinch, she'll grab a caffeinated soda. "Anything to help move things along and empty the stomach," she says.

ISTOCK

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# OPINION

## REVIEW & OUTLOOK

## Europe's French Reprieve

French voters chose a centrist reformer over the nationalist right on Sunday by electing Emmanuel Macron as their next President. The question now is whether Mr. Macron can deliver on his promise to reform France's sclerotic economy and diminish the Islamist terror threat.

**Macron beats Le Pen, but without growth the extremes will be back.**

Mr. Macron's decisive victory is as much a rejection of the far-right National Front as an endorsement of his platform. Despite Marine Le Pen's yearslong effort to whitewash her party's reputation for anti-Semitism and Vichy nostalgia, the keys to the Élysée Palace proved as elusive to her as they did to her father, Jean-Marie, in 2002's presidential runoff against Jacques Chirac.

Mr. Macron deserves credit for his initiative. The 39-year-old former investment banker quit the incumbent Socialists to launch his independent centrist movement, En Marche! His outsider status and optimistic vision proved attractive to voters fed up with traditional political parties. He offered a clear if modest reform alternative, with proposals to shrink the bureaucracy, cut corporate taxes and modify the job-killing 35-hour workweek.

He was also lucky. The center-right Republican nominee François Fillon, a self-proclaimed Thatcherite, was felled by allegations of nepotism. Independent, hard-left firebrand Jean-Luc Mélenchon divided the socialist vote. In the runoff Mr. Macron was the default choice of voters who wanted to block the National Front.

This means President Macron will have a fragile mandate and a narrow window to press his agenda. France needs radical reform of a government that in 2015 took 57% of national GDP and an economy with a jobless rate that is 10% eight years after the financial crisis.

Yet political failure is the recent French norm. Successive Presidents have failed to undo the 1999 35-hour-workweek law amid militant union protests. Mr. Mélenchon and his "Unbowed France" movement are promising chaos if Mr. Macron dares to advance what the socialist calls "neoliberalism." Mr. Macron's best bet is to go big and abolish the 35-hour workweek as Mr. Fillon promised, rather than seek marginal fixes and pay the political price anyway. The same goes for cutting the corporate tax rate to 25% from 33.3%, especially as the U.S. heads toward a 20% rate.

Mr. Macron's ability to push reform will depend on the strength of the parliamentary coalition he can assemble. If En Marche! fails to win a majority in June's parliamentary vote, he should hope the Republicans do. One way to set the tone for the June vote would be to invite Republican heavyweights to join the Macron cabinet.

The new President will also need help on national security, which was his weakest pitch to voters. While he committed to increasing capacity at the security agencies, Ms. Le Pen's vows to fight radical Islam and toughen border controls appealed to voters who witnessed massacres across the country.

The toughest challenge is the self-isolation of too many of France's six million Muslim citizens. French voters understood that Ms. Le Pen's immigration crackdowns would do little to stop self-radicalization among native French Muslims. But Mr. Macron can help by speaking frankly about the threat and encouraging Muslims to see integration as a two-way street.

Mr. Macron is a French sort of Atlanticist, which means he's wary of looking too pro-American. He accused the West of "constantly" escalating the Ukraine conflict, described Moscow as a "partner" and warned that the U.S. shouldn't "dictate" French foreign policy, as if the latter ever happens. But perhaps the weekend dump of documents from his campaign, which bore the hallmarks of a Russian cyber operation, will open his eyes to the Kremlin threat.

As for European Union elites, the temptation will be to view the Macron triumph as vindication of the status quo, given Ms. Le Pen's vow to leave the EU and ditch the euro. It is at most a reprieve. Ms. Le Pen improved on her father's performance 15 years ago, she and Mr. Mélenchon drew broad support among the young, and France's mainstream parties were repudiated. The EU project is far from secure unless it can provide more economic opportunity and security, and show more respect for voters who resent dictates from Brussels.

The French center held, barely. If Mr. Macron fails to deliver faster growth, France may not be so lucky the next time.

## Venezuela's Missing Prisoner

Florida Senator Marco Rubio said Wednesday he had confirmed the rumor that jailed Venezuelan opposition leader Leopoldo López had been taken to a military hospital in Caracas "in very serious condition." Mr. López's wife, Lilian Tintori, rushed to the hospital, waited to see him and was told he wasn't there. Mr. López has had no visitors in 37 days, though the government says he's alive.

**If López is alive, the Caracas dictatorship should produce him.**

This is another act of desperation by Venezuelan strongman Nicolás Maduro, who is facing relentless daily protests calling for the release of political prisoners and new elections. Venezuelans are living a nightmare of food and medicine shortages, and have had enough. They want Mr. Maduro gone.

Despite 34 dead since the protests began, the opposition isn't backing down and so Mr. Maduro has resorted to increasingly brutal tactics. On Wednesday the National Guard drove anti-riot vehicles into a crowd in Caracas. Video caught gruesome images of an armored-truck tire rolling over a demonstrator. Across the city, 300 people were injured and one killed.

Mr. López and others, such as former student leader Yon Goicoechea—who is held with three others in a windowless cell—inspire the opposition to keep going, and that is why Mr. Maduro wants them out of public view.

On Thursday Organization of American States Secretary General Luis Almagro said on social media that he too wants to visit Mr. López. If the United Nations and the Vatican wish to remain relevant in Venezuela, they will work to let someone besides his jailers see Leopoldo López.

## Houses of Lobbyists

President Trump wants American families to pay lower taxes without having to take the time and trouble to itemize. One way he hopes to do this is by doubling the standard deduction, which would make the first $24,000 of income for a married couple tax-free. What's not to like?

**Why should the tax code subsidize home buyers over renters?**

Plenty, says the housing lobby. The National Association of Homebuilders (NAHB) and the National Association of Realtors each bashed the larger standard deduction on grounds that it would make the tax subsidy to their industries less appealing.

At the NAHB, Chairman Granger MacDonald put it this way: Doubling the standard deduction "could severely marginalize the mortgage interest deduction, which would reduce housing demand and lead to lower home values."

On their blog the Realtors chimed in with this: "The new standard deduction won't be high enough to offset what they would lose on the itemization side. Yes, they would retain the option of taking the deductions for mortgage interest and charitable contributions, but unless these amounts totaled more than the standard deduction, it would not make sense to claim them." It goes on to argue that some of the deductions eliminated as part of the Trump tax simplification—e.g., local property taxes—mean home ownership might not pay off as well as they say it does now.

Translation: Without a federal tax subsidy to encourage people to take out mortgages, folks might not buy what we're selling.

This is less an indictment of the proposed Trump reform than a reminder of how misguided the mortgage-interest deduction is. For starters, it distorts the allocation of capital by favoring housing, a form of consumption, over investments that might be more productive and raise everyone's living standards.

The deduction also disproportionately benefits the affluent, who buy more expensive homes with bigger mortgages. A 2013 Congressional Budget Office study found that 75% of the benefits of the mortgage-interest deduction goes to the top 20% of income earners. Two of three American tax filers don't even itemize, which means they can't deduct mortgage interest even if they have it.

It's also not clear the mortgage deduction is as critical to home ownership as advocates contend. Canada and Britain have similar rates of home ownership as the U.S. (nearly two thirds of their citizens) without a mortgage-interest deduction. If the housing industry really depends on a tax subsidy, maybe it's time we ask why the U.S. tax code should favor buyers over renters.

The shame is that neither Mr. Trump nor House Republicans are proposing to eliminate the deduction for mortgage interest. They know it would be good tax policy but they figure it's too politically difficult. Yet the housing lobby gives them no credit and still yelps about the standard deduction.

The tax debate is still in its early stages, and Republicans should reconsider giving housing a pass. For example, the GOP could limit the amount of mortgage-interest that could be deducted, or limit the deduction to borrowing below, say, $250,000. This would make the tax benefit less tilted to the affluent, and it would also provide more revenue for lower tax rates.

Even after its role in promoting the housing mania and panic a decade ago, the housing lobby wants more subsidies and more political favoritism. If tax reform were really about fairness, housing would be treated no differently than any other industry.

## Meet Emmanuel Macron, The French Tony Blair

**By Robert Colvile**

Barack Obama's message to French voters in the run-up to Sunday's election was less an endorsement than an anointment. Presidential candidate Emmanuel Macron, he said, embodies "the values that we care so much about." On Mr. Macron's Twitter page, the accompanying slogan made the parallel explicit: *"L'espoir est en marche,"* roughly translated to "Hope is on the move."

Young, handsome, liberal, popular—it's easy to understand the comparison. But the truth is that the new French president isn't the new Barack Obama. He's the new Tony Blair.

Like the former British Prime Minister, Mr. Macron emerged from a traditional left-wing party that prizes ideology above electability. Like Mr. Blair, he argues that old, left-right political divisions are outdated. Like Mr. Blair, he promises a novel combination of market economics and progressive values. And like Mr. Blair, he is startlingly vague about how it will actually work.

There are, of course, differences. Mr. Blair promised not to raise taxes. Mr. Macron says he will cut them and trim spending too. While Mr. Blair rebranded his party as "New Labour," he never had the arrogance to set up a new one using his own initials.

But New Labour was, like Mr. Macron's En Marche!, less a political party than a cult of personality. Watching Mr. Macron on the campaign trail is reminiscent of a 1997 election advertisement showing the young Labour leader treated like a boy-band star, feted by adoring fans as he makes his way to the polling booth.

The problem is that, having seen this movie before, we British also know how it ends.

Last year polling company YouGov asked Britain's voters to rate their former leader. They didn't merely dislike him: They despised him. Only 2% viewed him "very favorably," and 51% per viewed him "very unfavorably." That trend held across every demographic: age, gender, nationality and political affiliation.

Part of this is the legacy of the Iraq war. But what really curdled public opinion was a sense that we'd been had. Mr. Blair promised a better Britain. Instead he used the proceeds of a banking-driven boom to lavish billions on unreformed public services, leaving the country in a woeful position when the 2008 financial crisis hit.

And Mr. Blair enjoyed advantages that Mr. Macron will not. The Conservatives left him an economy that was purring like a Rolls-Royce. He had a colossal majority in the House of Commons. The only real obstacle was his own Chancellor, Gordon Brown, who spent years blocking Mr. Blair's reform agenda out of a sense of thwarted entitlement.

Mr. Macron, by contrast, promises to try Blairism in a country that never had Thatcherism. France's public spending sits at 57% of GDP. Youth unemployment is 24%. The economy creates good jobs, but nowhere near enough of them. Reform efforts, including a 2008 commission set up by Nicolas Sarkozy, on which France's new president served, have yielded staggeringly little. Mr. Macron's deregulation efforts under the Hollande government largely failed too.

**British voters know what happens when electability trumps ideology.**

Even when his personal star started to wane, Mr. Blair could still rely on his party's institutional strength. En Marche! has no such base, meaning that barring an extraordinary upset in June's parliamentary elections, Mr. Macron will be reliant on a cobbled-together coalition.

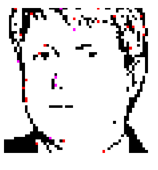
Messrs. Blair and Macron are also both good cosmopolitan liberals, staunchly supportive of immigration and European integration. Millions disagree. Mr. Blair governed in good times, but even then his opening of British borders to Eastern European workers stirred up enormous resentment and anxiety. Mr. Macron takes power when concerns about immigration are entwined with anxiety about security, Islamist terrorism and Syrian refugees. Yet he promises to double down on Mr. Blair's approach: more Europe, more globalization, more openness.

If he can deliver growth, it won't matter that Mr. Macron has nothing to say to French supporters of the National Front's Marine Le Pen, who blame the euro, migrants or globalization for their troubles. But if he cannot, Mr. Macron's smiles and promises will soon seem as false as Mr. Blair's.

The new president may turn out to be the savior of France—the man who finally persuades that prickly country to love, or at least tolerate, the market. But his promises, from this side of the Channel, look wearily familiar: all the gain of reform, with none of the pain.

*Mr. Colvile is deputy director of the Centre for Policy Studies and editor of CapX, a website devoted to capitalism.*

## GOP Health-Care Sausage Is Good for You



**BUSINESS WORLD**
*By Holman W. Jenkins, Jr.*

Hooray, Republicans have saved America's health-care system.

OK, we exaggerate, but there are inklings of a salvation. Let's start with pre-existing conditions. In principle, this should be a transitional problem in a world where everyone has access to attractive, fairly priced health insurance. By giving new options to the states, the House bill would make subsidizing pre-existing conditions a general obligation of the taxpayer as it always should have been.

ObamaCare was unsustainable for many reasons, not least because it partly shifted to young customers the burden of subsidizing those who joined the pool already sick. ObamaCare went out of its way to be a bad deal for the young and healthy, who didn't sign up. The GOP fix, if adopted in the Senate, would go a long way toward letting individual premiums be fairly and attractively priced to these people.

As for those critics now pointing out that taxpayer-funded pools for the already-sick have an uneven history in some states, guess what? The problem was inadequate funding, exactly the problem already undermining the ObamaCare approach to pre-existing conditions in different form. The Republican approach at least is honest and transparent, and any failures will be easier to diagnose than when the identical failure (as it is now doing) causes ObamaCare to unravel.

Next up, the individual mandate. It remains philosophically repugnant to some GOPers, but notice something: In a world where individual insurance is fairly priced, a mandate would be less burdensome. As candidate Obama said in 2008, with a smidgen of hyperbole, if health insurance is a good deal, nobody would need to be forced to buy it.

If the Incredible Hulk were House speaker instead of Paul Ryan, Republicans might have swallowed their tongues and quietly let the individual mandate stand, mumbling something about the perfect being the enemy of the good. Instead, they wussed out with a semi-mandate, in which anybody who lets coverage lapse and then tries to reenter the system will pay a penalty.

The Senate might rethink. The philosophical premises of the Republican and Democratic individual mandates could not be further apart. The original Republican mandate, hatched by the Heritage Foundation in 1989, was aimed at making sure would-be free riders paid their fair share, no longer transferring their financial risk to the taxpayer or other health-care consumers.

ObamaCare turned the mandate into a tax—a way to overcharge the young, healthy and (let's face it) male to generate funds to subsidize voter blocs Democrats wanted to subsidize.

How much more realistically the once-upon-a-time Heritage mandate corresponds with research and experience showing millions of Americans won't willingly spend their own money on health insurance no matter how favorable the pricing. It also accords with a new reality: To a lot of non-customers, ObamaCare became "free" insurance—it was there if they needed it.

We'll say it again, now for the Senate's benefit: Apply a few GOP-style fixes and ObamaCare, or something like it, becomes a solution to America's health-care muddle. You could phase out every other federal program, including Medicare, Medicaid and the giant tax handout to employers, and roll their beneficiaries into ObamaCare.

Congress could start making rational judgments about whom to subsidize and whom not to subsidize. Do all seniors need a handout, or only the poor ones? And surely no Congress would re-up to the current employer tax benefit, which gives its biggest handout to the highest earners while producing all the pathologies the employer-centric payment system is heir to.

All this lies in the realm of potential, we hasten to add. But it pays to take a long view. Down this road lies hope that Americans will stop channeling extravagant gobs of their income to the medical-industrial complex. Down this road Medicare could be rethought, perhaps with rational Democrats lending a hand. We know these things will have to happen anyway. Otherwise the country is bankrupt.

P.S. Don't kid yourself that Democrats have a plan other than blindly defending more and more subsidies for more and more health-care consumers. Single-payer is not a plan. It's an invitation for the health-care industry—doctors, hospitals, the research establishment—simply to turn their full attention to serving the self-paying rich.

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# The Great Productivity Slowdown

By Marie-Josée Kravis

Equity markets have hit multiyear highs and consumer sentiment is buoyant. Yet economic productivity remains lackluster. The Labor Department announced Thursday that worker productivity fell 0.6% since January, a much bigger drop than expected. This is neither a statistical illusion nor a hangover from the Great Recession.

The productivity slowdown began long before the financial crisis, and it has worsened markedly in the past six years. The drop-off extends to wholesale and retail trade, manufacturing, construction, utilities and a host of private and public services. Industries that consume and produce information technology and communications are not immune to the slowdown.

**It began long before the financial crisis, and it has worsened markedly in the past six years.**

From 1950 to 1970, U.S. productivity grew on average by 2.6% annually. From 1970 to 1990 it fell to 1.5%. The information technology boom of the '90s interrupted the slide, but since 2010 U.S. productivity growth has been in free fall. It is now roughly 0.6% a year. No wonder Federal Reserve Chair Janet Yellen recently called low productivity a "significant problem." Various estimates suggest that had U.S. productivity growth not slowed, GDP would be about $3 trillion higher than it is today.

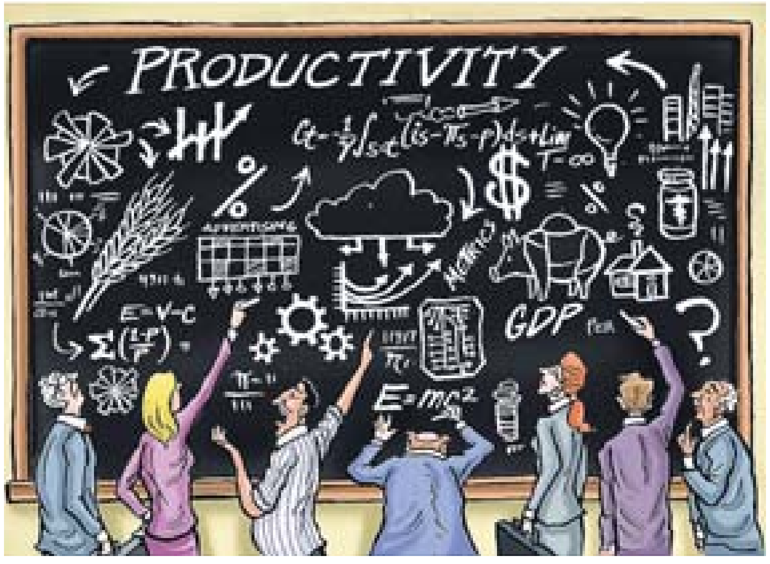
How is this happening during a technological revolution? Some think the data are wrong. Economist Joel Mokyr explained in 2014 that metrics devised for a "steel-and-wheat economy" fail to capture adequately transformative advances in information technology, communications and the biosciences. Technology has reduced the cost of information, expanded consumer choice, and provided customization and better price comparison. This progress has been mostly missed in current statistics.

Gross domestic product also does not fully capture metrics like time saved from shopping online. Nor does it include the value of leisure and the well-being that technology provides its users. Many economists contend that properly counting free digital services from companies like Google and Facebook would substantially boost productivity and GDP growth. One of the highest estimates, calculated by economists Austan Goolsbee and Peter Klenow, stands at $800 billion. That's a big number, but not big enough to fill a $3 trillion hole.

On the other hand, recent studies by Brookings, the Organization for Economic Cooperation and Development and the Bureau of Economic Analysis claim that so-called free services are actually accounted for in GDP through the money spent by firms on internet ads. Still more calculations attempt to put a dollar figure on the privacy and personal data consumers give up in exchange for "free" services, as well as the time gobbled up by employees surfing the web.

Similar debates about data abound in the biomedical sector. Technology costs account for almost half the recent rise in U.S. health-care costs, but some economists argue that official statistics don't count the intangible benefits of drugs like statins, which prevent death from heart disease. Skeptics contend that while the full benefits of such drugs may not show up in GDP today, the benefits of penicillin and other antibiotics weren't properly counted in the past either.

Debates about the shortcomings of official data can be useful. But pinning the productivity slowdown on a statistical deficiency ignores other factors. In his 2016 book, "The Rise and Fall of American Growth," Northwestern University economist Robert Gordon contends that the current economy fails to measure up to the great inventions of the past, and that innovation today is more incremental than transformative. He has argued vigorously that the transformative effects of technologies like electric lighting, indoor plumbing, elevators, autos, air travel and television are unlikely to be repeated. Technological innovation, he argues, will not be sufficiently robust to counter the headwinds of slowing population growth, rising inequality and exploding sovereign debt.



CHAD CROWE

Former Treasury Secretary Larry Summers has resurrected Alvin Hansen's 1938 theory of secular stagnation. Morgan Stanley economist Ruchir Sharma has argued that a 2% economy is the new normal. Former Fed Chairman Alan Greenspan has repeatedly said that the growing share of social benefits and entitlements in GDP crowds out national savings and reduces investments required to boost productivity growth.

The growth dividends from disruptive technology often require time before they are widely diffused and used. To Mr. Gordon's point, economic historians respond that the Industrial Revolution did not improve British living standards for almost a century. Likewise the productivity boost spurred by the transformative innovations of the early 20th century took decades to kick in.

In the short term, as companies try to develop online capabilities while maintaining a physical presence, some costs are duplicated. At the same time, the economy is becoming increasingly bifurcated, with top firms generating substantial economic rents and leaving the rest behind. In 1990 the top 10% of U.S. firms saw returns on invested capital three times that of the median firm. Today those returns are eight times the median, suggesting economic rents far above the cost of capital for a small group of superstar companies.

It's possible that economic dynamism and entrepreneurship are no longer driving the U.S. economy. Startups are being created at a slower pace. From 1996 to 2007 the ratio of new firms to the total number of firms oscillated between 9.6 and 11.2. Today it has dropped to 7.8. Existing firms do innovate and contribute to improved productivity, but the declining share of young firms suggests a less dynamic economy.

Concurrently, the most recent numbers from the Bureau of Labor Statistics confirm that churn in the U.S. labor market remains weak across industries, regions and age groups. People are simply not moving or changing jobs for better alternatives.

The U.S. economy is reaping some of the deleterious effects sowed by decades of weak capital spending. Since the 1970s, the compound annual growth in nonresidential fixed investment has plummeted from 12% to 3.3%. In the past decade the rate at which money turns over in the economy has also declined. The otherwise dismal first-quarter 2017 GDP report provided a slight glimmer of hope—posting a 9.4% increase in business spending. How long will it last?

The real debate is about policies that favor productivity and GDP growth. Predicting future innovation is hazardous, but deregulation and streamlined licensing requirements will facilitate job mobility. Tax reform that encourages and rewards investment should stimulate capital investment. Some form of fiscal stimulus and diverse infrastructure spending should buoy demand and efficiency. Leveraging technology to improve education and job training will help match skills and jobs across the economy. Last but not least, entitlement reform must be on the policy agenda.

These necessary policy changes provide options for improving productivity and GDP growth. Waiting for the data debate to resolve itself gets us nowhere.

*Ms. Kravis is a Hudson Institute senior fellow.*

# Let's Get Metaphysical About Trump and the 'Post-Truth Era'

By Crispin Sartwell

Occasionally metaphysics invades politics, to the surprise even of metaphysicians like me. In this "post-truth era"—according, for example, to many of those who participated in the recent March for Science—the very nature of truth itself is at stake because of the Trump administration's "alternative facts" and the growth of "fake news."

In the Trump era, says celebrity physicist Neil deGrasse Tyson—who adds that this the most important thing he's ever said—people "have lost the ability to judge what is true and what is not." The Washington Post quotes Cara Santa Maria, a "science communicator": "The very idea of evidence and logic and reason is being threatened by individuals and interests with the power to do real harm."

The New York Times's philosophy blog declares that "Trump stirs up confusion about the veracity of settled knowledge and, through sheer assertion, elevates belief to the status of truth." Meantime, "We're here to talk about the truth," comedian Hasan Minhaj recently told the White House Correspondents' Association dinner. "It is 2017 and we are living in the golden age of lying."

The nature of truth may be the hardest philosophical problem. It may even be strictly insoluble, because many theories of truth might be true according to themselves, which doesn't mean they're true. The answers philosophers have given through the millennia have been as various and as mutually incompatible as could readily be imagined.

Truth has been held, among other things, to be the correspondence of what we say to reality; to be a matter of the way a set of beliefs hang together; to be what we all agree about or would agree about in the long run; or to be, as William James said, "what works best in leading us" to solutions to our practical problems. Gigantic systems of metaphysics have been built on the foundation of truth—or on its dismissal as a delusory question, as trivial or redundant.

Whatever truth may be, politicians have often been dishonest in various respects, and many or even all regimes engage in propaganda and fabrication of various sorts. To people such as those quoted above, however, the current situation appears to be qualitatively new and different. The lies, it seems to them, are more thorough and destructive, coming from more authoritative sources, and the public is more gullible or vulnerable.

Philosophers may not know what truth is, but the sudden flourishing of alethiology in politics and media holds some lessons about what it is not. Let us take seriously for a moment the commonplace claim that left and right, or blue and red, live in "different realities"—each fed by different streams of information, each figuring out what to believe by feeling for the consensus of people they believe are like themselves.

**The nature of truth is a difficult philosophical problem, but the president hasn't made it any harder.**

Far from suggesting that the truth is a matter of coherence within a set of beliefs, or the way they hang together, this suggests that nobody on either side thinks that at all. Each side thinks the other side's version of reality is globally false, and that its own is globally true. That does not commit anyone to saying they are both right—though they may both be quite wrong—but it does commit each of them to saying that a belief system can hang together very well and not be true.

That is, if you're on the left, you probably think the right is getting its information from bad sources, believing whatever serves its agenda, producing a false worldview. If you're on the right, you likely believe that the mainstream media is feeding people slanted information, a false narrative. But both sides agree the coherence of their opponent's worldview is irrelevant to its truth. In some ways, the better it hangs together, the more dangerous and deluded it is.

Likewise, truth cannot be a matter of social consensus. That groups are in agreement has no tendency to show that what they believe is true, or else flat contradictions are true in a situation in which we are polarized into groups with contradictory beliefs. As consensus tightens, it degenerates into self-confirmation and collective delusion. Each side already believes this about the other, so each side is committed to the view that truth is something more than agreement. Nor can "truth" mean merely what works, if by "works" one means persuading people or guiding their behavior or opinions in some desirable direction.

That makes it very odd to formulate the thing in terms of alternative realities or the disintegration of truth itself. Both sides need the truth, and they need it not to be relative to any group's particular set of beliefs—or they need to stop attacking their opponents. There's nothing unusual about a situation in which people disagree about what the truth is, and the concept of truth itself is not particularly at stake right now.

It's a bizarre misapprehension, in short, that truth is disintegrating or in crisis. Fabrications do not undermine truth—they presuppose it. Lies can harm people, but they can't harm truth itself. They conceptually depend on it. The right conclusion from all this isn't that truth is disintegrating, but that truth is hard and intrusive, that it does not readily bend to human will or agreement or narrative. The power of the Russian intelligence services or a Sean Spicer press briefing is considerable, but it does not include the ability to bend the fabric of reality.

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

# We'll Always Have Paris, Unless the Senate Has Its Say

By Rupert Darwall

Expect some clarity soon on America's future participation in the Paris Agreement on climate. Several cabinet members, including Secretary of State Rex Tillerson and Defense Secretary Jim Mattis, want to stay in, but at a rally in Pennsylvania late last month, President Trump called Paris a one-sided deal that would shrink the economy by $2.5 trillion over 10 years.

According to recent reports, Mr. Trump is leaning toward withdrawal, but aides warn that he could face trouble in U.S. courts if he fails to uphold the Obama administration's commitments under Paris. But there is a third approach—submitting the agreement to the Senate for ratification.

Some advocates of staying in argue that America's moral and political commitment under the agreement is not legally binding because the accord doesn't have an enforcement mechanism. But neither the North Atlantic Treaty nor the 1992 U.N. Framework Convention on Climate Change has an enforcement provision, and both were submitted to the Senate. Neither of these have a compliance mechanism either—unlike the Paris Agreement, which provides for one in Article 15.

But does an international agreement have legal force at all if the Senate hasn't ratified it? That's unclear. During Senate Foreign Relations Committee hearings on the 1992 U.N. climate convention, the administration of George H.W. Bush pledged to submit future climate protocols to the Senate. Senior Senate Republicans might now wish Paris would go away, but letting it stand without Senate consent would create a standard that would have permitted "accepting"—the word President Obama used for joining the Paris Agreement—the U.N. climate convention and the 1997 Kyoto Protocol without Senate consent. A senatorial prerogative written into the Constitution would be lost.

And an administration that has already had three executive orders blocked by the courts should assume it will face litigation over any loosening of emissions regulations.

**Is the climate accord binding even without Congress's approval? Why risk finding out?**

Will judges view Paris as legally binding? No one disputes that under some circumstances, the president can bind the U.S. by a unilateral executive agreement. The conundrum is determining at the outset whether the Paris Agreement falls into that category. Sending it to the Senate would provide an answer; not doing so cannot guarantee that it is not binding.

In *U.S. v. Belmont* (1937), the Supreme Court ruled that an international compact—in that instance one requiring the federal government to seize assets on behalf of the Soviet Union—"is not always a treaty which requires the participation of the Senate." Ultimately the legal standing of the agreement depends on what the British legal philosopher H.L.A. Hart called "the internal point of view" of those applying and interpreting the law, one that lies outside the law itself.

In deciding what to do about the Paris Agreement, the president faces a more extreme situation than George W. Bush when he repudiated the Kyoto Protocol in 2001. Four years earlier, the Senate had unanimously adopted the Byrd-Hagel resolution effectively vetoing Kyoto. By not allowing the Senate to administer the protocol's coup de grâce, Mr. Bush brought all the political opprobrium on himself.

In joining the Paris Agreement without Senate consent, Mr. Obama unilaterally nullified precedent and extinguished specific executive-branch pledges. Mr. Trump can restore the constitutional balance and further his own policies by submitting the Paris Agreement to the Senate. Tell senators why it is such a bad deal for the U.S.—and then let the Democratic senators, especially the 10 who are up for re-election next year in states he carried, explain why they support shrinking the economy.

*Mr. Darwall is author of "The Age of Global Warming: A History" (2013).*

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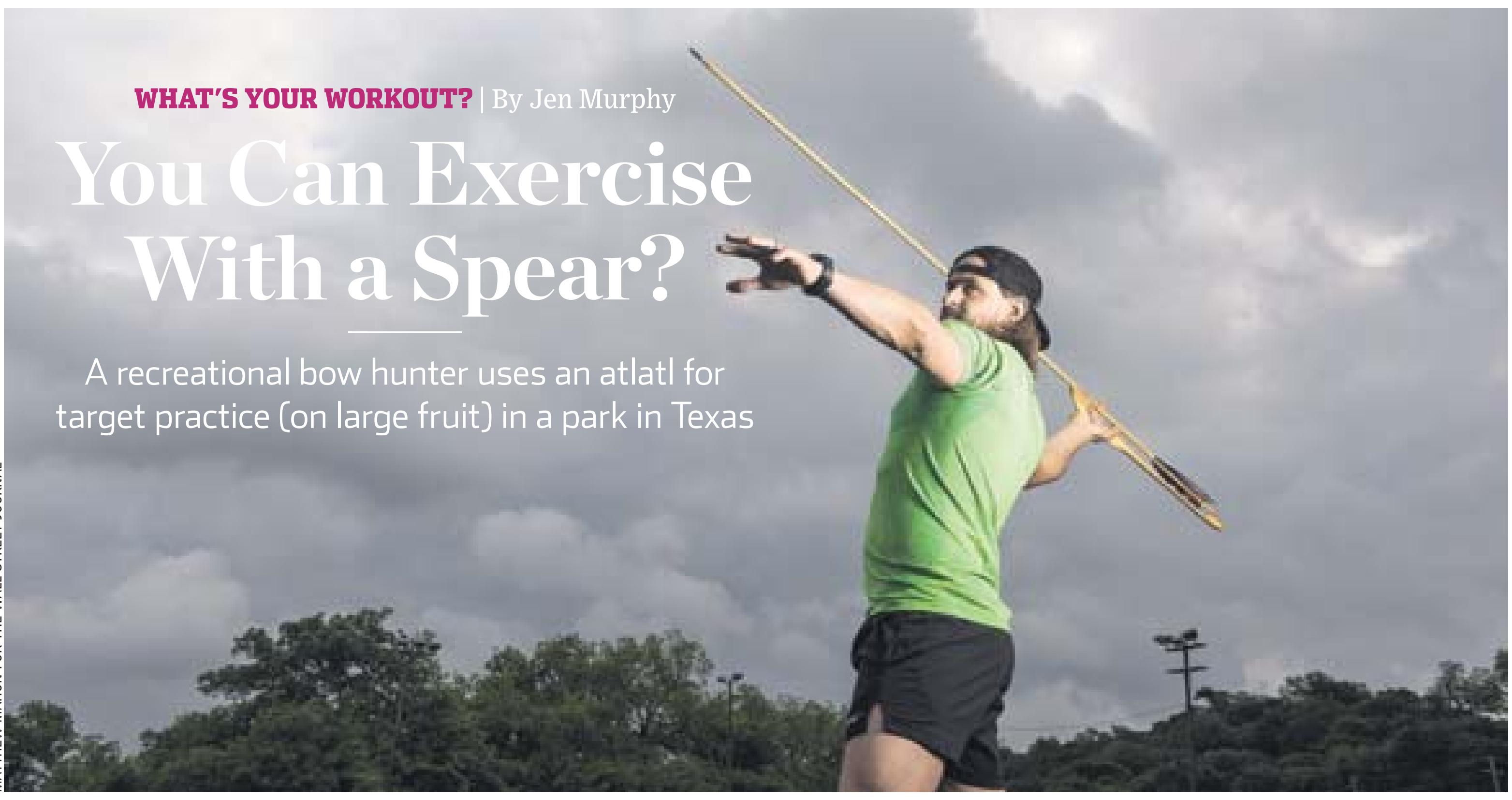


MATTHEW MAMON FOR THE WALL STREET JOURNAL

WHAT'S YOUR WORKOUT? | By Jen Murphy

# You Can Exercise With a Spear?

A recreational bow hunter uses an atlatl for target practice (on large fruit) in a park in Texas

**WHEN TAYLOR COLLINS** brings watermelons to the park, they aren't for a picnic.

He uses them for target practice with his atlatl, an ancient spear-throwing device.

"It's the rawest form of hunting tool," says the co-founder and CEO of meat-based superfoods company Epic Provisions. Mr. Collins, 34, is a recreational bow hunter based in Austin, Texas, who only has time for a few hunting trips each year. Two years ago, he was researching historical hunting methods and discovered the atlatl (pronounced at-LA-tal).

A version of the atlatl, a hunting tool that predates the bow and arrow, may have first been used around 30,000 years ago in Europe and 11,000 in North America, according to the World Atlatl Organization. The word comes from the Nahuatl languages spoken in Mexico and other parts of Central America.

It lengthens the arm like an extra joint, making it possible to throw a spear farther and with more force than with one's bare hands. It works similarly to a throw stick for dogs playing fetch.

**Taylor Collins, top, throws spears with an atlatl in Austin, Texas. Mr. Collins and his wife, Katie Forrest, above, push 6-month-old daughter Scout in a jogging stroller through an Austin park.**

Atlatls typically range from 18 to 24 inches long. One end has a hook and the other a hand hold. The hook connects to the back end of the spear, which is 5 to 6 feet long and thicker than an arrow. Throwers hold the atlatl at eye level and step in the direction of the target as they use their arm and wrist to throw the spear forward. The end of the atlatl flips around, pushing the spear forward with added force.

Mr. Collins played baseball in high school and likens the motion to throwing a pitch. He finds atlatl throwing meditative. "You really get in a zone and forget any worries," he says.

A few times a month Mr. Collins brings his atlatl to Zilker Park, near his Austin home, along with targets, such as watermelons or pumpkins, which he sets up 25 or 50 yards away. "I try to go early in the morning so I don't have to worry about dogs or kids," he says.

He also practices in his fenced backyard. "I have chickens and they love searching for bugs in areas where I throw the atlatl spear, probably because of the churned up soil created when I miss my target" he says. "I have had many close calls. Luckily I haven't hit one yet, but if I did we would be eating chicken for dinner."

## The Workout

"Throwing requires full body engagement," Mr. Collins says. "You need shoulder strength, but you also need your lats to fire and your core must be engaged." Mr. Collins takes two to three steps, pushes off from his back leg as he throws and lands on his front leg as he follows through. "It's easy to throw," he says. "But it's very hard to aim." He throws for an hour with his right, dominant hand, around 50 to 60 throws, but admits some days he spends more time retrieving spears.

To build his throwing strength, he does functional body weight exercises focused on his shoulders, triceps, lats, quads and abdominals. He uses a stretchy TheraBand to perform lat pulldowns, lateral raises and internal and external rotations that target his rotator cuffs. He practices his throwing motion repeatedly.

"Throwing the atlatl has increased my overall athletic ability beyond what I was getting from running or cycling," he says. He often asks friends and colleagues to join him for throwing sessions in the park. "It forms a lasting memory beyond what you'd accomplish at the bar," he says.

Mr. Collins and his wife, Katie Forrest, who also co-founded Epic Provisions, used to run or bike together in the mornings. When the couple had their first child, Scout, in December, they purchased a Peloton spin bike, which streams virtual classes over Wi-Fi. "One of us is on baby duty while the other spins," he says. Mr. Collins likes Peloton's high-intensity interval classes and rides, where a DJ spins music live during the workout.

## The Diet

Mr. Collins has tried nearly every diet, including raw food, gluten-free, paleo and the high-fat ketogenic diet. "Testing different diets helped me learn what works for my body," he says. He currently skews toward a paleo diet, though he will eat ancient grains like quinoa. He eats a lot of pasture-raised meat and leafy greens, and puts coconut oil on everything.

Mr. Collins makes cassava flour breakfast tacos stuffed with pasture-raised eggs and sautéed bacon and carrots, and chia seeds. He uses lunch to taste-test new products. Dinner might be spiraled zucchini "spaghetti" with pasture-raised pork sautéed in coconut oil topped with tomato sauce.

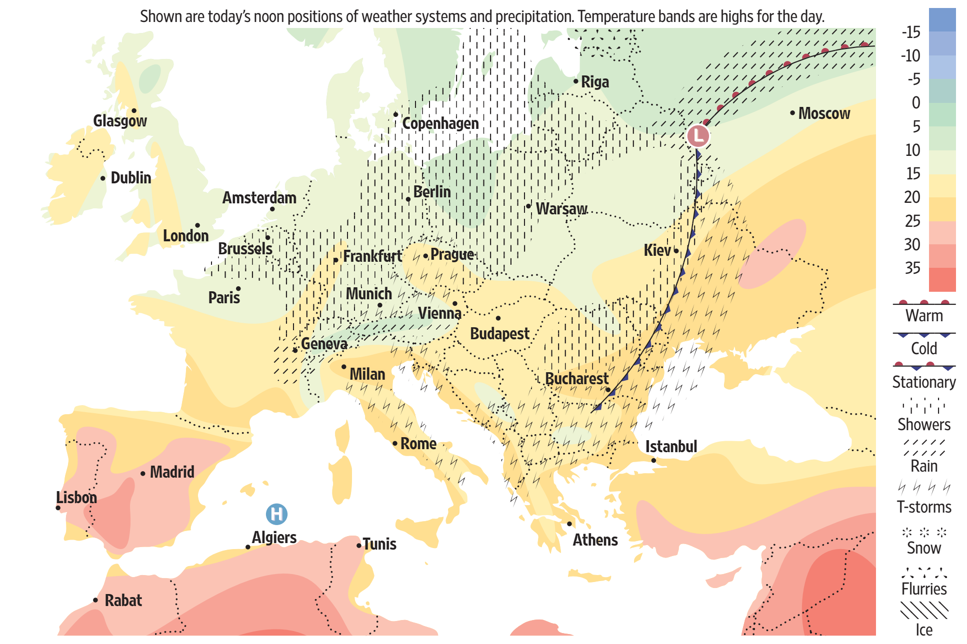
## The Gear & Cost

An atlatl starter kit costs about $100 on Amazon; it comes with three spears. Mr. Collins wears Altra trail sneakers, which retail for $110. "They look like mall walkers and I feel like an 80-year-old geriatric in them, but the shoe lends itself to a more natural running style." A Peloton bike costs $2,000, plus a $39 monthly membership fee.

## Weather

AccuWeather.com

Shown are today's noon positions of weather systems and precipitation. Temperature bands are highs for the day.

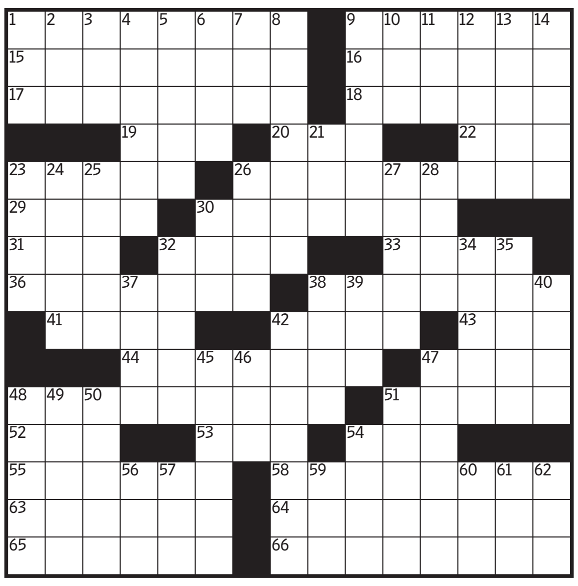



### Global Forecasts

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

| City | Today Hi | Lo | W | Tomorrow Hi | Lo | W |
|---|---|---|---|---|---|---|
| Amsterdam | 14 | 4 | pc | 13 | 4 | c |
| Anchorage | 12 | 4 | c | 11 | 4 | c |
| Athens | 27 | 16 | s | 26 | 16 | pc |
| Atlanta | 25 | 14 | s | 29 | 17 | pc |
| Baghdad | 36 | 20 | s | 38 | 22 | s |
| Baltimore | 16 | 4 | pc | 18 | 7 | c |
| Bangkok | 34 | 26 | t | 34 | 26 | t |
| Beijing | 32 | 13 | c | 31 | 14 | s |
| Berlin | 10 | 0 | sh | 9 | 3 | c |
| Bogota | 18 | 10 | r | 18 | 10 | r |
| Boise | 21 | 8 | pc | 23 | 9 | s |
| Boston | 13 | 4 | c | 12 | 6 | pc |
| Brussels | 12 | 3 | pc | 13 | 3 | c |
| Buenos Aires | 21 | 10 | r | 19 | 7 | s |
| Cairo | 36 | 22 | s | 38 | 25 | s |
| Calgary | 16 | 4 | s | 18 | 5 | pc |
| Caracas | 31 | 26 | pc | 31 | 26 | pc |
| Charlotte | 23 | 11 | s | 27 | 14 | pc |
| Chicago | 14 | 4 | s | 16 | 7 | sh |
| Dallas | 29 | 18 | s | 29 | 20 | pc |
| Denver | 20 | 8 | pc | 19 | 8 | t |
| Detroit | 14 | 2 | s | 14 | 6 | pc |
| Dubai | 40 | 30 | pc | 38 | 29 | pc |
| Dublin | 12 | 6 | s | 12 | 3 | pc |
| Edinburgh | 13 | 3 | c | 16 | 5 | pc |
| Frankfurt | 15 | 5 | sh | 13 | 3 | c |
| Geneva | 15 | 6 | sh | 16 | 5 | pc |
| Hanoi | 31 | 24 | t | 30 | 24 | t |
| Havana | 30 | 19 | s | 31 | 19 | s |
| Hong Kong | 29 | 25 | pc | 29 | 25 | c |
| Honolulu | 29 | 22 | pc | 29 | 23 | pc |
| Houston | 28 | 19 | pc | 29 | 20 | pc |
| Istanbul | 23 | 14 | pc | 23 | 12 | s |
| Jakarta | 32 | 24 | sh | 32 | 24 | sh |
| Johannesburg | 21 | 10 | pc | 20 | 9 | pc |
| Kansas City | 28 | 17 | s | 29 | 17 | s |
| Las Vegas | 25 | 17 | pc | 27 | 14 | t |
| Lima | 24 | 19 | pc | 24 | 19 | pc |
| London | 15 | 6 | c | 15 | 5 | c |
| Los Angeles | 22 | 13 | pc | 20 | 15 | pc |
| Madrid | 28 | 13 | pc | 28 | 13 | pc |
| Manila | 35 | 27 | s | 36 | 27 | pc |
| Melbourne | 15 | 11 | r | 16 | 8 | pc |
| Mexico City | 26 | 14 | pc | 25 | 13 | pc |
| Miami | 30 | 21 | s | 31 | 22 | s |
| Milan | 23 | 10 | s | 23 | 10 | pc |
| Minneapolis | 21 | 12 | pc | 19 | 10 | c |
| Monterrey | 32 | 19 | c | 34 | 19 | pc |
| Montreal | 6 | 0 | c | 10 | 2 | sh |
| Moscow | 4 | -1 | sh | 6 | -1 | c |
| Mumbai | 33 | 28 | pc | 34 | 28 | pc |
| Nashville | 25 | 16 | pc | 29 | 17 | pc |
| New Delhi | 44 | 29 | pc | 43 | 29 | pc |
| New Orleans | 27 | 16 | s | 27 | 17 | s |
| New York City | 15 | 7 | pc | 16 | 8 | pc |
| Omaha | 30 | 15 | pc | 26 | 14 | pc |
| Orlando | 32 | 17 | s | 33 | 18 | s |
| Ottawa | 6 | -1 | sh | 9 | 1 | pc |
| Paris | 13 | 7 | c | 16 | 5 | pc |
| Philadelphia | 16 | 5 | pc | 18 | 7 | pc |
| Phoenix | 27 | 14 | pc | 22 | 16 | t |
| Pittsburgh | 14 | 1 | pc | 17 | 5 | pc |
| Port-au-Prince | 31 | 21 | t | 32 | 22 | pc |
| Portland, Ore. | 21 | 8 | s | 22 | 9 | s |
| Rio de Janeiro | 26 | 20 | pc | 28 | 21 | s |
| Riyadh | 38 | 23 | s | 38 | 24 | s |
| Rome | 21 | 10 | pc | 21 | 11 | pc |
| Salt Lake City | 22 | 11 | c | 23 | 12 | pc |
| San Diego | 22 | 15 | pc | 20 | 17 | sh |
| San Francisco | 22 | 11 | s | 22 | 11 | s |
| San Juan | 30 | 25 | sh | 30 | 24 | t |
| Santiago | 18 | 7 | pc | 20 | 8 | s |
| Santo Domingo | 30 | 22 | t | 30 | 22 | sh |
| Sao Paulo | 24 | 14 | pc | 25 | 14 | s |
| Seattle | 18 | 8 | s | 20 | 9 | s |
| Seoul | 24 | 14 | pc | 24 | 14 | r |
| Shanghai | 22 | 17 | c | 25 | 16 | s |
| Singapore | 30 | 26 | pc | 31 | 26 | c |
| Stockholm | 5 | -4 | sn | 6 | -2 | sf |
| Sydney | 19 | 13 | s | 20 | 14 | s |
| Taipei | 31 | 23 | pc | 30 | 23 | t |
| Tehran | 27 | 16 | pc | 29 | 16 | s |
| Tel Aviv | 29 | 20 | s | 35 | 21 | pc |
| Tokyo | 26 | 16 | s | 23 | 16 | c |
| Toronto | 11 | 1 | c | 12 | 2 | pc |
| Vancouver | 15 | 7 | r | 16 | 10 | pc |
| Washington, D.C. | 17 | 7 | pc | 20 | 10 | pc |
| Zurich | 13 | 7 | sh | 13 | 3 | c |

## The WSJ Daily Crossword | Edited by Mike Shenk



HMMM... | By Kevin Christian & Andrea Carla Michaels

**Across**

1 Insurance company employee
9 Desert of southern California
15 Spot for sandcastle builders
16 Old kingdom of Spain
17 Clobbered
18 College-area local
19 Three, on a sundial
20 "How stupid of me!"
22 Tree with toothed leaves
23 Played pitifully
26 "The Sun Also Rises" writer
29 Easter event
30 Participates in the decision-making process
31 Boxing's "Greatest"
32 Beer ingredient
33 Like some vaccines
36 Hamlet's "To be or not to be" addressee
38 Won, for one
41 Bombard
42 Indian attire
43 Sgt., for example
44 Remote powerers, often
47 Microbe
48 Figurative dish for the shamed
51 Big Bend National Park setting
52 California's Santa ___ winds
53 Place to wipe your feet
54 Flying start?
55 Conundrum
58 Choir member's need
63 Funny Wright
64 Get used to gradually
65 Real-life model for Citizen Kane
66 Ivy anchors

**Down**

1 Fire remnant
2 Justice Dept. agency
3 Tight spot
4 Money-making org.
5 Arab chieftain
6 Spelling of "Beverly Hills, 90210"
7 Before, to a poet
8 Most embarrassed, perhaps
9 "Chances Are" crooner Johnny
10 Gold, in Granada
11 Teeth holder
12 Vice president before Ford
13 Unveiling exclamation
14 Foe
21 "Kill Bill" star Thurman
23 Former Iranian ruler
24 Bell-shaped flower
25 Japanese cartoon genre
26 Partner's share, at times
27 Model Campbell
28 Greek street food
30 "2001" computer
32 Titanium or tungsten
34 Building wing
35 Activewear fabric
37 Paving chunk
38 Robustly healthy
39 Hosp. areas
40 Honorees of a day in May
42 Wriggle like a rattler
45 Concrete component
46 Org. involved with massive cleanups
47 Burrowing rodent
48 Unpleasant to the ear
49 Bring together
50 Title character of Tyler Perry films
51 Fundamental principle
54 "I ___ Proud" ("The Mikado" song)
56 Device used to zap commercials
57 CBS exec Moonves
59 Eight-time NBA All-Star ___ Ming
60 Factor of every prime
61 Mel who played for the Giants for over 20 years
62 Bout enders, briefly

▶ Solve this puzzle online and discuss it at **WSJ.com/Puzzles.**

**Previous Puzzle's Solution**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | U | P | S | | A | R | U | S | H | | M | O | P | S |
| O | R | A | L | | L | O | R | N | A | | A | N | A | T |
| M | A | R | Y | W | I | L | S | O | N | | N | A | P | A |
| I | N | A | | I | K | E | A | | G | U | I | S | E | S |
| N | I | B | B | L | E | S | | | E | R | A | S | E | S |
| G | U | L | L | | | | P | A | R | A | S | I | T | E |
| S | M | E | A | R | | O | R | L | O | N | | S | E | N |
| | | | B | E | T | W | E | E | N | U | S | | | |
| I | R | A | | G | E | E | S | E | | S | U | M | O | S |
| R | E | S | C | I | N | D | S | | | | V | A | N | E |
| A | S | T | O | N | E | | | C | R | E | S | T | E | D |
| Q | U | A | S | A | R | | G | A | O | L | | T | B | A |
| W | R | I | T | | I | L | L | B | U | Y | T | H | A | T |
| A | G | R | A | | F | A | U | L | T | | E | A | S | E |
| R | E | E | L | | E | P | E | E | S | | D | U | E | S |

The contest answer is PRIVATE. The central answer BETWEEN US is a clue to look for letters appearing between U and S in the grid, either Across or Down. The seven such letters in top-to-bottom order spell the contest answer.

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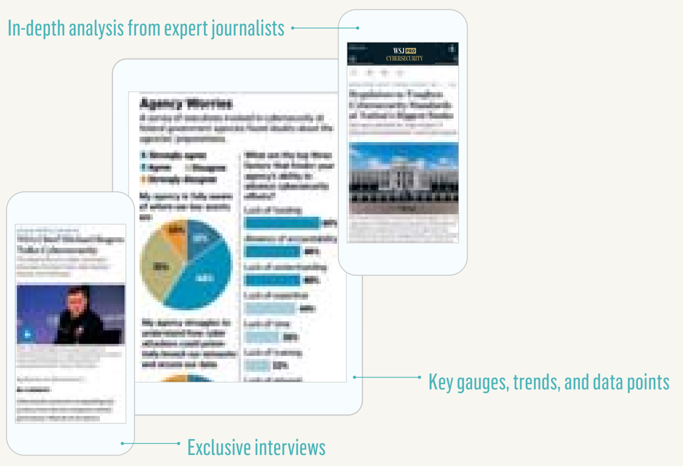


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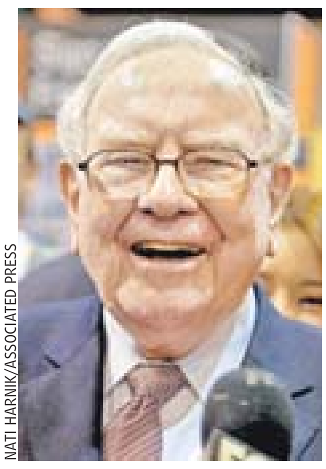
TECHNOLOGY: INDUSTRIAL 3-D PRINTING GETS BIG PUSH IN EUROPE B3

# BUSINESS & FINANCE



| | | | | | |
|---|---|---|---|---|---|
| Euro vs. Dollar 1.0998 ▲ 0.11% | FTSE 100 7297.43 ▲ 0.68% | Gold 1224.80 ▼ 0.14% | WTI crude 46.22 ▲ 1.54% | German Bund yield 0.420% | 10-Year Treasury yield 2.352% |

## Berkshire Plans for Lower Taxes



NATI HARNIK/ASSOCIATED PRESS

Berkshire chief Warren Buffett

By Nicole Friedman And Erik Holm

OMAHA, Neb.—**Berkshire Hathaway** Inc. is already examining ways to benefit from the lower corporate tax rate proposed by President Donald Trump, Chairman Warren Buffett said at the company's annual meeting Saturday.

The company had a "slight preference" for taking a tax loss on some of its investments in the first quarter, Mr. Buffett said, because it expects that such a loss would be less valuable to Berkshire in the future if taxes are lower. Berkshire said Friday that its first-quarter net earnings fell 27%, hurt by weaker investment gains.

The Trump administration unveiled a plan last month to lower taxes on all businesses to 15%. Most of Berkshire's revenue comes from the U.S., so it would expect a large benefit from lower taxes.

Some of those benefits would be passed along to the company's customers, especially in its heavily regulated utility businesses and in the more-competitive industries in which it operates, Mr. Buffett said. But shareholders would benefit too, especially due to lower taxes on Berkshire's investment gains.

Mr. Buffett, a longtime Democrat, supported Democratic candidate Hillary Clinton in the presidential campaign. But he has said Berkshire's long-term performance won't depend on who is president.

Mr. Buffett and Berkshire's vice chairman, Charles Munger, answered questions from shareholders, analysts and journalists for hours on Saturday in Omaha. Tens of thousands of Berkshire fans traveled from around the world to hear Messrs. Buffett and Munger speak and to shop at Berkshire businesses, including See's Candies, Fruit of the Loom and Dairy Queen.

The enthusiastic crowd, many of whom stood outside for hours to get prime seats inside the arena, responded to Messrs. Buffett and Munger's familiar stories and jokes with laughter and applause.

The two men touched on everything from the effect of accounting policies on Berkshire's balance sheet to their regret at not investing in Amazon.com Inc. or Alphabet Inc.'s Google.

*Please see PLANS page B2*

## Trump Upends Indian Industry

By Newley Purnell

NEW DELHI—As President Donald Trump tightens restrictions on immigration, Indian outsourcers are applying for fewer U.S. work visas, bringing employees home and trying to automate much of what they do.

Mr. Trump last month said he wants to alter rules for accepting high-skilled foreign workers under the H-1B visa program, which he said is a victim of "widespread abuse," signing an executive order calling for a governmentwide review aimed at stricter immigration enforcement and closing loopholes that undermine his "Buy American" initiatives.

The visas should be granted to the "most-skilled and highest-paid applicants," he said. Indian outsourcing companies are the largest employers of H-1B holders, while U.S. technology companies such as Microsoft Corp. and **Alphabet** Inc.'s Google also use the visas but usually to recruit employees with rare skills that attract higher wages.

Indian companies that send tens of thousands of workers to the U.S. annually applied for fewer visas this year "due to the fear and uncertainty surrounding the Trump administration's stance on immigration," said Shanon Stevenson, who works with large Indian information-technology firms as an immigration attorney for Fisher & Phillips, an Atlanta-based law firm.

Some of the firms, which she declined to name, are sending home Indian recruits who are already in America.

The number of H-1B applications fell 16% this year, the first drop in five years. About 85,000 of the visas are allotted each year by U.S. Citizenship and Immigration Services, with many going to Indians in lotteries triggered by overwhelming demand. The visas are good for three years and can be extended, meaning likely over half a million H-1B holders are in the U.S., according to analysts' estimates.

Meanwhile the volume of applications from U.S. tech companies appears to be holding steady, immigration attorneys said.

In an example of how Indian firms are reacting to potential immigration changes, Infosys Ltd., India's second-largest outsourcer by sales, on Tuesday said it is opening a new development center in In-

*Please see VISA page B3*

JASPER JUINEN/BLOOMBERG NEWS

Paprika plants at a Monsanto vegetable-seed division's facility in the Netherlands. The company is investing in gene editing to modify seeds and improve crops.

## Next Phase of Crop Technology: Editing Genes

Monsanto and other companies are turning to new tools in efforts to tweak plants' DNA

By Jacob Bunge

**Monsanto** Co. is opening its next chapter in genetic technology—and might face tougher competition.

The St. Louis company is investing in gene editing in an effort to keep an edge over rival suppliers of high-tech crop seeds. Monsanto has signed a string of licensing deals to add new gene-editing capabilities to its established methods of genetically modifying seeds, or creating GMOs.

Dr. Robert Fraley, Monsanto's chief technology officer, said gene editing could help corn plants thrive in dry conditions, or produce tastier bell peppers. "It's a breakthrough technology," he said. "It's going to create just a wave of innovation."

But startups and established competitors like **DuPont** Co. and **Dow Chemical** Co. are also working on gene-edited plants, which can advance through regulatory reviews faster than seeds developed with earlier biotechnology techniques.

Gene editing is different from the genetic modifications that Monsanto and other companies pioneered in the 1980s.

Gene editing allows scientists to make changes to a plant's already-existing DNA with the same precision that word-processing programs can edit text, scientists say. In the crop-seed business, genetic modification up to this point mainly has involved inserting new genes from bacteria or another plant. That difference can mean a shorter review by U.S. regulatory agencies for gene-edited crops.

The earlier technology is what created Monsanto's "Roundup Ready" seeds—modified to resist herbicides—and turned the company over the past 20 years into the world's largest seller of crop seeds. That GMO seed business last year spurred a $57 billion takeover offer from German chemical conglomerate Bayer AG, which the companies aim to close by the end of 2017.

But seed giants and Farm Belt upstarts view gene editing as the new front in genetic technology, potentially offering a cheaper and easier method of tweaking plants' DNA.

Emerging technologies such as Crispr-Cas9 and Exzact allow scientists to change a plant's performance without inserting genes from other species or bacteria. Gene editing can also help researchers insert new genes more precisely into plants' DNA, hastening the development of biotech plants that can produce their own bug-killing proteins.

Over the past year, Monsanto has licensed two different Crispr versions, Crispr-Cas and Crispr-Cpf1, as well as the Exzact technology and another gene-editing platform developed by TargetGene Biotechnologies Ltd.

The company has recruited medical and pharmaceutical researchers to explore the

*Please see CROPS page B2*

KEYWORDS | By Christopher Mims

## How Driverless Cars Could Wipe Out Uber

If **Uber Technologies** Inc. ever collapses, historians may trace its undoing not to its troubles with labor relations, intellectual property, regulatory conflicts or sexual-harassment allegations, but to technological disruption.

This would be the same technological disruption the company itself pledged to use to upend the auto industry and the $2 trillion a year tied to it.

Less than a year ago, Uber Chief Executive Travis Kalanick described self-driving cars as an "existential" threat to his company, saying that his team must get the technology to market before competitors do, or at least at around the same time. Self-driving vehicles would ultimately be much cheaper to operate than ones requiring human drivers—robots work tirelessly and don't demand raises. The first companies to roll out fleets of automated taxis could quickly drive their human-powered competition into oblivion.

Uber's philosophy is it's a hassle to own a car. The irony is, for the pay-by-the-ride future of transportation to be realized, someone has to own a lot of cars. Chances are, it won't be Uber.

When Mr. Kalanick declared the make-or-break importance of self-driving technology, the company had just acquired the startup Otto, which made Uber a contender in a space dominated by others. Less than a year later, things have changed dramatically. Uber is now

*Please see MIMS page B3*

## Liquor Makers Tap Into Hispanic Market

By Saabira Chaudhuri

At Gent's Barbershop in the Corona neighborhood of Queens, N.Y., Elvis Tejada sprays his customers' hair with water-filled Jack Daniel's bottles.

"The shop is in a Spanish area where they don't know too much about Jack Daniel's," said Mr. Tejada, a manager at Gent's, which also uses lamps made from Jack Daniel's bottles and stool covers touting the brand that a company representative provided as part of a local promotion.

The shop's customers in the heavily Hispanic New York City neighborhood "did not drink Jack Daniel's before, but now they do, 100%."

The bottles are part of a broader effort by Jack Daniel's owner **Brown-Forman** Corp. to woo minority consumers in the U.S. as it jockeys for a greater share of the country's spirits market. Last year, the industry had nearly $78 billion in retail sales, according to the Distilled Spirits Council of the United States, a trade association representing distillers.

"The white non-Hispanic consumer is not growing," said Mike Keyes, Brown-Forman's president of North America.

Brown-Forman isn't alone in its efforts. The world's biggest liquor makers are increasingly targeting members of racial and ethnic minorities—mainly Hispanics and African-Americans. These groups will drive 75% of the growth in the U.S.'s legal-drinking-age population through 2020, making up 36% of the country's legal drinkers, according to Diageo PLC.

Hispanics are estimated to account for 19% of the U.S. population by 2025, up from 18% in 2015, according to estimates from Pew Research Center. Over the same period, African-Americans will tick up to 13% from 12% while Caucasians will drop to 58% from 62%.

*Please see LIQUOR page B2*

GENT'S BARBERSHOP

A barbershop in a Hispanic section of New York uses water-filled Jack Daniel's bottles to spray hair.

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## INDEX TO BUSINESSES

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



## INDEX TO PEOPLE



# Profits Jump, Spending Lags

### Earnings at U.S. firms rose 13.9% in first quarter, aided by an energy-sector rebound

By Thomas Gryta And Theo Francis


LUKE SHARRETT/BLOOMBERG NEWS

**Caterpillar reported its first quarterly sales increase since 2015, with revenue rising about 4%.**

The largest U.S. companies are posting their strongest quarterly profits in five years, as firms reap the benefits of years of belt-tightening and finally see a pickup in demand.

Part of that improvement has come from keeping a lid on spending for new plants and equipment—and there is little sign that is changing.

Profits at S&P 500 companies jumped an estimated 13.9% in the first quarter from a year earlier, growing nearly twice as fast as revenue on a per-share basis. The gains stretched across industries, from Wall Street banks to Silicon Valley web giants, and were helped by a rebound in the battered energy sector. The picture was a marked improvement from a year ago, when profits fell 5%, and was the best percentage gain since the third quarter of 2011.

While the latest government data show the labor market is healthy and the U.S. economy continues to slowly expand, CEOs of the biggest companies aren't yet opening their wallets wide on capital investment.

"We continue to focus on driving savings where possible, taking a zero-based approach to capex and capital spending," James Saccaro, chief financial officer of medical products firm **Baxter International** Inc., told investors last week. Zero-based budgeting means starting a spending plan from scratch each period, justifying every dollar rather than adjusting the amount spent previously.

Years of slow economic growth have trained companies to be lean, something that amplifies earnings when the top line finally does pick up.

Heavy-equipment maker **Caterpillar** Inc. reported its first quarterly sales increase since 2015, with revenue rising about 4%, and doubled its profit, excluding restructuring costs.

Improvements in the quarter were led by financial, technology and basic-materials companies. The best sector was energy, where profits were up 647% from the year-ago period, while revenue leapt 31%.

Profit gains were more muted for industrials, utilities and consumer staples. Many food and household-products makers, including **Colgate-Palmolive** Co. and **PepsiCo** Inc., reported weak starts to the year.

Excluding the energy sector, which surged after more than a year of punishment from low crude-oil prices, S&P 500 quarterly earnings rose 10% in the first quarter from a year ago, when earnings were up 0.4% on the same basis, according to Thomson Reuters. Revenue climbed 5.3% from a year earlier.

The calculation excludes write-downs, restructurings and other items considered unusual. It is based on actual results from two-thirds of the S&P 500 and analyst expectations for the rest.

Data on capital expenditures suggest companies remain cautious. An analysis of results from 215 companies in the S&P 500 shows that spending on things such as equipment and buildings rose roughly 1.5% in the first three months of the year, according to S&P Global Market Intelligence. Half of the sectors measured showed a decrease in capital spending in the quarter from a year earlier.

**Exxon Mobil** Corp.'s first-quarter profit doubled but the company said its capital expenditures dropped 19% to $4.2 billion as it "remained disciplined in its investment." At **Union Pacific** Corp., finance chief Robert Knight highlighted that the railroad has cut annualized capital spending by $1.2 billion to $3.1 billion in the past couple of years.

There was one notable exception to the profit and sales gains: the U.S. telecom industry. Thomson Reuters estimates the group's revenue dropped 4.7%, while earnings fell 4.5%.

The biggest telecom providers, **Verizon Communications** Inc. and **AT&T** Inc., cut prices and rolled out unlimited data plans in the quarter to combat customer defections to smaller rivals.

Some companies see more value in returning cash to shareholders than reinvesting it in their business. Semiconductor company **Skyworks Solutions** Inc. spent $55 million on capital expenditures in the quarter, while paying dividends of $52 million and repurchasing $95 million in shares. **FlowServe** Corp., a maker of pumps and valves, is planning to pay out $100 million in dividends in 2017 in addition to capital expenditures of $90 million.

Last week, U.S. Secretary of Commerce Wilbur Ross said the initial reading of first-quarter gross domestic product—growth of just 0.7%—included increased business investment mostly from mining exploration shafts and oil wells. He made the case for the Trump administration's business policies to help boost growth.

# Chinese Secure Record Takeover

China Inc. reached a milestone in global acquisitions as shareholders of Swiss agro-giant **Syngenta** AG approved a $43 billion takeover by **China National Chemical** Corp., sealing the country's biggest foreign deal to date.

*By Brian Spegele in Beijing and Kane Wu in Hong Kong*

The hard work may just be beginning, however, as China National Chemical, known as ChemChina, faces challenges ranging from financing the deal to fusing the acquired business into its own operations.

"Life begins after closing," said Grace Fan-Delatour, a partner at law firm **K&L Gates** LLP, who advises state-owned Chinese companies on outbound investment and how to avoid the pitfalls that often bedevil big takeovers.

Executives at state-owned ChemChina will have to manage a balancing act as they expand Syngenta's seed and pesticide businesses in China's fragmented and inefficient agriculture sector while ensuring stability at the Swiss company's operations in the U.S. and around the world.

ChemChina also must attract new equity investment to help cover Syngenta's hefty price tag amid concerns over its debt levels.

And more upheaval may be on the way: China's government is contemplating a merger of ChemChina with state-owned conglomerate Sinochem Group, according to two people familiar with the situation.

Both companies, which previously denied reports of a planned tie-up, didn't respond to requests for comment Friday. China's State-owned Assets Supervision and Administration Commission, which is in charge of state-run companies, also didn't respond to inquiries.

In a joint statement, ChemChina and Syngenta on Friday said 80.7% of the Swiss company's shares were tendered for the deal, based on a preliminary count, well above the 67% minimum needed for approval. The companies said the first settlement payment is scheduled for May 18, when ChemChina would take control.

Syngenta closed at 459.2 Swiss francs ($465) a share this past Thursday, about 20% above the price before the deal was announced in February 2016. ChemChina will also pay a special dividend of five Swiss francs a share before the deal's closing.

At its heart the deal will help China modernize antiquated farming techniques that have made it increasingly reliant on imports to feed its population.

With few exceptions, genetically modified seeds aren't allowed in China. Industry observers say the Syngenta deal will likely work to change that.

For Ren Jianxin, ChemChina's chairman and founder, the acquisition solidifies his place as one of China's top deal makers.

However, ChemChina's latest acquisition will bring its own challenges. Syngenta's net profit has fallen more than 25% over the past two years. The company has struggled with poor weather, exchange-rate volatility and deflationary forces that weakened crop prices—and reduced demand.

# LIQUOR

*Continued from the prior page*

Sales volatility in overseas markets has propelled alcohol companies to focus more on the U.S.

Diageo—the world's largest spirits company, which owns brands like Smirnoff, Johnnie Walker and Captain Morgan—said it is spending four times more money this fiscal year than a year earlier on targeting minority consumers. It declined to specify the amount.

"Clearly, successfully reaching out to these consumers is critical to growth in U.S. spirits," said Diageo's North America head, Deirdre Mahlan, on a December investor call. "These consumers also have a higher propensity for spirits."

Hispanics drink an average of 13 spirits servings a month, compared with 10 for the general population, according to Diageo. Hispanics who drink regularly are 34% likelier to consume Scotch than the average American drinker, according to consumer-intelligence firm Simmons Research. Scotch is Diageo's biggest category by sales.

Like their peers in tobacco, alcohol companies have faced criticism for targeting minority groups. Critics say the industry has targeted minorities with malt liquor, made like beer but with a higher alcohol content and available in large containers. One 23.5 ounce malt beverage of 12% alcohol by volume, sold as single serving, equals close to five average beers, says David Jernigan, a professor at Johns Hopkins Bloomberg School of Public Health.

Separately, the use of hip-hop icons like Sean "Diddy" Combs, who markets Diageo's vodka brand Ciroc, and Jay Z, who has endorsed Bacardi Ltd.'s cognac brand D'Ussé, has proved controversial. The use of rap and hip-hop stars are "big because of the role modeling: They're the musical equivalent of basketball stars," said Mr. Jernigan.

Critics of such targeted marketing note Hispanics and African-Americans tend to be among the youngest racial or ethnic groups in the U.S., arguing that any advertising directed at them invariably reaches youngsters. Data from a Johns Hopkins study shows African-American youth saw 32% more alcohol advertising in national magazines than did youth in general in 2008.

Currently, one-third of the U.S.'s Hispanic population is younger than 18, according to Pew, making it the nation's youngest racial or ethnic group. Meanwhile, 26% of blacks are under the age of 18, compared with 19% of whites.

Alcohol companies insist they promote drinking in moderation and don't encourage underage drinking. "Diageo is an industry leader in responsible drinking," a spokeswoman said. "The fact that underage drinking is at historic lows shows the industry's efforts have worked."

Marc Strachan, who advises Diageo on multicultural marketing, for years has been a vocal proponent of marketing targeted toward a specific group. For instance, Diageo's insights show that gay men drink three times more vodka and 2½ times more tequila than straight men, said Mr. Strachan, but the company was reluctant to tailor its vodka advertising for gay men because some executives found it uncomfortable.

Increasingly, though, more of Diageo's decision makers are on board with the idea of marketing to particular groups. "This is not a nice-to-do," Mr. Strachan said. "This is a business imperative."

# PLANS

*Continued from the prior page*

The company's shareholders voted to re-elect the board of directors and rejected three shareholder resolutions. The proposed resolutions asked for more disclosure on Berkshire's political contributions and methane emissions and for divestment from oil-and gas-related businesses.

Also at Saturday's meeting, Mr. Buffett suggested that his successor as Berkshire's chief executive could take over while Mr. Buffett is still alive, and that his successor's chief responsibility will be spending Berkshire's cash.

In a key development for shareholders Saturday, Mr. Buffett suggested that Berkshire could pay a dividend in the next few years, an acknowledgment that the company's cash pile is growing faster than he can spend it. Berkshire said Friday that it held $96.5 billion in cash at the end of the first quarter, up from $86 billion at year-end.

Berkshire and Brazilian private-equity firm 3G Capital made a $143 billion approach to take over Unilever PLC in February, but Unilever declined.

Mr. Buffett revealed Saturday that Berkshire and 3G were each going to pitch in $15 billion to help Kraft Heinz buy Unilever. Each company owns about a quarter of Kraft Heinz. But Berkshire's participation was contingent on the deal being a friendly offer, Mr. Buffett said.

Mr. Buffett defended 3G for another year as he faced questions about how its penchant for cutting costs and laying off employees aligns with Berkshire's values. Mr. Buffett said 3G makes necessary cuts for its businesses.

Concerning Wells Fargo & Co.'s 2016 sales-tactic scandal, Mr. Buffett blamed former Wells Fargo Chief Executive John Stumpf for failing to respond immediately to the problem. "The moment the CEO heard about it he had to act. He didn't," Mr. Buffett said.

Berkshire is Wells Fargo's biggest shareholder and didn't sell any of its shares after the scandal. Berkshire sold some Wells Fargo shares this year to keep its ownership under 10% but said its investment view on the bank hadn't changed.

Wells Fargo had a bad incentive system, Mr. Buffett said, and the bank's executives should have responded to reports of wrongdoing earlier. Mr. Buffett made similar comments last year.

"We agree with Mr. Buffett's comments and value Berkshire Hathaway as a long-term shareholder and customer," said a spokesman for Wells Fargo. "We have taken decisive actions to fix the problems, make things right for customers, and build a better Wells Fargo."

The Wall Street Journal has reported that new Wells Fargo Chief Executive Timothy Sloan told some employees in November that the bank found "some instances" where reports by employees of bad behavior to its ethics line weren't handled appropriately.

*Mr. Buffett suggested Berkshire Hathaway could pay a dividend in the next few years.*

Though Berkshire's dozens of companies operate independently, its strong culture and managers help minimize problems, Mr. Buffett said. "You will have better results that way, in terms of behavior, than if you have a 1,000-page guidebook," he said.

He noted Berkshire has a hotline for employees to call to report misbehavior that gets about 4,000 calls a year. Employees have also sent anonymous letters to Mr. Buffett directly, he said.

While many calls are frivolous, the hotline has repeatedly caught behavior that Mr. Buffett stepped in to stop. And three or four anonymous letters "have resulted in major changes" at a subsidiary over the past several years, Mr. Buffett said.

Mr. Buffett also admitted a mistake. "I was wrong" on Berkshire's investment in International Business Machines Corp. in 2011, he said. Mr. Buffett told CNBC on Thursday that Berkshire has sold about one-third of its IBM stake, as the business didn't perform as well as Berkshire expected due to strong competition.

Mr. Buffett also said that autonomous vehicles pose a threat to Berkshire's BNSF Railway and its Geico car-insurance business, but he wasn't too concerned. "My personal view is that they will certainly come," he said, but "I think they may be a long way off."

In one political area, Mr. Buffett was critical, noting concerns about the proposed Republican tax plan.

"My federal income taxes would have gone down 17%" last year based on the bill that just passed the House of Representatives, he said. "It was a huge tax cut for guys like me."

# CROPS

*Continued from the prior page*

technologies' potential to tweak the genes of corn, soybeans, cotton and vegetables in ways that will make farmers more profitable.

"We don't think there's a silver bullet in this," said Hugh Grant, Monsanto's chief executive. "We've tried to play across the emerging front of these technologies."

Dr. Fraley said that in a decade the most advanced seeds could boast a dozen added genes alongside various genomic edits to resist disease, drought, bugs and weed-killing chemicals.

Monsanto's seeds won't be alone in the new bioengineered marketplace.

Bayer has set up its own joint venture centered on Crispr gene editing and plans to evaluate its potential to develop new crops. DuPont, Monsanto's biggest rival in the U.S. seed business, has forged its own licenses for gene-editing technologies and plans to sell within four years a gene-edited variety of waxy corn, used to thicken food products and make adhesives. Dow, which is pursuing a merger with DuPont, joined with California-based Sangamo BioSciences to develop Exzact, a separate gene-editing technology.

JASPER JUINEN/BLOOMBERG NEWS

**Sacks of tomato seeds at Monsanto's vegetable-seed division in the Netherlands.**

Smaller companies pursuing the technology include Calyxt Inc., based in Minnesota, which is developing a strain of wheat that has been gene-edited to reduce gluten content, and a soybean that produces healthier vegetable oil. San Diego-based Cibus has developed a variety of canola resistant to certain herbicides.

Gene-edited crops can face looser regulation in the U.S. than crops that have been souped up with outside DNA. Winning world-wide regulatory approval for traditional biotech crops can take 13 years and cost $136 million, according to a 2011 study by research firm Phillips McDougall Ltd.

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# Firms Take Quantum Leap

## VW, IBM and others try out computing technologies to move businesses forward

By Sara Castellanos

Quantum mechanics has fascinated, confounded and even alarmed scientists for nearly a century with the notion that particles can exist in two states at once and communicate with each other across vast distances. The underlying science that Albert Einstein famously called "spooky" could soon become one of modern computing's core tenets.

Computers that utilize quantum mechanics are moving beyond pure scientific research and edging toward the commercial sector, with companies such as **Volkswagen** AG beginning to harness their unprecedented power to solve complex problems in nanoseconds.

"This technology is not futuristic," said Martin Hofmann, Volkswagen chief information officer, who oversees information technology for the group's 12 brands including **Audi**, Porsche and Bentley. "It's a question of years until it's commercialized, and investing right now in the technology is a big competitive advantage."

Companies including **D-Wave Systems** Inc. and **International Business Machines** Corp. have been pioneering quantum computing, and experts say that within five years the technology could be powerful enough to solve new classes of problems that are currently beyond the grasp of even supercomputers.

While traditional computers use binary digits, or bits, which can either be 0s or 1s, quantum computers use quantum binary digits, or qubits, which represent and store information in both 0s and 1s simultaneously. This means the computers have the potential to sort through a vast number of possibilities within a fraction of a second to come up with a probable solution.


D-WAVE SYSTEMS/VOLKSWAGEN
Companies have started to make use of quantum computing, such as this D-Wave 2000Q System.

Volkswagen put that speed to use for a recent traffic-optimization project. Working on a $15 million D-Wave quantum computer over the cloud, a team of five in-house data scientists took GPS data from 10,000 taxis in Beijing and simulated specific routes that would allow each car to travel from downtown Beijing to the nearest airport, about 30 kilometers away, in the fastest time possible without creating a traffic jam.

After six months and several attempts, Dr. Hofmann and his team in March came up with an algorithm for the computer that optimized the routes for each taxi within a fraction of a second. A normal computer would have taken about 45 minutes to complete the same task, he said.

Dr. Hofmann's next project is a navigation-based mobile app for drivers in Barcelona that will harness the power of quantum computing and machine learning, a part of artificial intelligence, to predict traffic jams and immediately send alternate routes. The first iteration is expected to make its debut by year-end, though Dr. Hofmann declined to go into more detail about the project. "If our project succeeds and in six to eight years the technology is where it should be, then traffic jams won't happen anymore," he said.

IBM has also developed a cloud-based quantum computing service, which became available in March for commercial use. A similar service for individual experiments was launched last year. Executives say that in less than five years IBM's system could begin solving a range of computations for businesses related to chemistry and supply-chain optimizations. Those could include the ability to simulate significantly more molecular interactions within the human body than is now possible with traditional computers, which could accelerate new drug discoveries, said Bob Picciano, senior vice president of IBM Cognitive Systems.

But commercializing the technology is a complex task. Qubits can't yet maintain their quantum mechanical state for more than a fraction of a second, said Dario Gil, vice president for science and solutions for IBM Research. They are delicate, easily disrupted by changes in temperature, noise or frequency. The number of qubits created by companies to date remains relatively small, meaning experiments are currently limited to a narrow swath of information. There also isn't yet a programming language for quantum computing like there is for classical computing.

"This is phenomenally difficult from a tech perspective from every aspect," including materials, devices, theory and error correction, Dr. Gil said.

Still, companies experimenting with quantum computing stand to reap benefits if and when the technology becomes advanced enough to perform computations that classical computers can't, said Paul Warburton, a professor of nanoelectronics at University College London.

# 3-D Printing Gets Big Push in Europe

By Daniel Michaels

TURIN, Italy—For **General Electric** Co. and its rivals expanding their manufacturing operations using 3-D printing, Europe is emerging as a dominant source of the latest technologies.

GE is placing Germany's **Concept Laser** GmbH and Sweden's **Arcam** AB, which the U.S. industrial giant bought in November for a combined $1.5 billion, at the core of a new business unit it is spinning out of GE Aviation. Arcam and Concept already are working closely on printed airplane-engine parts with European aviation-component makers that GE bought over the past decade. GE is investing about $100 million to expand Concept's headquarters and plans to double its staff of 200 by early next year.

Last month GE said it would open in Munich the first of several marketing centers it plans dedicated to the technology, known formally as metal additive manufacturing, in a nod to the European companies' outsize role in the technique's development. The new hands-on demonstration facility, which will have as many as 10 operational 3-D printers from the two companies, will be built next to GE's existing research center.

Concept, Arcam and other European companies that GE bought over recent years "bring great technologies that were developed independently here," said Riccardo Procacci, a GE veteran previously with the conglomerate's oil-and-gas division. He is now chief executive of plane-part maker Avio Aero, near Milan, which GE bought in 2013. One of Avio's specialties is 3-D metal printing, thanks to a decade of work with Arcam.

GE is considering European locations for the headquarters of its new GE Additive division, now being created. Executives have said they want to generate $1 billion in revenue from 3-D printing by 2020, up from $300 million today.

An early mover into 3-D printing, GE is aggressively expanding its operations in part because rivals are getting more active. Siemens AG of Germany last year bought British additive-manufacturer Materials Solutions Ltd. for an undisclosed amount and opened a 3-D printing facility in Sweden. Siemens has focused on parts for gas turbines, an industry in which it competes with GE.

Siemens declined to comment.

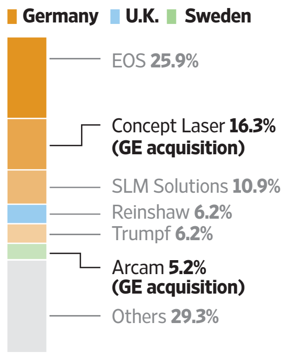
Meanwhile, United Technologies Corp.'s Pratt & Whitney, which competes with GE in airplane engines, is expanding its use of 3-D printing for making quick prototypes to accelerate engine development.

Siemens, UTC and others "are now taking additive manufacturing much more seriously," said Terry Wohlers, president of Wohlers Associates, a consulting firm focused on additive manufacturing. "But they have some catching up to do" with GE, he said.

With the purchase of Concept and Arcam, GE is now the world's No. 2 producer of metal additive-manufacturing machines, measured by units,

### Adding Strength

Market share of leading 3-D metal printing companies, based on units sold




Source: Wohlers Report 2017
THE WALL STREET JOURNAL.

with 21.5% market share, according to Wohlers Reports 2017, an annual review. The leader, with 25.9%, is Germany's EOS GmbH, an early developer of the technology.

It was a desire to crack Pratt & Whitney's domination of the turboprop market that helped GE's European push coalesce.

GE is developing an advanced propeller-plane engine at a Prague factory it bought in 2008. Designers are replacing 855 traditional engine parts with 12 printed components.

Pratt is "not standing still," said Nicholas Kanellias, vice president of general aviation programs at Pratt & Whitney Canada, where the company makes turboprop engines. "We will continue to invest in our products."

## BUSINESS WATCH

NIKE

### Marathon Stunt Fails To Meet Its Goal

**Nike** Inc.'s attempt to stage the first sub-two-hour marathon fell just short Saturday, a rare marketing miss for the world's largest sportswear maker.

Eliud Kipchoge, the reigning Olympic marathon champion, finished the company-controlled race in two hours, 25 seconds—more than two minutes better than the current world best. Still, his mark likely won't be ratified as a world record, because Nike didn't obey regulations on pacing and hydrating in its race. Two other runners, Lelisa Desisa of Ethiopia and Zersenay Tadese of Eritrea, fell out of contention early and finished several minutes behind.

Nike invested years of research on the project, dubbed Breaking 2, a multifaceted effort to engineer technically sophisticated footwear and prepare the three elite distance runners to break an iconic time barrier in sports.

Nike didn't respond to questions regarding whether it will continue the project.

In the months before the event, Nike said it wouldn't consider it a failure if the runners didn't break two hours.

Still, not meeting the ambitious time goal might thwart the company's plans to sell $250 carbon-plate running shoes—modeled after those worn Saturday by the pros—to the general public.

*—Sara Germano*

ELLIOTT MANAGEMENT

### Investor Questions Akzo's Strategy

Activist investor **Elliott Management** Corp. accelerated its campaign to push Dutch paint giant **Akzo Nobel** NV to engage in sale talks with U.S. rival **PPG Industries** Inc., citing research it commissioned that said Akzo's go-it-alone plans would put the company's employees at risk.

Elliott said Friday that research by chemicals consulting firm ChemQuest showed that a potential tie-up between PPG and Akzo would result in less than a quarter of the layoffs that would be necessitated by Akzo's stand-alone strategy.

PPG last month raised its takeover bid for Akzo to €24.6 billion ($27.1 billion), in its third attempt in a two-month-long, unsolicited courtship.

*—Christopher Alessi*

BOX OFFICE

### Second 'Guardians' Has Strong Opening

**Walt Disney** Co.'s Marvel Studios continued its winning streak at the box office this weekend, as "Guardians of the Galaxy Vol. 2" opened to a strong $145 million in the U.S. and Canada, according to studio estimates.

The interstellar action-comedy starring Chris Pratt opened in some foreign markets last week and has grossed a total of $283 million overseas.

*—Ben Fritz*

# MIMS

*Continued from page B1*
embroiled in a court battle with Google-parent **Alphabet** Inc. over the source of Otto's self-driving technology.

Last week, Alphabet subsidiary Waymo presented evidence it says proves Uber's former head of self-driving technology stole the technology from Waymo, where he previously worked. If Uber loses, its self-driving technology program could be shut down under trade-secret laws.

Uber declined to comment on the suit. Attorneys haven't disputed the allegation that the employee stole files, but they have denied that Uber knew of, possessed or used those files.

As the two spar, Big Auto is dialing up the competition. Last week Cambridge, Mass.-based automotive software company NuTonomy Inc. announced a partnership with Peugeot, while Samsung Electronics Co. got together with Hyundai Motor Co. General Motors Co. is committed to rolling out self-driving vehicles as part of a ride-sharing service, says a company spokesman.

Almost every other major auto maker has announced plans for self-driving cars or a partnership with one of the many technology companies working on self-driving technology.

All of this is part of what auto makers and ride-hailing companies anticipate will be a larger transition to "transportation-as-a-service"—potentially the end of widespread vehicle ownership in developed countries.

This disruption hinges on the arrival of dependable autonomous vehicles. It isn't at all clear when they will get here. Tesla's Elon Musk said last week that one of his vehicles will be ready in two years; Uber plans to have its autonomous vehicle available somewhere around 2021.

Uber seems well positioned to take advantage of this disruption. Not only is it working on its own technology, but David Richter, vice president of strategic initiatives at Uber, says that auto makers will benefit from first putting their own self-driving vehicles into service in an existing network—yes, like Uber's.

Daimler AG, maker of Mercedes-Benz, is betting on Uber: It plans to manufacture self-driving cars for Uber's network. GM has bet on Lyft Inc., and is building a complement to Uber called Maven Gig that uses human drivers.

But even if Uber can keep up in terms of autonomous-vehicle technology—or find more willing partners in the established auto industry—there is a much larger problem looming ahead.

The companies that will profit from the transportation-as-a-service revolution will depend on an incredibly costly infrastructure—one that doesn't yet exist. Someone has to buy and maintain all the autonomous vehicles, enough to replace all of the cars driven (and usually owned) by Uber and Lyft drivers.

ANGELO MERENDINO/AFP/GETTY IMAGES
Pilot models of Uber self-driving cars in Pittsburgh last year.

To date, Uber's model has been built on it not owning vehicles.

Uber does own its prototype self-driving vehicles, but declined to comment on the extent to which its future would depend on owning vehicles.

Auto makers have a great deal of experience working with the complex web of dealers, financing companies and fleet managers—even car-rental agencies—that could potentially be repurposed to manage millions of self-driving vehicles.

Owing to all these factors, Uber, Lyft and their imitators will eventually cease to exist as stand-alone companies, either going out of business or being acquired by car makers, says Sam Abuelsamid, a senior analyst with Navigant research who specializes in mobility.

A spokesman for Lyft says that it will someday operate its own fleet of self-driving vehicles, but it isn't clear whether it will own them or its auto-maker partners—for example GM—will.

The future of transportation—cheaper, cleaner, less congested—could be great for consumers. It will also open up new sources of revenue for tech companies. As for Uber, the company faces a difficult choice: Either figure out a way to buy or at least manage an enormous fleet, or face annihilation by others who will.

# VISA

*Continued from page B1*
diana in August where it hopes to create some 2,000 jobs for Americans by 2021.

However, skeptics say Indian firms have long said they are trying to hire more Americans while still overwhelmingly employing Indians.

Some Indian firms see opportunities from immigration restrictions. If Indian workers are forced to return home, outsourcing firms "are not going to be able to go out and suddenly replace all those people," so the tech work will be forced offshore to India, said Anand Mahindra, chairman of Tech Mahindra Ltd., one of India's largest IT companies. "It is a chance for Indian software companies to change the model," which has depended on sending armies of Indians to America, he said.

While Indian outsourcers say they can't find the talent they need with the right skills in the U.S., some analysts say they aren't really trying to do so, driven instead by a desire to pay lower wages, and that new restrictions could force them and other tech firms to hire more Americans.

"The Indian firms at the end of the day are a labor arbitrage business," said Rod Bourgeois, who studies outsourcing trends as head of research at Old Greenwich, Conn.-based DeepDive Equity Research. "They use low-cost labor to solve technology problems."

Scrutiny under Mr. Trump is just the latest challenge facing Indian firms. Artificial intelligence, cloud technologies and bots now allow computers to do many routine tasks traditionally done by low-level IT workers such as monitoring servers, resetting passwords and providing tech support.

The trend toward doing more offshore and through automation has been emerging slowly in recent years but is accelerating thanks to Mr. Trump's stance, analysts say.

Visa requests from Indian firms "will likely drop further," said David Rutchik, executive managing director at Vienna, Va.-based Pace Harmon, which helps companies pick outsourcers. "We expect to see accelerated automation to help them deliver client work."

Outsourcing companies had been reluctant to embrace the changes until now because sending people to companies in the U.S. is a high-profile business, and their clients often request having employees on-site, analysts said.

*New restrictions could force Indian outsourcers to hire more Americans.*

The White House singled out India's two largest IT firms by sales, Tata Consultancy Services Ltd. and Infosys, along with Teaneck, N.J.-based Cognizant Technology Solutions Corp.—which has most of its employees in India—last month as potential targets of the crackdown.

The companies pay their employees wages that are well below average levels in the U.S. and flood the government with applications to "get the lion's share of visas," said a senior administration official last month in a press briefing.

TCS and Infosys declined to comment on their plans to deal with more onerous visa regulations. A Cognizant spokesman cited comments Friday from company President Rajeev Mehta, who said on a call with analysts that the company is applying for fewer H-1B visas and aiming to ramp up hiring in the U.S.

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# What's My Investing Fee? A Long Quest

## Our reporter had a simple question, but the answers were anything but

BY ANDREA FULLER

I THOUGHT MY question was simple: How much was I paying my investment adviser in fees?

After a series of phone calls that elicited the kind of confusion and frustration I have rarely experienced outside of interactions with cable-company customer-service representatives, I think I have an idea. Barely.

Describing the fee disclosures of my adviser as opaque would be generous. The experience left me wondering whether someone even less savvy than me, a Wall Street Journal reporter, would be able to navigate this system, to ferret out the good information from the bad.

GARY HOVLAND

### Getting nowhere

In most offices, I suspect that people try to stay up on sports or television to prime for water-cooler gossip. But at the Journal, I was growing increasingly ashamed of how little I knew about the workings of my own investments. So, I decided to research what fees I paid to invest with my financial-advisory company—one of the largest in the U.S.

All of my investments are in mutual funds or exchange-traded funds. Though I don't have a finance beat—I am an investigative reporter who specializes in data analysis and computer programming—I am still guided by the Journal's conflict-of-interest policy that aims to prevent conflicts between employees' investments and the subjects we may cover. So I don't do any individual-stock investing.

I assumed the fee information I was looking for would be readily available in the documents section of the company's website. Wrong. I did see a toll-free number for customer support, so I gave them a ring.

I told the man who answered that I wanted to find out what fees I pay. In retrospect, this was a little like asking your spouse how much divorce lawyers cost. As he began to fret, I assured him that, no, I wasn't unhappy, just curious.

There is a $125 annual flat fee, he told me.

Alarm bells went off. That's it? I asked. That can't be it. I assumed there was a percentage charge on my investments.

He laughed. We'd love to charge that, he said. But no, $125.

Was that the *only* fee, I asked? I was increasingly dubious.

Well, he said, each fund in which you're invested has internal fees.

And so began our journey into the bowels of the investment firm's website. He suggested I click on various pages, only to discover that no, the fees weren't listed there. By the time he suggested that I go to Yahoo Finance and look up various funds to find out about their fees there, I knew I'd had enough.

Twenty minutes into the call, I said I had to go.

I hope this has been helpful, he told me. I assured him: It wasn't.

### An answer of sorts

I went back to my desk to seethe. There is a local financial adviser at the firm whom I meet with periodically for account reviews, and I decided to shoot him an email asking how I could find out all the fees I pay, and where these were documented. I also wrote an email to a colleague with the subject line, "MAY PULL HAIR OUT."

But apparently my irritation set the company on alert that we had entered the breakup danger zone. The man I had spoken with left me two voice mails promising that he had the information. I conceded to returning their calls after I received a third from his supervisor suggesting that, really, he could help me.

The man I spoke with this time proceeded to tell me the opposite of what the previous adviser had told me. No, there was no annual $125 fee. That was only for people investing in individual stocks. My portfolio had an annual fee of 0.85% of assets, deducted quarterly.

So what about these internal fees? He said those ranged from 0.4% to 0.8% of assets annually.

Well, then, what was my actual number? He said that I was invested in the "moderate" risk basket, so the expense averaged to 0.55%. Fees would have been higher with more-aggressive investments, lower with conservative ones.

I thanked him and asked where I could see all this online.

He said that he wasn't sure, but that the information would be in whatever packet I received when I enrolled in the program.

I told him this document was either long gone or in the drawer where old IKEA instructions go to die.

He said I could always try looking up individual fees on Morningstar's website.

I thought that this was about as much as I could stomach of the fee-finding quest. I finally had an answer to what fees I paid, even if I remained in the dark about where they were documented. But about that time, I received a response from the adviser who normally schedules my portfolio reviews.

He also cited me the 0.85% number. And he said the internal expense fees were "around 0.5%."

I wrote him back and told him that I had finally spoken with someone who gave me the right answer, and that the number was 0.55%.

He called me, alarmed. It's actually 0.5%, he told me.

Well, the other guy told me 0.55%, I said.

No, he told me, you're in an account with "moderately conservative" risk, and the figure is 0.5%.

The other guy told me I was in the "moderate" account, I said.

Pause. Oh yes, as it turns out, you *are* in the moderate account, he said.

The 0.55% was correct. My combined fee was 1.4%.

And as for those documents?

"I am trying to find a client approved document that provides you with the internal expenses on the portfolio you are invested in," my adviser wrote.

I am still waiting.

* * *

*A spokeswoman for Ms. Fuller's investment-management firm later said she was sorry the reporter had a bad experience. She provided instructions and documents with further information on fees—but no documentation of Ms. Fuller's internal fund fees—and said the firm updated its statements in recent months to more clearly detail fees paid.*

*Ms. Fuller is a reporter for The Wall Street Journal in New York. Email her at andrea.fuller@wsj.com.*

**SPOTLIGHT** | ISHARES MSCI FRANCE ETF

## FRENCH-STOCKS ETF WAS IN THE RIGHT SPOT

Dramatic events in recent weeks have had the world's attention riveted on France, but the performance of **BlackRock** Inc.'s **iShares MSCI France** (EWQ) exchange-traded fund rests on a much broader story: the direction of European and global economic growth.

The headlines generated as the French presidential election played out and terrorism flared again in Europe have at times shaken the $381 million fund, the only U.S.-listed ETF focused on France. It may be briefly buoyed as centrist President-elect Emmanuel Macron prepares to take office. But over the longer term, it may draw greater support from the outlook for the European economy and the global markets that many of the fund's holdings operate in.

From the beginning of the European debt crisis at the end of 2009, investors have used the ETF—which along with the **iShares MSCI Germany** ETF (EWG) represents core exposure to the eurozone—to express their views on the ups and downs of the crisis, says Tushar Yadava, an investment strategist at iShares. Overall, the France fund has been buffeted; its assets have declined more than 40% from their peak of $649 million in 2008.

As of this time last year, almost all of BlackRock's iShares European ETFs had experienced year-to-date outflows, says Mr. Yadava. But as the eurozone's economy improved toward the end of last year and into this year, investors began dipping their toes back into the European market, he says.

The fund has gained 13.6% this year through April.

*—Daisy Maxey*

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FUNDAMENTALS OF INVESTING

# In Commodity Investing, Currencies Call the Tune

## The dollar is an indicator of where commodities prices might be headed—usually the other way

NATE KITCH

BY SIMON CONSTABLE

INVESTORS WHO want to make money trading commodities would do well to become experts in forecasting currencies.

That's because changes in the value of the U.S. dollar tend to be accompanied by movements in the opposite direction in the prices for most of the materials and foodstuffs traded on global markets. For instance, from September 2012 through February 2016, commodities prices on average halved while the value of the dollar surged.

The dollar's movement isn't a foolproof predictor of the direction of commodities prices, but it's a factor that can't be ignored. For the 10 years through the end of March, the prices of commodities on average show a negative correlation to the dollar's value of more than 0.5, according to an analysis from S&P Dow Jones Indices. In other words, the two move in opposite directions more often than not. (A negative correlation of 1.0 would mean the two always move in opposite directions.)

Some commodities had an even closer relationship to moves in the dollar. Unleaded gasoline, crude oil and heating oil all had negative correlations above 0.8.

Of course, correlation doesn't necessarily mean causation. But in this case, there is an element of causation.

"All commodities are priced in dollars," notes Steve Hanke, professor of applied economics at Johns Hopkins University. "That's why the dollar is so important—if the nominal value of the dollar moves around, then the nominal prices of the commodities have to move around." Other factors can temper or amplify the effect of the dollar's movements, but the dollar will always have some influence on commodities prices.

### Which way next?

The trick then for investors is to work out which way the dollar is going.

How do you forecast? A standard joke on Wall Street is that some economists can't forecast *past* events with any accuracy. But accuracy, in terms of the extent of any movements in the dollar, isn't the most important thing in this case. The crucial thing is getting the direction right. If the forecast is for the dollar to weaken, and that forecast proves correct, then investors can have some comfort that the prices of commodities are likely to increase on average.

The easiest way for individual investors to figure out the dollar's direction is to see if their bank publishes exchange-rate forecasts. Such forecasts typically will predict the value of the dollar against currencies including the euro, yen and pound.

### Dollar/euro test

To keep it simple, investors may want to focus on just one important exchange rate: the dollar versus the euro. "Most of the time if the dollar is strong against the euro it's because the dollar is strong against all currencies," says William Adams, senior international economist at PNC Financial Services in Pittsburgh.

For those who want to supplement a dollar-euro forecast with some of their own research, the key is what happens in the two economies.

"The outlook for economic growth and inflation is what causes central banks to make the decisions they make, and they fuel a lot of the movements in exchange rates," says Mr. Adams.

When an economy is growing fast and inflation is rising, central banks such as the Federal Reserve and the European Central Bank tend to raise the cost of borrowing money. Higher interest rates, in turn, tend to boost a currency's value by making securities denominated in the currency more attractive to investors.

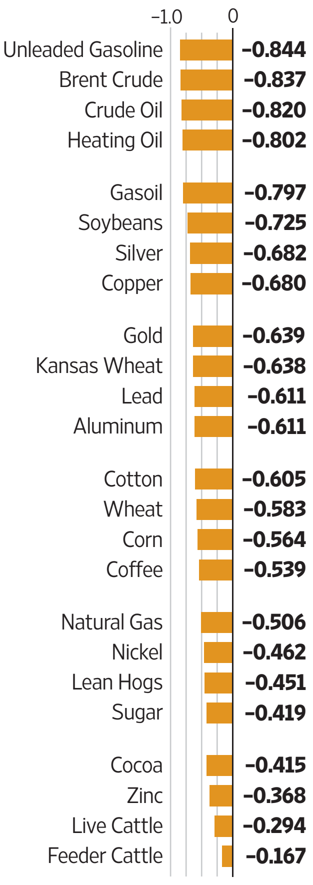
"Our forecast is that the dollar, which is already quite strong, will get even stronger," says Mr. Adams. "It's a mix of a tighter U.S. job market plus accelerating wage growth and expectations of fiscal stimulus."

The U.S. economy has recovered faster than the eurozone. As a result, it's likely that the Fed will raise the cost of borrowing faster than the ECB and so propel the dollar higher against the euro.

*Mr. Constable is a writer in New York. He can be reached at* ***reports@wsj.com****.*

### Pushed Around

The dollar's rise has usually been associated with a decline in the price of several commodities over the past 10 years. The impact as measured by negative correlation:




Source: S&P GSCI
THE WALL STREET JOURNAL.

**MORE ONLINE**

**See more articles from the Investing in Funds & ETFs report, and monthly funds statistics, at WSJ.com/FundsETFs.**

**SPOTLIGHT** | ETF INDUSTRY EXPOSURE

## THE ETF OF THE ETF BUSINESS

The ETF industry has secured that hallmark of a growing market sector: its own ETF.

The **ETF Industry Exposure & Financial Services** (TETF) exchange-traded fund was launched April 20. It tracks the Toroso ETF Industry Index, which includes a range of companies from index and data providers to fund issuers and exchanges.

The index was set up by New York-based Toroso Investments with the aim of providing investors with exposure to the industry as a whole, says Toroso's chief investment officer, Mike Venuto.

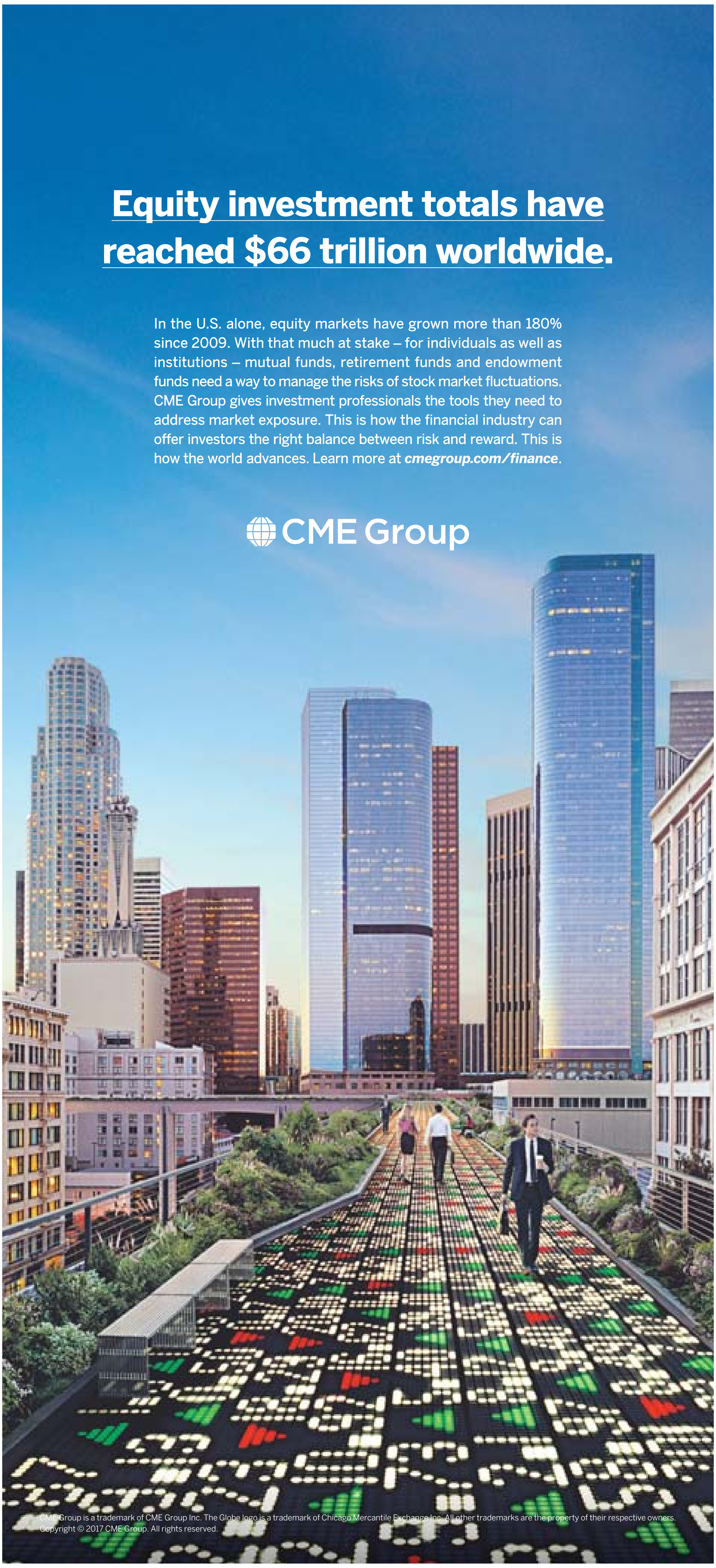
"We thought of the industry as not just being the issuers, but the ecosystem making money off of ETFs," he says.

The index is made up of four tiers. Tier One, which accounts for half of its exposure, includes companies with substantial participation in ETFs that provides a direct financial impact to their shareholders. It includes such names as **BlackRock**, **Invesco** and **WisdomTree**.

A quarter of the index is in Tier Two; this comprises companies with a substantial participation in the industry that provides an indirect financial impact to shareholders, including Nasdaq and Intercontinental Exchange. Tier Three takes up 15% of exposure, and includes companies with a moderate level of exposure to ETFs, such as FactSet and Bank of New York Mellon. The remaining 10%, in Tier Four, covers companies that are new to the industry or participate in a smaller way relative to their overall business. This tier features names like Eaton Vance and Goldman Sachs.

The index focuses on U.S.-listed companies, though Mr. Venuto says Toroso is open to including foreign companies.

*—Gerrard Cowan*



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# MARKETS DIGEST

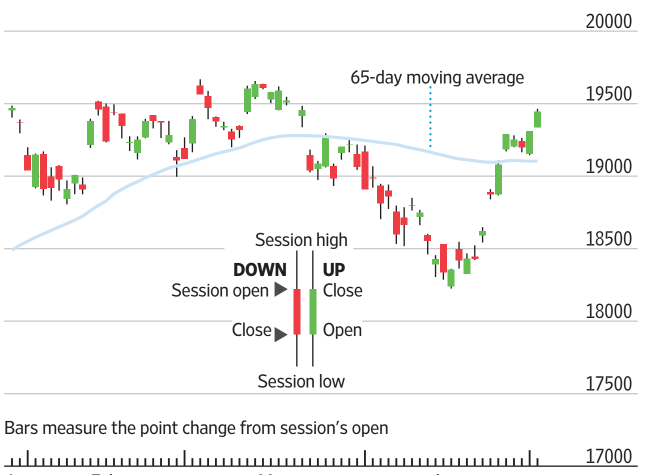
Data as of Friday, May 5 ,2017

## Nikkei 225 Index

**19445.70** Market Closed

High, low, open and close for each trading day of the past three months.

| | | |
|---|---|---|
| Year-to-date | ▲ 1.73% | |
| 52-wk high/low | 19633.75 | 14952.02 |
| All-time high | 38915.87 | 12/29/89 |

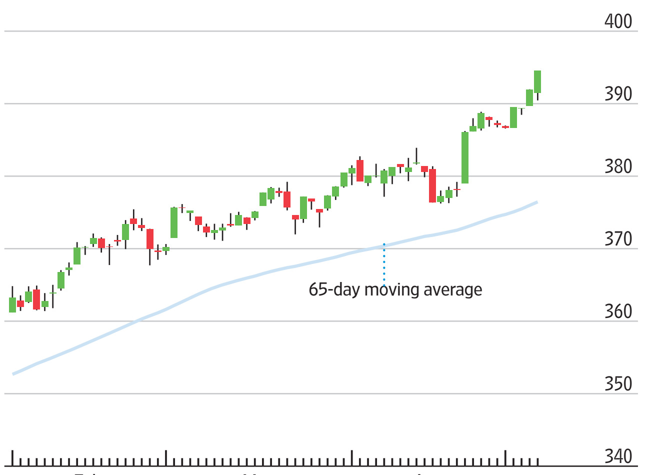



## STOXX 600 Index

**394.54** ▲ 2.56, or 0.65%

High, low, open and close for each trading day of the past three months.

| | | |
|---|---|---|
| Year-to-date | ▲ 9.16% | |
| 52-wk high/low | 394.54 | 308.75 |
| All-time high | 414.06 | 4/15/15 |




## S&P 500 Index

4 p.m. New York time

**2399.29** ▲ 9.77, or 0.41%

High, low, open and close for each trading day of the past three months.

| | Last | Year ago |
|---|---|---|
| Trailing P/E ratio | 23.76 | 23.66 |
| P/E estimate * | 18.44 | 17.59 |
| Dividend yield | 1.97 | 2.20 |
| All-time high: | 2399.29, 05/05/17 | |


## International Stock Indexes

Data as of 4 p.m. New York time

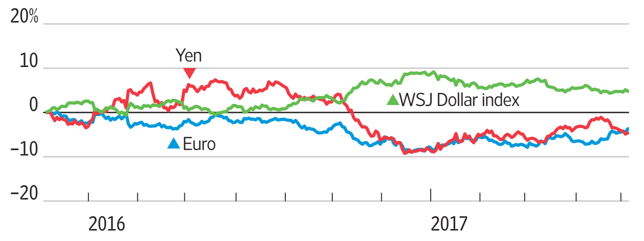
| Region/Country | Index | Latest Close | Latest NetChg | Latest % chg | 52-Week Range Low | 52-Week Range High | YTD % chg |
|---|---|---|---|---|---|---|---|
| **World** | **The Global Dow** | 2754.32 | 14.40 | 0.53 | 2197.91 | 2754.32 | 8.8 |
| | **MSCI EAFE** | 1864.91 | 11.67 | 0.63 | 1520.94 | 1864.91 | 10.7 |
| | **MSCI EM USD** | 978.27 | –1.80 | –0.18 | 781.84 | 988.19 | 13.5 |
| **Americas** | **DJ Americas** | 576.84 | 3.15 | 0.55 | 480.83 | 577.52 | 6.7 |
| Brazil | **Sao Paulo Bovespa** | 65709.74 | 847.13 | 1.31 | 48471.71 | 69052.03 | 9.1 |
| Canada | **S&P/TSX Comp** | 15582.04 | 185.34 | 1.20 | 13563.84 | 15922.37 | 1.9 |
| Mexico | **IPC All-Share** | 49485.67 | 487.56 | 1.00 | 44282.03 | 49808.05 | 8.4 |
| Chile | **Santiago IPSA** | 3715.05 | –8.27 | –0.22 | 3054.30 | 3782.66 | 15.3 |
| **U.S.** | **DJIA** | 21006.94 | 55.47 | 0.26 | 17140.24 | 21115.55 | 6.3 |
| | **Nasdaq Composite** | 6100.76 | 25.42 | 0.42 | 4594.44 | 6100.76 | 13.3 |
| | **S&P 500** | 2399.29 | 9.77 | 0.41 | 2000.54 | 2399.29 | 7.2 |
| | **CBOE Volatility** | 10.57 | 0.11 | 1.05 | 10.11 | 25.76 | –24.7 |
| **EMEA** | **Stoxx Europe 600** | 394.54 | 2.56 | 0.65 | 308.75 | 394.54 | 9.2 |
| | **Stoxx Europe 50** | 3244.64 | 16.77 | 0.52 | 2636.71 | 3244.64 | 7.8 |
| Austria | **ATX** | 3068.28 | 32.18 | 1.06 | 1988.40 | 3068.28 | 17.2 |
| Belgium | **Bel-20** | 4037.94 | 34.28 | 0.86 | 3141.13 | 4037.94 | 12.0 |
| France | **CAC 40** | 5432.40 | 59.98 | 1.12 | 3984.72 | 5432.40 | 11.7 |
| Germany | **DAX** | 12716.89 | 69.11 | 0.55 | 9268.66 | 12716.89 | 10.8 |
| Greece | **ATG** | 753.99 | 5.07 | 0.68 | 519.33 | 753.99 | 17.1 |
| Hungary | **BUX** | 32864.04 | 574.19 | 1.78 | 25390.23 | 34324.99 | 2.7 |
| Israel | **Tel Aviv** | 1409.95 | ... | Closed | 1378.66 | 1478.96 | –4.1 |
| Italy | **FTSE MIB** | 21483.86 | 313.94 | 1.48 | 15103.58 | 21483.86 | 11.7 |
| Netherlands | **AEX** | 533.27 | 4.83 | 0.91 | 411.62 | 533.27 | 10.4 |
| Poland | **WIG** | 61831.40 | –31.40 | –0.05 | 43549.58 | 62066.66 | 19.5 |
| Russia | **RTS Index** | 1085.68 | 4.46 | 0.41 | 879.55 | 1195.61 | –5.8 |
| Spain | **IBEX 35** | 11135.40 | 122.50 | 1.11 | 7645.50 | 11135.40 | 19.1 |
| Sweden | **SX All Share** | 588.72 | 1.32 | 0.22 | 445.00 | 588.72 | 10.1 |
| Switzerland | **Swiss Market** | 9016.66 | 36.64 | 0.41 | 7593.20 | 9016.66 | 9.7 |
| South Africa | **Johannesburg All Share** | 53579.01 | 172.70 | 0.32 | 48935.90 | 54474.09 | 5.8 |
| Turkey | **BIST 100** | 93928.39 | 889.90 | 0.96 | 71594.98 | 94655.31 | 20.2 |
| U.K. | **FTSE 100** | 7297.43 | 49.33 | 0.68 | 5923.53 | 7429.81 | 2.2 |
| **Asia-Pacific** | **DJ Asia-Pacific TSM** | 1564.27 | –4.94 | –0.31 | 1324.15 | 1578.14 | 9.9 |
| Australia | **S&P/ASX 200** | 5836.60 | –39.80 | –0.68 | 5103.30 | 5956.50 | 3.0 |
| China | **Shanghai Composite** | 3103.04 | –24.33 | –0.78 | 2806.91 | 3288.97 | –0.0 |
| Hong Kong | **Hang Seng** | 24476.35 | –207.53 | –0.84 | 19694.33 | 24698.48 | 11.3 |
| India | **S&P BSE Sensex** | 29858.80 | –267.41 | –0.89 | 25228.50 | 30133.35 | 12.1 |
| Japan | **Nikkei Stock Avg** | 19445.70 | ... | Closed | 14952.02 | 19633.75 | 1.7 |
| Singapore | **Straits Times** | 3229.73 | 1.11 | 0.03 | 2729.85 | 3237.81 | 12.1 |
| South Korea | **Kospi** | 2241.24 | ... | Closed | 1925.24 | 2241.24 | 10.6 |
| Taiwan | **Weighted** | 9899.94 | –67.70 | –0.68 | 8053.69 | 9972.49 | 7.0 |

Source: SIX Financial Information;WSJ Market Data Group

## Currencies

London close on May 5

Yen, euro vs. dollar; dollar vs. major U.S. trading partners




| Country/currency | Fri in US$ | Fri per US$ | US$ vs, YTD chg (%) |
|---|---|---|---|
| **Americas** | | | |
| **Argentina** peso-a | 0.0652 | 15.3464 | **–3.3** |
| **Brazil** real | 0.3151 | 3.1734 | **–2.5** |
| **Canada** dollar | 0.7300 | 1.3699 | **1.9** |
| **Chile** peso | 0.001487 | 672.30 | **0.4** |
| **Colombia** peso | 0.0003381 | 2957.96 | **–1.5** |
| **Ecuador** US dollar-f | 1 | 1 | **unch** |
| **Mexico** peso-a | 0.0526 | 18.9937 | **–8.4** |
| **Peru** sol | 0.3059 | 3.2690 | **–2.5** |
| **Uruguay** peso-e | 0.0358 | 27.950 | **–4.8** |
| **Venezuela** bolivar | 0.099213 | 10.08 | **0.8** |
| **Asia-Pacific** | | | |
| **Australia** dollar | 0.7413 | 1.3490 | **–2.8** |
| **China** yuan | 0.1449 | 6.9026 | **–0.6** |
| **Hong Kong** dollar | 0.1285 | 7.7843 | **0.4** |
| **India** rupee | 0.0155 | 64.3250 | **–5.3** |
| **Indonesia** rupiah | 0.0000752 | 13303 | **–1.6** |
| **Japan** yen | 0.008875 | 112.68 | **–3.7** |
| **Kazakhstan** tenge | 0.003140 | 318.44 | **–4.6** |
| **Macau** pataca | 0.1253 | 7.9786 | **0.8** |
| **Malaysia** ringgit-c | 0.2305 | 4.3375 | **–3.3** |
| **New Zealand** dollar | 0.6911 | 1.4470 | **0.2** |
| **Pakistan** rupee | 0.0095 | 104.805 | **0.4** |
| **Philippines** peso | 0.0201 | 49.824 | **0.4** |
| **Singapore** dollar | 0.7120 | 1.4044 | **–3.0** |
| **South Korea** won | 0.0008792 | 1137.42 | **–5.8** |
| **Sri Lanka** rupee | 0.0065578 | 152.49 | **2.7** |
| **Taiwan** dollar | 0.03315 | 30.169 | **–7.0** |
| **Thailand** baht | 0.02884 | 34.680 | **–3.2** |
| **Europe** | | | |
| **Bulgaria** lev | 0.5621 | 1.7789 | **–4.3** |
| **Croatia** kuna | 0.1481 | 6.754 | **–5.8** |
| **Euro zone** euro | 1.0998 | 0.9093 | **–4.3** |
| **Czech Rep.** koruna-b | 0.0411 | 24.302 | **–5.4** |
| **Denmark** krone | 0.1479 | 6.7613 | **–4.4** |
| **Hungary** forint | 0.003530 | 283.31 | **–3.7** |
| **Iceland** krona | 0.009471 | 105.58 | **–6.5** |
| **Norway** krone | 0.1162 | 8.6060 | **–0.4** |
| **Poland** zloty | 0.2613 | 3.8273 | **–8.6** |
| **Russia** ruble-d | 0.01719 | 58.174 | **–5.0** |
| **Sweden** krona | 0.1137 | 8.7978 | **–3.4** |
| **Switzerland** franc | 1.0127 | 0.9875 | **–3.1** |
| **Turkey** lira | 0.2820 | 3.5459 | **0.6** |
| **Ukraine** hryvnia | 0.0377 | 26.5000 | **–2.2** |
| **U.K.** pound | 1.2955 | 0.7719 | **–4.7** |
| **Middle East/Africa** | | | |
| **Bahrain** dinar | 2.6525 | 0.3770 | **–0.05** |
| **Egypt** pound-a | 0.0552 | 18.1220 | **–0.1** |
| **Israel** shekel | 0.2784 | 3.5921 | **–6.7** |
| **Kuwait** dinar | 3.2858 | 0.3043 | **–0.4** |
| **Oman** sul rial | 2.5974 | 0.3850 | **0.01** |
| **Qatar** rial | 0.2746 | 3.642 | **0.05** |
| **Saudi Arabia** riyal | 0.2666 | 3.7509 | **0.01** |
| **South Africa** rand | 0.0741 | 13.4880 | **–1.5** |

| | Close | Net Chg | % Chg | YTD % Chg |
|---|---|---|---|---|
| **WSJ Dollar Index** | 89.76 | –0.06 | –0.06 | **–3.42** |

Sources: Tullett Prebon, WSJ Market Data Group

## Global government bonds

Latest, month-ago and year-ago yields and spreads over or under U.S. Treasurys on benchmark two-year and 10-year government bonds around the world. Data as of 3 p.m. ET

| Coupon | Country/ Maturity, in years | Yield | Spread Over Treasurys, in basis points Latest | Previous | Month Ago | Year ago | Yield Previous | Month ago | Year ago |
|---|---|---|---|---|---|---|---|---|---|
| 5.250 | **Australia** 2 | **1.719** | **39.7** | 40.8 | 47.3 | **97.2** | **1.721** | 1.711 | **1.694** |
| 4.750 | 10 | **2.658** | **30.6** | 29.5 | 27.9 | **65.7** | **2.653** | 2.616 | **2.401** |
| 3.000 | **Belgium** 2 | **-0.531** | **-185.3** | -186.2 | -179.6 | **-119.4** | **-0.548** | -0.558 | **-0.472** |
| 0.800 | 10 | **0.808** | **-154.4** | -157.6 | -155.5 | **-132.0** | **0.782** | 0.782 | **0.424** |
| 0.000 | **France** 2 | **-0.423** | **-174.5** | -175.8 | -174.2 | **-113.7** | **-0.444** | -0.504 | **-0.414** |
| 1.000 | 10 | **0.842** | **-151.0** | -152.9 | -141.6 | **-120.5** | **0.829** | 0.922 | **0.538** |
| 0.000 | **Germany** 2 | **-0.680** | **-200.2** | -201.2 | -203.5 | **-122.8** | **-0.698** | -0.797 | **-0.506** |
| 0.250 | 10 | **0.420** | **-193.2** | -196.0 | -207.7 | **-158.0** | **0.398** | 0.261 | **0.164** |
| 0.300 | **Italy** 2 | **-0.134** | **-145.6** | -143.4 | -131.5 | **-75.8** | **-0.120** | -0.077 | **-0.036** |
| 2.200 | 10 | **2.168** | **-18.4** | -10.4 | -24.5 | **-24.5** | **2.255** | 2.092 | **1.499** |
| 0.100 | **Japan** 2 | **-0.201** | **-152.3** | -151.5 | -142.8 | **-96.2** | **-0.201** | -0.190 | **-0.240** |
| 0.100 | 10 | **0.020** | **-233.2** | -233.8 | -227.2 | **-185.4** | **0.020** | 0.066 | **-0.110** |
| 4.000 | **Netherlands** 2 | **-0.595** | **-191.7** | -192.1 | -198.6 | **-120.8** | **-0.607** | -0.748 | **-0.486** |
| 0.750 | 10 | **0.621** | **-173.1** | -176.1 | -184.2 | **-147.6** | **0.597** | 0.495 | **0.267** |
| 4.750 | **Portugal** 2 | **0.331** | **-99.2** | -97.3 | -139.3 | **-41.2** | **0.341** | -0.155 | **0.310** |
| 4.125 | 10 | **3.366** | **101.4** | 105.2 | 128.6 | **131.9** | **3.410** | 3.623 | **3.063** |
| 2.750 | **Spain** 2 | **-0.288** | **-161.0** | -160.6 | -146.6 | **-77.9** | **-0.292** | -0.228 | **-0.057** |
| 1.500 | 10 | **1.549** | **-80.3** | -76.5 | -72.4 | **-14.1** | **1.593** | 1.614 | **1.603** |
| 4.250 | **Sweden** 2 | **-0.619** | **-194.1** | -195.4 | -184.2 | **-115.3** | **-0.640** | -0.604 | **-0.431** |
| 1.000 | 10 | **0.648** | **-170.4** | -175.4 | -175.2 | **-95.1** | **0.604** | 0.586 | **0.793** |
| 1.750 | **U.K.** 2 | **0.145** | **-117.8** | -120.7 | -110.9 | **-29.5** | **0.107** | 0.129 | **0.428** |
| 4.250 | 10 | **1.117** | **-123.5** | -123.9 | -124.2 | **-27.9** | **1.119** | 1.096 | **1.465** |
| 1.250 | **U.S.** 2 | **1.322** | ... | ... | ... | ... | **1.314** | 1.238 | **0.722** |
| 2.250 | 10 | **2.352** | ... | ... | ... | ... | **2.358** | 2.337 | **1.744** |

## Commodities

Prices of futures contracts with the most open interest 3:30 p.m. New York time

**EXCHANGE LEGEND: CBOT:** Chicago Board of Trade; **CME:** Chicago Mercantile Exchange; **ICE-US:** ICE Futures U.S.; **MDEX:** Bursa Malaysia Derivatives Berhad; **TCE:** Tokyo Commodity Exchange; **COMEX:** Commodity Exchange; **LME:** London Metal Exchange; **NYMEX:** New York Mercantile Exchange; **ICE-EU:** ICE Futures Europe. *Data as of 5/4/2017

| Commodity | Exchange | Last price | One-Day Change Net | One-Day Change Percentage | Year high | Year low |
|---|---|---|---|---|---|---|
| **Corn** (cents/bu.) | CBOT | 371.50 | 5.00 | 1.36% | 393.75 | 360.75 |
| **Soybeans** (cents/bu.) | CBOT | 973.75 | -0.50 | -0.05% | 1,092.50 | 941.25 |
| **Wheat** (cents/bu.) | CBOT | 442.75 | 5.00 | 1.14 | 488.75 | 416.00 |
| **Live cattle** (cents/lb.) | CME | 128.300 | -3.000 | -2.28 | 134.550 | 103.150 |
| **Cocoa** ($/ton) | ICE-US | 1,864 | 25 | 1.36 | 2,270 | 1,756 |
| **Coffee** (cents/lb.) | ICE-US | 135.90 | 0.95 | 0.70 | 161.55 | 128.65 |
| **Sugar** (cents/lb.) | ICE-US | 15.38 | 0.01 | 0.07 | 20.81 | 15.24 |
| **Cotton** (cents/lb.) | ICE-US | 77.80 | -1.11 | -1.41 | 80.27 | 71.86 |
| **Robusta coffee** ($/ton) | ICE-EU | 2007.00 | 15.00 | 0.75 | 2,283.00 | 1,871.00 |
| **Copper** ($/lb.) | COMEX | 2.5305 | 0.0190 | 0.76 | 2.8400 | 2.4900 |
| **Gold** ($/troy oz.) | COMEX | 1229.80 | 1.20 | 0.10 | 1,297.40 | 1,152.20 |
| **Silver** ($/troy oz.) | COMEX | 16.365 | 0.062 | 0.38 | 18.725 | 16.100 |
| **Aluminum** ($/mt)* | LME | 1,916.50 | -6.00 | -0.31 | 1,972.00 | 1,688.50 |
| **Tin** ($/mt)* | LME | 19,950.00 | 75.00 | 0.38 | 21,225.00 | 18,760.00 |
| **Copper** ($/mt)* | LME | 5,570.00 | -95.00 | -1.68 | 6,156.00 | 5,518.00 |
| **Lead** ($/mt)* | LME | 2,172.00 | -39.00 | -1.76 | 2,445.00 | 2,022.00 |
| **Zinc** ($/mt)* | LME | 2,567.00 | -36.00 | -1.38 | 2,958.50 | 2,555.00 |
| **Nickel** ($/mt)* | LME | 9,060.00 | -265.00 | -2.84 | 11,095.00 | 9,060.00 |
| **Rubber** (Y.01/ton) | TCE | 221.70 | ... | Closed | n.a. | n.a. |
| **Palm oil** (MYR/mt) | MDEX | 2580.00 | 44.00 | 1.74 | 3,004.00 | 2,450.00 |
| **Crude oil** ($/bbl.) | NYMEX | 46.35 | 0.83 | 1.82 | 57.95 | 43.76 |
| **NY Harbor ULSD** ($/gal.) | NYMEX | 1.4406 | 0.0283 | 2.00 | 1.7833 | 1.3748 |
| **RBOB gasoline** ($/gal.) | NYMEX | 1.5072 | 0.0260 | 1.76 | 1.9012 | 1.4500 |
| **Natural gas** ($/mmBtu) | NYMEX | 3.264 | 0.078 | 2.45 | 3.5410 | 2.8170 |
| **Brent crude** ($/bbl.) | ICE-EU | 49.20 | 0.82 | 1.69 | 60.09 | 46.64 |
| **Gas oil** ($/ton) | ICE-EU | 433.75 | 6.00 | 1.40 | 526.50 | 413.00 |

Sources: SIX Financial Information; WSJ Market Data Group

## Cross rates

London close on May 5

| | USD | GBP | CHF | JPY | HKD | EUR | CDN | AUD |
|---|---|---|---|---|---|---|---|---|
| **Australia** | 1.3490 | 1.7478 | 1.3661 | 0.0120 | 0.1733 | 1.4836 | 0.9848 | ... |
| **Canada** | 1.3699 | 1.7746 | 1.3873 | 0.0122 | 0.1760 | 1.5063 | ... | 1.0153 |
| **Euro** | 0.9093 | 1.1780 | 0.9209 | 0.0081 | 0.1168 | ... | 0.6637 | 0.6740 |
| **Hong Kong** | 7.7843 | 10.0851 | 7.8827 | 0.0691 | ... | 8.5614 | 5.6826 | 5.7704 |
| **Japan** | 112.6760 | 145.9700 | 114.1100 | ... | 14.4750 | 123.9200 | 82.2600 | 83.5200 |
| **Switzerland** | 0.9875 | 1.2791 | ... | 0.0088 | 0.1269 | 1.0860 | 0.7208 | 0.7318 |
| **U.K.** | 0.7719 | ... | 0.7818 | 0.0069 | 0.0992 | 0.8490 | 0.5635 | 0.5722 |
| **U.S.** | ... | 1.2955 | 1.0127 | 0.0089 | 0.1285 | 1.0998 | 0.7300 | 0.7413 |

Source: Tullett Prebon

## Key Rates

| | Latest | 52 wks ago |
|---|---|---|
| **Libor** | | |
| One month | **0.99444%** | 0.43790% |
| Three month | **1.18039** | 0.62960 |
| Six month | **1.43267** | 0.90715 |
| One year | **1.77900** | 1.22415 |
| **Euro Libor** | | |
| One month | **-0.40143%** | -0.35200% |
| Three month | **-0.36286** | -0.27600 |
| Six month | **-0.26871** | -0.15700 |
| One year | **-0.14043** | -0.02943 |
| **Euribor** | | |
| One month | **-0.37400%** | -0.34800% |
| Three month | **-0.32900** | -0.25600 |
| Six month | **-0.24800** | -0.14400 |
| One year | **-0.12400** | -0.01300 |
| **Yen Libor** | | |
| One month | **-0.01886%** | -0.04671% |
| Three month | **0.00186** | -0.02329 |
| Six month | **0.02429** | 0.00479 |
| One year | **0.13357** | 0.09971 |
| | Offer | Bid |
| **Eurodollars** | | |
| One month | **1.1000%** | 1.0000% |
| Three month | **1.2000** | 1.1000 |
| Six month | **1.3500** | 1.2500 |
| One year | **1.6000** | 1.5000 |
| | Latest | 52 wks ago |
| **Prime rates** | | |
| U.S. | **4.00%** | 3.50% |
| Canada | **2.70** | 2.70 |
| Japan | **1.475** | 1.475 |
| Hong Kong | **5.00** | 5.00 |
| **Policy rates** | | |
| ECB | **0.00%** | 0.00% |
| Britain | **0.25** | 0.50 |
| Switzerland | **0.50** | 0.50 |
| Australia | **1.50** | 1.75 |
| U.S. discount | **1.50** | 1.00 |
| Fed-funds target | **0.75-1.00** | 0.25-0.50 |
| Call money | **2.75** | 2.25 |
| **Overnight repurchase rates** | | |
| U.S. | **0.87%** | 0.44% |
| Euro zone | **n.a.** | n.a. |

Sources: WSJ Market Data Group, SIX Financial Information, Tullett

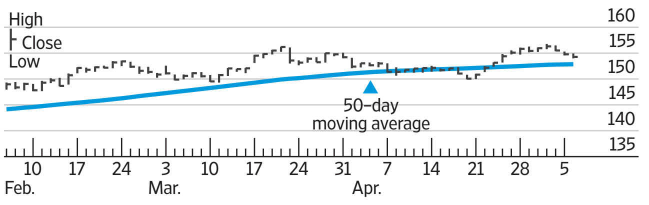
## Top Stock Listings

4 p.m. New York time

| Cur | Stock | Sym | Last | % Chg | YTD% Chg |
|---|---|---|---|---|---|
| | **Asia Titans** | | | | |
| HK$ | AIAGroup | 1299 | 54.60 | -0.73 | 24.80 |
| ¥ | AstellasPharma | 4503 | 1434.50 | 0.21 | -11.64 |
| AU$ | AustNZBk | ANZ | 30.65 | -0.58 | 0.76 |
| AU$ | BHP | BHP | 22.62 | -2.67 | -9.74 |
| HK$ | BankofChina | 3988 | 3.68 | -1.08 | 6.98 |
| HK$ | CKHutchison | 0001 | 97.10 | -0.61 | 10.47 |
| HK$ | CNOOC | 0883 | 8.82 | -1.12 | -9.07 |
| AU$ | CSL | CSL | 133.62 | -0.02 | 33.07 |
| ¥ | Canon | 7751 | 3750.00 | 0.73 | 13.81 |
| ¥ | CentralJapanRwy | 9022 | 18635 | 0.38 | -3.09 |
| HK$ | ChinaConstructnBk | 0939 | 6.16 | -1.75 | 3.18 |
| HK$ | ChinaLifeInsurance | 2628 | 22.90 | -2.55 | 13.37 |
| HK$ | ChinaMobile | 0941 | 84.30 | 0.72 | 2.55 |
| HK$ | ChinaPetro&Chem | 0386 | 6.02 | -2.75 | 9.45 |
| AU$ | CmwlthBkAust | CBA | 84.40 | -0.27 | 2.41 |
| ¥ | EastJapanRailway | 9020 | 10090 | -0.20 | -0.10 |
| ¥ | Fanuc | 6954 | 22520 | 1.01 | 13.65 |
| ¥ | Hitachi | 6501 | 623.50 | -0.02 | -1.34 |
| TW$ | Hon Hai Precisn | 2317 | 100.00 | -0.50 | 18.76 |
| ¥ | HondaMotor | 7267 | 3235.00 | -0.31 | -5.27 |
| KRW | HyundaiMtr | 005380 | 152000 | 0.66 | 4.11 |
| HK$ | Ind&Comml | 1398 | 4.96 | -1.39 | 6.67 |
| ¥ | JapanTobacco | 2914 | 3735.00 | 0.24 | -2.84 |
| ¥ | KDDI | 9433 | 2956.50 | -0.44 | -0.10 |
| ¥ | Mitsubishi | 8058 | 2437.50 | 0.49 | -2.11 |
| ¥ | MitsubishiElectric | 6503 | 1609.00 | -0.19 | -1.26 |
| ¥ | MitsubishiUFJFin | 8306 | 715.90 | 0.59 | -0.60 |
| ¥ | Mitsui | 8031 | 1599.00 | 1.11 | -0.50 |
| ¥ | Mizuho Fin | 8411 | 206.70 | 0.73 | -1.48 |
| ¥ | NTTDoCoMo | 9437 | 2680.50 | 0.11 | 0.66 |
| AU$ | NatAustBnk | NAB | 32.52 | -1.19 | 6.03 |
| ¥ | NipponTeleg | 9432 | 4839.00 | 0.64 | -1.49 |
| ¥ | NissanMotor | 7201 | 1076.50 | 1.13 | -8.42 |
| ¥ | Panasonic | 6752 | 1339.00 | 0.11 | 12.57 |
| HK$ | PingAnInsofChina | 2318 | 42.95 | -1.38 | 10.70 |
| $ | RelianceIndsGDR | RIGD | 41.65 | -1.65 | 32.01 |
| KRW | SamsungElectronics | 005930 | 2276000 | 1.38 | 26.30 |
| ¥ | Seven&I Hldgs | 3382 | 4745.00 | 1.28 | 6.56 |
| ¥ | SoftBankGroup | 9984 | 8478.00 | 0.25 | 9.18 |
| ¥ | Sony | 6758 | 3853.00 | -0.52 | 17.65 |
| ¥ | Sumitomo Mitsui | 8316 | 4153.00 | 0.73 | -6.88 |
| HK$ | SunHngKaiPrp | 0016 | 116.60 | -1.27 | 18.98 |
| TW$ | TaiwanSemiMfg | 2330 | 197.50 | -0.25 | 8.82 |
| ¥ | TakedaPharm | 4502 | 5376.00 | 0.50 | 11.19 |
| HK$ | TencentHoldings | 0700 | 243.80 | ... | 28.52 |
| ¥ | TokioMarineHldg | 8766 | 4751.00 | 0.57 | -0.94 |
| ¥ | ToyotaMtr | 7203 | 6143.00 | 1.67 | -10.69 |
| AU$ | Wesfarmers | WES | 43.29 | -0.80 | 2.73 |
| AU$ | WestpacBanking | WBC | 33.86 | -0.15 | 3.87 |
| AU$ | Woolworths | WOW | 26.25 | -1.61 | 8.92 |
| | **Stoxx 50** | | | | |
| CHF | ABB | ABBN | 24.46 | 0.20 | 13.87 |
| € | ASMLHolding | ASML | 122.70 | -0.20 | 15.05 |
| € | AXA | CS | 25.00 | 1.46 | 4.23 |
| € | AirLiquide | AI | 115.15 | 1.63 | 8.99 |
| € | Allianz | ALV | 173.90 | 0.03 | 10.76 |
| € | AB InBev | ABI | 109.30 | 0.18 | 8.70 |
| £ | AstraZeneca | AZN | 4605.50 | -0.94 | 3.79 |
| € | BASF | BAS | 90.14 | 0.09 | 2.07 |
| € | BNP Paribas | BNP | 67.88 | 2.28 | 12.11 |
| £ | BT Group | BT.A | 309.55 | 1.28 | -15.63 |
| € | BancoBilVizAr | BBVA | 7.80 | 1.75 | 22.83 |
| € | BancoSantander | SAN | 6.28 | 1.82 | 26.64 |
| £ | Barclays | BARC | 206.35 | -2.60 | -7.65 |
| € | Bayer | BAYN | 115.10 | 1.23 | 16.11 |
| £ | BP | BP. | 451.35 | 1.47 | -11.43 |
| £ | BritishAmTob | BATS | 5287.00 | 0.92 | 14.40 |
| € | Daimler | DAI | 68.52 | 0.75 | -3.11 |
| € | DeutscheTelekom | DTE | 16.61 | 0.48 | 1.56 |
| £ | Diageo | DGE | 2277.50 | 0.11 | 7.94 |
| € | ENI | ENI | 14.59 | 2.53 | -5.69 |
| £ | GlaxoSmithKline | GSK | 1588.00 | -0.03 | 1.66 |
| £ | HSBC Hldgs | HSBA | 658.60 | -0.78 | 0.26 |
| € | INGGroep | INGA | 15.76 | 1.61 | 17.84 |
| £ | ImperialBrands | IMB | 3627.00 | -0.07 | 2.39 |
| € | IntesaSanpaolo | ISP | 2.84 | 2.97 | 17.15 |
| € | LVMHMoetHennessy | MC | 238.10 | 1.58 | 31.26 |
| £ | LloydsBankingGroup | LLOY | 70.00 | ... | 11.98 |
| € | LOreal | OR | 188.55 | 0.96 | 8.74 |
| £ | NationalGrid | NG. | 1020.50 | 0.59 | 7.24 |
| CHF | Nestle | NESN | 80.00 | 0.95 | 9.51 |
| CHF | Novartis | NOVN | 76.85 | -0.13 | 3.71 |
| DKK | NovoNordiskB | NOVO-B | 278.00 | -1.07 | 9.15 |
| £ | Prudential | PRU | 1759.00 | 0.03 | 8.08 |
| £ | ReckittBenckiser | RB. | 7170.00 | 0.08 | 4.12 |
| £ | RioTinto | RIO | 2979.00 | 2.37 | -5.68 |
| CHF | RocheHldgctf | ROG | 268.90 | 0.37 | 15.61 |
| £ | RoyDtchShell A | RDSA | 2067.50 | 2.10 | -7.80 |
| € | SAP | SAP | 93.84 | 0.68 | 13.32 |
| € | Sanofi | SAN | 89.69 | 0.32 | 16.63 |
| € | SchneiderElectric | SU | 74.50 | 2.32 | 12.69 |
| € | Siemens | SIE | 132.00 | 0.27 | 13.01 |
| CHF | Syngenta | SYNN | 461.20 | 0.44 | 14.58 |
| € | Telefonica | TEF | 10.50 | 0.57 | 19.05 |
| € | Total | FP | 48.00 | 2.03 | -0.49 |
| CHF | UBSGroup | UBSG | 17.40 | ... | 9.09 |
| € | Unilever | UNA | 48.12 | -0.46 | 23.03 |
| £ | Unilever | ULVR | 3988.00 | -0.42 | 21.12 |
| € | Vinci | DG | 79.50 | 0.21 | 22.87 |
| £ | VodafoneGroup | VOD | 204.95 | 0.61 | 2.55 |
| CHF | ZurichInsurance | ZURN | 277.80 | 0.36 | -0.93 |
| | **DJIA** | | | | |
| $ | AmericanExpress | AXP | 78.32 | -0.01 | 5.72 |
| $ | Apple | AAPL | 148.96 | 1.66 | 28.61 |
| $ | Boeing | BA | 185.01 | 1.06 | 18.84 |
| $ | Caterpillar | CAT | 99.64 | 0.25 | 7.44 |
| $ | Chevron | CVX | 105.79 | 0.94 | -10.12 |
| $ | CiscoSystems | CSCO | 34.39 | 0.61 | 13.80 |
| $ | Coca-Cola | KO | 43.69 | 0.07 | 5.38 |
| $ | Disney | DIS | 111.99 | 0.74 | 7.46 |
| $ | DuPont | DD | 81.14 | 2.98 | 10.54 |
| $ | ExxonMobil | XOM | 82.02 | 0.47 | -9.13 |
| $ | GeneralElec | GE | 29.22 | 0.07 | -7.53 |
| $ | GoldmanSachs | GS | 226.87 | 0.12 | -5.25 |
| $ | HomeDepot | HD | 155.73 | 0.56 | 16.15 |
| $ | Intel | INTC | 36.82 | -0.08 | 1.52 |
| $ | IBM | IBM | 155.05 | -2.51 | -6.59 |
| $ | JPMorganChase | JPM | 87.00 | -0.11 | 0.82 |
| $ | J&J | JNJ | 123.51 | -0.35 | 7.20 |
| $ | McDonalds | MCD | 143.96 | 0.36 | 18.27 |
| $ | Merck | MRK | 63.97 | 0.93 | 8.66 |
| $ | Microsoft | MSFT | 69.00 | 0.28 | 11.04 |
| $ | Nike | NKE | 53.95 | -0.95 | 6.14 |
| $ | Pfizer | PFE | 33.48 | 0.09 | 3.08 |
| $ | Procter&Gamble | PG | 86.50 | 0.06 | 2.88 |
| $ | 3M | MMM | 199.40 | -0.06 | 11.66 |
| $ | Travelers | TRV | 121.30 | 0.41 | -0.91 |
| $ | UnitedTech | UTX | 121.35 | 0.29 | 10.70 |
| $ | UnitedHealth | UNH | 174.12 | 0.06 | 8.80 |
| $ | Visa | V | 92.09 | -0.57 | 18.03 |
| $ | Verizon | VZ | 46.69 | 1.77 | -12.53 |
| $ | Wal-Mart | WMT | 76.50 | 0.21 | 10.68 |

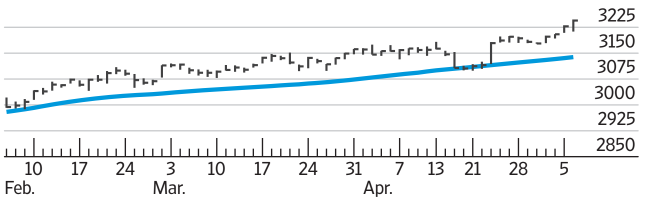
## Asia Titans 50

Last: **154.27** ▼ 0.51, or 0.33% YTD ▲ 9.4%




## Stoxx 50

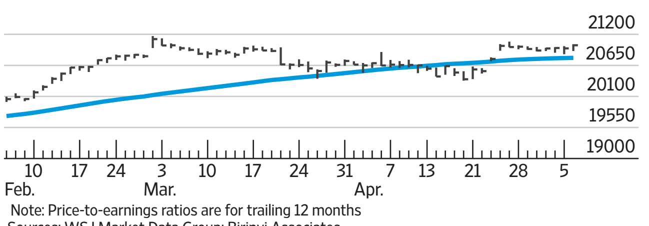
Last: **3244.64** ▲ 16.77, or 0.52% YTD ▲ 7.8%




## Dow Jones Industrial Average

P/E: 21

Last: **21006.94** ▲ 55.47, or 0.26% YTD ▲ 6.3%




Note: Price-to-earnings ratios are for trailing 12 months
Sources: WSJ Market Data Group; Birinyi Associates

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# Morgan Stanley Takes On Vanguard

BY SARAH KROUSE AND MICHAEL WURSTHORN


SHANNON STAPLETON/REUTERS

Morgan Stanley might change brokers' compensation for clients' assets in Vanguard mutual funds.

**Morgan Stanley** is considering compensation changes for its financial advisers that could discourage them from keeping clients in **Vanguard Group** mutual funds, ratcheting up tensions between one of Wall Street's biggest brokerages and the popular index-fund provider.

In calculating advisers' compensation for customer accounts that are charged an annual fee, Morgan Stanley may no longer count client assets in mutual funds that don't pay the bank for distribution, according to people familiar with the matter. No decision has been made, and the firm is considering alternatives that may still pay advisers for those funds, the people added.

Vanguard, an index-fund pioneer that has been a beneficiary of the growing popularity of passive investing, is unusual in the money-management industry because it doesn't pay other firms to sell its funds. The Malvern, Pa., fund company's policy has long caused ire at firms that distribute mutual funds and make money from revenue sharing or other financial arrangements with money managers.

Morgan Stanley has already decided that as of this week its brokers will no longer be able to sell clients new positions in Vanguard mutual funds. But a spokesman for the New York bank on Thursday said clients who already hold Vanguard mutual funds wouldn't be forced to sell them and could add to existing positions through early 2018. (Vanguard's exchange-traded funds won't be affected by this move.)

Morgan Stanley's aggressive stance toward Vanguard's products is the product of long-simmering tensions in the money-management industry over how fund managers are expected to compensate brokerages for distributing their products, analysts said.

Those tensions have risen in the past year as brokerage and fund managers adapt to the Labor Department's fiduciary rule requiring brokers to act in the best interest of retirement savers. Fund managers and brokerages have been in talks since last year about pricing and distribution changes in order to comply with the rule's goal of minimizing conflicts.

*Vanguard isn't likely to change practices in light of the Morgan Stanley move.*

"We're starting to see more public displays of these renegotiations around how these products are manufactured and sold," said Devin Ryan, an analyst at JMP Securities. "There's a lot of consideration around product lists right now, and that will probably continue."

Still, Vanguard isn't likely to change its practices in light of the Morgan Stanley move.

"They have a model where they want to be compensated for being on their platform in one form or another, and that's just something we won't do," Vanguard Chairman and Chief Executive Bill McNabb said Thursday on CNBC. "We think it raises inherent conflict."

Compensation is typically calculated based on the amount of fees and commissions financial advisers generate with their respective books of business, the total client assets under management. The plan under consideration would exclude assets in Vanguard funds from those calculations, the people said. Morgan Stanley has a network of more than 15,000 brokers who oversee about $2.2 trillion in client assets. It is in the process of cutting a quarter of the funds it considers to be unpopular or underperforming.

Brokerages including Morgan Stanley rely on their compensation plans to nudge advisers to focus on selling certain products and services. Morgan Stanley in recent years has started offering its advisers incentives to push banking products such as mortgages, for example. By excluding Vanguard funds from its compensation structure, Morgan would effectively be giving advisers a disincentive to keep clients in those funds.

The economics of selling mutual funds is fast evolving as fund supermarkets and large networks of financial advisers try to use their scale to protect their own revenue. Regulatory changes as well as the growing popularity of lower-cost index-tracking funds are putting pressure on businesses in every corner of the money management industry, from the fund firms that manage assets to fund sellers.

Vanguard, which has been pulling in more assets in recent years than its rivals, managed $4.2 trillion in assets at the end of March.

AHEAD OF THE TAPE | By Steven Russolillo

## U.S. Companies' Earnings Are Justifying Pricey Stocks

Earnings season has offered plenty of reasons for investors to be optimistic. Even more good news is on the way.

With over 80% of S&P 500 companies having posted quarterly results, the profit engines at the biggest U.S. public companies are humming along. In an environment of elevated valuations, strong earnings growth helps justify record highs for stocks and suggests the bull market still has legs.

First-quarter earnings are on pace to increase 13.5% from the same period a year earlier, according to FactSet. That would be the third consecutive quarter of year-over-year growth and the quickest pace since the third quarter of 2011, when earnings increased 16.7%.

Growth has been broad-based, with energy, financials and technology leading the way. Ten of the S&P 500's 11 sectors are set to report earnings growth, with the small telecom sector the only one lagging.

Top-line growth has been impressive as well, with revenue, driven by the rebounding energy sector, increasing 7.6% from the prior year. Two-thirds of companies that have reported have beaten analysts' revenue estimates, exceeding the average beat rate of 53% of the past five years, according to John Butters at FactSet.

One of the key earnings drivers this season has been overseas growth. Companies with more global exposure are expected to report earnings growth of 14.9%, compared with the 6.8% growth for domestically focused firms, according to RBC Capital Markets, which excluded financial companies from its analysis.

To measure global exposure, the firm divided each S&P 500 sector in half based on how much sales each constituent company generates internationally. That 8.1-percentage-point spread is higher than forecasts of 6.6 points at the beginning of earnings season, and this differential is on track to be the highest in six years.

Wall Street analysts, who normally lower their earnings forecasts throughout a quarter, have cut them for the current quarter at the slowest pace since 2014, according to FactSet. They forecast second-quarter earnings growth of 7.6%, compared with an 8.8% projection at the end of March.

The S&P 500 is up 7.2% this year. Trading at 17.5 times forward earnings, the market's multiple is rich. But the brightening earnings environment suggests a pricey multiple isn't necessarily something to fret over right now.

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# MARKETS

# China Jitters Roil Commodities

## Softening demand for construction materials is again a big concern pushing down prices

A global commodities slump deepened Friday before prices stabilized later in the day, but iron-ore prices continued to plummet over growing concerns about excess supply and weakening Chinese demand.

Market jitters pushed crude prices down more than a $1 a barrel, or 3%, in the space of 10 minutes in early Asia trading, although prices recovered and settled higher in London and New York.

The slide briefly took oil prices down 10% for the week, one of the biggest drops since January 2016, when global markets plummeted on concern about the health of China's economy.

The price of iron-ore futures, considered an indicator of demand for the key steelmaking ingredient, dropped 7.5% Friday on China's Dalian Commodity Exchange. That followed an 8% tumble to the trading limit the previous day.

Iron-ore futures are at their lowest levels since November and down 31% from the 2½-year high reached in February. Futures prices for a pair of steel products traded in Shanghai fell as much as 8% for the week.

Iron ore's losses may have been aggravated because it is primarily traded in China, where the markets are notorious for speculative trading. Investors also aren't nearly as skeptical about the outlook for China's economy as they were during market selloffs early last year.

But analysts say concerns over softening demand in China for construction materials such as steel are once again a big factor in the falling prices. Those concerns reflect weaker manufacturing data and recent moves by Chinese regulators that could curb growth in areas such as housing and infrastructure construction.

Inventories of imported iron ore at China's 45 major ports rose to a record of more than 130 million yuan at the end of March, and climbed to more than 135 million tons last week, according to the China Iron and Steel Industry Association.

"There has been a visible shift of sentiment in the financial market," said Sun Yonggang, an analyst at Chaos Ternary Futures Co. "Over 80% of the steel traders we talked with were upbeat about the outlook in the first quarter. But now they have all turned pessimistic."

The fall in oil prices last week took crude to its lowest intraday level since November, right before the Organization of the Petroleum Exporting Countries and other oil producers including Russia supported the market by announcing a six-month agreement to cut production.

A decision on whether to extend, and possibly increase, those cuts is due at an OPEC meeting later this month. But traders in recent days have lost faith that the current production caps are doing much to reduce the global oil glut that has pressured prices since 2014. Global oil inventories are still robust. And American shale-oil producers are producing even more than many analysts had expected in the wake of the OPEC production cuts.

Moreover, some estimates show that despite the November deal, OPEC's total production is still above the agreed-upon cap. That could be confirmed by the cartel's production report for April, which is scheduled for release in the coming week.

"OPEC's failure to raise oil prices is fundamentally linked to their failure to bring down petroleum inventories," Bernstein Research said in a report on Friday.

Another factor depressing oil prices is that China could be buying less than previously expected.

That is because of a new rule, announced in the previous week, that the country will no longer accept applications from privately owned refineries, known as "teapots," for the right to import crude.

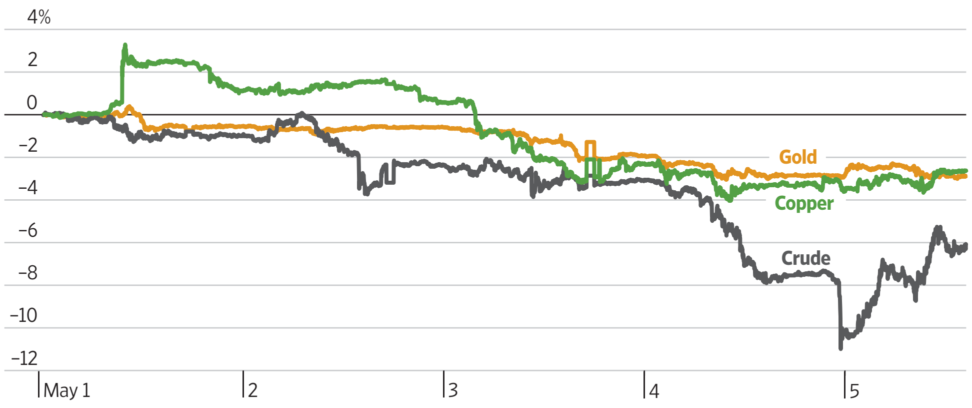
The rule doesn't apply to 21 refiners that have already been issued the necessary permits.

*—Jenny W. Hsu and Yifan Xie*

### Heavy Metals

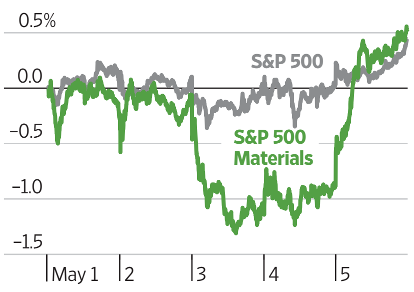
Swings in commodities prices last week weighed on major stock indexes, which finished higher as economic data pointed to continuing growth.

**Oil and metals fell amid concerns about stockpiles and demand.**

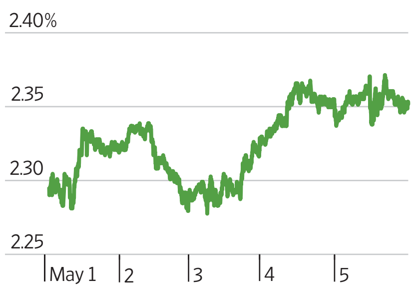



**The volatility gauge hit a decade low on May 1 and has remained muted.**


**The materials sector trailed as metal prices declined, before recovering Friday.**




**The yield on the 10-year Treasury note edged higher.**




Note: Copper and Gold closed at 1:30 p.m. ET Friday
Sources: FactSet (commodities, VIX, S&P 500); Thomson Reuters (yield)
THE WALL STREET JOURNAL.

# As Crude Falls, Bulls Still Keep The Faith

BY STEPHANIE YANG

Some Wall Street analysts are keeping their bullish forecasts for oil prices, despite a 13% plunge in crude over the past three weeks.

A production cut by the major oil-producing nations hasn't brought about the significant drawdown in oil storage that many analysts expected. But banks are still betting that the oil glut will ease this year.

Goldman Sachs Group Inc. analysts wrote Friday that fundamental supply and demand continued to improve in April. The bank attributes the recent selloff to bearish momentum and a broader commodity drop led by metals and Chinese demand concerns.

U.S. oil prices fell to a five-month low on Thursday. Prices recovered on Friday, gaining 1.5%, to $46.22 a barrel, but crude fell 6.3% for the week.

Expectations for the Organization of the Petroleum Exporting Countries to extend cuts this month have added to the upbeat perspective.

"We further expect inventory draws to accelerate, supported by our expectation for robust demand growth, despite recent concerns and potentially further helped later this year by the building consensus among OPEC producers on extending the cuts," Goldman said in the Friday report.

Still, traders are focusing on increasing U.S. shale activity and high levels of crude and products in storage.

"Patience was already wearing thin" during the week, Credit Suisse Group AG analysts said in a Friday note. "However, we think fundamentals are looking incrementally constructive."

# HEARD ON THE STREET

*Email: heard@wsj.com* FINANCIAL ANALYSIS & COMMENTARY WSJ.com/Heard

# Lending Club Experiences Growth Woes

**LendingClub** seems stuck in the doldrums, and investors are running out of patience.

The company, which makes loans online to consumers and sells them to investors, reported first-quarter earnings that beat analyst expectations and raised its full-year forecast slightly. Nonetheless, shares fell 5.6% Friday.

Weaker-than-expected revenue and profit guidance in the second quarter were partly to blame.

A more fundamental issue is a lack of growth. Loan originations have essentially been flat for four straight quarters. Initially, this reflected a strike by buyers of the company's loans following last year's sales-practice scandal and management shake-up. They gradually returned to the platform as new management and safeguards were put in place.

Now, it is concern over consumer-credit quality that has been constraining demand, says Guggenheim Securities.

LendingClub didn't directly address investor concerns, but it began tightening lending standards in the first quarter.

The company is also seeking new sources of growth. In October, it started making loans to car owners using their vehicles as collateral. Asked by an analyst about rising risks in this area, Chief Executive Scott Sanborn said he sees an opportunity to be "greedy when others are fearful."

But ultimately, LendingClub can only be as greedy as its now-cautious loan buyers. It may be time to stop thinking of LendingClub as a growth stock.

*—Aaron Back*

# After Macron's Win, Investors Need More

Centrist Emmanuel Macron's victory in the French presidential race is the most definitive sign yet that Europe has resisted, rather than embraced, the populist political tide embodied by Brexit and Donald Trump. While markets anticipated the win, the next test will be whether the renewed sense of solidarity in European politics leads to progress on issues that have long dogged the economic bloc.

In the near term, markets have already been inspired by the fading of European political risk. Elections in Austria, the Netherlands, and now France show Europeans leaning toward repairing the European Union and its common currency, the euro, rather than breaking it apart.

Since the first round of the French presidential election two weeks ago, European stocks have gained 4.3%, with French stocks up more than 7%. Credit spreads have tightened, French bond yields fallen and the euro traded Friday at $1.10, up around three cents since April 23. That implies some of the relief investors will feel from Mr. Macron's win has already been priced in. Markets have been further buoyed by the relative strength and resilience of eurozone economic data.

How could Mr. Macron's election keep the momentum going for European markets? A focus will be on whether he renews the relationship between France and Germany, a key development in potentially delivering greater European integration, such as strengthening the eurozone's banking union and crisis-response capabilities. Efforts to improve the functioning of capital markets in Europe too would be welcome. That would inspire longer-term confidence about the ability of the euro to thrive, even if ideas like fiscal union remain on the drawing board.

An important part of that will be Mr. Macron's ability to reform France, boosting growth that has lagged behind that of Germany in recent years; to have the two biggest economies in the eurozone moving in tandem will be a powerful force. Vital tasks include making labor markets more flexible in an effort to lower French unemployment from 10%, as well as reducing public spending.

Another litmus test for progress will be Greece, whose financial crisis has been grinding on for seven years. A renewed Franco-German axis could perhaps find some way to agree on a restructuring of Greece's debt. Ten-year Greek bond yields have fallen below 6% for the first time since 2014 as hopes have built of a deal with creditors.

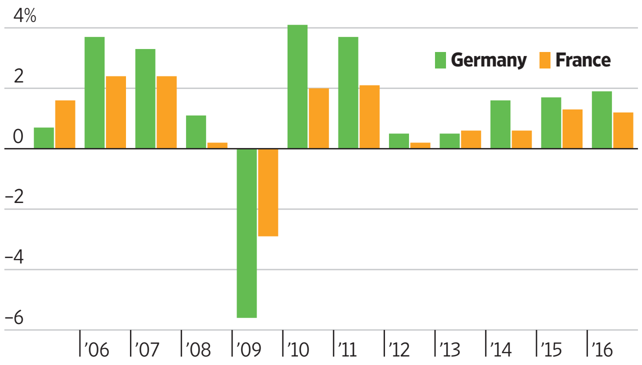
One area to watch out for is less positive, and centers on Italy, and its weak growth and high debt. One consequence of Mr. Macron's win is that investors are likely to focus again on prospects for the European Central Bank winding down its bond-purchase program: Italian bond yields could rise as a result. And Italian politics remain a wild card, even if an election might not occur until next year. Continued strong support for the antiestablishment and euroskeptic 5 Star Movement could rattle markets anew.

The election of Mr. Macron is a step forward for Europe—but in a system with so many moving parts, it is a necessary, not a sufficient, condition for progress. Still, combined with a recovery in corporate profits and decent economic data, the pro-European story has the upper hand.

*—Richard Barley*

### Second Fiddle

Annual change in real gross domestic product




Source: Eurostat
THE WALL STREET JOURNAL.

# How General Motors Might Unlock a Tesla-Like Valuation

**Tesla** being worth more than Ford Motor or—as of last week—**General Motors** is the most visible implication of the valuation gap between old car tech and new car tech. But a bigger one for executive teams concerns portfolio management: It has become harder to own both in the same listed entity. As long as the gap remains, calls for GM to split will become only louder.

An example was set last week by component supplier Delphi Automotive, which was itself spun out of GM in 1999. Delphi said Wednesday that it was splitting its engine-parts business from its other divisions, which are focused on the kind of electronics necessary to turn cars into self-driving mobile devices. The shares jumped 11% as investors factored in a higher stand-alone valuation for the "RemainCo," which doesn't face the same questions around the transition to electric vehicles as the "SpinCo."

The potential for GM to do something similar is on Wall Street's radar. Chief Executive Mary Barra sounded more open to a spinoff in late April, when GM announced first-quarter numbers, than she did three months earlier. "We continue to evaluate" the possibilities, she said. Her comments hinted that Cruise Automation, a San Francisco self-driving technology startup GM bought for $581 million last year, might provide a means to do so.

The problem GM faces is its rock-bottom valuation. Its shares trade at 5.5 times prospective earnings, or roughly $5,000 for every car it sold last year. Tesla's almost identical market value is equivalent to about $500,000 a car, based on the annualized first-quarter run rate of deliveries.

Investors that buy GM stock are inclined to see investments in electric and autonomous vehicles as a cost, while those that buy Tesla shares focus on their potential. Spinning off a chunk of Cruise Automation, together with GM's electric-vehicle projects and perhaps its stake in ride-hailing company **Lyft**, could attract tech-hungry shareholders that would never buy into GM, giving it a much cheaper source of equity capital to compete with Tesla. This capital could also incentivize flighty Silicon Valley staff.

There are risks. A spinoff would incur transaction fees and duplicate some costs, while bringing only minor commercial advantages. It could therefore erode economic value even as it engineered a higher valuation. If the car-tech bubble burst, it would end up looking like an expensive, faddy mistake.

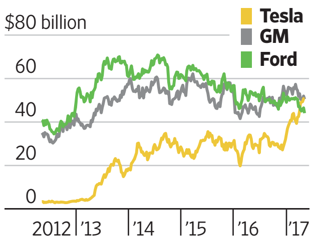
Still, as long as the costs can be contained, it makes sense for GM to pursue the idea. Ms. Barra is under pressure to do something about the company's valuation. Tesla's valuation partly reflects the extreme scarcity of stocks offering pure-play exposure to the car industry's technological transition. Intel's purchase of self-driving tech leader Mobileye eliminated one of the few alternatives.

By providing a new outlet for investor demand, a GM spinoff might even come with the added bonus of knocking froth out of Tesla's stock.

*—Stephen Wilmot*

### Fuel Injection

Market value of U.S. car makers




Source: FactSet
THE WALL STREET JOURNAL.