# THE WALL STREET TO THE STREET

DOW JONES | News Corp

MONDAY, MAY 22, 2017 ~ VOL. XXXV NO. 77

**WSJ.com** 

**EUROPE EDITION** 

**DJIA** 20804.84 ▲ 0.69%

**NASDAQ** 6083.70 ▲ 0.47%

**NIKKEI** 19590.76 ▲ 0.19%

**STOXX 600** 391.51 ▲ 0.60%

**BRENT** 53.61 ▲ 2.09%

**GOLD** 1252.70 ▲ 0.08%

**EURO** 1.1190 ▲ 0.78%

# What's

#### Business & Finance

 ${
m E}$  uropean companies are on track to post their strongest quarterly profit growth in almost seven years as consumers and firms resume spending. A1

- **♦ The Fed is unlikely** to return to its precrisis role after greatly expanding its clout in the financial markets, analysts said. A1
- ◆ Arconic's battle with hedge fund Elliott comes to a head this week when shareholders vote to fill five seats on the 13-member board. B1
- ♦ Japan's SoftBank and Saudi Arabia's sovereignwealth fund launched the world's largest tech fund, securing \$93 billion of committed capital. B1
- ◆ Saudi Arabia joined a list of investors in U.S. public works, agreeing to commit \$20 billion to Blackstone's new infrastructure fund. B7
- siastic about extending output cuts by nine months, the Saudi energy chief said. B8 ◆ "Alien: Covenant" led

◆ Oil producers are enthu-

- the weekend box office, with the Fox release opening to a so-so \$36 million. B2
- **♦ Uber threatened** to fire the driverless-car engineer in its battle with Alphabet if he doesn't turn over files. B3
- ◆ Tech funds have pulled in \$8.7 billion so far in 2017, putting assets on track to swell nearly 25% this year. B7
- ♦ Americans' sense of financial health improved a bit in 2016, but adults without a college education lost ground, the Fed found. A5

### World-Wide

◆ Trump called on Muslim leaders to confront extremism in a speech at the Riyadh summit aimed at corralling Arab allies around an effort to combat terrorism

and Iranian aggression. A1

- ◆ NATO is planning a new spending initiative that will use additional money to fill armament gaps, as it faces pressure from the Trump administration. A3
- ◆ North Korea successfully launched its second ballistic missile in a little more than a week, increasing the pace of its testing. A4
- ◆ Trump's budget proposal this week will include provisions to end many foreign military grants and re-

place them with loans. A5

- ◆ Trump is limited in his ability to cooperate with Russia because of probes over the U.S. election, his national security adviser said. A7
- ♦ Philippine leader Duterte said China's Xi had threatened that Beijing would "go to war" if Manila drills for oil in the South China Sea. A4
- ♦ Brazil's President Temer said he would ask the high court to suspend its probe into his alleged corruption, vowing to stay in power. A4
- ♦ The 11 countries left in the TPP trade agreement backed a proposal to continue with the pact, despite the U.S. pullout. A4
- ◆ Pope Francis said in a surprise announcement that he will elevate five men from four continents to the College of Cardinals. A4

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€3.20; CHF5.50; £2.00; U.S. Military (Eur.) \$2.20





President Donald Trump and Saudi King Salman bin Abdulaziz Al Saud arrived for a meeting with Gulf nations in Riyadh, Saudi Arabia. In a speech, Mr. Trump backed away from rhetoric he has used about Islam as he seeks support in the fight against terrorism.

# Trump Calls on Muslims To Confront Extremism

By Carol E. Lee AND MARGHERITA STANCATI

RIYADH, Saudi Arabia-President Donald Trump called Sunday on Muslim leaders across the globe to confront "the crisis of Islamic extremism" in a speech aimed at corralling Arab allies around a new, combined effort to combat terrorism and Iranian aggression in the Middle East.

Mr. Trump, speaking to several dozen Muslim leaders at a summit here in the Saudi capital sought to underpin his remarks with new security cooperation with America's Arab allies.

The measures include an agreement among the countries to target terrorism financing, with the U.S. and Saudi Arabia opening a center in Riyadh focused on the effort, and the formation of a new military alliance in the Gulf that would closely coordinate with the U.S. to counter shared regional threats.

The U.S. also agreed to

More on Mideast ◆ Trip tests Trump's plans for peace. ♦ Analysis: Hard road for an

Saudis bet on U.S. public some \$400 billion in eco-

nomic and security invest-

Iranian moderate.

ments with Saudi Arabia—including \$110 billion in new arms sales to Riyadh. "This agreement will help

the Saudi military to take a far greater role in security and operations having to do with security," Mr. Trump said in his speech. "Muslim-majority countries must take the lead in combatting radicalization."

Mr. Trump's speech also marked a dramatic departure from his rhetoric toward Muslims during the presidential campaign. Most notably, he decided not to use the phrase "radical Islamic terrorism"

which he pointedly did as both Please see TRUMP page A3

# European Companies Sprint Ahead

By Eric Sylvers

Europe's largest companies are on track to record their strongest quarter of profit growth in almost seven years, benefiting from something the continent hasn't seen since before the global economic crisis: a willingness among consumers—and other companies to spend again.

The first-quarter numbers are raising hopes that the continent is poised to finally shake off the legacy of the global economic crisis that began in 2008 and has weighed on Europe much longer than on the U.S. or Asia.

"Europe is proving at the moment to be surprisingly resilient," said Martin Daum, chief executive of Daimler AG's commercial-vehicles business, one of the world's biggest truck makers. European sales have protected Daimler from weakness in the U.S. and Brazil in recent quarters, he said.

Analysts do expect earnings growth to moderate in the second quarter, and there is still plenty of caution in European boardrooms. Signs of a sustained upswing have appeared before, only to fade. Uneven growth and pockets of debt and high unemployment are reminders of the crisis years. While profits have risen, profit margins at many European companies are far below those of U.S. rivals. Car sales are strong, but auto makers are still selling fewer cars in Europe than at their precrisis peak.

First-quarter earnings per share at Europe's big companies were on average 23% ahead of year-earlier levels, J.P. Morgan Cazenove estimates. That would handily outpace the 14% rise for S&P 500 firms in the U.S., according to J.P. Morgan calculations.

Europe's corporate earnings are riding broader economic tailwinds. Unemployment rates in the eurozone and its biggest members have been falling gradually in recent years, emboldening consumers who were already paying down debt and freeing up spending money. On Friday, the European Commission reported its measure of consumer sentiment rose to the

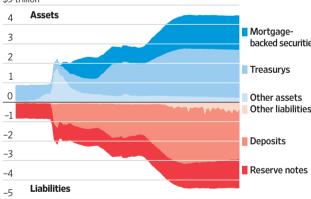
In addition, oil prices have moderated from their lofty levels of a few years ago, and governments have stopped cutting spending. Many travel-Please see EUROPE page A2

highest level since July 2007.

# Fed's 'Octopus' Role May Persist

### **Great Lengths**

Federal Reserve officials are signaling they could start slimming the central bank's balance sheet, which has grown fivefold since the financial crisis. Below, a look at the Fed's assets and liabilities. \$5 trillion



2007 08 09 10 11 12 13 14 15 16 17 Sources: Federal Reserve; Haver Analytics

By KATY BURNE

Federal Reserve officials grappling with the legacy of expansive stimulus would find it difficult to return to the central bank's precrisis role on the sidelines of financial markets, analysts and centralbank watchers say.

A long list of programs adopted to help foster economic growth, along with changes in money markets and bank regulation. have vastly expanded the Fed's balance sheet and its involvement in markets. The Fed's assets now total \$4.5 trillion, up from less than \$1 trillion a decade ago. Since 2013, the central bank has become one of the largest traders with U.S. taxable money-market funds, accord-

ing to Crane Data. Many analysts and inves-

tors worry that significantly rolling back the Fed's expansion, a course advocated by some in conservative circles. risks disrupting markets and the economy at a time when growth remains tepid. It would also reduce the connections the institution has built with a diverse set of Wall Street firms, beyond the group of banks it dealt with before the crisis.

The Fed has become "like an octopus," said Jeffrey Cleveland, chief economist at Payden & Rygel, a Los Angeles money manager. "Once vou get the power and you are influencing all these markets, do you really want to retreat

Please see FED page A2

#### ◆ Heard: U.S., Europe reverse places on political risk..

# How a 2½-year-old Who Loves Eating Transfixed China

Xiaoman is an online sensation, bringing a Pampers ad and questions about her weight

Bai Cairan

Ву Катну Сни AND MENGLIN HUANG

The cherub-cheeked toddler licked her bowl clean, then carefully picked out each noodle that had fallen into her bib, polishing them off one by one.

"More, more!" cried Bai Cairan, a 2½-year-old girl in

Beijing who is famous to Chinese as Xiaoman, her name in online videos where she devours everything from whole fish to lettuce leaves to watermelon.

A video posted last month of Xiaoman biting off tender morsels of vellow durian, an Asian fruit with a pungent smell that makes many people recoil, has piled up more than 2.8 million views. She licks the juice off her fingers, reaches out her arms and cries "More durian!"

In China, about 800 million people carry a smartphone. An awful lot of them are fascinated by watching other Chinese eat online.

An eating channel launched last year by Meipai, an app that hosts Xiaoman's videos, has received more than 12 billion views. Competitive eater Mizijun gobbles down evervthing from pig feet to cream cakes, and a young man who calls himself JaySin

dances and cooks through meals. It's the Chinese

version of "mokbang," or "eating broadcast," which gained popularity in South Korea a few years ago streaming late-night chow-

downs shown live. "There's a spiritual satisfaction to watching people eat," says Xiaoyu Zhuang, Meipai's operations manager. Not to mention, he adds, "kids are lovely."

Xiaoman is perhaps the youngest eating sensation in Please see FOODIE page A6





**GET READY** FOR PEAK OIL DEMAND

**JOURNAL REPORT, B4** 



'ALIEN' IS A PREDICTABLE GORE FEST

**LIFE & ARTS, A8** 

# THE QUANTS RUN WALL STREET NOW

The long-imagined day when data-driven traders would dominate markets has arrived

By Gregory Zuckerman AND BRADLEY HOPE

Alexey Poyarkov, a former gold-medal winner of the International Mathematical

Olympiad for high-school students, spent most of his early career honing algorithms at tech-Machines and their masnology companies such as Microsoft

Corp., where

ters are the undisputed new kings of Wall Street

he helped make the Bing search engine smarter at fer-

reting out pornography. Last year, a bidding war for Mr. Poyarkov broke out among hedge-fund heavyweights Renaissance Technologies LLC, Citadel LLC and TGS Management Co.

When it was over, he went

to work at TGS in Irvine, Calif., and could earn as much as \$700,000 in his first year, say people familiar with the contract.

The Russian-born software engi-

neer, who declined to comment, as did the hedge funds, had almost no financial experience. What TGS wanted was his wiz-

ardry at designing algorithms, sets of rules used to power calculations and problem-solving, which in the investment world can quickly parse data and decide what to buy and sell, often with little human involvement.

Up and down Wall Street, Please see QUANTS page A6

## WORLD NEWS

# Poland's EU Isolation Spells Trouble Ahead



**EUROPE FILE** By Simon Nixon

These are delicate times for Poland's relationship with the European Union.

The political upheavals in Europe over the past year took many by surprise, but few have been so wrong-footed as the Polish government. Until last June, Warsaw's diplomatic



priority was to forge an alliance with the U.K. to push for a looser European Union.

When this strategy was blown apart by Brexit, War saw continued to call for a looser EU, arguing that this was the best way to prevent further populist revolts. Now Poland looks strategically isolated for a second time: following Emmanuel Macron's election as president of France, it is deeper integration that now tops the EU agenda.

Poland's strategic isolation is compounded by political isolation. Warsaw is engaged in a long-running feud with the European Commission over reforms to the country's constitutional

court which Brussels says undermine the independence of the judiciary and threaten the rule of law. This feud escalated last week when ministers from EU member states for the first time formally discussed how to respond to Poland's alleged violation of EU values.

arsaw is also at odds with Brussels over a new asylum policy that requires it to accept a share of refugees in the Schengen passport-free travel zone. And earlier this year Warsaw was outvoted 27 to 1 when it tried to block the re-election of former Polish Prime Minister Donald Tusk as president of the European Council.

Yet Warsaw cannot afford to be isolated when talks on the future shape of the EU get under way. Brexit hasn't only stripped Warsaw of an ally, but will alter the EU balance of power. Germany. France and Italy's share of the EU population will rise above 50%, giving them increasing power in EU votes.

At the same time, the eurozone's share of votes is likely to rise above 75%, raising questions about how the interests of countries such as Poland that don't use the common currency will be protected. Mr. Macron's repeated ac-

cusations that Poland is guilty of "social dumping" because its lower wage costs allow it to undercut French workers has alarmed War-



People took part in a march in Warsaw in May meant to express support for European integration.

saw. Polish ministers fear that Mr. Macron's protectionist rhetoric points to risks to the integrity of the EU single market.

Warsaw's biggest concern is that it is cut out of decision-making altogether. It wants any changes to strengthen the eurozone to be agreed at the EU level under the EU treaties so that non-eurozone countries can have a say in the process and all new arrangements are overseen by EU institu-

But eurozone countries may try to avoid treaty changes that would trigger

referendums in several countries by opting instead for new intergovernmental agreements—as it did when it established its bailout fund, the European Stability Mechanism. Power would then shift to new eurozone governance structures from which Poland would be excluded. That could create new tensions, for example, if the creation of a new eurozone budget resulted in less money for the EU budget.

et Warsaw is struggling to build effective alliances. The main focus of its diplomatic

efforts has been building up the Visegrad Four, along with Hungary, Slovakia and the Czech Republic, as a bloc within the EU. It is also increasingly pinning its hopes on the Three Seas Initiative—a broader alliance of 12 former Communist countries that border the Baltic, Aegean and Black Sea which will meet in Wroclaw in July.

But both alliances are hamstrung because the interests of their members are rarely aligned.

What can't be ruled out is that relations between Warsaw and Brussels continue to

Polish ministers would like to draw a line under the rule of law affair. But while they can count on Hungary to block any attempt by the Commission to trigger the nuclear option of suspending Poland's membership rights under Article 7 of the Lisbon Treaty, Brussels shows no signs of backing down. Indeed, it could try to continue to exert pressure by introducing greater conditionality into future disbursement of EU funds. Similarly, any EU attempt to sanction Poland over refugee policy could deepen strains.

s things stand, Poles are among the most enthusiastic members of the EU—in part reflecting the strong performance of the Polish economy, which has seen a doubling in living standards relative to the EU average since 1999, helped in part by generous EU grants.

Nonetheless, the risk is that a deepening rift between Warsaw and Brussels could, in time, give hard euroskeptics, who are now in a minority, much greater credibility and undermine broad support for EU integration, says Jacek Kucharczyk director of the Institute for Public Affairs, a Polish think tank. Unless both sides tread carefully, Poland could yet find itself heading down a familiar path that some fear may lead from isolation to exit.

# *EUROPE*

Continued from Page One ers shifted vacation plans to places like Spain and Greece from North Africa and Egypt.

The profit growth has surprised executives across the continent. European central bankers failed for years to spur significant borrowing or spending with ultralow interest rates. Terror attacks dampened tourism, and firebrand politicians campaigning against the European Union threatened political upheaval.

Now, two quarters of economic growth is translating into big earnings gains. The eurozone has beaten the U.S. in economic output for two consecutive quarters.

The strong start to 2017 is good news beyond Europe. The continent has been the global economy's sick man since the depths of the financial crisis. Real recovery would lift many boats, including U.S. and Asian companies that sell

to Europe.

Massimo Carboniero, chief executive of privately held Italian machine-tool maker Omera Srl, began ordering new machines last year after sales picked up, particularly from Italy and Germany, of factory-floor equipment like hydraulic presses.

His 100-person company recently hired two electric engineers and plans to hire two machinists. "Our customers are investing, and we have to invest ourselves if we want to keep up with orders," At the depths of the crisis

in 2009, capital investment by the European Union's private sector fell sharply. It recovered slightly the next year, and then flatlined before picking up more recently. The investment—on things such as equipment and buildings—rose 3% in 2016 from the year earlier, and 14% from 2013, according to EU statistics.

Business travelers are back too. British Airways parent International Consolidated Air-

### **Roaring Back**

Europe's corporate profits have surged along with broader measures of economic growth.



\*Estimate based on analysts' expectation †Forecast

increase in three years, as corporate bookings improve.

There is still plenty of skepticism about whether the upturn will last. Far-right parties

ing ticket prices, its first fare EU in the Netherlands and France have lost out this year to candidates supportive of Brussels. But consequential elections in the U.K., Germany and Italy lie ahead. France

#### **EU** gross domestic product growth, annualized rate



THE WALL STREET JOURNAL

lines Group SA said it is rais- that campaigned against the holds parliamentary elections next month.

> The U.K. is setting out on the politically and economically fraught process of negotiating its exit from the EU. For businesses that operate on

both sides of the English Channel, "nobody knows what things will look like in two years," said Marc Bitzer, chief operating officer of Whirlpool Corp., which runs factories throughout Europe. "Where will the pound be? Will there be tariffs?"

For now, consumers are doling out for both big-ticket items and for smaller indulgences. Passenger-car sales in the 28 countries that make up the EU rose 4.7% through the first four months of the year. In the U.S., consumer spending slowed in the first quarter, and car sales declined in April for the fourth straight month.

Matevz Vidmar, manager of a restaurant in Ljubljana, Slovenia, said diners are ordering bottles of wine instead of glasses. "It's clear that people are spending more," he said.

–Jeannette Neumann ın Madrid, Nick Kostov in Paris, William Boston in Berlin and Robert Wall in London contributed to this article.

Continued from Page One from all that?"

Investors are already assessing how stocks and bonds might react when the central bank begins the latest stage of its yearslong retreat from stimulus—likely later this year—by ending the practice of reinvesting the proceeds of maturing bonds into new bonds. The Fed is scheduled to publish Wednesday the minutes of its latest policy meeting, at which officials may have continued their debate over the mix of policy tools they plan to use in the future.

Some Fed officials say

they are attracted to maintaining parts of their current approach. Minutes of their November meeting also showed officials discussing the advantages of keeping something similar to the existing system in place, in part because it is simpler to operate than the precrisis

The Fed hasn't decided the issue, but its choices will be closely watched because its leadership is in transi-President Donald Trump is preparing to fill three vacancies on the Fed's seven-member board. The White House hasn't named its choices, but they could set Fed policy in new directions, including by limiting its role in markets. Republican lawmakers have also revived legislation to subject its decisions to greater public scrutiny, and some want monetary policy conducted by preset rules.

"It's not your father's Fed," said Adam Gilbert, partner at PricewaterhouseCoopers LLP and a former New York Fed official. Changes could herald "incoming policy makers who are by nature skeptical of a Fed that continues unorthodox approaches to both monetary and regulatory policy."

New York Fed President William Dudley told an audience this month the portfolio isn't likely to return to its precrisis size. Federal Reserve Bank of San Francisco President John Williams said this month the portfolio would be "significantly smaller" than it is today, but likely above \$2 trillion in as-

sets. The ultimate size will be closely tied to which system the central bank decides to use to control interest rates in the future. A handful of Fed officials have already begun questioning the wisdom of returning to the blueprint for controlling rates that they used before the crisis. although they have more time to decide.

At the center of the debate is a special investment program the Fed launched in 2013. Through the facility, it lends money-market funds and others Treasurys in exchange for cash, temporarily draining excess cash from money markets and discouraging lenders from lending at rates below the target range for interest rates.

Initially, the central bank said it would reduce the capacity of this so-called reverse repo facility "fairly soon after" it had begun raising short-term rates in 2015. Today, the Fed has no current plans to do so. Mr. Dudley suggested in April the Fed likely wouldn't phase out the facility.

Without the Fed repos, short-term rates could slip too low, and demand for Treasurys in the open market would surge, causing problems for money-market funds seeking alternative places to park cash overnight. Removing the program would "cause huge dislocations from a bond-market standpoint," said Debbie Cunningham, chief invest-

ment officer for global money markets at Federated

Investors. A balance sheet that is smaller than today's, yet still substantial, would enable the Fed to keep the reverse repos. It would also support the Fed's foreign repos for overseas accounts, where weekly balances have averaged \$250 billion, up from \$30 billion before the crisis, as well as the \$1.5 trillion in currency outstanding and changing cash-management policies at the Treasury Department.

If the Fed reduces its bond portfolio, the burden will be on private market participants to step in. In 2018, Morgan Stanley calculates investors may have to absorb \$400 billion in mortgage bonds alone, a level not seen since 2008. In the past, transitions such were smoothed by the banks authorized to trade opposite the Fed, called primary dealers. Now those firms are grappling with new leverage rules, and some have less capacity.

# CORRECTIONS ಲೆ AMPLIFICATIONS

The name of the city of Lake View. Ill., was incorrectly given as Lakeview in a Mansion article in the Friday-Sunday edition about architects Elissa Morgante and Fred Wil-

Readers can alert The Wall Street Journal to any errors in news articles by emailing wsjcontact@wsj.com.

Communicating a strategy for unwinding risks some unintended signals. In 2013, when the Fed surprised investors with talk of slowing bond purchases, financial markets convulsed, thinking the Fed meant earlier rate rises than were expected.

The Fed is wary of destabilizing the Treasury market, in particular, because of increasing lurches driven by algorithmic trading.

To avoid market disruptions, former Fed Chairman Ben Bernanke wrote in a recent blog post for the Brookings Institution, "There's no need to rush."

THE WALL STREET JOURNAL. The News Building, 1 London Bridge Street, London, SE1 9GF

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Printers: France: POP La Courneuve: Gerr inters: France: PUP La Courneure, Schmidt gan Media Group/Hürriyet A.S. Branch; Italy: aliprinters s.rl.; United Kingdom: Newsprinters Broxbourne) Limited, Great Cambridge Road, Waltham Cross, EN8 8DY

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The Fed will publish minutes from its most recent monetary-policy meeting on Wednesday.

# **WORLD NEWS**

# NATO to Act on U.S. Call to Spend More

By Julian E. Barnes

BRUSSELS-The North Atlantic Treaty Organization, under pressure from the administration of U.S. President Donald Trump, is planning a new spending initiative that will use additional money to fill armament gaps, according to a draft of the proposal reviewed by The Wall Street Journal.

Officials said they expect the program to be approved at a gathering of allied leaders here on Thursday that is to be attended by Mr. Trump—a move that would mark progress on an important foreign-policy goal for the president as he contends with political controversies in Washington.

Under the plan, NATO's members would be required to submit national blueprints detailing how they will meet alliance targets, which sav each country should devote 2% of economic output to military spending.

In addition, they are to specify how money will be used to fill existing gaps in weaponry identified by the alliance, such as shortages of warships, air-defense systems and advanced tanks. The plans will also track commitments of troops to NATO missions.

During Mr. Trump's election campaign, he criticized allies for not paying their fair share for defense. His administration has made increasing European military spending a central part of its agenda.

This year, Defense Secretary Jim Mattis called on allies to adopt spending plans or risk unspecified changes in the American defense commitment to Europe.

The new NATO plan includes compromises. Some U.S. officials have said they wanted to toughen up cur-



U.S. Defense Secretary Jim Mattis and his German counterpart Ursula von der Leyen at the Pentagon in Washington in February

rent spending guidelines, which call for allies to hit the 2% target within a decade, and make them explicit requirements rather than goals.

But that isn't part of the new proposal, and European diplomats said the U.S. wasn't pushing for those changes in the run-up to Thursday's meeting.

Some European politicians have argued that the 2% goal is neither realistic nor wise. "Money is a contentious issue," said Bruno Lété, an exMarshall Fund in Brussels. There is a trans-Atlantic gap," he said.

Only five countries now contribute 2% of gross domestic product to military spending: the U.S., U.K., Greece, Poland and Estonia. Romania, Latvia and Lithuania are due to hit 2% by next year. Other alliance members are below the target.

Alliance diplomats have been trying to inject some muscle into NATO's defenseplanning process, which establishes requirements for each country's contributions. The current plans, due to be approved in June, have set some ambitious additional requirements for some countries, notably Germany, which was prodded to strengthen its heavy tank brigades.

While German military spending is well below the 2% target, it is increasing it by 8% annually, contributing

pert on NATO at the German billions of additional euros to its military each year.

NATO officials say one of the alliance's primary goals is eventually to reduce Europe's dependency on the U.S.—also a demand of the

Trump administration. "We rely on the U.S. at the moment to provide a large percentage of some key capabilities," said a NATO official. 'As part of our planning into the future we're looking to reduce the dependency on the U.S. for some of those key capabilities."

At Thursday's NATO meeting, Mr. Trump will meet for the first time with newly elected French President Emmanuel Macron.

Mr. Macron has criticized Mr. Trump for his "aggressive" questioning, but acknowledged he is right to prod Europe to take more responsibility for its own defense. —William Horobin in Paris

contributed to this article.

# TRUMP

Continued from Page One a candidate and as recently as last week.

U.S. officials didn't publicly raise human-rights abuses by Saudi Arabia that the American government has criticized in the past. Mr. Trump did briefly mention the imporof "empowering women," but also said the U.S. won't lecture other countries about "how to live, what to do, who to be or how to worship."

His speech before Arab leaders marks a shift for Mr. Trump and caps two days in Saudi Arabia where he has attempted to reset relations with Arab allies of the U.S.

Saudi King Salman issued his own condemnation of terrorism as contrary to the teachings of Islam.

He also pledged that Muslim leaders will "not hesitate to prosecute anyone who supports or finances terrorism in any shape or form."

Both the U.S. and Saudi leaders delivered harsh rebukes of Iran. King Salman said the Iranian regime is among those that exploit Islam to achieve their political

Mr. Trump said the Middle East could undergo "a new renaissance" if terrorism were scrubbed out. The first test for Muslim-majority nations, he said, is "to deny all territory to the foot soldiers of evil," ensuring "terrorists find no sanctuary on their soil."

"This is a battle between barbaric criminals who seek to obliterate human life, and decent people all in the name of religion," Mr. Trump said.

Mr. Trump made a conciliatory effort to draw a distinction between religion and ter-



Donald Trump, in a group photo in Riyadh, Saudi Arabia, on Sunday, talks to Saudi King Salman bin Abdulaziz Al Saud.

rorism carried out in its name. It "is not a battle between different faiths, different sects, or different civilizations" but "a battle between good and evil." he said.

Mr. Trump's softer stance on Islam could play well among some in the Gulf States, but risks alienating some of the president's supporters back home. Roger Stone, a Republican operative who was closely involved with Mr. Trump's campaign, responded to a photograph of King Salman placing a medal around the president's neck by writing on Twitter: "Candidly, this makes me want to puke."

As a candidate, Mr. Trump

called for a ban on Muslims entering the U.S. and said "Islam hates us."

He also repeatedly criticized his predecessor, President Barack Obama, for refusing to use the phrase "radical Islamic terrorism."

As president, Mr. Trump has issued two travel bans targeting Muslim-majority countries he deemed terrorism threats-now tied up in the courts-and in a commencement address on May 17 at the U.S. Coast Guard Academy, Mr. Trump said: "We have to stop radical Islamic terrorism."

On Sunday, Mr. Trump opted not to use that phrase. His prepared remarks

cited the threat of "Islamist extremism." In the speech he ultimately delivered, the president tweaked the phrase a bit, stressing the need to combat "the crisis of Islamic extremism and the Islamists and Islamic terror of all

While many Saudis have been delighted by Mr. Trump's visit, and he received a warm welcome from the royal family, the reaction from Arabs across the region has been more critical. From Islamists to pro-democracy advocates, many have responded harshly to a U.S. president who has spoken of a ban on Muslims. Others simply saw Mr. Trump's elaborate reception from the Saudi monarchy as another sign that the administration wouldn't push the region's autocrats toward democratic reform any time Earlier Sunday, the World

Bank announced at an event with the president's daughter and senior White House adviser, Ivanka Trump, that Saudi Arabia and the United Arab Emirates have pledged a combined \$100 million to a fund that will assist women entrepreneurs and small-business owners.

For the White House, Mr. Trump's speech on Islam is a chance for the new president to persuade a wider audience

that his views aren't hostile to the religion, as he tries to advance his agenda in the re-The president argued that

Saudi Arabia, home of Islam's two holiest sites, is the place where a shift away from terrorism should begin.

Sunday's summit could also help Saudi Arabia convey a message to the wider world about its commitment to fighting religious extremism. The country, which practices an austere interpretation of Sunni Islam, has struggled to shed its reputation as a hub of radical Islam since the Sept. 11, 2001 terror attacks on America. The perpetrators were mostly Saudi citizens.

Since then, Riyadh has emerged as one of Washington's closest counterterrorism allies. Under King Salman, the country has sought to lead regional efforts against terrorism. The Saudi monarchy-eager to cultivate better ties with the U.S. under Mr. Trump than it had under his predecessor, Mr. Obama—has largely overlooked some of new president's past positions.

Mr. Trump held individual meetings Sunday with leaders from Bahrain, Qatar, Egypt and Kuwait. The summit included representatives from the six Persian Gulf countries that make up the Gulf Cooperation Council.

Noticeably absent from Sunday's summit was Iran, with whom Rivadh severed diplomatic relations in early 2016. Tensions between the two countries, which back opposite sides of conflicts in Yemen and Syria, have played out across the Middle East, heightening tensions between Sunnis and Shiites.

-Tamer El-Ghobashy in Erbil, Iraq, contributed to this article.

peace initiative in 2002

sought to establish relations

between Israel and Arab coun-

tries under the umbrella of the

peace process. It promised re-

lations after a final peace deal

with the Palestinians. But Is-

rael rejected it, arguing the re-

gion was dictating peace

rather establishing relations in

# Trip Will Test President's Ambition for Middle East Peace

President Donald Trump faces a set of early challenges to his aspirations for a regional solution to the Israeli-Palestinian conflict as he undertakes his first trip abroad as commander in chief.

> By Rory Jones in Tel Aviv and Carol E. Lee in Washington

Mr. Trump, encouraged by a thaw in relations between Israel and Gulf Arab states led by Saudi Arabia, plans to explore a solution that is based on cooperation between Israel and Arab countries.

The process is so sensitive that few senior Israeli, Palestinian and U.S. officials would discuss it ahead of Mr. Trump's departure. He was in Saudi Arabia before flying to Israel to meet with Prime Minister Benjamin Netanyahu and Palestinian leaders.

But Mr. Trump's efforts to advance his agenda for the Middle East have been overshadowed by a raft of revelations and missteps in Washington, where a furor erupted over his sharing of Israeli intelligence with Russian officials during a meeting last week. In that same meeting, the president discussed his decision to dismiss Federal Bureau of Investigation Director James Comey, a White House statement acknowledged on Friday.

The U.S. and Israel also ap-

pear at odds over the White House decision to hold off on any move of the U.S. embassy from Tel Aviv to Jerusalem. Mr. Trump has recalibrated his position on the embassy move as part of his wider effort to advance a regional peace agreement—a decision that has frustrated Israeli officials.

Despite those frictions, Israeli officials have expressed a willingness to engage on a peace push. They have been exploring a regional initiative with the Trump team since before the president's inauguration, according to an Israeli official.

"By getting a regional umbrella to this, you actually create a different dynamic regarding the peace process," said the official.

Both Israel and the oil-rich Sunni Gulf monarchies fear the region's leading Shiite power, Iran, and its proxies in Syria, Yemen, Lebanon and Iraq. Israel and the Gulf states want to combat the disruptive impact of Islamist extremists such as Islamic State and the Palestinian group Hamas, which governs the Gaza Strip.

They have also deepened intelligence-sharing in recent and Arab officials.

Gulf states, including Saudi Arabia and the United Arab Emirates, have said they are considering establishing direct telecommunications links with Israel and allowing overflight rights to Israeli aircraft as part of the White House peace initiative.

In the eyes of many Israelis, normalization of relations with Arab states holds out a bigger incentive to compromise with Palestinians than anything the Palestinians

themselves can offer. "The Israelis are skeptical about peace with the Palestinians and their ability to deliver," said Israeli politician Tzipi Livni, a former chief peace negotiator. "What the Palestinians cannot deliver, the Arabs can."

The president has appointed his longtime lawyer, Jason Greenblatt, as the point man for Arab-Israeli peacemaking while Mr. Trump's son-in-law and senior White House adviser, Jared Kushner, is overseeing the effort.

Mr. Greenblatt avoids using the phrase "Palestinian state," White House officials said. Many right-wing lawmakers in the Israeli government now oppose Palestinian statehood. The White House also declines to set a deadline for a peace agreement or even for specific steps toward reaching one.

The regional approach to peace isn't new. A Saudi-led parallel to a process. The difference now is that Israel supports Mr. Trump's effort. Mr. Netanyahu has said he wants all sides—Israeli, Palestinian and Arab-to make concessions to build mutual trust in a step-by-step process that would move toward negotiations. One idea from the White House is to promote economic projects between Israelis and Palestinians that build trust. Israeli officials won't discuss the concessions they expect each side to make. But Mr. Netanyahu recently agreed to limit the construction of Jewish settlements within existing boundaries in the West Bank—the territory governed by the moderate Palestinian

The Israeli leader also has amplified criticism of Palestinian Authority payments to prisoners and Palestinians who have attacked Israelis. He pressed Palestinian Authority President Mahmoud Abbas to halt the system as a concession for peace.

Authority.



## WORLD NEWS

# Re-elected Iran Moderate Faces Uphill Battle

AND ARESU EOBALI

TEHRAN, Iran—A decisive re-election win for Iranian President Hassan Rouhani is likely to fuel his push for foreign in-

vestment better relations **ANALYSIS** 

with the West, but it will also likely mobilize conservative forces that have resisted rapprochement and advocate domestic development.

Mr. Rouhani has called for more foreign investment and trade as part of his plans to ease unemployment and raise living standards. And he has pledged to continue efforts to get sanctions on Iran lifted, as some were under the 2015 deal with six world powers to curb Tehran's nuclear ambitions.

Yet going down that path could lead Mr. Rouhani, who captured 57% of the vote in Friday's election, into confrontation with some of Iran's most powerful interests, concentrated around Supreme Leader Ayatollah Ali Khamenei, who has the final say in most matters of state.

"The next four years will challenge Rouhani considerably," said Behnam Ben Taleblu, a senior Iran analyst at the Foundation for Defense of Democracies in Washington.

Despite Mr. Rouhani's sound

defeat of his main hard-line rival, Ebrahim Raisi, he is likely to face considerable resistance from conservative institutions such as the Islamic Revolutionary Guard Corps, or IRGC, an elite arm of the military charged with defending the country's Islamic revolution.

The revolutionary guards oversee the country's ballisticmissile program, which recently drew new U.S. sanctions. The IRGC also operates a farreaching business empire with interests that include infrastructure, energy, telecommunications and real estate.

For any Iranian president, the revolutionary guards are a power center with which to be reckoned. For Mr. Rouhani, who has advocated a more open marketplace with plenty of foreign competition, a clash with the guards could be even more pronounced.

Speaking at a rally in the holy city of Mashhad two days before the election, Mr. Rouhani said the IRGC's businesses were welcome as long as they didn't elbow others out.

"We have no problem with you having news agencies, cultural entities, businesses and companies," he said. "Just leave some room for other people, too."

For its part, the guards have taken swipes at Mr. Rouhani's signature accomplishment, the nuclear deal.

The deal gave Iran some relief from sanctions. But the IRGC's commander, Maj. Gen. Mohammad Ali Jafari, has questioned its benefits and played down the notion it was a model for fixing other eco-

Esmail Kosari, a former parliament member and IRGC commander, said the guards' involvement in economic activities was a necessity when it came time to rebuild the country after the Iran-Iraq war in the 1980s.

The guards were not seeking such a role," he said, adding that it abided by the law in carrying out its activities. "They were assigned to it.' Some Iranian business own-

ers complain that entities close to Mr. Khamenei, the supreme leader, still enjoy special treatment. "Here some people escape

from paying taxes and tariffs, but some others like us, we have to," said Davoud, who owns three clothing stores in Tehran and imports his goods from Turkey and China. "That's not fair." The revolutionary guards'

political and economic influence is deeply rooted. It has won billions of dollars' of government contracts without having to bid for them. Its deep coffers allow it to fund Iranian



Iran's President Hassan Rouhani captured 57% of Friday's vote.

military interests abroad and lead the country's participation in the Syrian and Iraqi conflicts.

In the past, resistance to the guards' aims has led to tension between presidents and the establishment. The clerical

IRGC clashed with Mohammad Khatami, the reformist who was president between 1997 and 2005, over what it saw as the president's weak response to student protests in 1999.

It isn't impossible for Mr.

Rouhani to work with the IRGC.

The IRGC could even benefit from Mr. Rouhani's push to win the removal of all sanctions that remain on Iran after the nuclear deal-including many that target the IRGC. But the IRGC's commanding position in the Iranian economy is unlikely to change quickly.

"Incremental progress is possible, but it requires the president to build consensus around his policies," said Ali Vaez, a senior Iran analyst at the Brussels-based International Crisis Group.

If Mr. Rouhani finds himself increasingly at odds with the IRGC, the climate for foreign investment could dim. Yet so far. the IRGC has managed to maintain its economic edge and even profit through ownership of large businesses benefiting from increased trade after the nuclear deal, Mr. Ben Taleblu said.

While it is unclear whether there will be a flood of postelection investment, a renewed influx would help Mr. Rouhani deliver on his argument that openness is good for Iran.

It also remains to be seen what role, if any, a newly staunch alliance between the U.S. and Saudi Arabia that aims to contain Iran's regional activities could play in steering foreign companies away during Mr. Rouhani's second term.

# North Korea Fires Missile Into Sea of Japan

By Jonathan Cheng

SEOUL-North Korea successfully launched its second ballistic missile in a little more than a week, increasing the pace of its testing as it seeks to develop the ability to strike the continental U.S. with a nuclear-tipped weapon.

North Korea fired the missile from the Pukchang airfield, about 40 miles north of the capital, Pyongyang, at about 4:30 p.m. Sunday local time, according to the U.S. Pacific Command and South Korea's Ministry of Defense. The missile flew about 310 miles, a spokesman for Seoul's Defense Ministry said, adding that authorities were analyzing the details of the test launch.

A spokesman for the U.S. Command said it tracked the missile until it splashed down in the waters between Korea and Japan.

A White House official said the U.S. was aware that North described as a midrange ballistic missile. The official said in an apparent failed test. U.S. Sunday's missile had a shorter range than the missiles fired in North Korea's three most-

recent launches. In Tokyo, Japanese Prime Minister Shinzo Abe called the launch a "challenge to the world." Mr. Abe said he wanted to make North Korea a principal issue at the Group of Seven summit in Italy this week. "I would like to send a

clear message," he said. The launch was the 11th missile Pyongyang has fired this year. North Korea last test-launched a missile from the Pukchang airfield in late April.

In that case, the missile blew up minutes after launch



Korea had launched what it Japanese Defense Minister Tomomi Inada spoke to reporters in Tokyo on Sunday after North Korea fired a midrange missile.

authorities said at the time that the missile didn't leave North Korean territory.

In contrast, Sunday's successful test launch is further evidence of added momentum for North Korea's missile program, coming on the heels of the testing of an advanced missile a week earlier that took many North Korea missile watchers by surprise.

Taken together, the two launches underscore the rapid progress the country is making as part of a drive to be able to threaten the continental U.S. In last week's test, North Korea launched a new intermediate-range ballistic missile that it claimed was capable of carrying a large nuclear warhead. It called the missile the Hwasong-12.

Independent analysts have said that, based on their calculations, the Hwasong-12 could reach the U.S. military base in Guam, more than 2,000 miles from Pyongyang.

Victor Cha, Korea chair at the Center for Strategic and International Studies in Washington, said after the Hwasong-12 test that the successful launch "demonstrates that we have once again underestimated North Korea's nuclear and missile capabilities." He said the Hwasong-12 "represents a leap in ballistic-missile technology."

In a new-year speech in

January, North Korean leader Kim Jong Un said the country was completing preparations for a test launch of an intercontinental ballistic missile.

U.S. President Donald Trump answered a day later on Twitter, noting Pyongyang's attempts to develop a nuclear weapon capable of reaching parts of the U.S. "It won't happen!" Mr. Trump tweeted at

Mr. Trump is in Saudi Arabia on the first stop of his first overseas trip as leader.

Just hours before Sunday's launch, North Korea had warned through its state media that it would follow up the Hwasong-12 launch with more missile tests. "Many more 'Juche weapons' capable of striking the U.S. will be launched from this land," North Korea's Minju Joson newspaper said in a commentary on Sunday, according to Pyongyang's Korean Central News Agency. Juche, or selfreliance, is a reference to North Korea's state ideology.

Sunday's missile test is the second since South Korea's new president, Moon Jae-in, took office, a further test of the country's first liberal president in nearly a decade. Mr. Moon has called for closer ties with North Korea.

—Peter Landers in Tokyo and Carol E. Lee in Riyadh, Saudi Arabia, contributed to this article.

# Pope Names 5 Cardinals From Fringes Of Church

By Francis X. Rocca

ROME—In a surprise announcement, Pope Francis said Sunday he will elevate five men from four continents to the College of Cardinals next month, continuing his practice of adding men from the peripheries of the Catholic world to the body that will elect his successor. In doing so, the Argentine

pope again passed over dioceses in Italy, the U.S. and other countries whose bishops traditionally receive the rank.

The new cardinals, whom the pope will bestow with red hats at a Vatican ceremony June 28, hail from Mali, Spain, Sweden, Laos and El Salvador.

"Their origins in diverse parts of the world manifest the catholicity of the church, which spread throughout the world," the pope told a congre-

gation in St. Peter's Square. Three of the cardinals come from countries with minuscule numbers of Catholics: Mali, Sweden and Laos. And in El Salvador, a majority-Catholic country, Pope Francis will be giving the red hat not to the archbishop of San Salvador, the country's most prominent bishop, but to one of his assistants, Bishop José Gregorio Rosa Chávez.

Cardinal-designate Chávez was a close associate of the late Archbishop Oscar Romero, a martyred champion of social justice whom Pope Francis approved for beatification, the church's highest honor short of sainthood, in 2015.

**TPP Rump Proposes** 

**To Go On With Pact** 

Trans-Pacific Partnership trade

The 11 countries left in the

PACIFIC TRADE

### WORLD WATCH

**PHILIPPINES** 

#### **Duterte Reports Xi Threatened War**

President Rodrigo Duterte said his Chinese counterpart had threatened that Beijing would "go to war" if Manila drills for oil in the South China Sea.

The alleged comments-mentioned by Mr. Duterte on Fridaycome as the two countries have sought to reset ties after years of conflicting claims in the South China Sea. Mr. Duterte said he had told President Xi Jinping that the South China Sea "is ours and we intend to drill oil there. If it's yours, well, that is your view but my view is I can drill the oil."

The Philippine leader said Mr. Xi had told him the two countries are friends. "We do not want to quarrel with you. We want to maintain a warm relationship but if you force the issue we will go to war." Mr. Xi reportedly said.

China's Foreign Ministry didn't respond to a request for com-

**BRAZIL** 

#### **President Intervenes In Corruption Probe**

President Michel Temer said he would ask the Supreme Court to suspend its investigation into allegations he was involved in a giant corruption scheme, vowing to remain in power.

In a televised address Saturday. Brazil's unpopular president alleged that a recording that implicated him in the scandal was doctored and said he would file a petition with the Supreme Court to suspend the investigation until it could be verified.

The Supreme Court declined

Mr. Temer's statement comes a day after it emerged that executives at Brazil's meatpacking giant JBS SA told prosecutors they had paid millions of dollars in bribes to the president and his predecessors. Dilma Rousseff and Luiz Inácio Lula da Silva.

In the recording cited by Mr. Temer, the president can be heard -Jake Maxwell Watts chatting with Joesley Batista,

chairman and heir to the familyrun JBS beef-and-chicken empire, apparently giving him his approval to pay a jailed congressman to buy his silence. A spokesman for Mr. Batista said the recording of Mr. Temer wasn't edited. Mr. Ba-

tista made the recording and gave it to prosecutors.

Mr. Temer accused JBS executives of "damaging Brazil." He mentioned media reports that JBS profited from the scandal by buying dollars before the news

broke. The Brazilian real plunged in value against the dollar on Thursday, the first day of trading after a report about the recording was published.

-Samantha Pearson and Luciana Magalhães

agreement backed a proposal to continue with the pact, despite U.S. President Donald Trump pulling out of it in January, New Zealand's trade minister said. Todd McClay, who chaired the meeting on the sidelines of an Asia-Pacific Economic Cooperation forum meeting in Hanoi, Vietnam, on Sunday suggested

the path was open for the U.S. to rejoin if it changed its mind. He and other trade ministers issued a statement saying they had agreed to "assess options to bring the comprehensive, highquality agreement into force," and would work on ways to allow the U.S. to rejoin the group.

Mr. McClay said high-level talks would resume when leaders of the Asia-Pacific Economic Cooperation forum again meet in Vietnam in November

—James Hookway



Mr. Temer said he would ask the Supreme Court to suspend its probe into allegations against him.

# U.S. NEWS

# **Trump Aides** Prepare New Approach

Staff braces for changed environment after appointment of special counsel

WASHINGTON-Former FBI Director James Comey's agreement to testify publicly in Congress capped a week that may President Donald Trump's administration for months, or even years, and prompted White House aides to rethink how they operate in this new political and legal environment.

> By Eli Stokols, Rebecca Ballhaus and Louise Radnofsky

Mr. Comey was leading an investigation into Russia's alleged interference in the 2016 presidential election and whether associates of Mr. Trump colluded with Moscow until he was fired by the president this month.

The former FBI director is expected to testify after Memorial Day, according to the leaders of the Senate Intelligence Committee, and will almost certainly face questions surrounding the circumstances of his dismissal, which has created a crisis for the White House in recent days. They are expected to be his first public remarks since his firing May 9.

On Wednesday, Robert Mueller, Mr. Comey's predecessor at the FBI, was tapped by the Justice Department's No. 2 official to take over the Russia investigation.

On Capitol Hill, Mr. Trump's fellow Republicans have expressed their concerns about the nascent administration.

"Controversy after controversy, cut after cut, is not good for any administration," said Sen. Richard Shelby (R., Ala.).

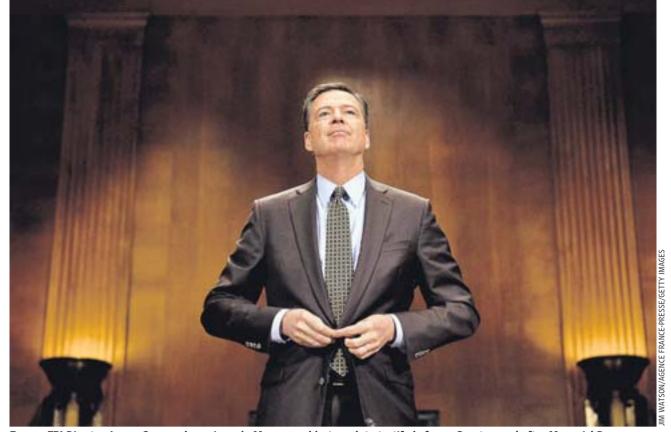
Sen. Lindsey Graham (R., S.C.) said the president is "probably glad to be leaving town." referring to Mr. Trump's nine-day overseas trip that began Friday afternoon. "And a lot of us are glad he is leaving for a few days.'

To address the new political environment, some of the president's senior advisers have recently begun a study of the Democratic administration of former President Bill Clinton, examining how it managed to push through major bipartisan budgets and reform bills, despite being the subject of an independent counsel's probe for five of its eight years.

Mr. Trump's aides have also been pressing for more restraint by the president on Twitter, and some weeks ago they organized what one official called an "intervention." Aides have been concerned about the president's use of Twitter to push inflammatory claims, notably his unsubstantiated allegation from March that his Democratic predecessor, Barack Obama, had wiretapped his offices.

In that meeting, aides warned Mr. Trump that certain kinds of comments made on Twitter would "paint him into a corner," both in terms of political messaging and legally, one official said.

The damage to Mr. Trump's White House could be seen throughout the operation last week—in the front cabin of Air Force One on Wednesday, where senior aides sat before a the impact of recent events on televised newscast carrying



Former FBI Director James Comey, shown in early May, agreed last week to testify before a Senate panel after Memorial Day.

on-screen graphics with words and phrases such as 'obstruction of justice,' and inside the West Wing where fatigued aides said they were worrying about their own futures.

Mr. Trump has denied that his campaign colluded with Moscow. Officials in Russia have denied meddling in the 2016 election.

In recent weeks, the president has weighed making major changes to his communications office. A coterie of former campaign associates, including Jason Miller and Corey Lewandowski, were spotted around the West Wing or were in touch with the administration in recent weeks, unsettling an already anxious

Still, Mr. Trump may not act on a staff revamp soon, according to people familiar with his thinking.

"The president goes through moods where sometimes he wants to blow everything up," said one person close to the White House. The person said the administration hasn't lined up successors for the people Mr. Trump has considered firing and added: "I don't think there will be any wholesale changes" in the near future.

For White House aides and the president's allies, the setbacks are particularly cutting because many are self-inflicted. Rod Rosenstein, the deputy attorney general, told lawmakers Friday that he and Attorney General Jeff Sessions discussed Mr. Trump's desire to replace Mr. Comey last winter during the presidential transition period and agreed it was the correct course of action once Mr. Rosenstein was approved by the Senate, according to talking points released by the Justice Department on Friday.

In the ensuing months, Mr. Trump engaged Mr. Comey, later claiming the FBI director had told him he wasn't under investigation—which associates of Mr. Comey deny-and allegedly asking Mr. Comey to back off a probe of former national security adviser Mike Flynn. The White House has denied that. Mr. Flynn was forced to re-

sign after he provided false in-

formation to Vice President

Mike Pence and others about a conversation Mr. Flynn had with a Russian official in De-Mr. Rosenstein received Senate approval for his new

job in late April, and on May 8 he produced the three-page memo outlining his criticisms of Mr. Comey's performance. Mr. Trump fired the FBI director the next day, citing the

memo. But over the next two days, the White House shifted its story until Mr. Trump in a television interview said he fired him because he was a 'showboat." He acknowledged, though, that the Russia probe weighed in on his decision. After Mr. Rosenstein an-

nounced Wednesday that he had appointed Mr. Mueller to oversee the Russia probe, Mr. Trump summoned to the Oval Office top aides including Hope

Hicks, chief strategist Steve Bannon, chief of staff Reince Priebus, adviser Jared Kushner, communications director Mike Dubke and press secretary Sean Spicer, according to officials.

There, his aides said the appointment of a special counsel could make the administration's job easier in some ways, allowing the president and his staff to avoid answering questions about the probe by pointing to the existence of an independent investigation.

Ken Duberstein, a former chief of staff to former President Ronald Reagan, said he used to urge the GOP president not to respond to questions that reporters might throw his way involving the Iran-Contra scandal that dogged the final years of his presidency.

"You can't go off on a tangent. You can't answer the sound bite gotcha questions," Mr. Duberstein said.

–Peter Nicholas, Byron Tau and Janet Hook contributed to this article.

# **Budget Would Cut Foreign Grants**

By Felicia Schwartz

WASHINGTON—President Donald Trump's budget proposal this week will include provisions to end many foreign military grants administered by the State Department and replace them with loans, a move that could affect up to \$1 billion in aid to dozens of countries if Congress approves, U.S. officials said.

An internal State Department memo reviewed by The Wall Street Journal names Pak-Tunisia, Lebanon, Ukraine, Colombia, Philippines and Vietnam as among countries that could be affected.

Typically, the State Department's Office of Security Assistance receives about \$6 billion to dispense as military aid grants. That sum includes \$3.1 billion for Israel, about \$350 million for Jordan and about \$1.3 billion for Egypt. Those grants will be preserved in the 2018 budget, officials said.

Pakistan, which usually receives about \$265 million in grant assistance, will see that number go down to about \$100 million under the new budget, officials said.

Most other countries will see their assistance converted from grants to loans.

The grants have allowed countries to buy U.S. equipment such as ammunition, vehicles, protective equipment and naval vessels.

Mr. Trump's administration is set to release his full budget proposal on Tuesday. The administration is considering cuts of up to 31% to the State Department and the U.S. Agency for International Development, The Journal has reported.

Congressional officials, along with current and former U.S. officials, said a key concern is that eliminating the military-grant program would cause countries to look to U.S. rivals, such as Russia and China. The internal State Department memo outlines what officials see as the likely effects

"Without such assistance, partners will likely either not develop/sustain those capabilities, or may turn to other countries (e.g., Russia, China) to as-



sist them in developing them," the memo says.

The internal memo says most countries offered loans are unlikely to take them.

"Converting FMF grants to a loan support mechanism will not assist the vast majority of countries that receive this support, since they would not desire to take out, or would not qualify for an international loan," the memo says. Officials with the White

House's Office of Management and Budget didn't respond to questions about the cuts, and have deferred comment until the full budget is released. Officials from most potentially affected countries didn't address the comments. Pakistan's Ambassador to

the U.S., Aizaz Chaudhry, said: "Pakistan believes that our relations with the U.S. are a high priority. The two countries need to further strengthen mutually beneficial economic, trade and investment relations.

Mr. Trump has spoken frequently about what he sees as the need for U.S. partners abroad to pay for more of their own defense needs and for Washington to focus on U.S. priorities. But a congressional

aide said the shift from grants

to loans was unlikely to "play very well" among lawmakers.

"There's real concerns among authorizers over this," he said. "If you care about U.S. influence with these countries for counterterrorism and national security purposes, this will go a long a way to kill it."

The memo cites Lebanon. which it said "may lack the ammunition and vehicles necessary to maintain operations against ISIS" without the U.S. grant program.

Lawmakers worry the plan could strain some critical relationships.

Cameroon, Chad and Niger, "may be unable to maintain Haram," the memo says.

their airlift, intelligence, surveillance and reconnaissance and protected mobility capabilities necessary to defeat Boko For Pakistan, its "maritime forces may have a reduced abil-

ity to patrol the maritime bor-

der," the memo says. "Paki-

stan's ability to continue

participating in USNAVCENT-

led maritime coalitions will come into doubt, as the Pakistan Navy is in the process of decommissioning its Britishclass frigates and needs additional surface vessels."

The cuts could Ukraine's ability to deploy countermortar radars, an important issue in its struggle with pro-Russia separatists backed by Moscow, the memo

In Colombia, where the U.S. is supporting efforts to move beyond a 50-year civil war, the cuts could affect the country's ability to maintain its helicopter fleet, needed to fight organized crime in remote areas. the memo says.

Andrew Shapiro, a former Obama administration official who headed the State Department's bureau of Political Military Affairs, said the grant program benefits U.S. diplomats

more expensive than anyone

else's. It's the best but you pay

for the best."

and U.S. companies. "The program helped ambassadors, defense attachés and visiting officials develop relationships," he said. "This could also hurt U.S. companies who could sell these products. Countries will now look elsewhere because our stuff is

# Americans' Cheer On Finances Grows

By Harriet Torry

WASHINGTON-Ameri- would have to borrow money cans' sense of their overall fi- or sell something to meet it. nancial health improved modestly last year, but adults without any college education lost ground for the first time since 2013, according to a new Federal Reserve survey.

Some 70% of respondents polled in October said they were either "living comfortably" or "doing okay," up from 69% the year before, and 62% when the question was first posed in 2013, the Fed found in its latest Survey of Household Economics and Decisionmaking, released Friday.

Yet the share of respondents with no more than a high-school diploma who said they were "living comfortably" or "doing okay" declined last year to 60% from 61% in 2015.

"Many American households are struggling financially," Fed governor Lael Brainard said in a statement.

Education levels played a large role in determining respondents' self-reported financial well being. The survey found 82% of adults with a bachelor's degree or more in education said last year they were "living comfortably" or "doing okay," up from 80% the year before, as well as 69% of those with some college or an associate degree, up from 66%.

Americans' sense of economic health also varied among racial and ethnic groups. Of the respondents with no more than a highschool diploma, 20.5% of non-Hispanic whites reported being worse off than a year before, more than non-Hispanic blacks, at 18.6%, or Hispanics,

Overall, most of the changes reported in the survey were relatively modest, reflecting a

slowly improving economy and an unemployment level at or below 5% throughout 2016. Day-to-day finances are still precarious for many Americans. The survey found 44% of

wouldn't be able to cover an

said

they

respondents

unexpected \$400 expense like a car repair or medical bill, or

In another sign of the educational divide, 79% of those with at least a bachelor's degree said they would still be able to pay all of their other bills in full if hit with a \$400 charge. Just 52% of those with no more than a high-school diploma said the same.

"Everybody on the low end feels like they're in a different situation, almost like they're in a different America than those with a bachelor's or more," said Jonathan Morduch, a New York University professor of public policy and an economist. "The combination of instability and illiquidity are really hurting at the low end."

Still, the overall share of adults who would struggle to come up with \$400 in a pinch has declined by 6 percentage points since 2013, indicating Americans' financial situation is slowly getting better. While 25% of respondents reported skipping medical treatments due to cost in 2016, that was down 7 percentage points since 2013.

Out-of-pocket medical expenses are one of households' biggest financial headaches. Of those who reported a major unexpected medical expense over the past year, the median out-of-pocket cost was \$1,000. According to the report, some 24 million adults are in debt from medical expenses incurred over the previous year.

Many respondents also reported that they lack retirement savings, with 28% of adults who haven't retired yet indicating they had no retirement savings or pension whatsoever. That is down from 31% in 2015

The survey, conducted in October, drew 6,643 respondents. It was started in 2013 as part of the Fed's effort to monitor America's recovery from the 2007-09 recession and identify risks to households' financial stability.

## IN DEPTH

# *QUANTS*

Continued from Page One algorithmic-driven trading and the quants who use sophisticated statistical models to find attractive trades are taking over the investment world.

On many trading floors, quants are gaining respect, clout and money as investment firms scramble to hire mathematicians and scientists. Traditional trading strategies, such as sifting through balance sheets and talking to companies' customers, are falling down the pecking order.

"A decade ago, the brightest graduates all wanted to be traders at Wall Street investment banks, but now they're climbing over each other to get into quant funds," says Anthony Lawler, who helps run quantitative investing at GAM Holding AG. The Swiss money manager last year bought British quant firm Cantab Capital Partners for at least \$217 million to help it expand into computer-powered funds.

Guggenheim Partners LLC built what it calls a "supercomputing cluster" for \$1 million at the Lawrence Berkeley National Laboratory in California to help crunch numbers for Guggenheim's quant investment funds, says Marcos Lopez de Prado, a Guggenheim senior managing director. Electricity for the computers costs another \$1 million a year.

Algorithmic trading has been around for a long time but was tiny. An article in The Wall Street Journal in 1974 featured quant pioneer Ed Thorp. In 1988, the Journal profiled a little-known Chicago options-trading firm that had a secret computer system. Journal reporter Scott Patterson wrote a best-selling book in 2010 about the rise of quants.

Prognosticators imagined a time when data-driven traders who live by algorithms rather than instincts would become the kings of Wall Street.

That day has arrived. In just one sign of their power, quantitative hedge funds are now responsible for 27% of all U.S. stock trades by investors, up from 14% in 2013, according to the Tabb Group, a research and consulting firm in New York

Quants have almost caught up to individual investors, which outnumber quants and collectively have 29% of all stock-trading volume.

At the end of the first quarter, quant-focused hedge funds held \$932 billion of investments, or more than 30% of all hedge-fund assets, estimates HFR Inc. In 2009, quant funds held \$408 billion, or 25% of all hedge-fund assets.

Quants got \$4.6 billion of net new investments in the first quarter, while the overall hedge-fund business saw withdrawals of \$5.5 billion.

The computers are outperforming humans at picking investments. In the past five years, quant-focused hedge funds gained about 5.1% a year on average. The average hedge fund rose 4.3% a year in the same period.

In the first quarter, quant funds rose about 3%, compared with 2.5% for the average hedge fund.

Quants have been helped by transformative forces. Regulatory scrutiny has made it hard for investors to obtain an edge through methods such as prodding company executives for information or tapping expert networks that included employees of public companies.

Even more important, investors now have at their fingertips an expanding ocean of data about the global economy and financial data, such as changes in earnings estimates and accounts receivable. The next frontier: tapping

data from drones and other cutting-edge sources to help understand companies and the economy in real time.

Quants are different from high-frequency traders, who tend to focus on very shortterm trades that might last just milliseconds. High-frequency traders have been under pressure as market volatility dips and competition grows.

Exchange-traded funds also use algorithms but are geared more to investors who want exposure to certain industries or sectors.

Quantitative-driven trades can last anywhere from a few minutes to a few months. The biggest quant firms, including Renaissance, Two Sigma Investments LLC, D.E. Shaw Group, PDT Partners and TGS, make thousands of trades and manage tens of billions of dollars in investor assets.

Some analysts worry that firms and investors stampeding into the quant business might be disappointed. The



April's meeting of the Thalesians, a social group for quants in London, where Marc Henrard of OpenGamma, below, gives a presentation.

most successful quants have been operating for years. And hiring Ph.D.s doesn't guarantee profits.

More competition could hurt returns and give a false sense of security about the market's stability. In 2007, what became known as the "quant meltdown" was caused largely by the similarity of strategies among quants, who simultaneously rushed to sell, causing losses at other firms and more selling.

Mathematician William Byers, who wrote the 2010 book "How Mathematicians Think," warns that rendering the world in numbers can give investors a deceptive belief that predictions churned out of computers are more reliable than they truly are. The more investors flock to complicated algorithmic models, the more likely it is some algorithms will be similar to one another, possibly fueling larger market disruptions, some analysts say.

So far, though, nothing has stopped the quant arms race, which is creating new jobs previously unheard of in the finance industry.

Citadel, of Chicago, has a chief scientist to run its analytics and quantitative strategies. Balyasny Asset Management LP hired in August scientist Gilbert Haddad, formerly of Schlumberger Ltd. and General Electric Co., to overhaul data and analytics at the New York hedge-fund firm. He studied nanoparticles at the University of Wisconsin and has a Ph.D. in engineering.

"You take tours of offices, and everyone is always pointing out some guy off in a corner, working on his own," says Alexandru Agachi, chief oper ating officer at Empiric Capital Ltd., a startup quant hedge fund in London. "They say with pride: 'Over there is our quant. He's building signals.'

It's common for hedge funds to retool themselves to fit the latest popular strategy. Many funds dove into mortgages after the financial crisis ebbed. Some turned into "macro" investors in anticipation of global economic shifts.

Hedge-fund billionaire Steven A. Cohen's investment firm, Point72 Asset Management, with \$12 billion in assets, is shifting about half of its portfolio managers to what it calls a "man plus machine" approach.

Teams that use old-school research methods are working alongside data scientists. Financial analysts are taking evening classes to learn datascience basics. Point72 is plowing tens of millions of dollars

into a group that analyzes reams of data, including credit- card receipts and foot traffic captured by apps on smartphones. The results are passed on to traders at the Stamford, Conn., investment Point72 lost money in most

of its traditional trading strategies last year, say people familiar with the results. The firm's quant investors made about \$500 million.

Matthew Granade, Point72's chief market-intelligence officer, recently encouraged London School of Economics stulearn to programming languages, like R and Python, to become more competitive when they graduate. Investors are shifting their preference from "artisan to engineer," he said.

Billionaire Paul Tudor Jones

is one of the best-known inves-

tors in history. The former cot-

ton trader anticipated the 1987

stock-market crash and made

gigantic profits with quick

bursts of trading, averaging

annual gains of more than 17%

since then. His hedge-fund

firm, Tudor Investment Corp.,

barely made any money in

feeling pressure from more

successful quant traders, ac-

cording to people close to the

firm. In October, Mr. Jones

chose Dario Villani, an Italian

with a doctorate in theoretical

physics who was hired in 2015,

of quants and other Tudor em-

ployees in a small house on an

estate in Greenwich, Conn., Mr.

Villani began developing com-

Hunkered down with a team

to help rejuvenate Tudor.

By last year, Mr. Jones was

2014 and 2015, though.

puter programs to replicate trading positions of Tudor's portfolio managers using instruments that better allow the firm to increase risk to improve returns without endangering the hedge fund or Tudor, people familiar with the matter say.

Despite the changes, Tudor's two key funds were flat in 2016 as well as so far this year, even as markets have

Humans have long searched relentlessly for ways to gain an information edge. Legend has it that financier Baron Rothschild built a network of field agents and carrier pigeons in 1815 to get a jump on the Battle of Waterloo outcome. Today's quants hope to digest and act on-economic and corporate information faster

than traditional investors.

Hedge funds with quant-fo-

cused strategies have been

poring over private Chinese

and Russian consumer surveys,

illicit pharmaceutical sales on

the dark web-a network of

websites used by hackers and

others to anonymously share

information—and hotel book-

ings by U.S. travelers, accord-

ing to Quandl Inc., a platform

In the late 1990s, an algo-

rithm might have simply tried

to ride the momentum of a

stock's price rise, buying at a

certain price level and selling

at a predetermined moment.

Today's algorithms can make

continuous predictions based

on analysis of past and present

data while hundreds of real-

time inputs bombard the com-

Some investment firms are

puters with various signals.

for such data.

Algorithms and quants eventually could sharply

reduce the need for large investment staffs.

pushing into machine learning, which allows computers to analyze data and come up with their own predictive algorithms. Those machines no longer rely on humans to write the formulas.

Algorithms and quants eventually could sharply reduce the need for large investment staffs. A machine-driven algorithm might help quantitative researchers discover dozens of new algorithms in the time it used to take to create one.

In the battle for talent, quant-focused firms often are reluctant to call themselves hedge funds or even investment firms. Quant firms would rather emphasize their similarities to cutting-edge tech companies in Silicon Valley.

Two Sigma, based in New York, has in-house hacker labs, robotics competitions and game rooms. Empiric calls itself a "technology company operating in financial markets."

Saeed Amen, a quantitative researcher in London, says his investment strategies were considered "very niche" for most of his 14-year career.

He organized social events for quants, including occasional gatherings of a group called the Thalesians after ancient Greek geometer Thales of Miletus. The beer and conversation sometimes attracted fewer than a dozen people.

Mr. Amen's phone has started ringing with calls from hedge-fund managers in the U.S. and Europe. They don't all want automated investing algorithms, but they are trying to figure out how to make better predictions, he says.

Much of that push is coming from investors such as Pepperdine University in Malibu, Calif. Last year, the college placed about 10% of its \$750 million portfolio in big quant funds, including those run by Man Group PLC of London and AOR Capital Management LLC. Greenwich, Conn.

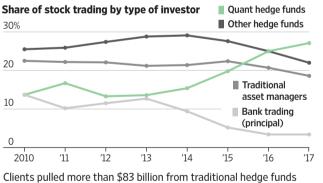
Until then, Pepperdine had "essentially zero" quant investments, says Michael Nicks, its director of investments. "The narrative of fundamental investing is much more comfortable to digest," he says. "Finding a company with good prospects makes sense, since we look for undervalued things in our daily lives, but quant strategies have nothing to do with our lives.'

After "years and years of self-education" and dozens of meetings with quant managers, says Mr. Nicks, Pepperdine decided it was ready to make the leap.

-Rob Copeland contributed to this article.

## **Rising Quants**

Quantitative hedge funds are responsible for a record 27% of U.S. stock trading by investors, up from 14% in 2013



last year, while computer-driven funds had net inflows of \$13 billion.

### Net flow into hedge funds



Continued from Page One China. Viewers are transfixed by her expressive face, bangs, high-pitched voice, chewing sounds and unusually good manners. Fans call her the "cute babv foodie."

She eats methodically with a spoon and fork, and sometimes her fingers, washing food down with swigs of milk or water. She leaves little mess. Her online name translates into "little man." As she chomps and slurps,

Xiaoman has sparked a debate about eating habits in a country where the culture is closely tied to food and feeding the country's swelling population of 1.3 billion is a challenge.

On social media, some parents praise Xiaoman for her vigorous appreciation of food, wishing their children were

less picky. Others worry about the dangers of overindulgence. "Does she have cavities?" one online commenter asked.

The toddler's mother. Duan Yu, a makeup artist in Beijing, says she didn't set out to make Xiaoman famous. Ms. Duan started posting the eating videos a year ago to document her daughter's life, just like any other proud parent would, she says. The mother stays off camera.

Other parents soon sought her advice about how to prepare the same foods that Xiaoman eats and how to get their kids to eat vegetables. Ms. Duan says the trick is: Don't let them eat too many snacks.

Ms. Duan says she is no food expert and reads lots of parenting blogs. Instead of spoon-feeding, which is common among parents and their toddlers in China and elsewhere in Asia, Ms. Duan simply gives Xiaoman utensils so she can feed herself.

At mealtimes, Xiaoman usually gets three large spoons of rice along with a serving of meat or fish and vegetables. There are no second helpings, no matter how much Xiaoman cries, her mother says.

One video shows Xiaoman at a restaurant feasting on an Indonesian salad of vegetables, eggs, tofu and potatoes drenched in peanut sauce. She doesn't look up when two fans come up behind her to take selfies, even when one drapes her hand on the toddler's Some viewers wrote that

Xiaoman's food bowls look larger than her head and that she eats too much. Ms. Duan says the portion sizes are normal for her daughter's age. She made a video of Xiaoman's visit to the doctor to show the toddler is healthy.

The amount of food "looks big in the video, but it is very



Xiaoman is perhaps the youngest eating sensation in China.

little," says Ms. Duan. "The lens is a wide lens."

also represents Hong Kong su-

As China's fascination with Xiaoman has grown, so have her opportunities. She has an agent, Candy Chan, a director at Models International, who

permodel Qi Qi. The toddler eats everything by herself and appreciates it," says Ms. her so much."

Chan. "That's why people love Xiaoman just had a starring role in an online advertise-

ment in China for Pampers di-

apers, made by U.S. company Procter & Gamble Co., and has been a guest on popular Chinese variety-TV shows.

A live-streaming event held this month by Chinese e-commerce giant Alibaba Group Holding Ltd. to promote its shopping festival featured Xiaoman eating a bowl of fish, tomato and green pepper with a blue Pampers crown perched atop her head. "Xiaoman is eating so well," gushed the announcer. "If she were my daughter, I'd give her a sticker or a flower as a prize!" Forks and bowls playing on

her celebrity status are sold online but weren't approved by Xiaoman's parents, her mother says.

It's a lot to stomach. Ms. Duan says she isn't seeking to profit from her toddler daughter's fame. Besides, the way online fame comes and goes, "I don't think she's going to be famous for long," the mom says.

THE OUTLOOK | By David Harrison

# Much-Maligned Bridges Show Improvement

administration and congressional **Democrats** frequently be-

moan America's aging infrastructure and have promised to spend money aggressively to fix it. Less noisily discussed: The nation is already making substantial progress in some key areas of decaying infrastructure.

American bridges have been getting sounder. In 2000, more than 15% of the country's bridges—roughly 89,460—were listed as being in poor condition, or "structurally deficient," under federal standards. By last year, that number had dropped to 56,000, or 9.1% of all

Moreover, the share of bridges built according to outdated design standards, known as "functionally obsolete," has declined from 15.5% in 2000 to 13.8% in 2015. Functionally obsolete bridges aren't necessarily unsafe, but they may have lanes that are too narrow or weight restrictions that prevent heavier trucks from crossing them.

The reason for the improvements: State and local transportation officials nationwide have been targeting aging bridges for upgrades and safety enhancements. A 2012 federal transportation law also required states to set up a plan for improving or preserving their infrastructure assets and penalized states that let bridges

deteriorate too much.

Federal spending on bridges has stayed relatively flat at around \$6.8 billion a year since 2013, according to a 2016 report from the Government Accountability Office. But state and local funding has more than doubled from about \$5.4 billion in 2006 to \$11.5 billion in 2012.

The steady decline in the number of troubled bridges around the country is at odds with frequent references by officials to worsening bridges dotting the landscape, and the broader narrative of America in de-"Our bridges are unsafe,"

said President Donald Trump in February. That same month, Oregon Rep. Peter DeFazio, a Democrat, called for action in Congress, saving: "We need to fix the 140,000 bridges that are falling down."

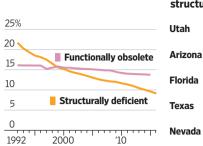
he story of American infrastructure is in fact more complex than often portrayed. Interstate highway conditions have also steadily improved over the past few years. Only about 2% of rural interstates and freeways and 6% of urban highways are in poor condition, according to Transportation Department data. That's an improvement from 1994, when 6.5% of rural interstates and 15% or urban interstates were in poor condition.

On the other hand, smaller roads, pocked with

#### **Not Falling Down**

Status of bridge conditions\*

The state of U.S. bridges has been improving for decades.



structurally deficient bridges structurally deficient bridges 3.1% West Virginia **South Dakota** 2.6 2.1 Pennsylvania

Bottom states by percentage of

**Rhode Island** 

the effort to repair infra-

ford to lose funding. As bridges age, more of them

need upgrading.

vears old.

structure and they can't af-

Many American bridges

date from the postwar infra-

structure push of the 1950s

to the 1970s. At the time,

they weren't meant to last

more than about 50 years.

Today, four out of 10 bridges

are at least 50 years old and

That will force officials to

more than half are over 40

struggle to keep up, and it

trade-offs. In some cases,

other roads, officials say.

bridge improvements come

at a cost of more potholes on

he Transportation De-

partment estimates that as of 2012, the

backlog for bridge rehabilita-

tion stood at \$123.1 billion,

roughly 10% more than its

could mean unpleasant

19.6

19.8

20.5

\*A bridge is considered structurally deficient if it has reached a certain level of deterioration under standards set by the Transportation Department. A bridge is considered functionally obsolete if it was built under older design standards. THE WALL STREET JOURNAL. Source: Transportation Department

Top states by percentage of

potholes, have seen their conditions worsen.

Missouri is a case study among states where the bridge outlook is improving. It recently completed a \$685 million project repairing or replacing 802 bridges. The share of the state's bridges

terstate 35W in Minneapolis galvanized state and local officials. The collapse killed 13 "The industry as a whole

1.7

1.6

understood the consequences of not taking care of your assets," said Barton Newton, manager of complex bridges

As Washington talks about spending proposals, states are fixing infrastructure.

that were deficient dropped from 27.5% in 2000 to 13% in 2016. In Pennsylvania, where officials are replacing 558 bridges statewide through a public-private partnership, the share of deficient bridges fell from around 25% in 2000 to 20% last year. Transportation experts

say the 2007 collapse of a 40-year-old bridge along Infor the global engineering consulting firm WSP and California's former state bridge engineer.

But the cause of the Minneapolis bridge's fall wasn't disrepair. The collapse was later found to have been caused by a design flaw.

Despite the progress, state transportation officials say they can't afford to let up on

2010 estimates. "The work never really ends," said Bryan Kendro, a vice president at Star America Infrastructure Partners who helped design Pennsylvania's bridge replacement project while working as a top official in the state's transportation department. "Folks within the [state transportation departments] and the industry understand we've been able to make some progress but that progress will be pretty shortlived if the funding doesn't come about."

In Pennsylvania, state officials estimate between 200 and 250 bridges become structurally deficient every vear. Last year, the state repaired more than 500 bridges, thanks in part to its rapid replacement program. That's made a difference

in places like Meadville, a town of about 13,000 not far from Erie. Last year, the town cut the ribbon on a new bridge over French Creek that had been closed for nine years. Nearby businesses had suffered from a decline in traffic, said Patricia Mattocks, who helps manage four family-run garden-supply stores, including one that sits a few hundred feet from the bridge.

Another bridge is also undergoing renovation, as are two more bridges in Saegertown, a few miles to the

"We've got bridge work going on all over here," Ms. Mattocks said. "It's good to see them being fixed."

### U.S. WATCH

CONNECTICUT

#### **Wealthiest State Expects Tax Shortfall**

Connecticut is having trouble collecting enough money to pay its bills, and the Democratic governor doesn't think taxing the rich is the answer anymore

After two decades of robust growth, the wealthiest state in the U.S. forecasts it will fall \$400 million short in income-tax collections this fiscal year, worsening a budget crisis that prompted all three major ratings firms recently to downgrade the state's credit

Connecticut's budget office estimates income-tax collections will fall in fiscal 2017 for the first time since the recession

About \$200 million of the drop in receipts came from the state's closely watched top 100 earners, who are the source of an outsize proportion of the state's revenue. Many of the state's richest residents work for hedge funds, which have been hurt by an industry downturn.

Gov. Dannel Malloy has twice before bet that taxing the wealthy would help solve the state's fiscal problems. But neither increase resulted in sustained revenue growth, according to his administration, which says it would be a mistake to do it a third time.

"You can't go back to that well again," said Kevin Sullivan, commissioner of the Department of Revenue Services.

The tax question in Connecticut, where several thousand tax filers with adjusted gross incomes of more than \$1 million a year account for about a third of all income tax receipts, comes amid a shift in tax policy nationally. President Donald Trump, who campaigned on promises to lower taxes, has proposed lowering business and individual rates. But he is also seeking to repeal a deduction on state taxes that will especially hit high-income earners, making it tougher for states to raise taxes among the richest.

Connecticut's fiscal troubles come as a majority of states face budget holes this cycle, according to a recent report issued by Standard & Poor's. At least nine states are considering some form of tax increase, such as raising corporation taxes and sales taxes, according to the report. -Joseph De Avila

WASHINGTON

#### **Trump Adviser Cites Limits on Russia Ties**

President Donald Trump is limited in his ability to cooperate with Moscow because of investigations related to possible connections between Russia and his

election campaign, a top adviser

Mr. Trump wants to confront Russia over its actions in Ukraine and Syria and cooperate with Moscow to fight against Islamic State, White House National Security Adviser H.R. McMaster said on ABC's "This Week.

Mr. Trump met with Russian diplomats in the White House not long after dismissing James Comey as FBI director, who was investigating Russian interactions with his campaign officials. The New York Times on Friday reported Mr. Trump had told Russian officials during the meeting that his firing of Mr. Comey had relieved pressure on him related to Russia.

Mr. McMaster on Sunday said the Oval Office meeting was an opportunity for the leaders to discuss challenges in the two countries' working relationship.

"The gist of the conversation was that the president feels as if he is hamstrung in his ability to work with Russia to find areas of cooperation because this has been obviously so much in the news." Mr. McMaster said. "The intent of that conversation was to say what I'd like to do is move beyond all of the Russia news so that we can find areas of cooper-

Democrats and other political critics have attacked Mr. Trump for continuing to seek close engagement in Moscow at a time when officials are investigating Russian interference in the 2016

"We need to be clear that we don't have aligned interests with Russia," Sen. Ben Sasse (R., Neb.) said on ABC

Mr. Trump has denied any campaign collaboration with Moscow and dismissed reports as "fake news."

"What the president was trying to convey to the Russians is, look, I'm not going to be distracted by this, all these issues that are here at home," Secretary of State Rex Tillerson said on Fox Sen. Marco Rubio, a Republican

senator who ran against Mr. Trump in the 2016 Republican primary, said he would wait for conclusions of the intelligence committee he serves on before weighing in on reports about the Russian diplomatic conversations and Mr. Comey. "I do not want to undermine the credibility of this effort in one direction or another," Mr. Rubio told CNN's State of the Still, if the president were at-

tempting to interfere with FBI and impede the investigation then it would be "potential obstruction of justice that people have to make a decision on," Mr. Rubio

#### Texas Bill Targets Improper Teachers and pass these teachers along conduct with a student is one proper teacher-student rela-

By Tawnell D. Hobbs

A former Texas teacher is in prison after being sentenced in January for having sexual relations with a 13vear-old student that resulted in her becoming pregnant. Another teacher in the state this year is facing a sex-assault charge, and has vet to enter plea, for allegedly paying a student nearly \$28,000 to keep quiet about their sexual relationship.

As similar alleged incidents rise in the state, Texas legislators have passed one of the toughest bills nationally to penalize administrators who ignore such misconduct. Some teachers suspected of such acts have been able to resign and join other school districts in a move that some legislators call "passing the trash."

Texas Gov. Greg Abbott is expected to sign the bill into law in coming days to make it a criminal offense for school superintendents and principals to not report inappropriate teacher-student relationships.

The bill, which passed with bipartisan support in the Texas Senate and House, comes with tougher administrative penalties for teachers who commit inappropriate acts, which include sexual contact and sexual intercourse with students.

"I want legislation that puts real consequences for those teachers, and we must also penalize the administrators who turn a blind eye to such abuse

to other schools," Mr. Abbott said during his State of the State Address in January.

"That kind of thing should not be tolerated and should be reported," said Linda Isaacks, executive director of the Dallas School Administrators Association. "The best interests of the students come first, always." Monty Exter, a lobbyist

with the Association of Texas Professional Educators, a professional group of about 100.000 members, said his group supports the bill.

"Anytime strengthen protections for students, that's a good thing," he said. "It's a broadly held belief that even one instance of mistoo many." Reported cases in Texas in-

volving alleged inappropriaterelationships by educators have increased over the past seven years-from 141 in 2009 to 222 in the fiscal year ended August 2016, according to the Texas Education Agency. For this fiscal year beginning Sept. 1, the number of cases was 191 as of April 30-on track to meet or exceed last year's

Laws that address improper relationships between teachers and students vary by state, as do penalties for administrators who fail to report the conduct.

There isn't an official nationwide system to track im-

tionships, so it is unclear if there is a national uptick. Reporting requirements for educator misconduct can also differ by state. Research by a group that

focuses on teacher misconduct, called Stop Educator Sexual Abuse, Misconduct and Exploitation (S.E.S.A.M.E), indicates a national increase in teachers arrested for sex offenses based on news reports-from 459 in 2014 to 540 in 2016.

The Las Vegas-based group-which conducts research using grants from a variety of donors who advocate for sexual-abuse survivors has contributed to federal studies on teacher sexual

The bill in Texas puts the state at the forefront of criminalizing school leaders who conceal inappropriate conduct by educators, said Terri Miller, a leading advocate for sexually s.E.S.A.M.E. abused schoolchildren and vol-

"This is an extraordinary

effort," Ms. Miller said. Under current law, Texas superintendents must report an educator's criminal record or misconduct that results in termination or resignation to the state within seven business days. Those who don't comply risk sanction, such as reprimand, suspension or revocation of certification.

Under the bill, superintendents—and principals—who conceal educator sexual misconduct would face a felony charge, punishable upon conviction by up to two years in jail. And those who help such offenders get a job at a school, despite knowing their background of misconduct, risk having their state certificate revoked. Teachers convicted of a fel-

ony for sexual misconduct or having an improper relationship with a minor would have their pension revoked; a court could release all or part of the pension to a spouse. The bill also requires school

systems to adopt policies for electronic communications between school employees and students as sexual predators have used social media and cellphones to connect with children. Schools would have to notify the parents of alleged victims of educator miscon-Gov. Abbott has until June

18 to sign the bill, and he has indicated support of its premise. There is no known orga-



250 cases

Cases opened in Texas involving inappropriate relationships by

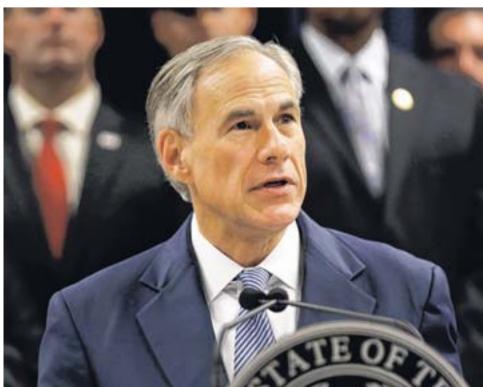
200 150 100

Note: Fiscal year ends Aug. 31; FY2017 figure is through April 30. Source: Texas Education Agency

THE WALL STREET JOURNAL.

'15

'17



-William Mauldin | Texas Gov. Greg Abbott, who cited the issue in a January speech, is expected to sign the bill into law. nized opposition.

# LIFESARTS



**BEFORE CHEWING** over the more predictable parts of Ridley Scott's "Alien: Covenant," let's salute a really smart thing that Mr. Scott and his writers, John Logan and Dante Harper, have done with the latest

edition of the "Alien" saga.
Seizing on the only source of sustained vitality in the director's 2012 film "Prometheus," they've made the most of it this time around. "Prometheus," a sci-fi adventure set in the "Alien" universe, was concerned with such cosmic questions as the origin of life. But the answers it came up with were awfully lame, and all but one of its characters were cut from space-age cardboard. The exception was an intricately appealing android. His name was David, he was played by Michael Fassbender, and he stole the show with supra-human aplomb. The good news is that David is back, in a way that doubles down, or more properly up, on his potential and gives Mr. Fassbender lots to do. (The cast includes Danny McBride, Billy Crudup, Demián Bichir and Carmen Ejogo.) And the bad news? This new "Alien" prequel is mostly a gore fest, which may be great news for gluttons of the genre.

The Covenant of the title is a spaceship carrying 2,000 colonists,



along with unspecified numbers of frozen embryos, from Earth to a supposedly habitable planet on the far side of the galaxy. The colonists are sleeping deeply, since the trip is scheduled to take seven years, but the crew is rudely awakened by incipient calamity in the form of a neutrino burst. Extensive damage is sustained, followed by extensive repairs that are at least as interesting as watching the road being paved in "Cars."

Still, the repairs have their own logic, which is more than can be said of a detour to a nearby planet on the strength of a rogue transmission that features John Denver singing "Take Me Home, Country Roads." The stop is opposed by Daniels (Katherine Waterston), the ship's second-in-command, who is clearly not a John Denver fan. (Ms. Waterston gives a strong performance, even if Daniels can't touch Sigourney Weaver's powerful presKatherine Waterston as Daniels, the ship's second-in-command, in Ridley Scott's 'Alien: Covenant'

ence as Ripley in the four chapters of the main series.) Yet the detour is taken all the same, an impulsive exploration of an uncharted planet that looks like paradise, though any fan of horror stories—or anyone who's read Ray Bradbury—will know instantly that it's anything but.

A case could be made that "Alien: Covenant," being very much a horror story, has shrewdly forgone logic and plausibility in favor of letting the audience get ahead of, and savor in advance, the plot's most lurid developments. (Not those involving Mr. Fassbender, I hasten to say.) Thus the explorers dispense with sensible precautions. They don't bother to wear space helmets. They stray heedlessly from their ship, leaving its cargo door wide open. Venturing deep into caves, they touch gloppy stuff that shouldn't be touched, especially because it moves. Once the worst happens-and this is a franchise in which the worst happens over and over again—basic quarantine procedures are thrown to the solar winds. The results can be funny, as well as scary, but not "Spaceballs" funny, not "The Bad

News Bears" funny. The cumulative impact of this silly stuff is a sense of laziness or fatigue, a breaking of faith with those in the audience who may have come expecting something new.

By the same token, many "Alien"

fans will come looking for something old, and that's in bloodily abundant supply. It may well be sufficient, considering the excitement that an "Alien" logo can still elicit, almost four decades after the original hit the screen. The key word, of course, is "original." No one knew what was coming the first time around, any more than they knew, nearly two decades before that, what would happen to Janet Leigh when she stepped into the shower. In today's movie business originality is often seen as a risk, and carbon copies can be perfectly acceptable, despite the disappearance of carbon paper. In that context, the action sequences of "Alien: Covenant" give satisfaction, while the android element—to use a bland, spoiler-free term—provides ample food for thought and cause for worry, machine-learning being what it is and soon will be.

**TELEVISION REVIEW** 

# CAPTAIN CHAOS GOES TO WASHINGTON

BY DOROTHY RABINOWITZ

**THE SUBJECT** of this documentary has never yielded in his regard for the infliction of shock and chaos as a political tactic, according to the commentators, mainly journalists, assembled for "Bannon's War," a "Frontline" film on the life and career of Steve Bannon. It's a perception regularly echoed in this telling portrait of the adviser primarily responsible for shaping Donald Trump's message for most of the presidential campaign—and the one delivered in President Trump's memorably dark inaugural address.

"This American carnage stops right here, and stops right now," the nation heard on the celebratory day meant to symbolize the blessings of democracy, the peaceful transition of power.

An old friend of Mr. Bannon, interviewed for this film, reflects affectionately on the ease with which she recognizes his lines and his views in Mr. Trump's public pronouncements. Prime among those views, the film makes clear, is an enduring belief in the value of chaos and disorder to undermine the establishment, usurp its power.

To be sure, it's hard to know just how sturdy Mr. Bannon's faith is now, given the continuing riot of embarrassments, disclosures, wildly conflicting official pronouncements-each more astounding than that of the day before-currently emanating from the Trump White House. This

was, perhaps, not the valuable chaos Mr. Bannon had in mind.

Those beliefs—"bring on the apocalypse," one commentator describes it—had taken root early. As a junior at Virginia Tech, he ran for student body president and won a surprise victory by running on a platform in which he attacked his rivals as tools of the adminis-

A 'Frontline' documentary looks at the life and career of Trump's chief strategist

tration—of the establishment—and by claiming for himself the mantle of "an outsider." It was, one of the film's Bannon historians observes, "very Trumplike."

Michael Kirk and his "Frontline" team, as they characteristically do, have imbued this political biography with human dimension. Here are the details of an Irish workingclass childhood in Richmond, Va.of the influence of a father, a telephone lineman, who taught his son the value of hard work, and who knocked on doors to help elect John F. Kennedy.

During his college days, we learn, Mr. Bannon worked in a junkyard-his mother hosed him clean before he entered the house. The young Bannon who emerges from this background is an omnivorous



reader-a devourer, especially, of philosophy and history that yielded clues to the future. Future calamities, in particular. No danger preoccupied him more than the one posed by the Islamic world, which would in his view forever be a mortal threat to the West.

Serving in the Navy when the Iranians seized the American Embassy in Tehran, he had become

embittered over President Jimmy

Carter's failure to rescue the hos-

tages-but nothing would have

greater impact on him than the Sept. 11 attacks, proof to him of Islam's continuing war against Western civilization. In Hollywood he made films on

the subject, which came to nothing, and along the way prepared for an active role in politics. Looking for someone who could do for America what his hero Ronald Reagan did. he determined—with an eye to the 2012 presidential race—that Sarah Palin might be just the candidate who could win. Ms. Palin, sensibly,

remained unconvinced.

The Bannon who arrived in Washington as Donald Trump's chief strategist-and was, to universal astonishment, awarded a seat on the National Security Council despite his lack of credentials or anything resembling foreign-policy experience—had lost none of his ingrained belief in the value of disruption. In the film's most riveting section there's a description of the Bannon-directed effort to ensure the rollout, immediately after Mr. Trump assumed office, of one controversial executive order after another, not least the order aimed at restricting Muslims from entering the U.S.

Mr. Bannon and President Trump, the film notes, wanted the ensuing outrage, the protests, the shock and, not least, the media's cameras. They were sending a message: Change had come; Trump was making good on his promises.

Since that golden time, the president's chief strategist has seen a sharp reduction in his status. He's been removed from his seat at the National Security Council, mainly, it is said—in this film as everywhere else-as a result of Mr. Trump's inability to tolerate the publicity showered on Mr. Bannon as a mastermind. In this hard-eyed and absorbing hour, the man Donald Trump now describes as someone who had, after all, only joined the campaign at a late stage, comes vividly to life.

Bannon's War Tuesday, 10 p.m., PBS

# LIFE & ARTS

# A New Record at Auction Week

An untitled Basquiat sells for \$110.5 million as collectors bid up blue-chip art at Christie's, Sotheby's and Phillips

BY KELLY CROW

**SOTHEBY'S NEW YORK sales**room erupted into applause Thursday after a Japanese billionaire paid \$110.5 million for a work by Jean-Michel Basquiat, the highest price ever paid at auction for a work by a U.S. artist.

The sale, to 41-year-old e-commerce king Yusaku Maezawa, provided a crackling cap to New York's spring auctions, where sales exceeded expectations in many, but not all, categories.

The price for the Basquiat, an untitled 1982 image of a menacing, black skull painted in graffiti-style slashes, bested Andy Warhol's \$105 million auction record. It ranks the Brooklyn street artist in a rarefied, nine-figure canon alongside Pablo Picasso, Edvard Munch and Francis Bacon. The previous record for a Basquiat was \$57 million, set a year ago by Mr. Maezawa, who is building a museum in Chiba, east of Tokyo.

"When I first encountered this painting, I was struck with so much excitement and gratitude for my love of art," Mr. Maezawa said in an Instagram post shortly after he placed his winning phone bid.

Results of the auctions, which conclude Friday, suggest art shoppers are just getting started. Sotheby's, Christie's and Phillips reported more than \$1.4 billion in art sales throughout a week that swung from stable to exuberant—a sign that once-wary collectors seem increasingly eager to splurge on blue-chip impressionist, modern and contemporary art.

Other notables include a Cy Twombly abstract, "Leda and the Swan," which Christie's sold for \$53 million, and a Francis Bacon triple portrait of his lover, "Three Studies for a Self-Portrait of George Dyer," which the same house sold for \$51.8 million.

Sotheby's \$319.2 million contemporary art sale Thursday surpassed its high expectations; two days earlier, it also sold Kazimir Malevich's \$21.2 million abstract, "Suprematist Composition with Plane in Projection," for more than its \$18 million high estimate. Phillips's \$110.3 million sale Thursday was led by Peter Doig's \$28.8 million "Rosedale," a 1991 view of a manor house.

Ahead of these sales, the houses made financial deals to ensure that dozens of their priciest pieces sold no matter what—an unsettling move that suggests sellers didn't want to shoulder their own risk. Yet plenty of artists still underwent major market tests. Here's a look at a few of the strongest and weakest performers.

### **WINNERS**

**Sculptures:** After papering their walls with paintings in recent years, collectors must have real-



This untitled 1982 Jean-Michel Basquiat painting of a colorful skull, above, was the highlight at Sotheby's on Thursday. Below from left: Phillips sold Roy Lichtenstein's two-sided view of a woman in a ponytail from 1996; Claude Monet's 'Waterlily Pond' from 1917-20 only drew a few limp bids, and sold for \$16 million; Jeff Koons' sculpture of vacuum cleaners drew just one bid.







ized they still had empty tabletops or patios because sculptures sold well at all sizes this week. Hits included Christie's \$57.3 million melon-size Constantin Brancusi bronze, "Sleeping Muse," which

sold to private dealer Tobias Meyer. Sotheby's got \$16 million for a Max Ernst figure of a chess player, "The King Playing with the Queen," that once belonged to painter Robert Motherwell.

Collectors pushed Isamu Noguchi's garden totems to three times their asking prices at Christie's. Phillips sold Roy Lichtenstein's two-sided view of a woman in a ponytail from 1996, "Woman: Sunlight, Moonlight," for \$10.3 million on Thursday.

Scholarly Moderns: Collectors of

impressionist and modern art appeared ready to pay premiums for cerebral works with more historical significance than wall-power punch this week. A dogged bidding war ensued Monday over Wassily Kandinsky's 1925 "Top and Left," an abstract intended to illustrate the artist's Bauhaus color theories, with Christie's chief executive Guillaume Cerutti fielding the winning telephone bid for \$8.3 million. The Kandinsky was only expected to sell for up to

**Rich Hues:** Why be content with a few colors when you can buy the entire box of Crayolas? That logic seemed to spur contemporary art collectors this week, benefiting artists like Mark Grotjahn and Njideka Akunyili Crosby. Both easily weathered their auction tests, thanks to works that contained dense kaleidoscopes of colors rather than spare, muted hues. Christie's sold Grotjahn's feathery abstract, "Untitled (S III Released to France Face 43.14)," for \$16.8 million, just over its \$16 million high estimate. Crosby's patterned, nightclub scene from 2010, "I Refuse to be Invisible," sold at Christie's for \$2.6 million, over its \$2 million high estimate.

#### **LOSERS**

**Bad Impressions:** With so many A-list impressionist works already tucked away in museums, collectors sniffed or paid bargain prices for the classic leftovers that wound up at auction this week. Claude Monet is typically a powerhouse, but his "Waterlily Pond" from 1917-20 only drew a few limp bids, and it sold for \$16 million edging over its \$14 million low estimate thanks in part to Sotheby's added fees. Monet's wintry "Road to Vetheuil, Snowy Effect" also saw thin bidding, selling for its \$10 million low estimate, or \$11.4 million after Christie's added fees.

Jeff Koons: Even as this New York artist's 45-foot-tall "Seated Ballerina" was installed in Rockefeller Center, it was clear his art was almost nowhere to be found in the spring sales. This was a marked turnabout from recent seasons when collectors reaped tidy profits packing catalogs with examples of his painstakingly perfect figures of lobsters, monkeys and balloon animals. On Wednesday, Christie's tried to stir competition for his 1981-86 sculpture of vacuum cleaners. "New Shelton Wet/Drys 10 Gallon, New Shelton Wet/Drys 5 Gallon Doubledecker." In the end, it only took one bid from a collector on the telephone to win it for \$7.9 million, just over its \$7 million low estimate.

**FILM REVIEW** | By Joe Morgenstern

# DOMESTIC DISTURBANCE

THE FIRST THING, even the main thing, to be said about "The Commune" is that it's alive. This Danishlanguage film about a Copenhagen commune in the mid-1970s pulses with screwy energy and antic confusion. And a snake in the communal garden heightens the drama.

Like so many urban stories of our own time, this one starts with real estate—not buying or flipping a house, but inheriting one. Following the death of his father, Erik (Ulrich Thomsen), who teaches architecture at a university, must decide what to do with his childhood home. A huge old barn of a place, it's too big for him, his wife and their teenage daughter to live in. The house is also too expensive to heat and maintain, but Erik's wife, Anna (Trine Dyrholm), finds a solution to both problems impulsively, almost whimsically. Bored and frustrated by Erik's midlife funk, Anna proposes setting up a commune that will open the place to friends, acquaintances and maybe qualifying strangers. Erik agrees, grudgingly, though his testy temperament would clearly disqualify him if he weren't a founding member.

The filmmaker, Thomas Vinterberg—who wrote the screenplay with Tobias Lindholm-lived in a commune from the age of 7 to 19. What's more, and surely not coincidentally, he was a founding member of Dogme 95, an influen-

tial filmmaking collective that promulgated a radical doctrine of technical austerity and aesthetic simplicity. The best parts of the film feel authentically and joyously anarchic, whether they are literally or loosely autobiographical. New applicants undergo interviews that amount to auditions; the group grows like a band without instruments. Communal activities include winter skinny-dipping. House meetings keep tabs on the commonweal's wealth and health. Beer consumption soars, requiring a beer amnesty. A little boy with a heart condition keeps announcing brightly that he's going to die when he's 9. I'm not sure why, but we laugh at his every announcement, and a whole lot more.

Although the period is one of political upheaval in Europe and abroad, politics figure far less in "The Commune" than they do in a similar, and superior, feature set at the same time in Sweden-Lukas Moodysson's wonderful "Together." What concerns Mr. Vinterberg is how the group is affected by sexual politics when Erik, increasingly quarrelsome, takes a lover and brings her into the house. This element of the story, which may or may not have autobiographical roots, is disappointingly conventional, even though it makes sense emotionally, and

though Emma, the young woman in question—yes, she's a worship-



In Thomas Vinterberg's 'The Commune,' a husband and wife in Copenhagen discover the joys and perils of group living.

ful student—is played appealingly by Helene Reingaard Neumann.

But then the acting is superb throughout. Ms. Dyrholm's Anna morphs from a happy member of a cheerfully extended family into a shattered woman whose grief is

worthy of an Ingmar Bergman heroine. Mr. Thomsen, who has worked with the filmmaker before—in 1998 he was the moral center of Mr. Vinterberg's spectacular second feature, "The Celebration"—makes Erik a figure of cool restiveness, chronic

neediness, icy brutality and finally rage. Erik may be a product of the house he and his family grew up in. Surveying its vast spaces at the beginning of the picture, an old friend tells him, astutely, "No wonder you were all so aloof."

## **OPINION**

#### REVIEW & OUTLOOK

# Trump's Middle East Reset

His visit revives the

U.S.-Saudi alliance and

sends a message to Iran.

resident Trump visited Saudi Arabia on his first trip abroad this weekend even as Iran re-elected Hassan Rouhani in a laid on a summit of regional Arab leaders, an-

sham presidential vote. The timing may have been coincidental but the symbolism is potent. Mr. Trump is reviving the traditional U.S. alliance with the Sunni Arab states even as Tehran reaffirms its intentions to dominate the Middle East.

The timing comes full circle from the start of President Obama's eight-year tilt toward Iran. That tilt began with Mr. Obama's silence as Iran leaders stole the 2009 presidential election while arresting and killing democratic protesters. He then spent two terms courting Iran in pursuit of his nuclear deal while downgrading relations with the Gulf Arabs, Israel and Egypt. Mr. Trump's weekend meetings and Sunday speech show he is reversing that tilt as he tries to revive U.S. alliances and credibility in the Middle East.

Friday's vote in Iran was more recoronation than re-election. The unelected Guardian Council of mullahs disqualified more than 1,600 candidates. The remaining six represented the narrow ideological spectrum approved by Supreme Leader Ali Khamenei and the Revolutionary Guards. That includes Mr. Rouhani, who is often called a moderate in the West but has presided over continuing domestic repression and regional aggression.

Mr. Rouhani will probably honor the broad terms of the 2015 nuclear deal, not least because it has provided the mullahs a muchneeded financial reprieve from sanctions. The regime is likely to exploit the accord at the margins, however, including ballistic-missile launches and technical progress in secret that could allow a nuclear breakout when most of the accord's major restrictions sunset in eight

Contrary to Mr. Obama's hopes, there is no evidence that the nuclear deal has changed Iran's hostility to the U.S. or its designs for regional dominance. The Revolutionary Guards continue to support Bashar Assad's marauding in Syria, Shiite militias in Iraq, the Lebanese terror group Hezbollah, and Houthis in Yemen. Tehran sees the Gulf states as a collection of illegitimate Sunni potentates who must bow before Shiite-Persian power—and the U.S. as the only power that can stop its ambitions.

This is the strategic backdrop for Mr. Trump's visit to Riyadh, which was remarkable for the public display of support for the U.S. alliance. The Saudis have long preferred to cooperate with the U.S. in more low-key fashion. But they

> nounced substantial (\$110 billion) new arms purchases and investment in the U.S., and offered Mr. Trump the chance to deliver his first speech as President on U.S. relations with the Muslim world.

The two countries also issued a public "joint strategic vision declaration" that called for "a robust, integrated regional security architecture." The test of this vision will come in places like Syria and Yemen, but one early sign was the weekend launch of Saudi Arabia's new Global Center for Combating Extremist Ideology. This is a welcome development in the heart of Wahhabi Islam that nurtured Osama bin Laden and other jihadists.

Mr. Trump's speech on Sunday was notable for its conciliatory tone, calling for a "partnership" with moderate Muslim states. The arch rhetoric of his campaign was gone as he invoked the shared desire of Muslims, Christians and Jews to live without fear of religiously motivated violence.

He was also blunt in addressing Iran as "a government that speaks openly of mass murder, vowing the destruction of Israel, death to America, and ruin for many leaders and nations in this room." Until Iran's regime "is willing to be a partner for peace," he added, "all nations of conscience must work together to isolate Iran, deny it funding for terrorism, and pray for the day when the Iranian people have the just and righteous government they deserve.

All of this will reassure the Gulf Arabs and other U.S. allies who questioned America's commitment during the Obama years of retreat. The Saudis are imperfect allies, but they are linchpins of the U.S.-led order in the Middle East, and their assistance is essential to defeating Islamic State in Syria.

In 31-year-old Deputy Crown Prince Mohammad bin Salman, Saudi Arabia also finally has a serious modernizer who wants to diversify the economy from oil, expand the public space of women and ease other cultural strictures. The U.S. has a stake in his success and in particular should help him prevail as soon as possible against the Houthis in Yemen.

The eight-year decline of U.S. credibility in the Middle East can't be reversed in a single summit, but Mr. Trump's weekend in Riyadh is a promising start that will be noticed from Tehran to Damascus to Moscow.

# A Victory Over Fake News

efamation laws are often abused, but last hired hundreds of refugees to work in his plants. week came a rare victory for the First Amendment and legal recourse against

slander. On Wednesday Alex Jones, a right-wing gadfly who occupies one of the darker corners of the internet, settled a lawsuit filed by Chobani yogurt over odious falsehoods on Mr. Jones's website Infowars.

During the week of April 10, 2017," Mr. Jones said in a video on his website, "certain statements were made on the Infowars Twitter feed and You-Tube channel regarding Chobani, LLC that I now understand to be wrong. The tweets and video have now been retracted and will not be reposted. On behalf of Infowars, I regret that we mischaracterized Chobani, its employees and the people of Twin Falls, Idaho, the way we did."

As humiliating apologies go, this is one for the ages. The contrition is warranted: An April Infowars tweet and video carried the title "Idaho Yogurt Maker Caught Importing Migrant Rapists." Chobani's founder is a Turkish immigrant who has Mr. Jones's outfit suggested that Chobani workers in Idaho were connected to a gruesome sexual assault perpetrated by minors.

For added class, Infowars said that maybe refugees had spread The allegations are false,

though the video spread across the internet thanks to thousands of tweets and shares on social media.

Drudge published the headline "REPORT: Syrian 'Refugees' Rape Little Girl at Knifepoint in Idaho." Chobani sued Mr. Jones for what the suit described as a "classic" case of defamation, which includes acting with malice. Mr. Jones first insisted he would fight the Cho-

bani suit, but his lawyers must have helped him realize that he was barreling toward an expensive defeat. Chobani has declined to disclose settlement details, but perhaps this encounter will dissuade Mr. Jones and his allies from peddling untruths this outrageous. Congratulations to Chobani for fighting back against a real example of fake news.

# Trump Wavers on Jerusalem

He reneges on a promise

to recognize the city

as Israel's capital.

Alex Jones apologizes

to Chobani and its

employees for his slurs.

onald Trump made many campaign promises in his run to the Presidency, but none sounded more sincere than

his commitment to recognize Jerusalem as the capital of Israel. The week of his inauguration he repeated the pledge to an Israeli news outlet, adding, "I'm not a person who breaks promises."

This promise will go unfulfilled when Mr. Trump visits Israel on his current trip to the Middle East. Administration officials have conveyed in the past week that, once again, the time isn't appropriate for the move. Mr. Trump hasn't explained his reversal, so we are left to assume that the reason for reneging is the same one U.S. Presidents of both parties have given back to the Clinton Presidency: The move might imperil the Israeli-Palestinian peace process. Israelis no doubt will welcome Mr. Trump

enthusiastically when he arrives, because he follows after the explicit hostility that Barack Obama displayed toward this important Middle East ally and its prime minister, Benjamin Netanyahu. Still, breaking this important public promise is difficult to understand.

Mr. Trump deepened the promise when he named New York lawyer David Friedman as his ambassador to Israel. Mr. Friedman said he would work to renew the bond between the two countries, "and I look forward to doing this from the U.S. Embassy in Israel's eternal capi-

tal, Jerusalem." It is now evident that even a commitment of this much presidential prestige has been over-

turned by the U.S. State Department's famous

determination to continue the peace process with the Palestinians to the end of days. The history of this greatest of all diplomatic mirages ex-

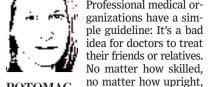
tends back decades, but let us give the short version of why it won't happen: The Palestinians claim Jerusalem as the capital of any future state, and the Israelis will never concede that claim.

Given this intractable stand-off, we would argue that Mr. Trump is more likely to break the peace-process gridlock if he makes good on his promise. It might make clear to the Palestinians that the wheels of history are not moving in their favor, and the time has arrived to enter into a credible negotiation with Israel.

The Administration officials who pushed Mr. Trump off his campaign promise no doubt argued that it risks alienating America's Arab allies in the region. But allies such as Saudi Arabia and Jordan already have recognized that their priority has shifted away from Israel and Palestine and toward the existential threat of Iran's nuclear program, its push for Shiite-led regional hegemony, and the rise of Islamic State. They are engaging Israel in ways that seemed impossible not long ago.

It has been 22 years since Congress passed the Jerusalem Embassy Act, requiring State to relocate the embassy. Every six months since, a U.S. President has signed a waiver to delay the move. It's unfortunate to see that President Trump, too, has wavered on this commitment. The least he can do for those who believed his campaign promise is to explain why he now believes he can't keep it.

# The Mueller Caveat



a doctor who does risks WATCH losing his objectivity. By Kimberley The big question is A. Strassel

whether this applies to Washington's new scandal doctor, Robert Mueller.

In tapping Mr. Mueller as special counsel to look into Russia's interference in the 2016 election, Deputy Attorney General Rod Rosenstein has certainly doused the political flames. Democrats were forced to tone down their chant for instant impeachment. Republicans were able to step back from the escalating headlines.

That's because the new guy is as skilled and upright as they come. A Robert Mueller word-association game would go something like this: integrity, honor, respect, order, discipline, honesty, fairness. He is a decorated Marine. a Princeton grad, a respected federal prosecutor and a former FBI director. Mr. Mueller has tackled strongmen and terrorists, working under Republicans and Democrats. He has little use for the press or the limelight, which—in the current hysterical environment-is a singular qualification.

In short, nobody doubts Mr. Mueller will lead as professional an investigation as he is capable of conducting. It's the "capable" bit that provides the one note Mr. Mueller is no doctor. But he is

part of the brotherhood of prosecutors. Justice Department attorneys have their squabbles and differences, but they count themselves as a legal elite, charged with a noble purpose. They largely keep their own counsel and aren't much for outside criticism. The FBI's culture is even more fa-

mous and pronounced. Tens of thousands of special agents and staff from different backgrounds come together to protect the country from criminals and terrorists. Outside the military, no other Washington body rivals the FBI's esprit de corps. Mr. Mueller spent nearly his entire

career within these insular worlds. What's more, he's a longtime colleague of none other than James Comey. Garrett M. Graff, a Mueller biographer. wrote in Politico last week that Mr. Comey "treated Mueller as a close friend and almost mentor. The two men have worked together,

socialized together, and once even threatened to resign together. It was Mr. Mueller as FBI head who was with Mr. Comey, then deputy attorney general, during the infamous 2004 showdown with the Bush administration over NSA spying.

All this matters because Mr. Comey is now a central figure in the Russia

Professional medical or- drama—no matter what Democrats say. Mr. Rosenstein has charged Mr. Mueller with investigating not merely Russian interference in the election, but "any matters that arose or may arise directly from the investigation." This presumably includes the recent firing of Mr. Comey. Democrats claim Mr. Trump dismissed the FBI director to halt further probing into his alleged Russia ties. The White House claims Mr. Comey was canned for his multiple breaches of protocol. Someone must discover the truth.

But how objective can even the upright Mr. Mueller be about the conduct of an old colleague, part of the same FBI club? How likely is Mr. Mueller to evaluate objectively the president who unceremoniously fired that associate

### His integrity is without question. But can he be objective toward Comey?

The same question applies to the actions of current and former FBI and Justice Department officials—which need to be investigated. At this point, the only crime shown in the entire Russia investigation is the leaking of classified information, particularly Mike Flynn's name from surveillance transcripts. Given the FBI's ability to unmask such names, along with its outsize role in the Russia investigation, there is a good chance some of the unauthorized (and potentially felonious) leaks came from inside the bureau Mr. Mueller used to lead, possibly from people he worked with.

Consider last week's New York Times story revealing Mr. Comey's memo detailing his dinner with Mr. Trump. The story says Mr. Comey shared "the existence of the memo with senior F.B.I. officials and close associates." Portions of the document were read to a Times reporter by "one of Mr. Comey's associates." How long have these associates been calling the press? Did Mr. Comey know?

Mr. Mueller's past employment and his association with Mr. Comev are not disqualifying. But they do put a significant burden on the special counsel to prove that he will look as closely at his old shops as he does at the new administration. That includes investigating whether Team Obama or the FBI used Russia as an excuse to monitor political opponents inappropriately. It includes tracking down those who endanger national security with leaks.

As a longtime lawman, Mr. Mueller should want the answers to those questions. Public trust in the FBI and Justice Department is plummeting, and Mr. Mueller could crown decades of public service by helping to restore it. But that will take a great deal of objectivity.

Write to kim@wsj.com.

### LETTERS TO THE EDITOR

## Loose Lips, Trump, the Russians and Secrets

Regarding your editorial "Loose Lips Sink Presidencies" (May 18): Islamic State's "laptop bomb threat to airlines" (via Israeli intelligence) has been common knowledge for a few weeks. One could assume Rex Tillerson covered this at his Moscow meeting with Vladimir Putin. There's no way a hand like Mr. Tillerson would fail to insist on secrecy and a guid pro guo. The blunt assault of the Washington Post is the more fertile ground for investigation.

LEONARD TOBOROFF

Is it not possible that the U.S. president used good judgment in alerting a nation with which America has difficulties about an area in which the two countries can work

together? Is it possible that Presi dent Trump might be finding a way to develop a useful relationship with this adversary?

Must every accusation by the president's sworn enemies (the press, Democrats, progressives to the left of Democrats) be taken as truth as soon as it is uttered? Perhaps the press is missing the larger story: Too many forces are arrayed against the best solutions to our many problems.

DAN PISENTI Mill Valley, Calif.

Who is trafficking in sensitive information? Looks to me like it's the press. I guess anything goes when the cause is just.

BILL BROCKMAN

## Skilled Trades Are Well Paid, There Are Jobs

Rep. Tom Suozzi's "When the Welders Came to Capitol Hill" (oped, May 16) further confirms what Americans have seen for years in the trades-a mismatch of skills and changing demographics. The apprenticeship model is only one piece of the puzzle. Vocational schools must recruit in middle and high schools, as their university counterparts do, with an emphasis on personal success stories. If students see a poster of welders who sat in their same classroom three or four years earlier, who now make an upper-middle-class wage, they will become interested. Technical schools also must invest in highschool partnerships and classroom equipment donations.

Unions have an important role to play, but they must modernize their marketing practices and recruiting techniques—de-emphasize politics that divide and focus on the incredible projects that union labor builds and maintains. It would also help if more credit was given to technical education toward a multiyear apprenticeship. National certification standards are fine, but a single pub-

lisher cannot provide all the answers for a curriculum. Will America rise to the challenge

and start producing the talent

needed for a 21st-century labor market? It may well be the difference

between growth and stagnation. RYAN BLYTHE Georgia Trade School

New jobs are created in the private sector by employers, not politicians. The welders would have enjoyed more success in their quest had they spoken with employers. ROBERT ALLAN SCHWARTZ

Lexington, Mass. I reflect on the hundreds and per-

haps thousands of welding jobs created in Pennsylvania by fracking for natural gas and the pipelines required for its transportation. It's a shame New York doesn't tap into this middle-class job creator. Then maybe the state could stop its multiyear national-television ad campaign about how business is booming. RAE BURTON

Upper St. Clair, Pa.

Letters intended for publication should be addressed to: The Editor, 1211 Avenue of the Americas, New York, NY 10036, or emailed to wsj.ltrs@wsj.com. Please include your city and state. All letters are subject to editing, and unpublished letters can be neither acknowledged nor returned.

# Democracy Is Not Your Plaything



his will be unpleasantly earnest, but having witnessed the atmospherics the past two weeks it's what I think needs saying: Everyone, get serious.

Democracy is not your plaything. This is not a game.

The president of the United States has produced a building crisis that is unprecedented in our history. The question, at bottom, is whether Donald Trump has demonstrated, in his first four months, that he is unfit for the presidency—wholly unsuited in terms of judgment, knowledge, mental capacity, personal stability. That epic question is then broken down into discrete and specific questions: Did he improperly attempt to interfere with an FBI criminal investigation, did his presidential campaign collude with a

#### When the circus comes to Washington, it consumes everything, absorbs all energy.

foreign government, etc.

But the epic question underlies all. It couldn't be more consequential and will take time to resolve. The sheer gravity of the drama will demand the best from all of us. Is America up to it?

Mr. Trump's longtime foes, especially Democrats and progressives, are in the throes of a kind of obsessive delight. Every new blunder, every suggestion of an illegality, gives them pleasure. "He'll be gone by autumn."

But he was duly and legally elected by tens of millions of Americans who had legitimate reasons to support him, who knew they were throwing the long ball and who, polls suggest, continue to support him. They believe the press is trying to kill him. "He's new, not a politician, give him a chance." What would it do to them, what would it say to them, to have him brusquely removed by his enemies after so little time? Would it tell them democracy is a con, the swamp always wins, you nobodies can make your little choices but



we're in control? What will that do to their faith in America's institutions, in democracy itself?

These are wrenching questions.

But if Mr. Trump is truly unfit—if he has demonstrated already, so quickly, that he cannot competently perform the role, and that his drama will only get more dangerous and chaotic, how much time should pass to let him prove it? And how dangerous will the proving get?

Again, wrenching questions. So this is no time for blood lust and delight. Because democracy is not your play-

The president's staffers seem to spend most of their time on the phone, leaking and seeking advantage, trying not to be named in the next White House Shake-Up story. A reliable anonymous source who gives good quote will be protected-for a while. The president spends his time tweeting his inane, bizarre messages—he's the victim of a "witch hunt"-from his bed, with his iPad. And giving speeches, as he did last week at the Coast Guard Academy: "No politician in history, and I say this with great surety, has been treated worse or more unfairly." Actually Lincoln got secession, civil war and a daily pounding from an abolitionist press that thought he didn't go far enough and moderates who slammed his brutalist pursuit of victory. Then someone shot him in the head. So he had his challenges.

Journalists on fire with the great story of their lives—the most bizarre presidency in U.S. history and the breaking news of its daily misstepscheer when their scoop that could bring

down a president gets more hits then the previous record holder, the scoop that could bring down the candidate.

Stop leaking, tweeting, cheering. Democracy is not your plaything.

There's a sense nobody's in charge, that there's no power center that's holding, that in Washington they're all randomly slamming into each other. Which is not good in a crisis.

For Capitol Hill Democrats the crisis appears to be primarily a chance to showboat. Republicans are evolving, some starting to use the word "unfit" and some, as a congressman told me, 'talking like they're in a shelter for abused women. 'He didn't mean to throw me down the stairs.' 'He promised not to punch me again.' '

We're chasing so many rabbits, we can't keep track-Comey, FBI, memoranda; Russia, Flynn, the Trump campaign; Lavrov, indiscretions with intelligence. It's become a blur.

But there's an emerging sense of tragedy, isn't there? Crucially needed reforms in taxing, regulation and infrastructure-changes the country needs-are thwarted, all momentum killed. Markets are nervous.

The world sees the U.S. political system once again as a circus. Once the circus comes to town, it consumes everything, absorbs all energy.

I asked the ambassador to the U.S. from one of our greatest allies: "What does Europe say now when America leaves the room?" You're still great, he said, but "we think you're having a nervous breakdown.'

It is absurd to think the president can solve his problems by firing his staff. They are not the problem. He is the problem. They're not the A-Team, they're not the counselors you'd want, experienced and wise. They're the island of misfit toys. But they could function adequately if he could lead adequately.

For months he's told friends he's about to make big changes, and doesn't. Why? Maybe because talented people on the outside don't want to enter a poisonous staff environment just for the joy of committing career suicide. So he's stuck, surrounded by people who increasingly resent him, who fear his unpredictability and pique and will surely one day begin to speak on the record.

A mystery: Why is the president never careful? He doesn't act as if he's picking his way through a minefield every day, which he is. He acts like he's gamboling through safe terrain. Thus he indulges himself with strange claims, statements, tweets. He comports himself as if he has a buffer of deep support. He doesn't. Nationally his approval numbers are in the mid

His position is not secure. And yet he gambols on, both paranoid and oblivious.

History is going to judge Americans by how we comported ourselves in this murky time. It will see who cared first for the country and who didn't, who kept his head and didn't, who remained true and calm and played it

Now there will be a special prosecutor. In the short term this buys the White House time.

Here's an idea.

It would be good if top Hill Republicans went en masse to the president and said: "Stop it. Clean up your act. Shut your mouth, Do your job, Stop tweeting. Stop seething. Stop wasting time. You lost the thread and don't even know what you were elected to do anymore. Get a grip. Grow up and look at the terrain, see it for what it is We have limited time. Every day you undercut yourself, you undercut us. More important, you keep from happening the good policy things we could have done together. If you don't grow up fast, you'll wind up abandoned and alone. Act like a president or leave the presidency."

Could it help? For a minute. But it would be constructive—not just carping, leaking, posing, cheering and tweeting but actually trying to lead.

The president needs to be told: Democracy is not your plaything.

# There's No Easy Way To Remove Trump

By Brian C. Kalt

nterest in Section 4 of the 25th Amendment to the U.S. Constitution is peaking. Multiple amateur constitutional scholars have advocated its use to remove President Trump from office, as an alternative to impeachment. But Section 4 is a tool for a different job. Its use under today's circumstances has the potential to tear the country apart.

Section 4 is not a suitable substitute for impeachment. To be sure, impeachment sets a high bar: a majority in the House, then two-thirds in the Senate to convict and remove an official. Section 4 sounds easier: If the vice president and a majority of the cabinet declare the president "unable to discharge the powers and duties of his office," the vice president becomes acting president.

#### Impeachment would be a picnic by comparison with Trump opponents' latest brainstorm.

Section 4 is a great solution if the president is missing or comatose, but a terrible one when he is conscious and in full control of his Twitter account. The first difficulty is that the president can contest the cabinet's action. If he does, Congress assembles, debates and votes. Unless twothirds of both House and Senate vote within 21 days to back the cabinet, the president retakes power. Because impeachment requires only a simple House majority, it is easier for the president to defeat a Section 4 action than to avoid impeachment.

Further, if the president loses a Section 4 vote, he is displaced only temporarily; nothing stops him from trying again. All he needs is the support, one time, of more than a third of either the House or Senate.

Some argue that impeachment is limited to high crimes and misdemeanors, making it inappropriate for the case of someone who is (as Mr. Trump's calmer critics describe him) simply in over his head. But anyone who wields as much power as the president and who is grossly incompetent surely will have done something that rises to the level of an impeachable offense.

Section 4 is also horribly hazardous. The fatal flaw emerges from this passage: "When the President transmits...his written declaration that no inability exists, he shall resume the powers and duties of his office unless the Vice President and a majority of [the cabinet] transmit within four days...their written declaration that the President is unable to discharge the powers and du-

ties of his office.' After reading that, who do you think holds presidential power during the four-day waiting period between the president's declaration and the cabinet's counterdeclaration? The answer is the vice president. The best reading of the text and the only reading of the crystal-clear legislative history is that the president does not immediately retake power.

Several intelligent but poorly informed commentators have gotten that wrong and said that the president would retake power immediately. A besieged president would have a tremendous incentive to look at the text, interpret it favorably to himself, and rally his supporters around that interpretation. He would assert that he had retaken power immediately and—showing his ability to discharge the powers and duties of his office—he would fire his disloyal cabinet and name more-agreeable allies as acting secretaries.

The old cabinet could fight back in Congress and in court. The best reading of the law would be on their side. But how confident are you that the winner would be determined by a careful consideration of legislative

Any president who could speak on his own behalf would be in a position to prolong the struggle. And what a struggle it would be, with two men claiming to be president and two rival cabinets. Even if Congress or the courts resolved the issue, and even if everyone involved respected their authority, being in such a situation for even an hour could wreak serious harm to the country. Because impeachment works better than Section 4 here, this terrible risk is also a needless one. Please, keep the 25th Amendment in reserve for the kind of emergency it was meant to address.

Mr. Kalt is a law professor at Michigan State University and author of "Constitutional Cliffhangers: A Legal Guide for Presidents and Their Enemies" (2012).

# The Bishop Who Took On the Führer Charity, a Belgian religious order, plan

**By Sohrab Ahmari** 

poor widow visits a hospital for disabled children. She has brought fruit bread for the director and biscuits for her epileptic son, who's being treated there. It's been a year since her child was taken away and hospitalized. "Couldn't I see him now, just for a moment?" she begs. The director refuses. "It's the regulations, I'm afraid, Frau Pabst."

The year is 1941. Germany. What Frau Pabst doesn't know is that her son is dead. He was killed as part of Aktion T4, the Third Reich's program of involuntary euthanasia targeting "lives unworthy of life."

This nearly unbearable scene appears in "All Our Children." a drama showing at London's Jermyn Street Theatre. The setting, plot and most of the characters are fictional. But the historical background is factual. "All Our Children" presents a gripping theatrical account of the Nazis' project to liquidate the disabled—and one Catholic prelate's struggle to thwart it.

This prelate is the play's only reallife character. At the zenith of Hitler's power, Clemens August Graf von Galen used his pulpit as the bishop of Münster to rail against Nazi dictatorship, earning him the moniker "Lion of Münster.

Galen initially made peace with National Socialism. He saw it as an antidote to the humiliation of Versailles and the moral decay of Weimar. He was quickly disillusioned. Nazism was a dangerous "pagan" ideology, he wrote in a 1934 pastoral letter. The bishop's ecclesial stature and moral

gravitas made him difficult to silence. In the fall of 1933, Münster's school

superintendent decreed that religious education should include discussion of the "demoralizing power" of Jews. Galen protested in a letter that this risked undermining Catholic teaching on the "historical mission of the people of Israel" and the "obligation to act with charity toward all men.

One criticism of the bishop, not entirely unfounded, is that although he went to great lengths to defend the church against Nazi anti-Catholicism, he didn't speak out nearly as forcefully against hatred of Jews. His primary objection to the superintendent's decree, for example, was that it violated the 1933 concordat between the Vatican and Berlin.

A less fair criticism is that his resistance was too passive. Galen was in no position to take up arms. His best weapon was his homilies. Of these, the most consequential was delivered on Aug. 3, 1941. It concerned T4.

Innocent Germans were being murdered, he told his diocesans, "because in the judgment of some official body, on the decision of some committee, they have become 'unworthy to live,' because they are classed as 'unproductive members of the national community."

He went on: "Poor human beings, ill human beings, they are unproductive, if you will. But does that mean that they have lost the right to live? Have you, have I, the right to live only so long as we are productive?

In the play, Galen visits the clinic to help the medical director see the light. The essence of Christianity, he says, is

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to recognize Jesus in the suffering of the weak and vulnerable. Though the director is an atheist, something about this holy man moves him to defy his SS superiors and stop the killing, at least briefly.

That part is pure fiction. Yet

shortly after the bishop's homily in 1941, T4 was terminated. By then 70.000 to 100.000 innocents had been murdered. Another 100,000 people with disabilities would be killed before war's end, albeit in a less systematic fashion.

It's hard not to hear some discomfiting contemporary notes in the play. Nazi crimes remain without parallel, but some European countries today boast 100% termination rates for fetuses with Down syndrome. Others allow voluntary euthanasia for patients with an ever-growing list of nonterminal conditions.

Not even the Catholic Church is immune. Lay officials at the Brothers of to permit nonterminal mentally ill patients to be euthanized in the order's hospitals—over the brothers' objections. Belgian law prohibits healthcare facilities from refusing to allow euthanasia on conscience grounds. Violators risk fines and damages. That's nothing compared with what

Galen faced. The Nazis placed him under house arrest in late 1941 and considered hanging him before deciding against it, fearing a popular backlash in Münster. Galen survived Hitler. He was cre-

ated a cardinal on Feb. 21, 1946, in implicit recognition of his anti-Nazi stance, and died a month later. Pope Benedict XVI beatified him in 2005. The Lion of Münster's episcopal motto was nec laudibus nec timore—neither by flattery nor by fear.

Mr. Ahmari is a Journal editorial writer in London.

# The True Trade Deficit

By Martin Neil Baily **And Adam Looney** 

rotectionists like to cite the U.S. trade deficit—last year imports of goods and services exceeded exports by \$501 billion—as evidence that unfair trade agreements have hurt American competitiveness. But a new working paper from the Bureau of Economic Analysis, published in March, challenges this narrative: Turns out, America's trade deficit isn't nearly as large as the official figures suggest.

To illustrate this finding, the economists Fatih Guvenen, Raymond Mataloni, Dylan Rassier and Kim Ruhl examine the iPhone. The device is said to be "Designed by Apple in California. Assembled in China." Yet to lower its tax bill, Apple reports that its iPhone profits were earned in neither place, but were instead accrued in some other country.

Assume an iPhone is assembled in China for \$250 and sells in Europe and the U.S. for \$750. Apple's profit is \$500. Often that economic value gets attributed to an Apple subsidiary set up in a low-tax nation like Ireland or Luxembourg.

If most iPhone development is actually done in California, most of the \$500 represents American production and should be included in U.S. gross domestic product. Then, when an iPhone is sold in Europe, that value should count as an export from

the U.S. When a phone is instead sold in the U.S., the net amount of the import should only be the \$250 cost of manufacturing in Asia, since the rest is produced by Californians.

With this in mind, the study's authors estimate how much American trade is mismeasured. Although the official trade deficit in 2012 was \$537 billion, they conclude that U.S. exports were undercounted and imports overstated by a combined \$280 billion. With this adjustment, the real trade deficit that year shrinks to \$257 billion—or about 1.6% of GDP. Trade still isn't balanced, but the deficit appears to be less than half the size everyone thought.

In other words, more than half the goods and services that were counted in the U.S. trade deficit were produced in America. This makes it harder to argue that an outsize trade deficit is responsible for American manufacturing's woes. It's true that traditional blue-collar workers have had trouble competing globally. But high-skilled American workers and the companies that employ them have been competing just fine.

The redistribution of income away from high school grads is certainly one of the most difficult challenges that the U.S. economy faces. But as this new evidence makes clear, the source of the problem isn't the trade deficit.

Messrs. Baily and Looney are senior fellows at the Brookings Institution.

# THE WALL STREET JOURNAL.

PUBLISHED SINCE 1889 BY DOW JONES & COMPANY

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# LIFE **営 ARTS**



WHAT'S YOUR WORKOUT? | By Jen Murphy

# When He Flies His Kite, He Soars, Too

Growing up in Maui, Jesse Richman learned to fly a kite in the ocean. At age 9 he was harnessing the wind to pull him across waves while strapped to a board. He won his first world kiteboarding title at 16. Now 24, Mr. Richman is pushing the boundaries of kiteboarding. "My focus is bigger waves and bigger air," he says.

Mr. Richman performs wakeboard-like tricks 50 feet in the air and uses his kite to ride a surfboard on Pe'ahi, or Jaws, a wave on Maui renowned for its 30-plusfoot faces. His daring stunts earned him first place at the Red Bull King of the Air competition in

Cape Town in 2013. The next year at the contest, he broke a leg and tore some knee ligaments, which took eight months to heal. A concussion sustained while tow surfing—a sport when the surfer is pulled by a watercraft—sidelined Mr. Richman from the most recent King of the Air contest, in January.

Injuries, however, may be what keep Mr. Richman at the top of his game. "I never went to the gym until I had to" do physical therapy, he says. "I liked that I could track my improvement and realized getting hurt comes with the territory, so I might as well do preventive

In 2015, Mr. Richman started training full time with his physical therapist Samantha Campbell. "I'm training to figure out how to ride better, not just stay fit," he says. "You start by thinking how radical can I get and reach a consequence level where you need to also be thinking, how do I survive in a situation. I'm toying with paragliding and skydiving scenarios with my kite and you can't be scared of injury.'

### The Workout

In Maui, Mr. Richman works out six days a week for 60 to 90 minutes, either at the beach or at



Jesse Richman gets some air time at Maui's Baby Beach, left and tackles the wave known as Jaws, above. His training focuses on balance, right.

Deep Relief Peak Performance Athletic Training Center. He starts with muscle activation and stretching, then does a one-hour workout, stretches, and has a protein shake and an ice bath.

The body absorbs a lot of force through the back, hips and ankles when landing big air maneuvers. Mr. Richman does lateral box jumps to prepare his body for the impact. "I go out in strong winds and the kite pulls you one way and your body is going another, so you need to be able to land awkwardly.'

He does drills to improve his sense of his body's position in space. This might include catching balls of different colors and sizes while balancing on one leg on an unstable surface, like a Dyna Disc or SurfBall, a surfboard-like base that balances atop a BOSU ball.

Ms. Campbell puts Mr. Richman through a circuit to tire him out, then makes him complete mental tasks. For example, he might do an intense 500-meter row, then climb a rope only using his upper body, then balance on a stability ball while Ms. Campbell calls out math problems for him to solve. "If he makes a mistake, he learns to let go and completely focus on the next task," she says.

#### The Diet

Mr. Richman embraces a high-protein, low-carb diet and eats five small meals a day. He starts the morning with eggs and coffee. Two hours later he eats granola and yogurt. Lunch is often a wrap or a burrito followed by a late-afternoon smoothie. Dinner is lean pro-

tein and vegetables. His New Year's resolution was to stop eating processed meats. When he travels, he adjusts his diet to the local culture. "I don't want to impose my routine on people," he says. "In Argentina, they eat dinner at 11 p.m., so I'll have a snack at 9 p.m."

#### The Cost & Gear

Mr. Richman estimates that he owns 70 boards and 50 kites. "I form relationships with my gear," he says. "Different kites have different attitudes. I have a board for every condition." Mr. Richman is sponsored by Naish and Ride Engine and tests new gear for the board-sports companies. He uses his TriggerPoint Grid X foam roller, which retails for \$50, twice a day for 15 minutes.

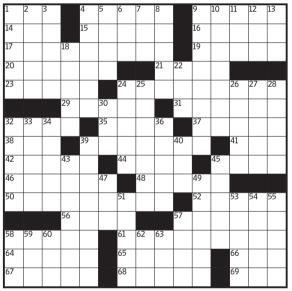
#### Weather AccuWeather.com vn are today's noon positions of weather systems and precipitation. Temperature bands are highs for the day -10 -5 0 5 10 15 Warsav 20 25 30 35 Warm Stationar Rain T-storms Snow Flurries **(1)** Global Forecasts

ssunny; pc partly cloudy; ccloudy; shshowers;								
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Anchorage	13	7	r	13	7	C		
Athens	25	16	pc	25	16	t		
Atlanta	27	18	t	23	17	t		
Baghdad	35	19	S	39	22	C		
Baltimore	24	14	r	21	14	r		
Bangkok	34	27	t	35	27	t		
Beijing	22	12	r	29	14	S		
Berlin	21	10	pc	23	13	рс		
Bogota	20	10	C	20	10	r		
Boise	27	12	S	29	15	S		
Boston	13	12	r	21	13	рс		
Brussels	24	12	pc	24	10	рс		
Buenos Aires	20	11	pc	19	10	C		
Cairo	35	19	pc	30	18	S		
Calgary	22	9	pc	26	12	S		
Caracas	31	27	pc	31	27	t		
Charlotte	26	18	t	21	15	r		
Chicago	24	13	pc	20	9	t		
Dallas	25	17	t	25	14	sh		
Denver	18	3	pc	16	4	pc		
Detroit	23	13	pc	22	12	t		
Dubai	38	29	S	36	27	S		
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Frankfurt	22	10	рс	26	13	pc		

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Hanoi	32	26	t	33	26	t
Havana	32	21	t	32	23	рс
Hong Kong	29	25	sh	30	25	рс
Honolulu	29	21	pc	30	22	рс
Houston	24	19	r	28	17	t
Istanbul	21	15	pc	20	13	pc
Jakarta	33	24	рс	33	25	pc
Johannesburg	21	5	S	21	5	S
Kansas City	21	12	t	19	8	pc
Las Vegas	36	23	S	37	22	S
Lima	23	18	pc	23	18	pc
London	23	12	рс	23	14	pc
Los Angeles	28	16	S	27	16	pc
Madrid	30	16	S	32	16	pc
Manila	34	27	t	34	27	sh
Melbourne	19	13	S	19	12	pc
Mexico City	29	14	рс	30	14	pc
Miami	32	25	рс	33	26	S
Milan	27	13	pc	29	16	pc
Minneapolis	19	9	pc	15	7	C
Monterrey	32	21	pc	33	21	pc
Montreal	15	10	r	23	12	pc
Moscow	13	5	pc	17	9	C
Mumbai	33	29	pc	34	29	pc
Nashville	25	15	S	25	15	pc
New Delhi	37	28	t	40	29	pc
New Orleans	27	20	t	26	19	t
New York City	17	15	r	22	15	pc
Omaha	25	10	t	18	8	pc
Orlando	31	20	t	31	21	t

City	HI	Lo	W	HI	Lo	w
Ottawa	19	9	sh	22	11	рс
Paris	25	13	рс	26	12	S
Philadelphia	22	16	r	24	14	r
Phoenix	40	25	S	41	25	S
Pittsburgh	22	10	рс	23	13	рс
Port-au-Prince	34	24	sh	34	24	рс
Portland, Ore.	33	16	S	28	11	S
Rio de Janeiro	26	20	r	26	20	рс
Riyadh	38	24	S	40	29	S
Rome	25	14	рс	25	15	рс
Salt Lake City	23	12	S	26	15	S
San Diego	23	16	рс	22	16	рс
San Francisco	25	12	S	23	11	S
San Juan	32	26	рс	32	26	рс
Santiago	15	5	C	13	5	C
Santo Domingo	32	24	sh	31	24	рс
Sao Paulo	19	14	sh	21	15	C
Seattle	28	13	S	24	10	S
Seoul	28	16	S	25	16	C
Shanghai	28	21	рс	29	20	C
Singapore	32	28	pc	31	27	C
Stockholm	20	7	рс	18	7	рс
Sydney	21	14	S	22	13	S
Taipei	29	25	C	31	24	sh
Tehran	30	18	S	32	21	S
Tel Aviv	30	20	C	25	19	S
Tokyo	27	19	pc	25	19	рс
Toronto	19	9	рс	22	10	C
Vancouver	21	11	рс	20	9	S
Washington, D.C.	25	16	r	22	16	r
Zurich	23	10	pc	25	11	рс

# The WSJ Daily Crossword | Edited by Mike Shenk



#### 5 | By David C. Duncan Dekker Back of the boat

bundles, as grain

35 Comprehends

38 Have a late meal

39 Spot for stage

diving

41 Harris and

37 Film trophy

50 Brewing vessel

representation

Famer Killebrew

57 Baseball Hall of

58 Commandments

64 Game show VIP

65 Find charming

66 Find a job for

67 "\_\_\_ is human'

69 Duffer's dream

1 Party leaders

2 Site for a

68 Bring down

52 Make blank

56 Emoticon

verb

61 "Well said"

67						68		
SO	UN	DΕ	FF	EC	TS	B	y Da	avi
Acros	S				29	Back	of t	he l
1 "	1 " Pinafore"				31	Gather into		
	4 Only president born in the 1960s				bundles, a stalks			as g
9 ]	Jotted down				32	Real	ly sn	nall

- 9 Jotted down
- 14 Sound of amazement
- 15 Werewolf friend of Dumbledore
- 16 Pay tribute to
- 17 Holds one's around

19 Express

- checkout line count 20 Conical dwellings
- 21 Very small amount
- 23 A lot
- 24 Gerbil or rat, say
- - 46 Be plentiful
- Helms of Hollywood 42 Cinnabon store
- 44 Advice from a brokei 45 Peach or beech
- 48 Radner of "SNL"
- "vacancy" sign ► Solve this puzzle online and discuss it at WSJ.com/Puzzles.

3 Rectangle or 30 Sense of self rhombus 32 Notable Newton

4 Firstborn

6 Angry Birds 2,

for example

7 Farrow in films

perpetrated by a

8 Playfulness

prankster

9 Extremely

10 Takes turns

11 Hydrogen's

course

24 Tabloid

25 Active

26 Indiana

producer

hoopster

27 Sidestep, say

28 To the point

13 Hectic hosp.

enthusiastic

- 33 Engine booster 5 Smooch 34 Many an "SNL"
  - skit 36 Divide, in a way
  - 39 1982 Hall &
  - Oates hit 40 Indisposed
  - 43 Part of an auto's exhaust system
  - 45 Linger
  - 47 Winter solstice mo.
- atomic number 49 Casino employee 12 Kite on a golf 51 Kind of colony or
  - code 53 Increase
- 54 "The Stars and 18 Filled with
  - Stripes Forever composer information
- 22 Gives the nod to 55 Door sign
  - 57 On this spot

    - 58 Fixed in advance

    - 59 Med. plan

    - 60 Card in a royal

    - 62 Altar words
    - 63 Female whale



The contest answer is BEACH. Each of the theme answers ends with a word that is also a word in French (PAIN is French for "bread," FIN is "end," BRAS is "arm," CHAT is "cat" and MAIN is "hand") The first letters of the English translations spell the contest answer



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# BUSINESS & FINANCE

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THE WALL STREET JOURNAL.

Monday, May 22, 2017 | **B1** 

**Euro vs. Dollar** 1.1190 ▲ 0.78%

**FTSE100** 7470.71 ▲ 0.46%

**Gold** 1252.70 ▲ 0.08%

**WTI crude** 50.33 ▲ 1.99%

**German Bund** yield 0.369%

**10-Year Treasury** yield 2.243%

# Arconic Vote Tests Activists' Power

#### Swing Voters

**KEYWORDS** 

By Christopher Mims

All IT Jobs

Are Web

Security

**Jobs Now** 

Monday afternoon in Septem-

tion WKSK was kicked off the

into its afternoon news broad-

cast, a staple for locals in this

hamlet of about 1,300, a warning message popped up on the

screen of the program director's Windows PC. His com-

music and advertisements the station aired-were being en-

puter was locked and its files-including much of the

crypted. The attackers de-

price would double.

manded \$600 in ransom. If station officials waited, the

person, Marty Norris, was

got the call that something

was amiss. He rushed to the

the plug on his computer,"

says Mr. Norris.

station. "I immediately pulled

In a quick huddle, the pos-

sibility of paying the ransom

was raised, but the idea didn't

get far. "We're a little bit stub-

Ever greater profits

one strategist says.

mean cybercriminals

have professionalized,

born in the mountains," says

General Manager Jan Caddell.

"It's kind of like being held up.

We thought if we paid, they'd

Security experts believe

this particular strain of ransomware has netted criminals at least \$325 million in ex-

fected at least 200,000 com-

well as the growing threat of

Adylkuzz, another new piece

of malware, illustrate a basic

problem that will only become

more pressing as ever more of

our systems become con-

designed with security in

nected: The internet wasn't

mind, and dealing with that

Despite all the money we've

reality isn't cheap or easy.

spent—Gartner estimates

in 2016—things are, on the

whole, getting worse, says Chris Bronk, associate direc-

\$81.6 billion on cybersecurity

tor of the Center for Informa-

Education at the University of

tion Security Research and

Houston. "Some individual

companies are doing better,"

puters in 150 countries. as

just ask for more.'

The station's part-time IT

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tain town of

Arconic's biggest investors, with a combined 47%, hold the keys to Thursday's board vote in a bitter five-month fight with activist Elliott Management.



THE WALL STREET JOURNAL.

By David Benoit

Arconic Inc.'s bitter board fight with hedge fund Elliott Management Corp. comes to a head this week and the result could radically alter the company's course. It also could signal just how much power shareholders are willing to give activist investors.

At a shareholder meeting in Purchase, N.Y., Thursday, Arconic shareholders will vote to fill five seats on the company's 13-member board. They will choose among candidates offered by the company itself and Elliott, an activist hedge fund that wants to overhaul the \$12 billion maker of parts

A board shake-up could have a profound effect on Arconic, formerly part of aluminum giant Alcoa Inc., as the new board will select the company's new chief executive and determine the company's trajectory for years to come. It also could have broader implications for activist investors,

who have become ever more

aggressive in their pursuit of

higher returns.

Elliott launched its Arconic campaign in January, just months after the company's split from Alcoa and a year after it installed three of Elliott's handpicked nominees on the board. The hedge fund im-

for airplanes and automobiles. mediately called for the ouster of longtime CEO Klaus Kleinfeld, citing the company's lackluster stock performance and missed profit forecasts.

> In April, Mr. Kleinfeld resigned from Arconic after sending a vaguely threatening letter to Elliott founder Paul Singer. Yet Elliott pressed ahead with its bid for four board seats, arguing that Arconic's current directors can't be trusted to depart from Mr. Kleinfeld's strategy.

Arconic says it has changed more than nine directors over the past 16 months, including Elliott's three picks in 2016, and argues that the hedge

Please see VOTE page B2

# **Investors** Return To Online Lenders

By Peter Rudegeair

The initial appeal of upstart online lenders was that they would disrupt traditional loan markets. But after big setbacks last year, the firms are adjusting to be a little more Wall Street and a little less Silicon Valley.

Changes include holding on to the risk of some loans they make, securitizing their loans-or selling them in packages-themselves rather than through third parties, and naming veterans of banks and investment firms to exec-

Investors in bonds backed by the loans these online platforms helped broker welcomed the moves. Last year, as skepticism mounted about their offerings, these investors pulled back from purchasing their loans. But since the start of April, more than \$2 billion in securities backed by loans made by LendingClub Corp., Prosper Marketplace Inc. and their peers have either been sold or are being prepared for an imminent sale, according to credit-rating firms and people familiar with the matter. That is already more than was issued in the entire second quarter of 2016, according to

data tracker PeerIQ. Deals are also getting done at more favorable prices: The extra yield, or spread, investors demanded on recent deals from Social Finance Inc. and **Avant** Inc., above that of safe government debt, was much lower than on similar deals each lender brought last year.

The most recent activity comes in addition to \$3 billion in bonds backed by online loans that were issued in the first quarter of 2017, double the amount from the same period a vear earlier, according to PeerIO.

Early last year, confidence in these lenders was rocked by an upsurge in defaults, warnings from bond-rating firms and a scandal that forced out the CEO of industry leader LendingClub. Money managers responded by slowing their purchases of debt issued by these lenders and asked for

higher yields. Since then, online lenders have scrambled to make their credits more attractive to investors. They overhauled their lending criteria, cut off weaker consumers, shortened loan terms and started charging customers more to borrow in

an attempt to boost yields. "It was really important to see there was some kind of a consumer lending background...as opposed to just an

algorithm," said Joe Astorina, Please see LOANS page B2

# Got Milk? Too Much, Say Farmers

Many bulked up their U.S. herds when prices were high, but then trouble in the global market hit



A dairy farm in Wisconsin. The U.S. dairy industry is taking a hit from weaker-than-expected global demand and abundant supplies.

By HEATHER HADDON

U.S. dairy farmers' big bet on global demand for milk is The industry was in trou-

ble long before a trade squabble with Canada last month that reduced demand for ultrafiltered milk, a cheese ingredient. Dairy farmers fear a spat that has jeopardized roughly \$150 million in sales for Wisconsin, New York and Minnesota producers is just a prelude to disruptions to come if President Donald Trump renegotiates the North American Free Trade Agreement as promised.

There was a storm," said Jaime Castaneda, senior vice president of trade policy at the National Milk **Producers Federation.** 

years ago when milk prices were driven up by growing demand from middle-class consumers in North America, Asia and other markets. By March, there were 9.4 million commercial dairy cows in the U.S., a 20-year high, according to the **Agriculture Department**.

But China, Russia, Venezuela and other importers scaled back their dairy purchasing in recent years due to domestic The European Union, meanwhile, greatly increased its dairy production after lifting 30-year-old quotas in 2015. Then came a worldwide surge in agricultural production that has pushed down prices for grains and meat as well as for dairy.

The dollar has also been on

Dairy farmers aggressively a multiyear climb, making U.S. biggest challenges yet to the expanded their herds three exports less competitive. Milk U.S. dairy industry. prices have plummeted by a third in the past two years, USDA data shows. The value of U.S. dairy exports fell to \$4.8 billion last year, down 50% from 2014.

> Milk prices in March stood at \$17.30 per hundred pounds, the USDA said, down \$1.20 from a month earlier. That industry benchmark is an average of prices farmers receive and is based on a variety of dairy products including butter, cheese and skim milk pow-

> Commodities markets like dairy are prone to booms and busts because of the long lead time to ramp up supply. But the current glut—and the accompanying downswing in exports-may pose one of the

'A lot relies on exports, and that's why swings are such a big deal," said Ben Laine, an economist at Co-Bank Acb, an agriculture cooperative bank. "That's where any surplus goes." The glut is likely to grow

this spring, the most productive time of the year as temperatures rise and days grow longer. An unusually mild winter started this year's milking season months early at some dairies, further contributing to the milk crush.

"You can't turn the cows off," said Ken Nobis, president of a dairy cooperative in Michigan, where the busy season started three months early.

In a recent interview, Agri-Please see DAIRY page B2

quire minority and majority

interests in both private and

public companies, according

to a statement. It would con-

# SoftBank, Saudis Launch High-Tech Investment Fund

torted payments so far, but the real figure could easily be Japan's SoftBank Group and Saudi Arabia's sovereigntwice that. The global "WannaCry" wealth fund on Saturday launched the world's largest ransomware attack that peaked last week, and has af-

> By Margherita Stancati in Riyadh, Mayumi Negishi in Tokyo and Nicolas Parasie in Dubai

technology fund, a nearly \$100 billion vehicle that will steer capital to cutting-edge technologies in U.S. startups and other global firms. In a statement, SoftBank

said the fund secured \$93 billion of committed capital. The so-called SoftBank Vision Fund is targeting a total of \$100 billion within six months. The fund's creation coincides with U.S. President Donald Trump's two-day visit to Saudi Arabia, where he is attempting to cement ties with a key counterterrorism ally and drum up business for

SoftBank Chief Executive

Masayoshi Son has previously promised Mr. Trump that he would invest \$50 billion of the fund into U.S. startups and create 50,000 jobs. Mr. Trump cited this as evidence of his presidency bringing jobs back home.

SoftBank said it would invest \$28 billion in the fund, including \$8.2 billion worth of its stake in chip architecture firm ARM Holdings Inc. Soft-Bank's announcement on Saturday didn't specify the investment of its main partner, Saudi Arabia's Public Invest**ment Fund.** or PIF. Earlier the PIF said it would invest up to \$45 billion in the fund. "We can make a lot of new

initiatives and make entrepreneurs take off a lot quicker, much bigger," Mr. Son said Saturday on the sidelines of a business forum in Riyadh.

Mr. Son is rushing to invest in key technologies ahead of what he predicts will be a robotic revolution and a rush of investment into areas such as



SoftBank's Masayoshi Son is rushing to invest in key technologies.

deep learning and robotics. The fund enables SoftBank to invest in emerging technologies as artificial intelligence

surpasses human capabilities. sider not only emerging tech-The fund is looking to acnology businesses but also

more established, multibillion-dollar companies requiring substantial funding, it

SoftBank has negotiated about a dozen deals for the fund, among them deals to invest \$1.4 billion in Indian mobile-payments Paytm and \$1.2 billion in U.S. satellite-internet startup OneWeb Ltd. SoftBank also has led a \$502 million fundraising in U.K. virtual-world startup Improbable and another \$130 million fundraising in Bay Area microbe-designing robot firm Zymergen. All investments of more than \$100 million, with the exception of those in ride-hailing firms, will go to the fund, people familiar with the matter have said.

Ahead of the fund's launch on Saturday, Mr. Son said it would focus on investing in sectors including artificial in-

telligence, smart devices and semiconductors. "We already Please see FUND page B2

adds Dr. Bronk. "But as an entire society, we're not doing American firms. Please see MIMS page B3

# TO BUSINESSES

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

A	Exxon MobilB4
AetnaB8	F - G
Akzo NobelB3	
Alibaba Group HoldingA6	FacebookB7 General ElectricA6 Great Wall MotorsB4
AllerganB8 AlphabetB3,B7	Н
Amazon.comB7	HFRA6
AnthemB8	HumanaB8
AppleB7	
ArconicB1	International
AvantB1	Consolidated Airlines
В	GroupA2
Baidu B3	iQiyi.comB3
Bayerische Motoren	L - M
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CignaB8	N - O
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	PPG IndustriesB3 Procter & GambleA6 Prosper MarketplaceB1
,	Q - R
	QuandlA6 Royal Dutch ShellB4
,	S
	Saudi Arabian Oil
	T - U
	Tabb GroupA6 TeslaB4 Uber TechnologiesB3 Universal MusicB3
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# 'Alien' Beats 'Wimpy Kid' Thriller takes lead with \$36 million, while the children's comedy lands in fifth place

By Erich Schwartzel

Ridley Scott's "Alien" series came down to Earth at the box office this weekend, with the latest installment opening to a so-so \$36 million, according to preliminary estimates.

That was enough for "Alien: Covenant" to eke out a firstplace finish, though it is about 29% lower than the debut of "Prometheus," the series' 2012 installment, which opened to \$51 million. The new release barely bested Walt Disney Co. holdover "Guardians of the Galaxy," which added \$35.1 million for a three-week total of \$301.8 million.

"Everything, Everything," an inexpensive young-adult romance from Time Warner Inc.'s Warner Bros. and Metro-Goldwyn-Mayer Studios, opened to a fine \$12 million in third place. The weekend's other new wide release, the children's comedy "Diary of a Wimpy Kid: The Long Haul," limped into fifth place with a weak \$7.2 million.

This latest "Alien" continues an effort to revitalize a franchise first made famous by



**BUSINESS & FINANCE** 

'Diary of a Wimpy Kid: The Long Haul' made its box-office debut over the weekend with \$7.2 million.

Mr. Scott in 1979, when Ellen lecting \$403 million at the Ripley (Sigourney Weaver) led the Nostromo crew into space—where, as its tagline famously warned, "no one can hear you scream."

James Cameron's critically acclaimed sequel "Aliens" followed in 1986, and various resurrections of the property have appeared throughout the decades. The prequel "Prometheus" rebooted the franchise five years ago, ultimately colglobal box office. "Alien: Covenant" follows a

new band of unlucky space travelers, who are trying to colonize a far-flung planet but find themselves targeted by bloodthirsty extraterrestrials when they arrive.

The movie's lower opening was offset in part by its budget of \$97 million, which was about 27% less than what "Prometheus" cost to produce, said Chris Aronson, president of domestic distribution at Twentieth Century Fox, which released the film.

That cost efficiency should "enable [Mr. Scott] to keep going with this franchise," he said.

"Diary of a Wimpy Kid" was also released by Fox. The studio's parent company, 21st Century Fox, and News Corp, owner of The Wall Street Journal, share common ownership.

**Dairy production exported** 

IND	EX TO PE
A	Klarman, SethB7,
Adamson, PeterB7 Agachi, AlexandruA6 Alderson, MathewB3 al-Sada, MohammedB5 Alsup, WilliamB3	Laine, Ben Lawler, Anthony Levandowski, Anthony
B - C	M - N
Barkindo, Mohammad B5 Büchner, TonB3 Castaneda, JaimeB1	McGarry, Michael Nobis, Ken
Cohen, Steven AA6	0 - P
<b>H</b> Haddad, GilbertA6	Ogunlesi, Adebayo Poyarkov, Alexey
Heizmann, JochemB4	S
<b>J - K</b> Jones, John TudorA6	Shum-Nolan, Pauline Silversteyn, Dmitry

arman, SethB7,B8	Smidt, EricB7
ine, BenB1 wler, AnthonyA6 vandowski,	Trainor, WilliamB7 Turkewitz, NeilB3
nthonyB3	Villani, DarioA6 Viola, VincentB7
:Garry, MichaelB3	W
bis, KenB1	Wallace, KrisB7 Wang, NelsonB4
unlesi, AdebayoB7 yarkov, AlexeyA1	Wærness, EirikB5 <b>Y - Z</b>
S	Yan, WangB3
um-Nolan, PaulineB7 versteyn, DmitryB3	Yong, Wang

Valspar.

Virtu Financial.

Warner Music Group...B3

Volkswagen.

Continued from the prior page fund's attempts to nominate four more directors would give too much sway to a single shareholder. The company has told shareholders an Elliott win would embolden activists to go too far, criticizing Elliott's personal attacks on Mr. Kleinfeld.

An Elliott victory, even a partial one, could signal few companies are safe, said Chris Young, a Credit Suisse Group AG banker who advises companies in fights with activists.

Thursday's vote offers a rare chance to gauge the sentiment of big institutional investors, which collectively control enough shares in most big publicly traded U.S. companies to sway the outcome of board fights. Though activists in recent years have targeted ever larger companies, it is rare for such campaigns to go all the way to a vote.

DuPont Co.'s 2015 scuffle with Nelson Peltz's Trian Fund Management LP was the last

**ADVERTISEMENT** 

major board fight to make it to a vote. The chemical company's shareholders narrowly rejected Mr. Peltz and Trian's other nominees, which was seen as an endorsement of Du-Pont's strategy for the business. Later that year, Ellen Kullman stepped down as CEO after performance slipped, and the company reached a deal to merge with Dow Chemical Co.

The Arconic vote likely will hinge on Vanguard Group, BlackRock Inc. and State Street Global Advisors, index funds that hold some 20% of the company's stock.

Arconic has insisted that its strategy of working closely with customers to win longterm contracts will lead to greater long-term gains. Elliott, for its part, wants to shake up how the company is run, hoping that will lead to more efficient spending and improve stock gains.

Elliott already has locked up around 20% of the vote.

Arconic, meanwhile, has the support of at least one top-15 shareholder, according to people familiar with the matter.

Continued from the prior page head of asset-backed securities research at AllianceBernstein Holding LP.

Investors are embracing online lenders' debt offerings for their relative value compared with other debt, the better quality of underlying loans and moves they made to more closely resemble established finance firms rather than technology-driven startups.

One factor working in lenders' favor: falling yields in other categories of debt, notably high-yield bonds. While vields on U.S. government debt rose following last November's election in anticipation of stronger economic growth, rates on high-yield debt fell due to expectations companies would fare better under the new administration. That made the lenders' loan packages more attractive on a comparative basis.

The spread demanded by money managers to hold bonds issued by risky compament debt was 3.84 percentage points on Wednesday, according to data from the Federal Reserve Bank of St. Louis. That is down from 6.40 on the same day in 2016 and down from a high of nearly 10 percentage points in February that year.

from that," said Perry Rahbar,

#### CEO of dv01, which provides analytics on online loans to

Information from a Kroll

Bond Rating Agency report on

an April securitization from

Avant Inc. involving 46,896

loans shows how lending stan-

dards have changed in the

past year. The average loan

backing the deal had a balance

of \$5,359 and a term of 37 months, down from \$7,572 and

47 months on an Avant deal

from February 2016. Between

those transactions, Avant

hired Grant Miles, a former se-

nior executive in the U.S. lend-

ing business of HSBC Holdings

PLC, to be its chief risk officer.

Kroll's base case for losses

down to a range of 16.3% to

18.3% of the balance of loans

in the pool, from between 19%

and 21% on the earlier deal.

That means investors buying

securities backing the loans

could hope they carry less

risky slice of Avant's most re-

cent bond deal was 1 percent-

age point below what it was

on a transaction the company

completed in the summer of

fraction of the securitization

market. In 2016, a total of \$7.8

billion of bonds backed by on-

line loans were issued, accord-

To be sure, bonds backed

The spread on the least

Those changes helped drive

bond investors.

nies above that of safe govern-

messy incident and rebounded

# Milk Money

Value of dairy exports

U.S. dairy exports have declined amid growing product stockpiles.

\$8 billion 1995 2000 '05 1995 2000 'Ó5 Butter stockpiles\* American-cheese stockpiles 300 million pounds 800 million pounds

As of end-March

# **Legal Notices**

UNITED STATES BANKRUPTCY COURT SOUTHERN DISTRICT OF NEW YORK

In re: Chapter 11,
SunEdison, Inc., et al Case No. 16-10992
Debtors. Jointly Administere
NOTICE OF DEADLINES FOR SUBMITTING

PAYMENT UNDER BANKRUPTCY CODE
SECTION 503(b)(9) AGAINST THE DEBTORS
PLEASE TAKE NOTICE THAT On May 16, 2017,
the Court entered an Order Establishing Third Bar
Dates for Filling Proofs of Claim and Approving Form
and Manner of Notice thereof (Docket No. 3140)
(the "Third Bar Date Order") in the above-captioned
cases. A copy of the Third Bar Date Order can be
accessed at the Debtors' restructuring website,
https://cases.primeclerk.com/sunedison/HomeIndex.

intips://cases.primeclerk.com/sunedison/HomeIndex.

The Third Bar Date Order requires all entities (the "Claimants") holding or wishing to assert a 
claim that arose or is deemed to have arisen prior 
to the Petition Date (the "Claims") against one or 
more of the debtors listed in the table below (the 
"Third Bar Date Debtors") to submit a proof of claim 
("Proof of Claim") so as to be actually received by 
Prime Clerk, LLC. ("Prime Clerk"), the Debtors 
claims and noticing agent, on or before a certain 
date (the "Third Bar Dates"). The table below lists 
the Third Bar Date Debtors and the Third Bar Dates 
Third Bar Date Debtors and the Third Bar Dates 
Third Bar Date Debtors. The Third Bar Date 
Debtors, along with the last four digits of each 
Debtors, along with the last four digits of each 
Debtor's tax identification number include: Hudson Energy Solar Corporation (3557); SunE REIT-D
PR, LLC (5519); SunEdison Products, LLC (4445); 
Schedt 
SunEdison International Construction, LLC (9605); 
Sanghn Wind, LLC (4825); Maine Wind Holdings, 
LLC (1344); First Wind Energy, LLC (2171); Frist 
Wind Holdings, LLC (6257); and EchoFirst Finance 
Co., LLC (1667).

Third General Bar Date (applicable to 503(b)) 
(Wilch)

Third General Bar Date (applicable to 503(b) claims). All Claimants other than garden (9) claims). All Claimants, other than governmental units, holding or wishing to assert a Claim must submit proof of such Claim so as to be actually received by Prime Clerk by June 23, 2017 at 5:00 p.m. prevailing Eastern Time (the "Third General Bar Date"). Requests for payment under Bank-ruptcy Code section 503(b)(9) must also be submit-ted so as to be actually received by Prime Clerk by the Third General Bar Date.

Claim amount denominated in United States dollars; (iii) conform substantially with the Proof of Claim Form provided by the Debtor or Official Form 410; (iv) state a Claim against a Third Bar Date Debtor; (v) be signed by the Claimant or if the Claimant is not an individual, by an authorized agent of the Claimant; and (vi) include supporting documentation (or, if such documentation is voluminous, include a summary of such documentation) or an Consequences of Failing to Timely Submit You

Consequences of Falling to Timely Submit You Proof of Claim. Any Claimant who is required but fails, to submit a Proof of Claim in acco dance with the Third Bar Date Order on or befor the applicable Bar Date shall be forever barret estopped, and enjoined from asserting suc Claim against the Third Bar Date Debtors, the Claim against the Third Bar Date Debtors, their property, or their estates (or filling a Proof of Claim with respect thereto), and the Third Bar Date Debtors, their property, and their estates shall be forever discharged from any and all indebtedness or liability with respect to such Claim, and such holder shall not be permitted to vote, to accept or reject any plan of reorganization filed in the chapter 11 case, or participate in any distribution on account of such Claim or receive further notices regarding such Claim.

Reservation of Rights. Nothing contained in this notice is intended to or should be construed as a waiver of the Third Bar Date Debtors right to:

as a waiver of the Third Bar Date Debtors' right to as a waiver of the Third Bar Date Debtors' right to: (a) dispute, or assert offsets or defenses against, any filed Claim or any Claim listed or reflected in the Schedules as to the nature, amount, liability or classification thereof; (b) subsequently designate any scheduled Claim as disputed, contingent or unliquidated; and (c) otherwise amend the Schedules. Additional Information. If you have any questions regarding the claims process and/or if you wish to obtain a copy of the Third Bar Date Order (which contains a more detailed description of the

(which contains a more detailed description of the requirements for filing proofs of claim, a proof of claim form or related documents you may do so by contacting Prime Clerk at: (a) (855) 388-4575; (b) the Debtors' restructuring website https://cases.primeclerk.com/sunedison/Home-Index. Please note that Prime Clerk cannot advise you how to file, or whether you should file, a Proof of Claim.

1 The Debtors in these chapter 11 cases, along with the last four digits of each Debtor's tax identification.

ruptcy Code section 503(b)(9) must also be submitted so as to be actually received by Prime Clerk by the Third General Bar Date. All governmental tunits holding or wishing to assert a Claim must submitted of such Claim so to be actually received by October 4, 2017 at 5:200 p.m. prevailing Eastern Time (the "Third Governmental Bar Date").

Third Amended Schedules Bar Date. In the event a Third Bar Date bettor amends or supplements its schedules of assets and liabilities (collectively, the "Schedules") to reduce, delete, change the classification of, or add a Claim, the Third Bar Date bettors shall give notice of any such amendment to the holders of any Claim arising from the date on which such notice is given or the Third General Bar Date or Third Governmental Bar Date, as applicable, to submit a Proof of Claim with respect to such amended Claim (the "Third General Bar Date or Third Governmental Bar Date, as applicable, to submit a Proof of Claim with respect to such amended Claim (the "Third General Bar Date").

Third Amended Schedules Bar Date or Third Governmental Bar Date, as applicable, to submit a Proof of Claim with respect to such amended Claim (the "Third General Bar Date") or be forever barred from doing so.

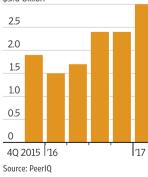
Third Rejection Bar Date. Claimants must file as proof of claim arising from a Third Bar Date Dettor's rejection of any executory contract or unexpired lease by the later of the Third General Rap Date of School, and the submitted so as to be actually received no later than 5:00 p.m., prevailing Eastern Time, on the date that the submitted so as to be actually received no later than 5:00 p.m., prevailing Eastern Time on the applicable of the submitted so as to be actually received no later than 5:00 p.m. prevailing Eastern Time on the applicable of the submitted so as to be actually received no later than 5:00 p.m. prevailing Eastern Time on the applicable of the submitted so as to be actually received no later than 5:00 p.m. prevailing Eastern Time on the applicable of the submitted so as to be ac

#### 2016, according to PeerIQ. by online loans account for a

"We've gone through one

## **Back in Demand**

by loans from online lenders



# New issuance of bonds backed

THE WALL STREET JOURNAL

ing to PeerIQ. That compared with \$191 billion in total issuance of asset-backed securities, according to S&P Global Ratings. And while investors have

grown more enamored of offerings from online lenders. some bondholders are still smarting from past deals where loss estimates have been revised higher.

The next test of investor appetite for online offerings will be in coming weeks when LendingClub starts to market a roughly \$400 million deal of bonds backed by loans it made to less creditworthy consumers, according to people familiar with the matter. Last week, a \$450.5 million deal backed by 39,334 Prosper personal loans was oversubscribed, according to a person familiar with the matter.

1995 2000

Sources: Agriculture Department; U.S. Dairy Export Council THE WALL STREET JOURNAL.

Continued from the prior page culture Secretary Sonny Perdue said renegotiating Nafta could improve access to Canada for U.S. farmers. "We're going to try and balance the scorecard in a number of ways," he said.

Tom Vilsack, agriculture secretary during the Obama administration and current president of the U.S. Dairy Export Council, urged the Trump administration to find new foreign buyers for American milk.

"To keep pace with those efficiencies in productivity, we have to look for additional

markets," Mr. Vilsack said. Meanwhile, U.S. dairy products are piling up. The U.S. has more than 800 million pounds of American cheese in reserve, the most since 1984, according to the USDA. The amount of butter in reserve totals 272 million pounds, the most since 1994. Some U.S. farmers are dumping millions of pounds of excess milk onto fields. In the Midwest and Northeast, nearly 78 million gallons of milk have been dumped so far this year,

up 86% from the same period

last year. Lawmakers from Wisconsin and New York are asking the

USDA to buy excess cheese again. Last year the agency spent \$20 million to purchase cheese from private inventories for food banks and pantries.

The USDA already spent all authorized funds to buy up excess dairy this fiscal year, but the new request is under consideration, an agency spokes-

woman said. Some big purchasers like Dean Foods Co. say they don't even try to predict milk prices anymore.

"We learned our lesson back in 2014," said Chief Financial Officer Chris Bellairs, referring to a year when spiking milk costs drove losses for Dean. "The market was volatile, and it remains that way

To cope, farmers need to stop expanding their herds. said Mark Stephenson, director of the Center for Dairy Profitability at the University of Wisconsin-Madison. "That's something we don't want or need," Mr. Stephenson said.

–Jacob Bunge contributed to this article.

The PIF's managing direc-

have lots in the pipeline," he said. "We are investing into genome sequencing. We are investing in virtual-reality simulations, the games, and so on."

Continued from the prior page

The fund marks the entry of a mammoth player in a field of investment traditionally dominated by Western bankers and private equity groups. The sheer scale of the fund could decide winners and losers in capital-intensive areas, such as in autonomous driving or in biotechnology.

It also follows months of negotiation and delay as Soft-Bank and Saudi Arabia's PIF

control investment decisions. Mr. Son announced the fund in October with a launch as early as December in mind. It took another five months for the fund to come together. The SoftBank fund is one

sign of Saudi Arabia's efforts to diversify its sources of revenue away from oil through investments of its sovereignwealth fund, the PIF. The kingdom last year announced its long-term plan for economic change, known as Vision 2030, which is being implemented under supervision of the king's powerful son, Deputy Crown Prince Mohammed bin Sal-

A central pillar of the Saudi government's vision for

wrangled over who would economic change is the planned initial public offering of the state-owned energy giant Saudi Arabian Oil Co., or Aramco. The sale of up to 5%

> SoftBank has negotiated about a dozen deals for the fund.

of Aramco, expected next year, could raise tens of billions of dollars-possibly more-money the kingdom's revamped sovereign-wealth fund would then use for nonoil investments at home and

tor Yasir Al Rumayyan said he expects the Vision Fund to help its "role in supporting the Kingdom of Saudi Arabia's Vision 2030 strategy to develop a diversified, knowledge-based economy." "We are going to help them

to achieve that," said Mr. Son, who joined with Prince Mohammed to reach a deal on the technology investment fund. "We are on the same wavelength," he added. Besides the PIF and Soft-

Bank, the Vision Fund also secured commitments from United Arab Emirates sovereign fund Mubadala Investment Company, Apple Inc., Foxconn Technology Group, Qualcomm Incorporated and Sharp Corporation.

# **Baidu Takes Lead** In Copyright Fights

BEIJING-Chinese search giant **Baidu** Inc. was once a scourge of Hollywood and the U.S. music industry, which accused it of being a pipeline for pirated content.

Today when Baidu is involved in a copyright infringement case, chances are it is the one casting the blame.

Baidu's about-face in the copyright fight reflects its emergence as a creator and buyer of content, a transition

that continued recently when in Beijing. "Copyright is no lonflix Inc. Other Chinese media how entertainment is protected in the world's second-largest economy, legal analysts say.

ment lawyer at Harris Bricken



Baidu reached a deal with Netflix to air 'Stranger Things,' above.

the company struck a deal to license original shows from Netcompanies are undergoing similar transformations, upending

"One of the old rationales for copyright protection...is that it provides an incentive to invest. We are seeing that in play here in China," said Mathew Alderson, a partner and entertain-

> One of the companies filing suits is iQiyi.com Inc., the video-streaming service owned by Baidu that struck the April 25 deal with Netflix to bring shows such as the paranormal coming-of-age drama "Stranger Things" and the science-fiction series "Black Mirror" to the mainland.

ger something imposed on

China by the U.S. It is now a

flood of lawsuits aimed at pro-

tecting intellectual property.

One way to measure the change is by the escalating

Nearly 87,000 copyright-re-

lated cases were filed in China

last year, according to data

compiled by China's Supreme

People's Court, a 15-fold in-

crease from 2006. These cases

include claims of illegal distri-

bution, or unauthorized repro-

duction, of written content, vid-

eogames, movies and TV shows.

tool in Chinese hands."

Last year, iQiyi was the plaintiff in at least 133 copyright cases, up from 80 a year earlier, according to data provider IPHouse.

In addition to lawsuits, iQiyi sent takedown notices to more than 1.400 websites and apps last year—at one point sending

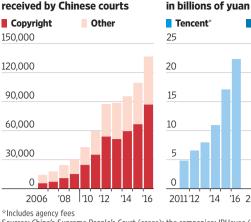
Diana Kelley, global execu-

### China Gets Copyright Religion

Intellectual property cases

China has seen an uptick in copyright cases in recent years, as Chinese firms defend the content and intellectual property they buy from others or create on their own.

Spending in content.



Sources: China's Supreme People's Court (cases); the companies; IPHouse (lawsuits)

more than 1,000 notices in a single day—to defend the licensed and original content it owns, according to Wang Yan, senior director of legal affairs at iQiyi. Not that long ago, Baidu it-

self was the target of lawsuits by both the music industry and Hollywood film studios for using their content without permission. "Baidu almost single-hand-

edly eroded the value of music [in China]," said Neil Turkewitz, former vice president of international at the Recording Industry Association of America.

For nearly a decade, Mr. Turkewitz said, Baidu's search engine allowed users to find and play unlicensed songs directly from its web portal free.

The internet giant was sued in 2008 by major record labels Warner Music Group, Universal Music and Sony BMG Music Entertainment for violating music copyrights. At the time. the International Federation of Phonographic Industry estimated that record companies were receiving less than 5% of the estimated \$700 million in potential annual revenues in

'16 2011'12

'14 '16

Baidu in 2011 announced it had struck a licensing deal with all three, effectively ending the lawsuit. That year, Baidu recorded its first line item for content costs: \$9 million.

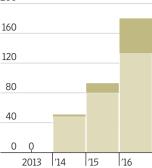
China's mobile music space.

In 2013, Baidu was sued for violating video copyrights, this time by a group of Chinese en-

As plaintiff As defendant 200

Number of lawsuits by Baidu's

streaming service iQiyi



THE WALL STREET JOURNAL.

tertainment companies supported by the Motion Picture Association and major Hollywood studios, which sought \$43 million in damages.

The group accused Baidu of running four services on desktop computers and smartphones that they said allow users access to Western and Chinese TV shows and movies licensed to other companies. The plaintiffs added that in some instances, Baidu linked to sites that hosted pirated content.

Baidu lost some of those lawsuits, but ended up paying modest penalties.

A spokeswoman for Baidu declined to discuss how it has gone from being a defendant to a plaintiff in copyright cases.

Continued from page B1 better vet."

Ever greater profits from cyberattacks mean cybercriminals have professionalized to the point where they are effectively criminal corporations, says Matthew Gardiner, a cybersecurity strategist for Mimecast, which manages businesses' email in the cloud. Instead of hackers fumbling their way through complicated financial transactions, or money whizzes fumbling their way through malware design, there is true division of labor. As in any other industry, specialization begets

Large (legitimate) corporations have the resources to hire talent to protect their digital assets, but for smalland medium-size businesses, it is harder. There is no shortage of good advice on how to perform basic security hygiene, but who's there to implement it? The solution is resource management, with a tocus on cybersecurity. Dr. Bronk lays it out like this:

1. Retrain IT staff on security—or replace them. In today's world of ever-multiplying threats and dependence

on connected assets, all IT staff must now be cybersecurity staff first. "The good news is that you don't need that dedicated person to run your email server anymore they can run security," says Dr. Bronk.

2. Push everything to the cloud. It used to be the job of IT personnel was to build and maintain the tools employees need. Now, pretty much anything can be done better with

tive security adviser at IBM Security, a division of International Business Machines Corp., compares the current state of network security to graphical user interfaces in their earliest days, when they weren't particularly intuitive. Collectively designers and engineers learned to prioritize and improve them. "Security can be like that, too," she adds. "We can think about it

There is no shortage of good advice about how to perform basic security hygiene.

a cloud-based service. "I mean, even the CIA uses Amazon's web services," says Dr. Bronk. "If there's a best of breed, why not use it? If you want a safe car, go buy a

**3.** New IT investment will need baked-in security. Data from the Bureau of Labor Statistics indicates jobs in IT security are one of the fastestgrowing categories in tech, up 33% in the past four years alone. That is probably due to companies simply catching up on investing in cybersecurity after years of underinvestment, says Mr. Gardiner.

upfront and weave it into the process in a much more effec-The cloud isn't perfect, of

course. A hack of electronicsignature company DocuSign, disclosed last week, exposed customer email addresses, allowing attackers to target them with convincing emails that included a malware attachment disguised as a Microsoft Word doc. And then there is the fact that massive denial-of-service attacks like Mirai can make the cloud inaccessible at critical times.

WannaCry is a good example of how increasing cyberse-

curity can be relatively simple—thwarting it was as simple as keeping Windows up-to-date. On the other hand, it used a sophisticated exploit lifted from a hack of National Security Agency tools that allowed it to spread directly from one computer to another, infecting systems in companies that might have been prepared for other kinds of attacks. These kinds of systemic weaknesses employed by or stolen from governments have led Microsoft to nlead for a "Geneva Convention" on cyberweapons.

As for West Jefferson's own WKSK, the station was lucky. Mr. Norris, its IT consultant. had backed up the computers. He was able to wipe the slate clean and get everyone back on the air in a few hours. It is a good illustration of how prioritizing even the most basic cybersecurity practices can be a life-saver. Since then, he has imple-

mented offline backups of the station's computers, just in case. He's also become a keen student of the kind of attacks, such as WannaCry, that can affect small organizations. As soon as he read that it could hit older systems, he rushed to protect them at his day job—as the IT person for the local school district.

# **Uber Threatens** To Fire Executive

By Jack Nicas

**Uber Technologies** Inc. has threatened to fire Anthony Levandowski, the driverless-car engineer at the center of its legal battle with Google parent **Alphabet** Inc., if he doesn't comply with a court order to turn over any files he might



Anthony Levandowski, in 2016

Uber sent Mr. Levandowski a four-page letter this past Monday saying he must comply with the order issued earlier this month requiring him to return 14,000 allegedly stolen files and provide an extensive accounting of any Uber employees' handling or knowledge of the files.

Mr. Levandowski, a former Alphabet engineer who joined Uber last year to run its driverless-car program, has repeatedly invoked his Fifth Amendment rights in the case, declining to comment and refusing to turn over documents.

U.S. District Judge William Alsup ruled recently that Mr. Levandowski's use of the Fifth Amendment doesn't bar Uber from firing him, and that the company shouldn't "pull any punches" in compelling him to present information about the allegedly stolen files. Waymo, Alphabet's self-

driving-car unit, sued Uber in February for allegedly conspiring with Mr. Levandowski to steal Waymo files, in an effort to benefit Uber's driverless-car program. A trial for the civil suit is

set for October in the U.S. District Court for the Northern District of California in San Francisco. Earlier this month, Judge

Alsup asked federal prosecutors to investigate Uber and Mr. Levandowski for potential trade-secret theft, which could lead to criminal charges.

Uber's letter to Mr. Levandowski was disclosed in a motion his attorneys filed with the court late Thursday that asks the judge to revise his ruling that Uber could fire Mr. Levandowski for invoking the Fifth Amendment.

Mr. Levandowski's attornevs argued that the judge's order to Uber to force Mr. Levandowski to comply with the ruling or face termination viodecades of lates precedent.

The attorneys said the judge's order has made Uber believe it could be held in contempt if it continues to employ Mr. Levandowski while he refuses to cooperate.

If the judge agrees with Mr. Levandowski's attorneys and allows him to remain at Uber without cooperating with the judge's order, it could be welcome news for Uber.

The company could keep a top engineer and argue it struggled to comply with the judge's demands for more information without Mr. Levandowski's assistance.

Uber and Waymo declined to comment. Attorneys representing Mr. Levandowski didn't respond to a request for comment.

# **BUSINESS NEWS**

# PPG Chief Aims High in Akzo Hunt

By Andrew Tangel

Michael McGarry gets excited about paint drying. After all, that is his job as the leader of a paint-and-coatings giant that prizes staying under the

"We don't need to see ourselves in the newspaper," said the chief executive and chairman of **PPG Industries** Inc. in a recent interview. "This is not our style.'

Now, though, Mr. McGarry is at the center of what could be one of the biggest and riskiest corporate takeover battles in recent memory-a crossborder pursuit of Dutch rival **Akzo Nobel** NV. In the last two months, he has made three separate offers, ultimately valuing the Dutch company at up to approximately \$27 billion, only to be rejected publicly each time. After the last brushoff two weeks ago, Mr. McGarry said he was considering whether to go around the company's board and management, including Akzo Chief Executive Ton Büchner, and take his pitch directly to sharehold-

The generally quiet paint industry is an unlikely source high-stakes corporate drama. And Mr. McGarry, a 59year-old described by one colleague as a Southern gentleman, might seem an unlikely figure to lead what could be a bruising fight. But the ingredi-

ents have been long in the



making as the industry undergoes consolidation. PPG's rival Sherwin-Williams Co. is in the final stages of a \$9 billion acquisition of Valspar Corp.

A deal involving Akzo brings with it unique challenges. Dutch laws make a hostile takeover difficult and some observers view the potential bid as a long shot. Antitrust regulators may force the combined company to sell off businesses. Even if Mr. Mc-Garry is victorious, combining the companies would be risky. The latest offer by Pittsburghbased PPG for Akzo-\$27 billion, approximately equal to PPG's own market capitalization—could carry expectations

to cut costs that the combined

company would struggle to

meet, said Dmitry Silversteyn,

an analyst at Longbow Research in Cleveland.

A court hearing scheduled for Monday, in an activist investor's bid to force Akzo to hold a special shareholder meeting, could influence PPG's decision on whether to pursue a hostile takeover. If Mr. Mc-Garry decides to pursue such a bid, he would have to do so by a June 1 regulatory deadline or wait at least six months under Dutch rules.

Mr. McGarry argues joining forces would help save the combined companies \$750 million in costs, strengthen their global foothold and boost organic growth amid sluggish demand in some markets and rising materials costs, a position supported by some ana-

lysts who back the deal.

He said he is approaching the Akzo deal like other acquisitions he helped orchestrate, despite its far greater size. He was a behind-the-scenes point person in PPG's 2008 acquisition of Dutch coatings maker SigmaKalon Group for \$3 billion, still the largest ever for the company. In 2014, the company paid \$2.3 billion for Mexican paint company Consorcio Comex SA. PPG bought Akzo's North American paint business that year for \$1 billion. In the Akzo battle, Mr. Mc-

Garry has help from U.S. activist investor Elliott Management Corp., which wants to strong-arm Akzo into sale talks with PPG. Elliott was the party asking the Dutch court to force Akzo to hold a special shareholder meeting, which also seeks to remove the supervisory board chairman. Akzo has defended itself and questioned how dismissing the company's supervisory chairman would benefit stakehold-

Analyst Mr. Silversteyn is among those who think a \$27 billion Akzo takeover could prove overly expensive and that PPG is better off concentrating on organic growth prospects. But now, Mr. Mc-Garry's tenure as CEO, which began in 2015, will likely be judged on whether the Akzo bid succeeds or if he walks away: "They've got the tiger

by the tail and they've got to

figure out what to do with it."



Tel/Fax:

### FORM OF CONTRACT NOTIFICATION

1. Name and address of the contracting authority Transmition System Operator sh.a. Name:

Address Tirana Kashar-Yrshel, Autostrada Tirane-Durres Km 9,

+355 4 2225581/+355 4 2225581

info@ost.al

www.ost.al The type of the procurement procedure: Open Procedure by Electronic

Means – (above the high monetary threshold) Services. 3. Contract Object: Maintenance of the SCADA/EMS system and of the

communication infrastructure. 4. Limit Fund: 225,295,422 (two hundred and twenty-five million two

hundred and ninety - nine thousand four hundred and twenty-two) ALL (Lekë) without VAT. Duration of the contract or time limit for completion: 24 months from

the entry into force of the contract. Deadline for receipt of tenders or requests to participate: Dt. 03/

07/2017, time 10:00, PPA's official website, www.apg.gov.a 7. Deadline for opening of tenders or requests to participate: Dt.

03/07/2017, time10:00, Procurement Directory, OST sh.a., Tiranë Kashar – Yrshek, Autostrada Tiranë-Durrës Km 9, Albania.

## JOURNAL REPORT | INNOVATIONS IN ENERGY



# There's a growing consensus that the end of ever-rising consumption is in sight. The big question that many oil companies are debating: When? A lot is riding on the answer.

BY LYNN COOK AND ELENA CHERNEY

HE WORLD'S LARGEST OIL companies are girding for the biggest shift in energy consumption since the Industrial Revolution: After decades of growth, global demand for oil is poised to peak and fall in the coming years.

New technologies that improve fuel efficiency are starting to push down the amount of gasoline and diesel that's needed for transportation, and a consensus is growing that fuel demand for passenger cars could fall as carbon rules go into effect, electric vehicles gain traction and the internal combustion engine gets re-engineered to be dramatically more efficient. Western countries' growth used to move in lockstep with their energy consumption, but that phenomenon is starting to decouple in advanced economies.

While most big oil companies foresee a day when the world will need less crude, timing when that peak in oil demand will materialize is one of the hottest flashpoints for controversy within the industry. It's tough to predict because changes to oil demand will hinge on future disruptive technologies, such as batteries in electric cars that will allow drivers to travel for hundreds of miles on a single charge.

### Much to consider

Hitting such a plateau would mark the first time that demand has declined even when economies are growing since Col. Edwin Drake juryrigged a pipe to drill for oil in Pennsylvania in the late 1850s. Yet, for many companies and investors, the question isn't whether this immense turning point will happen—it's when.

Getting that timing right will separate the winners from the losers, and has become a major preoccupation for energy economists and a flashpoint for controversy within the industry.

Forecasts for peak oil demand diverge by decades. The Paris-based International Energy Agency argues that demand will grow, albeit slowly, past 2040. And the two biggest U.S. oil companies, Exxon Mobil Corp. and Chevron Corp., say peak demand isn't in sight.

But some big European producers predict that a peak could emerge as soon as 2025 or 2030, and they are overhauling their long-term investment plans to diversify away from crude oil. Royal Dutch Shell PLC and Norway's Statoil SA are placing bigger bets on natural gas and renewables, including wind and solar.

"Nobody knows" when demand will peak, says Spencer Dale, group chief economist for **BP PLC**, which issues a widely watched annual outlook. The company's base case calls for a peak in the mid-2040s—with the caveat that it could come sooner or later. "There are huge bands of uncertainty around that," Mr. Dale says.

The uncertainty stems from a host of variables, including the pace of technological change that will make renewables and electric cars more cost-competitive; the toughness of new regulations to curb greenhouse-gas emissions; and the rate of economic growth in developing countries, which is currently driving the rise in oil demand. Those factors make it much harder to predict longterm demand than in the past, many energy-industry executives and economists sav.

Calling it accurately is high stakes for an industry sitting on trillions of dollars of oil reserves. Whenever it finally does happen, the tipping point from global oil-demand growth to decline will reverberate through the energy world, knocking down oil prices and some companies' shareholders.

The idea that electric cars

#### **Peak Predictions**

When big oil companies and the International Energy Agency expect global oil demand to peak. For more detail on forecasts. go to WSJ.com/EnergyReport.

In the 2040s

Chevron Doesn't foresee a peak

**Exxon Mobil** Doesn't foresee a peak

**Royal Dutch Shell** 2025-30

> Statoil 2030

**Total** As soon as 2040

**International Energy Agency** After 2040

> Sources: IEA and the companies THE WALL STREET JOURNAL.

and alternative forms of energy will increasingly displace oil is one that big-name investors are starting to ask about. "We have lots of clients in the financial sector asking about peak demand," says Linda Giesecke, research director at Wood Mackenzie, an energy consulting firm. "It's because you have this threat of disruptive technology" such as electric vehicles, she says. "If it is disruptive, it will come fast. That's why it's so hard to forecast.

Case in point: Shareholders of **Occidental Petroleum** Corp. voted this month to ask the company to assess long-term impacts of climate change on its business. It was the first time such a proposal passed at a major U.S. oil-and-gas company. BlackRock Inc., the world's largest asset manager, supported the resolution, marking the first time it went against management to support such a climate resolution

Historically, producing crude oil has been a growth industry, if a cyclical one, with energy demand moving in step with economic output. Since 1965, global oil consumption has increased from 30 million barrels a day to nearly 95 million.

During those decades, companies built strategic plans around the assumption that they would always need to find more oil, and analysts obsessed over whether there would be enough crude in the ground to fuel growth. When oil hit its high over \$147 a barrel in the summer of 2008, some of the run-up was fueled by concern about hitting maximum output, or so-called peak oil, the point at which normal declines in output from producing oil fields outpace the industry's ability to develop new supply.

### New perspective

Now, peak-oil theory has been turned on its head, and forecasting peak demand has taken center stage.

Some companies, particularly European energy outfits, see the tipping point coming soon enough that they are talking about it publicly, and overhauling their long-term investment plans to accommodate a greater emphasis on natural gas and renewables. Shell and Statoil say peak oil demand could come as soon as the mid-2020s, though around 2030 is more likely; the chief executive officer of France's Total SA says he wouldn't be surprised if it happens by 2040.

But the American companies are betting on a more bullish future. Exxon Mobil, the largest U.S. oil company, sees no end to the world's need for more crude. In its forecast through 2040, Exxon predicts that oil will remain the dominant fuel source, as demand for both plastics and transportation grows, mostly because of increasing incomes across Asia. It does expect to see huge strides made in fuel efficiency, with the vehicle fleet improving to 50 miles a

gallon from the current 30 MPG, but thinks the growth in other areas will have a bigger influence on oil use.

Chevron's outlook is similar: It expects roughly half the world's energy needs will be met by oil and natural gas combined by 2040. Saudi Arabia's national oil company, Saudi Arabian Oil Co., says demand is unlikely to peak before 2050.

"The peak-demand discussion is only at most a couple of years old," says energy scholar Daniel Yergin, vice chairman of energy research at IHS Markit Ltd. But as peak demand has started to gain acceptance, "there has been a backlash against the idea," especially by American companies.

For the industry and many analysts, the concept of peak demand turns all their longheld assumptions about the energy world on their ear, Mr. Yergin says. Until recently, many were betting on strong demand growth from emerging markets as more people joined the middle class, he says. "There was just this assumption that all those people were going to keep buying cars and driving more miles.'

Peak oil demand was one of the most hotly debated topics at the recent CERAWeek energy conference sponsored by IHS Markit in Houston. The CEOs of Shell and Statoil shared their predictions of a peak within 15 years. Weeks later, at an event at Columbia University, the president and chief executive of Saudi Aramco, Amin Nasser, disputed that view. "Our belief is peak demand isn't in sight," he told the audience.

#### The electric question

To predict how demand is likely to grow—or, eventually, shrink—companies are paying close attention to what most view as the momentum around the world behind regulations to limit greenhouse-gas emissions and combat rising tem-

Those measures include the adoption of higher prices on carbon in more-developed and developing countries. Experts see changes coming even in the U.S., where the Trump administration has already rolled back many Obama-era climate initiatives and hasn't come out in support of the global climatechange accord struck in Paris in 2015. Efficiency gains and technological advances are seen as likely to further limit growth in cars' demand for gasoline.

Inside energy companies, strategists are building scenarios to consider questions they can't yet answer: Will cars drive themselves? Will governments tax carbon emissions at high enough rates to discourage fossil-fuel use? What kind of transit will a middle-class resident of Mumbai favor in the year 2035? And what kind of battery-technology breakthroughs could affect that choice between now and then?

Outside of efficiency gains, which even peak-demand naysayers acknowledge are coming, the biggest "X" factor is how widespread electric-vehicle adoption will be. Transport fuel accounts for about 50% of the demand for crude oil, with cars accounting for half of

that: that means 25% of total oil demand hinges on autos.

For decades, Americans' love of the open road, which made the country the largest oil user in the world, helped to drive global oil demand. But U.S. cars have gotten more efficient, due in part to government policies that mandate better mileage for every gallon of gasoline and diesel burned. That has slowed demand growth, and played into the oil-price rout of the past couple of years.

Electric vehicles, self-driving cars and ride-sharing stand to further erode gasoline demand. The question is, how fast? That depends on batteries, many say. Battery technology is still too rudimentary, and too expensive, for electric vehicles to take hold en masse. If engineers can't crack the lighter, cheaper, denser battery challenge, then the peak-demand scenario slows.

But if a breakthrough in battery technology puts electric vehicles suddenly on a par with the cost of internal-combustion vehicles, or if carbon taxes in more countries are high enough to weigh on drivers, adoption rates could rise more quickly. That could shave millions more barrels a day off global oil demand.

Varying predictions for electric-vehicle adoption drive a lot of the differences in forecasts. The IEA's main scenario shows oil demand from cars in 2040 remaining close to the 24 million barrels a day that is now consumed. That estimate. says executive director Fatih Birol, is a big reason for the agency's prediction that crudeoil demand is likely to keep growing at least past 2040.

Mr. Birol says that even if EVs gain more traction-and he's doubtful they will until batteries can last for several hundred miles—there's still a lot of transportation with no electric alternative. Half of oil demand for transportation is driven not by passenger cars, but by jets and heavy-duty trucks.

"Asian trucks alone, today, are responsible for one-third of global demand growth," Mr. Birol says. "There's barely any substitute. So even though the automotive sector may go through a transformation, we will still see oil demand grow."

Mr. Birol also says that as oil-demand growth from transportation wanes, the demand for oil in the petrochemical sector-to be used as a feedstock to generate more plastic items, from diapers to lightweight, fuel-efficient car parts—is still expected to increase.

BP. meanwhile, expects the number of electric cars to jump to 100 million by 2035 from one million today—but thinks even that rise will likely shave only one million to 1.5 million barrels a day off oil demand.

"EVs aren't changer," says Mr. Dale, the BP group chief economist. (The company's CEO, Bob Dudley, also says the company is gearing its investments toward a lower-carbon future, in part by

shifting toward natural gas.) Wood Mackenzie expects roughly 2% of global oil demand—or two million barrels a day-to be lost to electric vehicles by 2035. Wood Mackenzie doesn't expect oil demand

Please see OIL page B5

# Gas Guzzlers Rule in China

The government's efforts to replace gas-powered cars with electric vehicles are running up against consumers' desire for SUVs Roughly half the 700,000 elec-

BY TREFOR MOSS AND BRIAN SPEGELE

THE CHINESE government's plan to replace gasoline-powered cars with a new generation of electric vehicles has hit an unexpected bump: Chinese consumers' love affair with gasguzzling sport-utility vehicles. In a country where 700 peo-

ple are killed in road accidents every day, according to the World Health Organization, and where most drivers are inexperienced, hefty SUVs have grown wildly popular because they provide a sense of security, says Yale Zhang, managing director of research company Automotive Foresight. A shortage of charging stations also is helping to persuade many buyers to choose SUVs over electric alternatives.

Official targets call for 40% of cars bought in China in 2030 to be pure electric vehicles or plug-in hybrids. The country already is the world's largest electric-vehicle market. tric cars sold world-wide last vear were sold in China. In all. China will have 30

million electric cars on the road, 9% of the country's total passenger-car fleet, by 2025, Bernstein Research forecasts. While that's likely to eclipse the number of electric cars operating in any other country, China's appetite for electric cars still looks modest alongside the craze for SUVs.

From four million SUVs in 2010, China will have 150 million-45% of its entire passenger-car fleet-by 2025, Bernstein estimates. The sedan has long been king in China, but SUVs will start outselling sedans next year, says Bernstein auto analyst Robin Zhu, and by 2023 SUVs will outnumber

sedans nationwide. SUVs are so popular that one of China's biggest auto firms, Great Wall Motors Co., makes nothing else. Foreign car makers are also joining the frenzy. In April, Volkswagen's

China chief executive, Jochem

Heizmann, said his company was launching an "SUV offensive," with several new models being readied for China.

China's newfound taste for big cars that gulp gasoline may mark a temporary reprieve for a domestic petroleum industry that has struggled with the decline in crude-oil prices in recent years. Surging SUV demand will help propel oil consumption in China upward for at least the next decade, according to energy experts and estimates from state-owned China National Petroleum Corp., more than offsetting the impact of the rise of electric vehicles and hybrids. "We don't think [electric

cars] will be any risk to the gasoline demand in the next five to 10 years," says Nelson Wang, a China oil analyst at Hong Kong-based investment firm CLSA.

The popularity of inefficient cars helps account for China's recent growth in oil imports. In March the country imported a

record 9.2 million barrels of



Baoding, China. The company makes nothing but SUVs.

crude a day. Imports in the first quarter rose 15% from a year earlier, and that trend looks set to continue. Transportation in China required 2.5 million barrels of gasoline a day last year, and that will keep rising until it hits 3.6 million in 2024, according to Bernstein.

ing to get. Electric cars are get-

For petroleum companies, that may be as good as it's go-

ting steadily cheaper, and by the early 2020s they are expected by many auto analysts to reach a tipping point where they will become more economical than traditional cars. Meanwhile, gasoline cars will grow more efficient, and many journeys in China will get shorter, thanks to new roads. For now, the fossil-fuel in-

dustry will look to Chinese

drivers like Shanghai resident Wang Yong for breathing room. The 45-year-old, who runs a company trading in consumer goods, says he didn't think much about fuel costs or emissions when he went shopping for a new car at the end of 2016.

Mr. Wang ways he considered an electric car from Tesla Inc.—the only electric-car brand he says he would ever consider buying-but worried about the availability of charging stations in Shanghai. In the end, he chose a BMW X5 SUV.

"It's tall, big, spacious and comfortable," says Mr. Wang. The SUV goes about half as far on a gallon of gas as the Volkswagen Jetta, one of the best-selling sedans in China last year. But fuel efficiency doesn't make his list of features he wants in a car. "In terms of design, power, connectivity and high technology, most electric cars can't satisfy my needs," he says.

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# JOURNAL REPORT | INNOVATIONS IN ENERGY

# Can OPEC's Grand **Coalition Hold?**

An agreement with countries outside the cartel is about to be put to the test

BY BENOIT FAUCON

A FEW MINUTES after OPEC declared last November that it would cut production to jolt petroleum prices higher, the oil cartel's president, Mohammed al-Sada of Qatar, faced reporters in Vienna and made a startling admission.

"We wouldn't have an agreement," he said, without the help of 11 countries from outside the cartel that said they, too, would cut their output.

Such is the predicament of the Organization of the Petroleum Exporting Countries in the age of the oil glut. Once able to bring the industrialized world to its knees by turning off its oil flows, the cartel now is less able to affect global oil markets on its own. OPEC officials openly acknowledge they must enlist help from oil-producing countries outside of OPEC to have an impact on global supply and prices.

The grand coalition that OPEC brought together late last year is the cartel's future in a world in which oil traders are more focused on the power of U.S. shale producers and enormous stockpiles of crude.

"What we did is history," says Mohammad Barkindo, OPEC's secretary-general, in an interview. "It's a complete turnaround, a new chapter. Bringing a broad coalition of global producers to agree on supply adjustments...that's the way forward," he says.

Mr. Barkindo launched this new strategy almost immediately after taking office last summer. He and other top OPEC leaders, such as Saudi energy minister Khalid al-Falih, engaged in an unusual level of shuttle diplomacy with heads of state to make the November agreement happen. The six-month deal signed in Vienna, which expires this month, successfully tightened global oil supplies and led to a 20% rise in oil global oil prices.

Still, oil analysts say the strategy is riddled with potential pitfalls and points to an uncertain future for the 57year-old cartel.

OPEC's ability to sway the market is largely based on its credibility. The group's Arab members made the world take notice in 1973 when its emsupport for Israel sent oil prices soaring and resulted in gasoline rationing in the U.S. But over time, the group's reputation as a potent force has suffered as members repeatedly failed to comply with agreements to hold back production. The rise of powerful new oil producers that aren't in OPEC, such as Russia, also has weakened the cartel's credibility as a central authority.

Non-OPEC producers "don't have a history or habit of even pretending to cooperate," says Robert McNally, president of energy consultancy Rapidan Group in Washington, D.C.

Such fissures may become newly apparent at a May 25 meeting in Vienna at which OPEC and non-OPEC producers are expected to discuss a possible extension of the November agreement. Whether an extension can be achieved, and for how long, could depend in part on the degree to which each nation has lived up to the production cuts pledged in the original deal. OPEC members were producing 33 million barrels of oil a day before the cuts; non-OPEC nations party to the deal were pumping about 18 million barrels a day.

Despite its members shared interest in a stable, healthy oil market, OPEC isn't a group that can make decisions quickly. Its members span three continents and have strong differences in culture and economies. It took almost a year to reach the November accord. When more countries are added to negotiations, it can slow things down, analysts say.

Meanwhile, there are concerns that the non-OPEC participants aren't living up to their pledges. According to the International Energy Agency, about 95% of the total cut agreed to by all participants in the six-month deal had been achieved in March, but the non-OPEC producers have hit only 64% of their target. (Some OPEC members had committed to larger proportional cuts than the nonmembers, and some members cut more than they promised to.)

Representatives of both groups, OPEC and non-OPEC. have met each month since November to assess how each country has performed. But while OPEC members use a

unified set of independent experts to measure their outputs, making it easier to compare reductions, non-OPEC producers tend to measure output using a mix of their own numbers and external data, making it harder for outsiders to assess their efforts. Estimates of Russian output for March, for example, vary by as much as 300,000 barrels a day-an amount equal to the daily cuts that Russia agreed to in November.

OPEC officials say they have little choice but to try to persuade the non-OPEC countries to continue with their agree-



ments. And despite broad skepticism from analysts, OPEC's Mr. Barkindo says there is widespread compliance with the current accord.

Meanwhile, if the world's oversupply of oil doesn't fall back into balance with demand by next year, Mr. McNally, the Washington consultant, says he expects OPEC's grand alliance with non-OPEC countries "will fall apart."

Back in 1960, when the cartel was founded by Iraq, Saudi Arabia, Venezuela, Iran and Kuwait, those members alone controlled more than half of the world's crude-oil production. Now, even with 13 members, the group controls only about a third of global oil production, including crude and natural-gas liquids, and "has made it clear it would not be able to restore stability on its own," Mr. Barkindo says.

The key cause in this slippage: technological advances that have given energy companies the ability to extract more oil from the ground and get it to market faster.

"OPEC's attempt to regain power via a super-OPEC may be a smart strategic move,' says Jamie Webster, an energy analyst fellow at the Center for Global Energy Policy at New York's Columbia University. But, he adds, "it's hardly the recipe for a strong organization that can effectively exert itself through market downs and ups."

Mr. Faucon is a reporter for The Wall Street Journal in London. Email benoit.faucon @wsj.com.



Continued from the prior page to peak by 2035, but the firm does expect the world's fuel mix to significantly change by 2050, with greater reliance on natural gas and renewables.

But others see electric vehicles making significant inroads into oil demand. Statoil Chief Economist Eirik Wærness savs expectations of higher electricvehicle adoption are the main reason that his company's peak-demand forecast of 2030 is earlier than BP's. Statoil has shifted its long-term investment portfolio to reflect its forecast of demand peaking around 2030. The company plans to increase investment in renewables to between 15% and 20% of total investments, CEO Eldar Sætre said recently.

Another crucial variable to consider is the developing world. Any leveling of driver demand for gasoline in rich countries could be offset by growing demand among new middle-class drivers in developing nations.

Part of BP's forecast of a mid-2040s peak rides on continued growth in developing nations. As China, India and other nations get wealthier over the next two decades, another two billion peopleabout a quarter of the world's population—will move from low to middle incomes. "When that happens, your demand for oil increases," says BP's Mr. Dale. "You stop riding on overcrowded buses and trains, and you buy your first motorbike. And then you buy a car."

To come up with Statoil's 2030 peak-demand forecast, Mr. Wærness, the company's chief economist, says he thinks a lot about what life will be like 20 years from now for much of the world's population—especially in India, which will emerge to lead global energy-demand growth in the 2020s, taking the mantle from China.

"I'm not talking about people in New York and San Francisco but kids of the current poor people in Calcutta, Chennai and Mumbai," Mr. Wærness says. "They will become global middle-class consumers by 2040."

Consider this jet-fuel math: Seven times as many Chinese are flying now as in 2000, and six times as many Indians, he says. "When they get rich, they'll want to travel to exciting places."

Why, then, does Statoil expect an early peak? The company sees increased demand balanced out by efforts in some developing countries to reduce greenhouse-gas emissions and limit climate change. In China, for instance, the government is subsidizing electric vehicles, and in cities, only EVs are allowed on the road on

days when air quality is bad. Such policies around the world stand to have a major impact on the fuel mix. Globally, carbon intensity and energy intensity have already peaked and will trend down through 2035, according to a Wood Mackenzie analysis. But many analysts say the Paris Agreement to limit global warming is just the beginning. And some companies are starting to plan accordingly.

"To us, it's real," says Statoil's Mr. Sætre. "The future has to be low carbon."

Ms. Cook is deputy chief of The Wall Street Journal's energy bureau, and Ms. Cherney is global editor of the bureau. Email them at lynn.cook@wsj.com and elena.cherney@wsj.com.

**2.49**%

38915.87 12/29/89

Data as of Friday, May 19, 2017

Data as of 4 p.m. New York time

Last Year ago

23.49

17.51

23.44

18.41

1.98

# **MARKETS DIGEST**

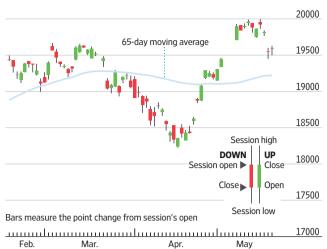
### STOXX 600 Index

**391.51 \( \( \)** 2.32, or 0.60\% High, low, open and close for each trading day of the past three months. Year-to-date ▲ 8.33% 52-wk high/low 396.45 308.75 414.06 4/15/15

# **2381.73 16.01**, or 0.68%

S&P 500 Index

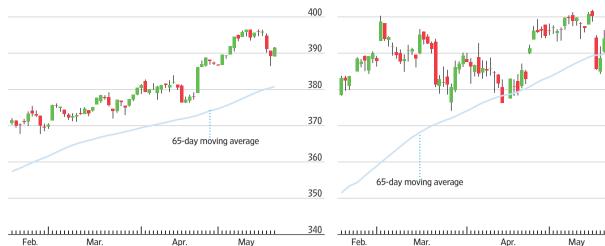
Trailing P/E ratio P/E estimate High, low, open and close for each Dividend yield trading day of the past three months. All-time high: 2402.32, 05/15/17



Year-to-date

All-time high

52-wk high/low 19961.55 14952.02





#### International Stock Indexes

The Global Dow **MSCIEAFE** 

**MSCIEM USD** 

**DJ Americas** 

Sao Paulo Bovespa

**Nasdaq Composite** S&P 500

S&P/TSX Comp

IPC All-Share

Santiago IPSA

DJIA

Region/Country Index

World

**Americas** 

Brazil

Canada

Mexico

Chile

U.S.

Australia

Hong Kong

Singapore

Asia-Pacific

Australia dollar

China yuan

China

India

Japan

Nikkei 225 Index

**19590.76 \( \)** 36.90, or 0.19%

High, low, open and close for each

trading day of the past three months.

Data as of 4 p.m. New York time

Low	Close	High	% chg
2197.91	•	2767.88	8.6
1520.94	•	1889.46	11.8
785.26	•	1015.05	15.5
480.83	•	578.10	5.9
48471.71	•	69052.03	4.0
13689.79	•	15922.37	1.1
44282.03		49939.47	7.5

0.75	1520.94		•	1889.46	11.8
0.74	785.26		•	1015.05	15.5
0.79	480.83		•	578.10	5.9
1.69	48471.71		•	69052.03	4.0
1.19	13689.79		•	15922.37	1.1
1.54	44282.03		•	49939.47	7.5
0.39	3054.30		•	3782.66	13.6
0.69	17140.24		•	21115.55	5.3
0.47	4594.44		•	6169.87	13.0
0.68	2000.54		•	2402.32	6.4
	9.77	•		25.76	-14.2
0.60	308.75		•	396.45	8.3
0.47	2636.71		•	3276.11	7.5

	CBOE Volatility	12.04	-2.62	-17.87	9.77	•		25.76 -	-14.2
EMEA	Stoxx Europe 600	391.51	2.32	0.60	308.75		•	396.45	8.3
	Stoxx Europe 50	3235.92	15.12	0.47	2636.71		•	3276.11	7.5
Austria	ATX	3161.45	69.19	2.24	1988.40			3161.45	20.7
Belgium	Bel-20	3949.44	43.40	1.11	3141.13		•	4041.03	9.5
France	CAC 40	5324.40	34.67	0.66	3984.72		•	5432.40	9.5
Germany	DAX	12638.69	48.63	0.39	9268.66		•	12807.04	10.1
Greece	ATG	784.17	1.34	0.17	519.33		•	797.16	21.8
Hungary	BUX	34835.80	306.95	0.89	25390.23			34835.80	8.9
Israel	Tel Aviv	1412.19		Closed	1378.66	•		1478.96	-4.0
Italy	FTSE MIB	21567.52	268.26	1.26	15103.58		•	21787.90	12.1
Netherlands	AEX	526.92	2.40	0.46	411.62		•	536.26	9.1
Poland	WIG	60739.95	838.83	1.40	43549.58		•	62336.39	17.4
Russia	RTS Index	1087.75	10.95	1.02	879.55		•	1195.61	-5.6
Spain	IBEX 35	10835.40	150.50	1.41	7645.50		•	11135.40	15.9
Sweden	SX All Share	582.53	4.91	0.85	445.00		•	592.80	9.0
Switzerland	Swiss Market	9022.51	84.14	0.94	7593.20		•	9127.61	9.8
South Africa	Johannesburg All Share	54427.30	230.18	0.42	48935.90			54474.09	7.5
Turkey	BIST 100	95147.34		Closed	71594.98		•	96194.20	21.8
U.K.	FTSE100	7470.71	34.29	0.46	5923.53		•	7522.03	4.6
Asia-Pacific	DJ Asia-Pacific TSM	1586.08	1.72	0.11	1324.15		•	1598.88	11.5

-0.19

-0.15

-0.22

0.02

0.15

0.10

0.19

0.07

5103.30

2815.09

19809.03

25230.36

14952.02

2729.85

1925.24

8131.26

Country/currency

**Europe** 

**Bulgaria** lev

Euro zone euro

**Hungary** forint

Iceland krona

Czech Rep. koruna-b **Denmark** krone

5956.50

3288.97 -0.4

25371.59 14.4

19961.55 2.5

3271.11 11.7

2296.37 12.9

10036.82 7.5

in US\$ per US\$ (%)

0.5721 1.7480 -5.9

0.1505 6.646 -7.3 1.1190 0.8937 -6.0

0.0423 23.662 **-7.9** 

0.1503 6.6527 **-5.9** 

0.1191 8.3949 **-2.9** 0.2662 3.7563 **-10.3** 

0.01760 56.806 **-7.3** 

0.1144 8.7436 -4.0

1.0251 0.9755 -4.3

0.2791 3.5824 **1.7** 

0.0379 26.3605 -2.7

1.3016 0.7683 **-5.2** 

2.6524 0.3770 -0.04

0.0554 18.0500 -0.5

0.2793 3.5810 **-6.9** 

3.2930 0.3037 **-0.6** 

2.5971 0.3850 **0.02** 

0.2746 3.641 0.03

0.2666 3.7507 unch

0.0757 13.2177 **-3.5** 

Close Net Chg % Chg YTD% Chg

**WSJ Dollar Index** 88.81 -0.43 -0.48 **-4.45** 

Sources: Tullett Prebon, WSJ Market Data Group

0.003621 276.14 -6.2 0.009982 100.18 -11.3

London close on May 19

30658.77 14.4

Latest NetChg

25.37

14.00

7.29

4.48

14.24

28.57

16.01

% chg

0.93

Close

2748.33

1882.75

995.67

572.09

3661.57

6083.70

2381.73

5727.40

3090.63

25174.87

30464.92

19590.76

3216.92

2288.48

-10.90

0.49

38.35

30.13

36.90

-4.74

1.66

**62639.31** 1042.25

**15458.46** 181.26

**49067.47** 745.23

20804.84 141.82

**9947.62** -21.83 Weighted Taiwan Source: SIX Financial Information; WSJ Market Data Group

**S&P/ASX 200** 

S&P BSE Sensex

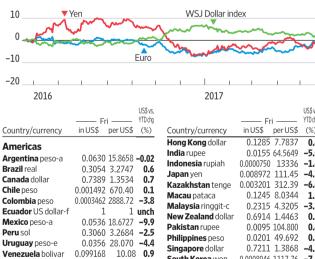
Nikkei Stock Avg

**Straits Times** 

**Hang Seng** 

**Shanghai Composite** 

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



						<b>iceland</b> krona	0.0
						Norway krone	(
			2017			<b>Poland</b> zloty	0
		US\$ vs.			US\$ vs.	Russia ruble-d	0.
г.	ri ——	YTD chg		Fri	YTD chg	Sweden krona	0
in US\$	per US\$		Country/currency	in US\$ per US\$	(%)	Switzerland franc	1
	per oop		Hong Kong dollar	0.1285 7.7837	0.4	Turkey lira	0
			India rupee	0.0155 64.5649		<b>Ukraine</b> hryvnia	0
	15.8658	-0.02	Indonesia rupiah	0.0000750 13336		<b>U.K.</b> pound	1
	3.2747	0.6	Japan yen	0.008972 111.45	-4.7	Middle East/Af	rica
	1.3534		Kazakhstan tenge	0.003201 312.39		Bahrain dinar	2
0.001492		0.1	<b>Macau</b> pataca	0.1245 8.0344	1.5	<b>Egypt</b> pound-a	(
0.0003462			Malaysia ringgit-c	0.2315 4.3205		Israel shekel	Č
1		unch	New Zealand dollar	0.6914 1.4463	0.2	Kuwait dinar	3
	18.6727		Pakistan rupee	0.0095 104.800	0.4	Oman sul rial	2
	3.2684		<b>Philippines</b> peso	0.0201 49.692	0.2	Qatar rial	(
	28.070		Singapore dollar	0.7211 1.3868	-4.2	Saudi Arabia riyal	(
0.099168	10.08	0.9	South Korea won	0.0008946 1117.76	-7.5	South Africa rand	(
			Sri Lanka rupee	0.0065531 152.60	2.8		Close
0.7452	1.3419	-3.4	Taiwan dollar	0.03331 30.018	-7.5	WSJ Dollar Index	88.81
0.1451	6.8904	<b>-0.</b> 8	Thailand baht	0.02912 34.340	-4.1	Sources: Tullett Prebon.	WSJ M
						,	

## 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

•	•								
	Country/			Spread Over Treas	urys, in basis points	. —		Yield	
Coupon	Maturity, in years	Yield	Latest	Previous	Month Ago	Year ago	Previous	Month ago	Year ago
5.250	Australia 2	1.623	34.4	36.6	44.4	77.3	1.637	1.625	1.657
4.750	10	2.492	24.9	27.6	24.7	51.3	2.509	2.464	2.364
3.000	Belgium 2	-0.530	-180.8	-180.7	-170.7	-139.6	-0.537	-0.526	-0.512
0.800	10	0.752	-149.2	-148.4	-145.5	-144.5	0.749	0.762	0.406
0.000	France 2	-0.452	-173.0	-171.3	-148.5	-128.1	-0.443	-0.304	-0.397
1.000	10	0.809	-143.5	-142.9	-132.4	-133.9	0.804	0.893	0.512
0.000	Germany 2	-0.690	-196.8	-196.6	-198.7	-137.7	-0.696	-0.806	-0.494
0.250	10	0.369	-187.4	-188.6	-201.2	-167.6	0.347	0.206	0.175
0.300	Italy 2	-0.254	-153.3	-152.6	-123.1	-93.1	-0.255	-0.050	-0.047
2.200	10	2.131	-11.2	-7.8	6.9	-34.2	2.155	2.286	1.508
0.100	Japan 2	-0.157	-143.6	-142.0	-140.0	-110.8	-0.149	-0.219	-0.225
0.100	10	0.042	-220.2	-218.6	-221.0	-192.6	0.047	0.007	-0.075
4.000	Netherlands 2	-0.613	-189.2	-189.8	-191.0	-139.2	-0.628	-0.729	-0.508
0.750	10	0.571	-167.3	-167.0	-177.0	-159.1	0.563	0.447	0.260
4.750	Portugal 2	0.275	-100.3	-99.3	-81.5	-61.8	0.277	0.366	0.266
4.125	10	3.173	92.9	96.1	157.9	105.6	3.194	3.796	2.906
2.750	Spain 2	-0.300	-157.9	-155.2	-141.0	-95.3	-0.282	-0.229	-0.070
1.500	10	1.559	-68.5	-67.8	-55.1	-24.7	1.555	1.666	1.604
4.250	Sweden 2	-0.698	-197.6	-195.3	-185.9	-133.7	-0.683	-0.678	-0.453
1.000	10	0.511	-173.3	-172.2	-167.9	-108.0	0.511	0.538	0.770
1.750	<b>U.K.</b> 2	0.117	-116.2	-115.9	-104.6	-44.9	0.112	0.134	0.435
4.250	10	1.095	-114.9	-117.5	-115.1	-41.1	1.058	1.067	1.440
1.250	<b>U.S.</b> 2	1.279					1.270	1.181	0.884
2.375	10	2.243					2.233	2.217	1.850

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 5/18/2017

ICE-EU

473.25

	Commodity	Exchange	Last price	Net	One-Day Chang Percer		Year high	Year low
	Corn (cents/bu.)	СВОТ	372.25	6.25		1.71%	393.75	360.7
	Soybeans (cents/b	bu.) CBOT	953.25	8.50		0.90	1,092.50	941.2
	Wheat (cents/bu.)	СВОТ	436.25	10.50		2.47	488.75	416.0
	Live cattle (cents/	lb.) CME	121.375	1.725		1.44	127.500	99.40
	Cocoa (\$/ton)	ICE-US	2,036	-48	-2.30%		2,270	1,75
	Coffee (cents/lb.)	ICE-US	132.00	2.35		1.81	161.55	128.6
	Sugar (cents/lb.)	ICE-US	16.42	0.39		2.43	20.81	15.2
	Cotton (cents/lb.)	ICE-US	73.40	-0.24	-0.33		75.72	69.8
	Robusta coffee (\$/t	ton) ICE-EU	1978.00	-6.00	-0.30		2,283.00	1,871.0
	Copper (\$/lb.)	COMEX	2.5825	0.0510		2.01	2.8400	2.472
-	Gold (\$/troy oz.)	COMEX	1255.30	2.50		0.20	1,297.40	1,152.2
	Silver (\$/troy oz.)	COMEX	16.830	0.160		0.96	18.725	16.06
V	Aluminum (\$/mt)	* LME	1,906.00	-20.00	-1.04		1,972.00	1,688.5
	Tin (\$/mt)*	LME	20,475.00	500.00		2.50	21,225.00	18,760.0
	Copper (\$/mt)*	LME	5,508.00	-89.00	-1.59		6,156.00	360.7 941.2 416.0
	Lead (\$/mt)*	LME	2,057.50	-57.00	-2.70		2,445.00	2,022.
	Zinc (\$/mt)*	LME	2,470.00	-109.00	-4.23		2,958.50	2,470.
	Nickel (\$/mt)*	LME	9,040.00	-160.00	-1.74		11,095.00	8,980.
	Rubber (Y.01/ton)	TCE	224.90	1.60		0.72	n.a.	n.
	Palm oil (MYR/mt)	) MDEX	2,635.00	9.00		0.34	2,790.00	2,421.0
	Crude oil (\$/bbl.)	NYMEX	50.69	1.03		2.07	58.15	44.1
	NY Harbor ULSD (\$/	gal.) NYMEX	1.5885	0.0376		2.42	1.7901	1.384
	RBOB gasoline (\$/g	gal.) NYMEX	1.6471	0.0430		2.68	1.8859	1.454
	Natural gas (\$/mmE	3tu) NYMEX	3.353	0.073		2.23	3.5770	2.888
	Brent crude (\$/bb	l.) ICE-EU	53.81	1.14		2.16	60.21	46.9

1.77 526.50 413.00 Sources: SIX Financial Information; WSJ Market Data Group

Source: Tullett Prebon

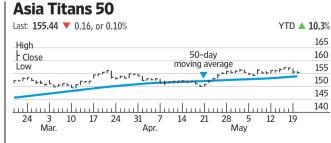
Gas oil (\$/ton)

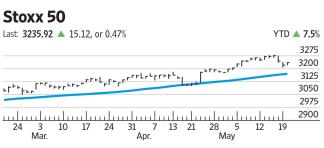
Cross rat	London close on M													
	USD	GBP	CHF	JPY	HKD	EUR	CDN	AUD						
Australia	1.3419	1.7466	1.3755	0.0120	0.1724	1.5013	0.9914							
Canada	1.3534	1.7614	1.3870	0.0121	0.1739	1.5140		1.0085						
Euro	0.8937	1.1634	0.9161	0.0080	0.1148		0.6604	0.6661						
Hong Kong	7.7837	10.1313	7.9792	0.0698		8.7088	5.7514	5.8012						
Japan	111.4520	145.0600	114.2600		14.3190	124.6900	82.3600	83.0700						
Switzerland	0.9755	1.2696		0.0088	0.1253	1.0916	0.7210	0.7270						
U.K.	0.7683		0.7876	0.0069	0.0987	0.8597	0.5677	0.5726						
U.S.		1.3016	1.0251	0.0090	0.1285	1.1190	0.7389	0.7452						

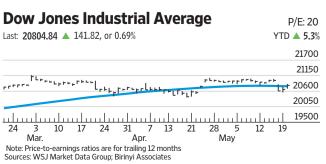
8.25

	tes		- 1	op Sto			-9-													
	Latest	52 wks ago	C	Stock	Sym	Last	% '	YTD% Chg	٠	Stock	Sym	Last	% Chg	YTD%	٠	Stock	Sym	Last		YTD% Chg
Libor			Cur	Stock	Эуш	LdSt	City	City	Cur	Stock	Зупп	Last	city	Chg	Cur	Stock	Зупп		Chg	
One month	1.01711%	0.44325%		Λο	ia Ti	tans			¥	TakedaPharm	4502	5710.00	-0.82	18.10	£	RoyDtchShell A	RDSA	2118.00	0.45	-5.55
Three month	1.18644	0.66130		A.5	na II				HK\$	TencentHoldings	0700	268.40	1.90	41.49	€	SAP	SAP	94.10	0.37	13.63
Six month	1.41517	0.95540	HK\$	AIAGroup	1299	54.70	0.27	25.03	¥	TokioMarineHldg	8766	4828.00	1.60	0.67	€	Sanofi	SAN	88.38	0.03	14.93
One year	1.72289	1.30200	¥	AstellasPharma	4503	1421.50	-0.52	-12.44	¥	ToyotaMtr	7203	5965.00	0.59	-13.27	€	SchneiderElectric		68.50	0.35	3.62
Euro Libor			AU\$	AustNZBk	ANZ	28.50	-1.89	-6.31	AU\$	Wesfarmers	WES	43.01	-0.92	2.06	€	Siemens	SIE	128.15	-0.16	9.72
One month	-0.40286%	-0.35286%	AU\$	BHP	BHP	24.28	1.38	-3.11	AU\$	WestpacBanking	WBC	30.85	-0.99	-5.37	CHF	Syngenta	SYNN	463.00	0.06	15.03
Three month	-0.37286	-0.27814	HK\$	BankofChina	3988	3.85	-0.26	11.92	AU\$	Woolworths	wow	25.85	-1.11	7.26	€	Telefonica	TEF	9.94	2.30	12.74
Six month	-0.27571	-0.15929	HK\$	CKHutchison	0001	99.60	0.50	13.31				FA			€	Total	FP	48.40	0.31	0.34
One year	-0.14900	-0.02957	HK\$	CNOOC	0883	9.13		-5.88		5	toxx	(50			CHF	UBSGroup	UBSG	15.95	1.14	
Euribor			AU\$	CSL	CSL	131.06	0.95	30.52	CHF	ABB	ABBN	24.30	0.79	13.13	€	Unilever	UNA	49.23	0.90	25.87
One month	-0.37400%	-0.34900%	¥	Canon	7751	3760.00	-0.95	14.11	€	ASMLHolding	ASML	120.45	-0.04	12.94	£	Unilever	ULVR	4138.00	0.94	25.68
Three month	-0.33100	-0.25800	¥	CentralJapanRwy	9022	18345	-0.49	-4.60	€	AXA	CS	23.79	0.95	-0.81	€	Vinci	DG	76.65	-0.33	18.47
Six month	-0.25100	-0.14300	HK\$	ChinaConstructnBk		6.32	-0.16	5.86	€	AirLiquide	Al	110.80	1.09	4.87	£	VodafoneGroup	VOD	220.30	0.07	10.23
One year	-0.12900	-0.01100	HK\$	ChinaLifeInsurance	2628	24.25	0.62	20.05	€	Allianz	ALV	169.80	-0.18	8.15	CHF	ZurichInsurance	ZURN	286.50	1.49	2.18
Yen Libor			HK\$	ChinaMobile	0941	85.75	0.65	4.32	€	AB InBev	ABI	105.70	1.25	5.12			ILD	٨		
One month	-0.01950%	-0.04314%	HK\$	ChinaPetro&Chem	0386	6.26	-0.32	13.82	£	AstraZeneca	AZN	5119.00	-0.41	15.36			ונט	A		
Three month	-0.01279	-0.02471	AU\$	CmwlthBkAust	CBA	80.23	-0.72	-2.65	€	BASF	BAS	85.74	0.16	-2.91	\$	AmericanExpress	AXP	76.80	0.55	3.67
Six month	0.02343	0.00157	¥	EastJapanRailway	9020	10575	-0.42	4.70	€	BNP Paribas	BNP	65.67	2.04	8.46	\$	Apple	AAPL	153.06	0.34	32.15
One year	0.12886	0.09529	¥	Fanuc	6954	21875	0.18	10.40	£	BT Group	BT.A	311.55	0.84	-15.09	\$	Boeing	BA	180.76	1.89	16.11
	Offer	Bid	¥	Hitachi	6501	665.60	0.29	5.32	£ €	BancoBilVizAr	BBVA	7.41	2.40	16.75	\$	Caterpillar	CAT	102.43	2.21	10.45
Eurodollars	Offici	Did	TW\$	Hon Hai Precisn	2317	101.50	-0.49	20.55	€	BancoSantander	SAN	5.83	1.66	17.62	\$	Chevron	CVX	106.52	1.28	-9.50
One month	1.1000%	1.0000%	¥	HondaMotor	7267	3050.00	-0.49	-10.69	£	Barclays	BARC	213.70	0.68	-4.36	\$	CiscoSystems	CSCO	31.21	-0.54	3.28
Three month	1.2000%	1.1000	KRW	HvundaiMtr	005380	170000	3.03	16.44	€	Baver	BAYN	116.95	0.00	17.98	\$	Coca-Cola	КО	43.90	0.23	5.89
Six month	1,3500	1.2500	HK\$	Ind&Comml	1398	5.07	-0.20	9.03	£	BP BP	BP.	472.15	0.17	-7.35	\$	Disney	DIS	107.52	0.79	3.17
One year	1.6000	1.5000	¥	JapanTobacco	2914	4112.00	-0.29	6.97	£	BritishAmTob	BATS	5401.00	0.07	16.87	\$	DuPont	DD	77.82	1.01	6.02
One year			¥	KDDI	9433	3061.00	0.33	3.43	€	Daimler	DAI	67.89	0.25	-4.00	\$	ExxonMobil	XOM	81.93	0.22	-9.23
	Latest	52 wks ago	¥	Mitsubishi	8058	2272.00	2.64	-8.76	€	Daimier DeutscheTelekom	DTE	17.80	2.39	8.84	\$	GeneralElec	GE	28.05	2.07	-11.23
Prime rates			¥	MitsubishiElectric		1587.00	2.62	-2.61	£	Diageo	DGE	2292.00	0.09		\$	GoldmanSachs	GS	215.39	0.11	-10.05
U.S.	4.00%	3.50%	¥	MitsubishiUFJFin		689.90	1.34	-4.21	€	ENI	ENI	15.04	1.21	8.63 -2.78	\$	HomeDepot	HD	156.30	0.39	16.57
Canada	2.70	2.70	¥	Mitsui	8031	1506.00	1.45	-6.29	£		GSK	1647.50	0.58	-2.78 5.47	\$	Intel	INTC	35.40	0.51	-2.40
Japan	1.475	1.475	¥	Mizuho Fin	8411	196.10	1.40	-6.53	£	GlaxoSmithKline HSBC Hldgs	HSBA	665.50			\$	IBM	IBM	151.98	0.80	-8.44
Hong Kong	5.00	5.00	¥	NTTDoCoMo	9437	2721.50	0.04	2.20	€			15.09	0.20	1.31	\$	JPMorganChase	JPM	84.78	0.98	-1.75
Policy rates			∓ AU\$	NatAustBnk	NAB	30.38	-0.56	-0.95	£	INGGroep	INGA	3670.00	1.17 0.71	12.86 3.60	\$	J&J	ראר	127.00	0.02	10.23
ECB	0.00%	0.00%	¥	NipponTeleg	9432	5228.00	0.27	6.43	£	ImperialBrands	IMB				\$	McDonalds	MCD	148.15	0.78	21.71
Britain	0.25	0.50	¥	NissanMotor	7201	1093.50	0.27	-6.98	€	IntesaSanpaolo	ISP	2.80	0.50	15.42	\$	Merck	MRK	63.78	-0.17	8.34
Switzerland	0.50	0.50	¥	Panasonic	6752	1366.00	1.94	14.84	£	LVMHMoetHennessy	MC	229.10	0.04	26.30	\$	Microsoft	MSFT	67.69	-0.03	8.93
Australia	1.50	1.75				46.30	0.43	19.33	I -	LloydsBankingGroup	LLOY	71.78	0.70	14.83	\$	Nike	NKE	51.77	0.17	1.85
U.S. discount	1.50	1.00	HK\$	PingAnInsofChina					€	LOreal	OR	187.10	0.81	7.90	\$	Pfizer	PFE	32.46	0.74	-0.06
Fed-funds target	0.75-1.00	0.25-0.50	-	RelianceIndsGDR		40.65	-0.37	28.84	£	NationalGrid	NG.	1054.00	0.43	10.76	\$		PG	86.24	0.43	2.57
Call money	2.75	2.25	KRW	SamsungElectronics		2236000	-2.66	24.08	CHF	Nestle	NESN	82.35	1.60	12.73	\$	3M	MMM	195.80	0.29	9.65
Overnight repur	rchase rates		¥	Seven&I Hldgs	3382	4774.00	0.08	7.21	CHF	Novartis	NOVN	78.75	0.13	6.28	\$	Travelers	TRV	120.79	-0.07	-1.33
U.S.	0.83%	0.39%	¥	SoftBankGroup	9984	8379.00	0.90	7.91	DKK	NovoNordiskB	NOVO-B	272.40	0.59	6.95	\$	UnitedTech	UTX	121.16	1.50	10.53
Euro zone	n.a.	n.a.	¥	Sony	6758	3937.00	-0.13	20.21	£	Prudential	PRU	1756.00	0.43	7.90	\$	UnitedHealth	UNH	172.59	0.66	7.84
			¥	Sumitomo Mitsui		4052.00	1.45	-9.15	£	ReckittBenckiser	RB.	7620.00	0.63	10.66	\$	Visa	V	92.48	0.84	18.53
	Sources: WSJ Market		HK\$	SunHngKaiPrp	0016	114.40	-0.61	16.73	£	RioTinto	RIO	3167.50	2.13	0.28	\$	Verizon	VZ	45.42	0.84	-14.91
	Financial Info	ormation, Tullett	TW\$	TaiwanSemiMfg	2330	203.00	-0.25	11.85	CHF	RocheHldactf	ROG	267.00	0.72	14.79	\$	Wal-Mart	WMT	78.77	1.59	13.96

# 4 p.m. New York time







## FINANCE & MARKETS

# Saudis Bet on U.S. Public Works

By Ryan Dezember

Saudi Arabia joined the parade of investors into U.S. public works by pledging a record investment with Blackstone Group LP.

The country's Public Investment Fund agreed to commit \$20 billion to Blackstone's new infrastructure fund in the latest push around the world by large investors to buy up airports, pipelines and other public projects, particularly in

Blackstone said Saturday the kingdom's money would seed an investment fund that the New York private-equity giant hopes will reach \$40 billion and have spending power of as much as \$100 billion once debt is added to the mix. ever raised, a \$15.8 billion

The commitment shows how Blackstone continues to distance itself from Wall Street rivals by raising ever larger sums from investors such as sovereign-wealth funds, public pensions and rich families. With assets of \$368.2 billion as of March 31, it manages nearly twice as much as its closest competitor, Apollo Global Management LLC, and each of Blackstone's four platforms—real estate, private-equity, hedge funds and credit—are among the largest investing businesses of

Saudi Arabia's planned \$20 billion investment alone would be about 25% larger than the biggest infrastructure fund pool Global Infrastructure Partners completed earlier this year, according to data from industry tracker Pregin. Global Infrastructure Partners. or GIP, is also based in New York and its chief executive, Adebayo Ogunlesi-like Blackstone Chief Executive Stephen Schwarzman-is one of the business leaders U.S. President Donald Trump has named to a presidential advisory group.

Last year, investors committed a record of about \$56 billion to private infrastructure funds and fund managers collected a further \$29 billion during the first quarter of this year, according to Pregin.

The data provider has said managers of more than 150 other private infrastructure the infrastructure fund will funds are soliciting investors for an additional \$100 billion

Carlyle Group LP and Black-Rock Inc. are among other big investment firms that moved recently to beef up their infrastructure investing businesses.

The Blackstone fund will have a broad mandate to find investments, according to a person familiar with the firm's plans, with the ability to invest in things such as hospitals as well as assets that are more typically considered infrastructure, such as pipelines, roads and utilities.

Also, unlike most of the private funds the New York firm manages, which lock up investors' cash for 10 years or so, have no expiration date. That structure gives the firm more time to find investments and reduces the pressure to sell them on a deadline.

Both features could help Blackstone circumvent two big issues infrastructure investors have encountered in the U.S.: limited investment opportunities outside the energy sector, and uncertainty over who will eventually buy some assets, such as roads and municipal utilities.

Saturday's pact was announced in Riyadh during Mr. Trump's visit to Saudi Arabia. The president has called boosting private investment in U.S. infrastructure a priority of his presidency.

# **Funds Tied** To Tech Attract Cash Wave

By Chris Dieterich

A relentless stream of money is flowing into technology funds this year, and one strategist is asking if a minor mania might be taking hold in the market's most popular stocks.

Tech-focused mutual and exchange-traded funds have gathered new money for 11 consecutive weeks and have pulled in \$8.7 billion in the year through Wednesday, according to EPFR Global. At the current pace, flows into tech funds would swell the group's assets by nearly 25% for the entire year, the fastest pace in at least 15 years, according to Bank of America Merrill Lynch.

Big-market-capitalization tech stocks are the S&P 500's best performers in 2017, and fund flows indicate that investors are chasing performance in companies that sport high rates of profitability, such as Apple Inc. The world's most valuable company is up 32% in 2017, helping to drive up S&P 500 tech stocks by 17%.

Tech-focused funds have gathered new money for 11 weeks in a row so far.

And popularity for tech is registering elsewhere. For instance, the PowerShares QQQ exchange-traded fund isn't explicitly a tech fund but is heavy in the sector. Within this ETF, Apple, Microsoft Corp., Amazon.com Inc., Facebook Inc. and Alphabet Inc. represent nearly half of the ETF's weight. This ETF by itself has pulled in about \$1.2 billion in 2017 through Thursday, according to FactSet.

cap tech names have been on fire. These companies have well-known brands and dominant businesses. At the same time, middling economic growth in the U.S. has made fast profit and earnings growth harder to find elsewhere in the U.S. stock market. Meanwhile, low governmentand corporate-bond yields have left investors with few obvious choices for where to plunk down new money.

It isn't hard to see why big-

One potential issue is that, as tech stocks become increasingly popular, they also might become the first ones that investors sell during bouts of broader market turmoil. Take Apple this past week as a case study: As the U.S. stock market suffered its worst declines in eight months on Wednesday, shares of Apple, absent corpo-

**INTELLIGENT INVESTOR | By Jason Zweig** 

# Is Buying a Quadruple-Leveraged ETF Crazy?



Volatility is back, but the latest way of trying to make money off it is wildly risky. Until this past Wednesday,

the S&P 500 had gone for 15 days in a row without moving up or down by more than 0.5%, the longest such streak, according to WSJ Market Data Group, since February 1969. Then the index snapped down 1.8% on the political turmoil in Washington. At the same time, the Se-

curities and Exchange Commission is reconsidering its approval of a pair of exchange-traded funds that would seek to quadruple the daily returns on U.S. stocks.

These funds, called Force-Shares Daily 4X US Market Futures, come in two versions, each betting on financial contracts whose returns are tied to those of the stock market. The long fund seeks to deliver four times the daily performance of those futures: the short fund, four times the opposite.

Thus, on a day when S&P 500 futures were up 1%, the long fund would gain approximately 4% and the short fund would lose about 4%. On a 1% down day, the long fund would lose roughly 4% and the short fund would gain about the same amount.

How risky is that over time? Not very, if you go by the disclosures in Force-Shares' offering document.

There, three tables show how the funds might perform. Remarkably, two of those tables assume that the market doesn't fluctuate at all. A third table assumes that stocks fluctuate at an annual rate of 12.54%, significantly lower than the 14.28% cited elsewhere in the ForceShares document

No horse will win the cov-

On Saturday, a horse named

eted Triple Crown this year.

But Wall Street financiers still

Cloud Computing and co-

owned by billionaire hedge-

fund manager Seth Klarman

scored a surprising victory in

the 142nd Preakness Stakes.

That came just two weeks af-

ter Vincent Viola, founder and

executive chairman of trading

firm **Virtu Financial** Inc., won

the Kentucky Derby with a

horse he co-owns, Always

Up next will be the Belmont

Dreaming.

have a chance at a sweep.

By Rob Copeland



for the five years ended in December 2015.

The maximum loss shown in these tables is less than 11%, although the prospectus does warn that the funds aren't suitable for long-term holders and "you could incur a partial or total loss of your investment.'

Kris Wallace, principal executive officer of Force-Shares, declined to comment on any aspect of the filing. A spokeswoman for the SEC also declined to comment.

But markets are rarely as calm as these disclosures imply. William Trainor, a finance professor at East Tennessee State University, has been researching leveraged funds for years. I asked him to estimate the returns the

It's a Horse Race on Wall Street

Stakes on June 10, where both

horses—and perhaps others

with Wall Street ties—are ex-

Preakness

thrust into the spotlight Mr.

Klarman, a strapping, bearded

Boston hedge-fund manager

who infrequently speaks in

public. That hasn't stopped

him from earning renown as

one of the most emulated so-

called value investors in the

industry. Head of the Baupost

Group, Mr. Klarman makes

large, long-term investments

in assets he believes to be un-

dervalued, and frequently

holds billions of dollars in

cash so that he can move

victory

pected to race.

ForceShares funds would generate over a full year.

If the S&P 500 falls between 18% and 22% in a year, a quadruple long fund would lose an average of about 60% even if stock prices decline in a smoother pattern than the historical average, says Prof. Trainor. If prices bounce around even more sharply on the way down, the fund could lose about 70%. A 4X short fund would produce comparable losses in a similarly rising market, his analysis shows.

That isn't all: These funds can lose money even if the market goes nowhere.

Pauline Shum-Nolan, a finance professor at York University in Toronto, calculates that even in a year when the

stock market fluctuates normally but ends up delivering an annual return of zero, a quadruple long fund could lose 11.4%, and a quadruple short fund 18.4%

While such funds might be suitable for short-term traders, says Prof. Trainor, "over periods of six months to a year you should expect to have most of your wealth disappear," especially in the quadruple-short variety.

Why do the returns of leveraged ETFs deviate so sharply over longer periods from the performance of their benchmarks?

Say you put \$10,000 in both the S&P 500 and a 4X long fund tied to it. If the market rises 10% today, your S&P investment would gain

\$11,000 there. And the leveraged fund would gain four times as much, turning \$10,000 into \$14,000. Now let's assume that the

\$1,000, so you now have

S&P 500 falls 9.1% the next day. Your investment in the index would fall by \$1.000. leaving you with \$10,000, right back where you started. Meanwhile, the 4X fund would quadruple that loss, for a decline of 36.4%. That would knock your \$14,000 down to just over \$8,900. (For simplicity, we're ignoring the effect of fees.)

The longer you hold such a fund and the more stocks fluctuate, the more its returns will differ from a simple quadrupling of the mar-

FINANCE WATCH

SUGAR

### China Likely to Raise Its Taxes on Imports

China looked set to lift taxes on imported sugar on Monday, a move that would further batter a commodity that is already one of the worst performers of 2017.

In September, Beijing announced it was investigating a sharp increase of foreign-produced sugar in the country after sugar millers complained that cheap imports were being dumped into China.

Prices peaked on Sept. 29, putting 2016's gains at nearly 60%. But they fell 15% in the fourth quarter as Brazil forecast a robust crop. They have shed a further 18% so far in 2017.

China is the world's largest recipient of the sweetener.

Beijing already levies a 50% tax on all but the first 1.95 million tons of sugar legally arriving



Media mogul Oprah Winfrey

into China.

-Lucy Craymer

Winfrey Asset Chief **Leaves for New Job** 

**OW MANAGEMENT** 

Oprah Winfrey's money manager has stepped down as chief

investment officer of her family office to take on that role for another Los Angeles billionaire.

rate news, plunged 3.4%.

Peter Adamson left OW Management LLC for the family office of Eric Smidt, where he was expected to start Monday. Mr. Smidt owns discount-tool retailer Harbor Freight Tools, Representatives for Ms. Winfrey and Mr. Smidt confirmed the move.

Mr. Adamson had led Ms. Winfrey's family office since she set up the group in 2010 to handle her personal investments. The 54-year-old Mr. Adamson will remain connected to Ms. Winfrey as he has joined a new advisory committee that will oversee OW's investments.

Ms. Winfrey, 63 years old, has an estimated fortune of \$2.9 billion built on her years hosting a groundbreaking talk show. The media mogul co-owns the OWN cable network with **Discovery Communications** Inc

—Juliet Chung

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Cloud Computing in the Preakness, with Javier Castellano aboard.

quickly when opportunity strikes.

A collection of his protégés run separate multibillion-dollar Boston hedge-fund firms similar approaches, spreading his style further.

Mr. Klarman wrote a 1991 book titled "Margin of Safety," a reference to the investing term coined by Benjamin Graham, considered by many to be the father of financial analvsis. The book is now out of print, and sells for thousands of dollars online.

In 2015, Mr. Klarman underwent cardiac bypass surgery in response to a routine checkup that "revealed some concerns," according to an investor letter at the time. The surgery was a success though it temporarily sidelined Mr. Klarman at the firm.

A heavy political donor to both parties who has leaned Republican, Mr. Klarman nonetheless came out against that party's nominee in the last presidential election. In a widely disseminated investor letter in January, he described himself as "troubled" by President Donald Trump. "As a student of history, I know that democracies are fragile and cannot be taken for granted," he warned.

On Sunday, Mr. Klarman's celebratory weekend continued: It was his 60th birthday.

# **MARKETS**

# Oil Producers Aim to Extend Cuts | Big Year For Deals

Saudi minister says OPEC, others outside the cartel are eager to push prices higher

By Margherita Stancati AND SUMMER SAID

RIYADH, Saudi Arabia—Oil producers are enthusiastic about extending crude output cuts by nine months. Saudi energy minister Khalid al-Falih said Sunday, the latest positive sign for efforts to trim a supply glut and prop up prices before an OPEC gathering.

The extension, through the first quarter of next year, would help producers reach their goal of reducing global stockpiles to a five-year average and balancing the market, according to the Saudi minis-The decision is expected to

be taken when producers meet in Vienna on May 25, but already everyone is keen on the deal, Mr. Falih said at an event in Rivadh, as U.S. President Donald Trump continued his visit in Saudi Arabia, the world's biggest crude exporter.

The comments come days after the world's two biggest crude-oil producers, Russia and Saudi Arabia, sent petroleum prices higher with a joint statement that output cuts should be extended into March

That was the strongest signal yet that the Organization of the Petroleum Exporting Countries and a coalition of producers outside the cartel will continue their efforts to influence oil prices by cutting supply. OPEC's 13 members and 11 non-OPEC producers agreed last year to cut production by almost 1.8 million barrels a day through June in hopes of bringing supply and demand back into balance.

There have been doubts that the OPEC coalition's production cuts were having their desired effect of eliminating a



Saudi Aramco's Abqaiq oil facility in eastern Saudi Arabia. Below, Khalid al-Falih, Saudi Arabia's energy minister, earlier this month.

glut of crude that has weighed on the market. Resurgent output from U.S. shale producers has blunted OPEC's efforts, and prices-after a brief boost-have swung between \$48 and \$52 a barrel in the past month.

Another problem facing OPEC is inventories in 35 of the world's most industrialized nations: the Organization for Economic Cooperation and Development. OPEC said earlier this month that crude stockpiles increased from the fourth quarter of 2016 by 31 million barrels to just over three billion—276 million barrels above the five-year average. But Mr. Falih said there has

been a significant reduction of inventories in the past few weeks, and compliance has improved from producers participating in the cut deal, including Russia. "We believe that continuation with the same level of cuts, plus eventually



adding one or two small producers...will be more than adequate to bring the five-year balance to where they need to be by the end of the first quarter 2018," he said.

National representatives from OPEC members said last week that though the relationship with Russia has vastly improved, Saudi Arabia and oth-

ers in the group are set to pressure Moscow to fully comply with its commitment to cut production if, as expected, it agrees to extend the deal later this month.

Mr. Falih said that despite Russia taking as long as four months to achieve its share of the cut, OPEC now has "full commitment from the Russian

including President [Vladimir] Putin himself who has made it clear that Russia will continue to deliver their 300,000 barrels-a-day cut."

Cartel members in recent weeks have suggested either making deeper production cuts in case Libya and Nigeriawhich aren't bound by the deal-boost their output, or bringing new participants into the effort to cut oil exports, officials said.

The functions of production levels from Libya and Nigeria, however, haven't taken OPEC out of the range decided last year, but the cartel will do whatever is necessary to balance the market, the Saudi minister said. "We are flexible and we will continue to monitor the market and, as well as I said in the beginning, we are all ready to consider other creative suggestions that may emerge between now and May 25," he added.

# Slides Off Top Rung

By Stephen Grocer

The year 2007 has reclaimed its title as the biggest year for global deal making.

With \$4.3 trillion in global deals, the year was unseated two years ago by 2015, which ended with \$4.7 trillion in announced deals. But since then, many of those deals have unraveled.

Anthem Inc. this month gave up on its two-year, \$55.2 billion bid to acquire Cigna Corp. after a Delaware judge denied Anthem's request to force Cigna to move forward. The managedcare companies had sparred over who was at fault.

The withdrawal of the deal dropped the value of acquisitions announced in 2015 to \$4.24 trillion, below 2007's \$4.3 trillion total, according to data provider Dealogic.

With margins stretched and economic growth sluggish, companies began to turn to deal making in 2014 to increase their bottom lines. Some pursued deals that would move them to lower-tax domiciles overseas. Others sought to increase market share through acquisitions.

The value of acquisitions peaked in 2015, when \$5.3 trillion were announced globally, a record. But even before the year ended, many announced deals began to fall apart.

Some transactions ran into government opposition. Pfizer Inc. pulled its \$150 billion acquisition of Allergan PLC, 2015's biggest announced deal, after the Treasury Department in April 2016 imposed new curbs on so-called inversions that relocated U.S. companies overseas. Aetna Inc.'s \$35 billion acquisition of Humana Inc. fell apart after running into antitrust roadblocks.

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FINANCIAL ANALYSIS & COMMENTARY

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# Don't Count on Fed if the Market Tumbles

After months of placid markets, many investors have probably forgotten how much they have relied in recent years on the U.S. Federal Reserve to halt any meltdown. Now that volatility has returned, the Fed might not be there anymore.

This was a nerve-racking week in financial markets. At best, it now seems like the White House and congressional Republicans will have a harder time pushing through tax cuts. And at worst? This week Wall Street analysts began passing around stockmarket charts from the Watergate era.

The so-called Fed put, in which the central bank steps in to help stop a selloff, has been part of the market's dynamics for years. Starting with the financial crises of the 1990s, the central bank has regularly put planned rate increases on hold, or rushed in with rate cuts and other easing actions, during stock-market routs. That history seemed on investors

#### A Bit of a Stretch S&P 500's forward price/earnings ratio



minds during Wednesday's stock-market selloff, with futures showing them dialing back their rate-increase expectations for this year.

But now there are compelling reasons to believe that the Fed won't come to the market's rescue.

First, a big reason the Fed has been so quick to act was that the economic environment seemed so fragile that

not acting might put the economy at risk. That was true as recently as early last vear, when it dialed back its plans to raise rates in response to a tangle of emerging-market, debt and currency woes that threatened to sap the global economy.

Now, with the global economy healthy and growing, falling stock prices don't seem nearly as dangerous.

Second, the stock market's influence on consumer spending seems less certain than the Fed once believed. This is partly because not as many Americans are invested in the stock market anymore, and those that do are mostly better off. It is also because after years of rising stocks and so-so consumer spending, economists have begun to think that a

rising stock market doesn't have much of an impact on consumption. Rather, it was the economy's influence on both stocks and spending that was at work.

Third, the Fed thinks the stock market is expensive. The minutes from its March rate-setting meeting pointed out that price/earning ratios had become even more stretched, and that some Fed officials "viewed equity prices as quite high relative to standard valuation measures." A Fed that has become concerned about valuation, especially because it has been criticized in the past for fueling market excess, likely wouldn't be all that interested in propping up a market it already sees as pricey.

Of course, even with these considerations, a big enough fall would likely get the Fed to act. The problem for investors is that it is probably far below where the stock market is now.

-Justin Lahart

# U.S. vs. Europe: Reversal in Political Risk

The turmoil in the U.S. surrounding President Donald Trump pushed global bond yields lower last week. But under the surface, the narrowing spread between U.S. and German bond yields is a key indicator of how markets are reflecting changing political fortunes.

The gap between 10-year U.S. Treasury and German bund yields ballooned at the end of 2016 to 2.3 percentage points, reaching a level not seen since 1989. U.S. yields vaulted on a wave of optimism about reflation, helped by a synchronized pickup in global growth. German yields failed to keep up as political risk appeared high in Europe.

But the eurozone hasn't

delivered the political shocks feared, while hopes for a U.S. growth boost haven't been fulfilled. The spread between U.S. and German bond vields has narrowed to just under 1.9 percentage points. Political risk is alive and well in 2017, but it isn't showing up where investors thought it would. The U.S. and Brazil. not the eurozone, are top of the list of worries Indeed, the perception of

the eurozone has steadily improved. The European Central Bank, while staying cautious, still looks like it is on a gradual path to exiting from ultraloose monetary policy. Despite continued eurozone growth and the fading of deflation risks, 10-year German yields are still remarkably low at 0.36%.

The move in bonds is trailing the foreign-exchange market, too. The euro is higher than it was on the day of the U.S. election. But the Treasury-bund spread is still some 0.2 percentage point wider than it was on Nov. 8. The two moves could feed off each other, increasing the allure of European assets over their U.S. counterparts and further pushing up the euro.

German vields couldn't escape the downdraft from U.S. Treasury yields last week, and the White House seems set to remain in the spotlight. But continued resilience in the eurozone could narrow the gap between the U.S. and Europe even more.

-Richard Barley

## **OVERHEARD**

You can learn more about investing at the racetrack than most people think. That lesson was reinforced

over the weekend when longshot thoroughbred Cloud Computing was the surprise winner at the Preakness Stakes.

Cloud Computing is coowned by Baupost Group founder and famously successful value investor Seth Klar-

Those hoping to learn from Mr. Klarman typically have to

His letters to limited partners are private, while used

copies of his out-of-print book "Margin of Safety" list for hundreds of dollars on Amazon.

But average investors can

still learn from the finance theme of the names Mr. Klarman chooses for his horses. The rise to prominence of cloud computing, for instance, is arguably one of the most important investing developments in recent history. Past names for his horses include Pricedtoperfection, Takeover Target, Balance the Books, and Sum of the Parts, according to America's Best Racing.

Perhaps the most important lesson investors can take: There are no shortcuts to investing success. Read the Footnotes, a reference to nuggets of information buried deep in financial statements, placed seventh at the 2004 Kentucky Derby.

# Better Late Than Never In Oil Patch

It seems to have been a field of dreams for providers of services to the oil-and-gas industry.

At the beginning of 2017, with the price of oil buoyant following a production cut from the Organization of the Petroleum Exporting Countries, U.S. drilling activity was on a tear. It still is, but analysts and investors got ahead of themselves when translating that to oil-fieldservices companies' profits. They should consider renewing that bet now.

Analysts polled by FactSet saw industry sales leader Schlumberger earning \$1.92 a share this fiscal year back in December, but recently cut that to \$1.48. No. 2 Halliburton and No. 3 Baker Hughes also saw sharp reductions.

Executives are sounding more bullish, though, especially when it comes to redhot U.S. shale plays. "The ramp-up in North America has become more robust than many had expected," said Martin Craighead, chief executive of Baker Hughes. last month to investors

The bonanza is merely delayed. "The expectation coming into the year was that service costs are going up across the board and everyone believed it," says Robert Thummel, a portfolio manager at Tortoise Capital. Now, he says, "it's going to be a second-half story."

Evidence of that is the product most sensitive to shale drilling, fracking sand, which did well in the first half. Earnings estimates for companies such as Hi-Crush Partners and Fairmount Santrol Holdings have surged as those companies have gained significant pricing power. The rest of the industry isn't far behind.

—Spencer Jakab