THE WALL STREET JOURNAL.

DOW JONES | News Corp

TUESDAY, APRIL 25, 2017 ~ VOL. XXXV NO. 59

WSJ.com

EUROPE EDITION

DJIA 20763.89 ▲ 1.05%

NASDAQ 5983.82 ▲ 1.24%

NIKKEI 18875.88 ▲ 1.37%

STOXX 600 386.09 ▲ 2.11%

BRENT 51.60 **▼** 0.69%

GOLD 1275.80 ▼ 0.90%

EURO 1.0851 **\(\)** 1.16%

What's Vews

Business & Finance

The euro, European stocks and French government bonds rallied on the results of the first round of France's presidential vote. A1

- **♦** Macron's first-place finish could trigger a tapering off of the ECB's stimulus program. B1
- **♦ Saudi Aramco officials** working on an IPO say the state-owned oil firm is likely worth \$500 billion less than the government has said. A1
- ◆ PPG raised its offer for Dutch paint rival Akzo to \$26.4 billion, the U.S. firm's third unsolicited bid. B1
- ◆ Apple plans to rely on senior engineers to road test its driverless cars, suggesting the firm is in the early phase
- of testing the technology. B1 ◆ Amazon has formed a driverless-vehicle team as part of its goal of transporting more goods itself. B3
- benefiting from an increase in military spending, with most of the orders going to Rheinmetall and KMW. A3 ◆ LaFarge's CEO quit in the

◆ German arms makers are

- wake of a controversy over the cement firm's payments to armed groups in Syria. **B2** ♦ Uber is challenging
- French transport rules as the firm opens a new front in its European legal battles. B3
- ◆ JAB plans to put Jimmy Choo up for sale as the investment fund steps back from the luxury sector. B3
- ◆ European energy firms pledged to finance half the cost of a natural gas link from Russia to Germany. A5

World-Wide

- ◆ Macron is expected to win the French presidency on May 7 but will have to gain a parliamentary majority in order to imple-
- ment his policies. A1 ◆ The EU executive is backing Macron, breaking with tradition by taking sides in
- the French election. A4 Hackers matching the profile of a pro-Kremlin group have tried to access Macron's email accounts. A4
- **◆ Trump is pushing** his aides to draft a tax plan that slashes the corporate tax rate to 15%. A1
- **♦** The number of crimes committed by migrants surged 52.7% in Germany last year, new data show. A3
- ◆ The U.S. Treasury sanctioned 271 Syrians involved in developing and producing chemical weapons. A3
- ♦ U.S. defense chief Mattis paid a surprise visit to Afghanistan following the deadliest Taliban attack on Afghan forces of the war. A3
- ◆ Congress is focusing on talks to avert a U.S. government shutdown, likely putting the health-bill debate on the back burner. A6
- Americans lack confidence in Congress's ability to probe Russian election meddling, a survey found. A7
- ◆ Xi urged Trump to exercise restraint over North Korea amid escalating tensions, Chinese state media said. A5
- **♦ An Israeli teen** was charged with making over 2,000 threatening calls to Jewish institutions. A5

CONTENTS Markets Digest.... B8 Crossword...... A12 Heard on Street... B10 Streetwise.... Technology..... Journal Report... B4-7 U.S. News..... A6-7 . B10 World News...... A2-5

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



French Vote Results Spur Markets

Euro, stocks rally after first round of election eases fears about the future of the eurozone

BY MIKE BIRD

The euro, French government bonds and European stocks rose sharply after centrist candidate Emmanuel Macron won the most votes in the first round of France's presidential election, a reaction that may herald a broader

realignment of European markets recently plagued by concerns over political risk.

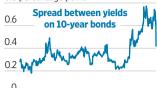
Mr. Macron is the overwhelming favorite to win May 7's runoff against second-place finisher Marine Le Pen, whose antieuro stance had concerned investors.

As European trading ended Monday, the euro was up around 1.2% at \$1.085, after touching five-month highs of \$1.0935 overnight. The differential between yields on French government debt and German government bonds, seen as a haven investment, narrowed from 0.64 percentage point Friday to as little as 0.42 percentage point Monday, the narrowest spread this year. The French CAC-40 stock-market index surged 4.1%, driving the broader Stoxx Europe 600 up 2.1%. Germany's DAX advanced 3.4% to a record, and the U.K.'s FTSE 100 rose 2.1%.

Some investors believe this relief rally will continue, with an increased appetite for the euro and European stocks as Please see MARKET page A4

As French debt rallied, its yield fell closer to that of German bonds, a haven.

0.8 percentage point



Note: 0.415 as of Monday THE WALL STREET JOURNAL.

Macron **Faces** Plenty of Challenges

By David Gauthier-Villars AND WILLIAM HOROBIN

PARIS-Political novice Emmanuel Macron is widely expected to win the French presidency on May 7, but he will need a big victory in yet another crucial round of elections to become more than a mere figurehead. For Mr. Macron to be able

to implement his policies if he defeats far-right leader Marine Le Pen in the runoff, his upstart movement will have to secure a parliamentary majority in June.

Turning En Marche, or "On the Move," the party that Mr. Macron founded barely a year ago, into a political machine will be a tall order for the 39 year-old former investment banker, who on Sunday won the first round of the presidential contest with 24% of the vote.

So far, Mr. Macron, who is running for office for the first time, hasn't named anyone who would join his administration, and has announced only a handful of the candidates who will run under his colors for the 577 seats in the two-round legislative vote scheduled June 11 and 18.

Without a majority, French presidents have historically been smacked by a constitutional punishment known here as "cohabitation"—a form of power-sharing under which a Please see FRANCE page A4

Israel Remembers the Holocaust



SOMBER: Holocaust survivor Bella Avner, right, visited the Yad Vashem memorial in Jerusalem on Israel's Holocaust Remembrance Day.

Trump Is **Pushing Big** Corporate Tax Cut

WASHINGTON—President Donald Trump has ordered White House aides to accelerate and prioritize their efforts

> By Michael C. Bender, Richard Rubin and Nick Timiraos

to draft a tax plan slashing the corporate tax rate to 15%, according to people familiar with the directive, which may exacerbate the procedural and partisan hurdles he faces in search of his first major legislative victory.

During a meeting inside the Oval Office last week, Mr. Trump told staff he wants a massive tax cut to sell to the American people, these people

said. He told aides it was less Please see TAXES page A7

PARENTS ARE DROWNING IN STUDENT-LOAN DEBT

More than 330,000 people in Parent Plus program haven't made a payment in a year; that exceeds default rate on U.S. mortgages during housing crisis

By Josh Mitchell

Millions of U.S. parents have taken out loans from the government to help their children pay for college. Now a crushing bill is coming due.

Hundreds of thousands have tumbled into delinquency and default. In the process, many have delayed retirement, put off health expenses and lost portions of Social Security checks and tax refunds to their lender, the federal government.

Student loans made through parents come from an Education Department program called Parent Plus, which has loans outstanding to more than three million Americans. The problem is the government asks almost nothing about its borrowers' incomes, existing debts, savings, credit scores or ability to repay. Then it extends loans that are nearly impossible to extinguish in

bankruptcy if borrowers fall on hard times.

As of September 2015, more than 330,000 people, or 11% of borrowers, had gone at least a year without making a payment on a Parent Plus loan, according to the Government Accountability Office. That exceeds the default rate on U.S. mortgages at the peak of the housing crisis. More recent Education Department data show another 180,000 of the loans were at least a month delinquent

as of May 2016. "This credit is being extended on terms that specifically, willfully ignore their ability to repay," said Toby Merrill of Harvard Law School's Legal Services Center. "You can't avoid that we're targeting high-cost, highdollar-amount loans to people who we know can't afford to repay them."

Parent Plus is one thread in a web of higher education loan programs that have Please see LOANS page A8

INSIDE



THE FUTURE of financial REGULATION

JOURNAL REPORT, B4-7

HOW TRUMP'S DEBUT COULD HAVE DIFFERED

CAPITAL JOURNAL, A2

Withdrawal Pains: Former Workers Still Love Their Disgraced Banks

Years after the financial crisis, nostalgia grips ex-employees; reunions, memorabilia

By Kirsten Grind

Thousands of employees lost their jobs when IndyMac Bank collapsed al-

most nine years ago under the weight of mortgages derided "liar loans." Some of those exemployees are still vearning for the good old days.

"The bank may have failed, but its employees were winners," says Bonnie Ensor, 48 years

old, who was laid off from IndyMac's underwriting department a few months before regulators seized the Pasa-

dena, Calif., mortgage lender. Its demise only deepened the fondness she felt for her co-workers. "I have wonderful,

lifelong friends because of that," says Ms. Ensor, who now works at another lender. More than 400 banks and

savings institutions in the U.S. failed from 2007 to 2011 as a fall in housing prices and surge in loan defaults mushroomed into the financial crisis. Some of their employees are still having trouble letting go.

Action Teller doll Former bankers lovingly keep alive their memories of long-gone through Facebook pages, reunions and never-ending email chains. They reminisce about the teller uniforms they

wore, recall the heartwarming comment that nice janitor Please see BANK page A8

Aramco **Insiders** Question Valuation

RIYADH—Officials at Saudi Arabian Oil Co. have told their superiors there is a hitch in the plans to take the stateowned oil company public: It is likely worth at least \$500 billion less than the government previously suggested.

> By Summer Said, **Bradley Hope** and Justin Scheck

The country's deputy crown prince, who is leading a push to overhaul the economy, has pegged the value of the company known as Saudi Aramco at \$2 trillion. But officials working on the deal have struggled to come up with a scenario under which Saudi Aramco is worth more than \$1.5 trillion, according to people familiar with the matter, even after factoring in a re-Please see ARAMCO page A2



WORLD NEWS

How Trump's Debut Could Have Differed



CAPITAL JOURNAL By Gerald R. Seib

et's imagine an alternative opening act to the Trump presidency. Specifically, let's imagine a presidency that attempted from the outset to take advantage of the fact that Donald Trump isn't an ideological conservative or a traditional Republican, but rather a radi-

cal centrist who should be able to create unconventional, bipartisan coalitions.

Imagine this new president had given a different kind of inaugural address. one in which he didn't accuse the capital's political leaders of flourishing at the expense of its citizens but

rather sketched out a vision have been populated with of a new way of working with those leaders.

This presidency wouldn't have started with polarizing issues guaranteed to back both parties further into their corners: aiming to repeal the Democrats' signature health-care law and imposing a ban on travel from a set of Muslim-majority countries as the first step in fighting terrorism. Rather, it would have opened with two big initiatives in which at least a few Democrats would have been willing-maybe even eager in some casesto cooperate: rebuilding American infrastructure and changing the nation's inefficient tax code.

This alternative presidency would have set out from the beginning to build bridges to the 10 Democratic senators up for reelection in 2018 from states Mr. Trump carried, and the 12 House members who represent districts Mr. Trump carried in 2016. In this Trump presidency, the cabinet he chose would

fewer ideological conservatives and instead would have included some moderate Democrats.

As the Trump presidency approaches its 100-day mark Saturday, it's easy to imagine that Mr. Trump, given a doover, might choose this kind of opening act. It would have capitalized on his strongest single asset, which is the fact that he isn't the product of the traditional party system but rather that rarest of things in Washington, a genuine free agent.

he suspicion that Mr. Trump might wish he had chosen a different opening path is buttressed by the fact that the figures now ascendant in the administration's power structureson-in-law Jared Kushner, daughter Ivanka Trump, National Economic Council director Gary Cohn, Treasury Secretary Steven Mnuchinall fit into this kind of nonpartisan mold.

On more practical terms, such an opening would have diminished rather than accentuated the power and leverage of the House Freedom Caucus, the band of the House's most conservative members who dealt the president his most grievous early blow in the collapse of the effort to repeal and replace

In a narrowly divided, highly partisan environment, the power of any such small group is enhanced because even a few votes spell the difference

The president could have capitalized on his nonideological, centrist background.

between success and failure. A president with a broader power base can't be held hostage by any one faction. Mr. Trump's populist ap-

peal isn't rooted in partisanship but, in many ways, actually should transcend partisanship and ideology. That is seen in a new Wall

Street Journal/NBC News poll. The survey shows that basic economic issues are more important to Americans right now than are other domestic issues, including health care. Americans are inclined to think the government should be doing more, not less, to help solve them.

Only one in 10 Americans sees Mr. Trump as a typical Republican. The vast majority in both parties consider him a different kind of Republican, and they are more likely to say that's a good thing rather than a bad thing.

This picture raises a couple of pertinent questions. The first is whether really it was possible to move down a nonpartisan path—or whether anti-Trump passions at the base of the Democratic Party would have made it impossible to do so. In other words, did Mr. Trump drive away Democrats, or did Democrats drive him further into the arms of fellow Republicans?

It's impossible to know for sure, of course, and certainly

both forces were at work to some extent. The one thing that seems clear is that some of Mr. Trump's more divisive early actions, decisions and priorities made it easier for Democratic activists to create pressure on their representatives to take a never-cooperate position.

he more important question is whether it's too late to adopt a different approach. The answer: Of course not, after fewer than 100 days have passed. As noted, the president and his team already are pivoting toward a more centrist approach on some fronts.

Tax reform, infrastructure and national security all give Mr. Trump openings to become that builder of unconventional coalitions. The new Journal/NBC News poll indicates the most significant erosion in the president's standing since taking office has been among political independents. There's plenty of time to give them the kind of president they are looking for.

Two Years After Devastating Quake, Nepal Struggles to Recover



ANNIVERSARY: A schoolgirl at a temporary shelter in Bhaktapur, where residents lost their homes in Nepal's quake on April 25, 2015.

ARAMCO

Continued from Page One cent tax cut and other tools the government has to make it more attractive to investors.

By selling up to 5% of shares in an initial public offering targeted for next year. the government plans to raise billions of dollars that it can use to invest in other industries as part of a plan to reduce its heavy dependence on oil.

The valuation discrepancy raises new challenges for a deal that is already fraught with complexity and facing opposition within the ranks of the kingdom's government bureaucracy, according to people familiar with the matter.

About two dozen employees have been working since last year to try and figure how to take Aramco public, and have been working with Western consultants to explore ways to restructure Aramco to maximize its value, say people familiar with the process.

The team has determined several variables—or what some call "levers"—likely to affect the price investors will pay for shares of the world's largest oil producer, according to internal documents reviewed by The Wall Street Journal and people familiar with the process. But no matter how they pull

those levers, which include the price of oil and Saudi tax policy, Aramco's projected value tops out at about \$1.5 trillion, these people say. The Saudi government last

month said it is reducing Aramco's tax rate to 50% from 85%, bringing its tax rate closer to the level of the world's biggest oil companies such as Exxon Mobil and Royal Dutch Shell.

That move would result in higher dividends for potential shareholders, and it brought Aramco's internal value estimates to \$1.3 trillion to \$1.5 trillion from about half a trillion dollars, say people involved in the process.

Members of the internal Aramco IPO team took their figures to the company's chairman, Khalid al-Falih, who is also Saudi Arabia's energy minister, say people familiar with the matter.

One of those people said some of the Aramco team members are concerned because their calculations have consistently yielded lower numbers than the one the

financial information, this person said that it appeared could achieve a valuation any where near \$2 trillion unless it paid no taxes or royalties.

Since deputy crown prince Mohammed bin Salman announced the stock-offering plan and his \$2 trillion estimate early last year, insiders and outsiders have questioned how he arrived at that



Deputy crown prince Mohammed bin Salman

prince disclosed.

Saudi government officials say Aramco's high reserves and low costs should make the company attractive to investors. "Our profitability is higher than others and the interest we have received so far is huge," said one official who defended the \$2 trillion

number. Some of the banks pitching for a role in the advising and underwriting of the deal have been given minimal information on the company's financials, one person familiar with

the pitching process said. Bankers have offered company executives advice on how they might position the offering to investors to garner the highest valuation and how

Aramco would compare with

other oil and gas companies,

this person said.

One Aramco official called the figure "unrealistic and mind blowing." A lower valuation means

the IPO would fetch less money for the kingdom to invest under the Vision 2030 plan championed by the deputy crown prince. Also, the remaining Aramco

shares in Saudi hands would be less valuable than the prince forecasts, lowering the amount of money the kingdom could borrow against those shares to fund economic diversification.

Of course, regardless of where the company sells shares to the public in an IPO, its market cap or valuation will change as soon as it starts trading as investors make daily determinations of its current and future value.

Aramco produces nearly 10

Yet even absent the specific million barrels of oil a day, more than twice the output of Exxon Mobil, which is valued highly unlikely that Aramco at \$337 billion. Aramco has among the world's lowest production costs—Saudi oil tends to be cheap to pump-and says its reserves total about 260 billion barrels.

But shares in state-controlled oil companies tend to trade at a discount to their independent peers, largely out of investor concern that a controlling regime could make decisions that don't benefit minority investors.

For example, there is no way to be assured the tax rate will remain at 50%, said Nat Kern, president of Washington-based consulting firm Foreign Reports, which focuses on the Middle East and oil. "Most oil-producing countries are taking about 90% of crude sales" in taxes and other payments, he said. Questions about Aramco's

valuation surfaced earlier this year when a report for potential investors prepared by oilindustry consultant Wood Mackenzie Ltd. put Aramco's value at around \$400 billion. according to a client who attended a private Wood Mackenzie briefing. The estimate, based on the 85% tax rate, surfaced in other media.

That number was also close an internal estimate Aramco's IPO team came up with before the tax rate was reduced, say people familiar with the matter. Now, some officials inside

the company and in government have privately suggested reevaluating the listing, say people familiar with the matter, and perhaps reducing its size or delaying it.

So far, Prince Mohammed and his staff seem unlikely to do so, say people familiar with the matter. "This IPO will happen regardless of the valuation they may receive," according to the government official who called the \$2-trillion-dollar

number "mind-blowing." –Maureen Farrell

contributed to this article.

Indonesia's President Calls for Pluralism

BOGOR, Indonesia-President Joko Widodo spoke against the divisive identity politics that defined the latest Jakarta election, but in an interview dismissed concerns that Islamist hard-liners would stoke deeper conflict in the world's largest Muslim-majority nation.

> By Ben Otto, Anita Rachman and Patrick McDowell

"Indonesia needs to avoid divisive issues such as race. religion and ethnicity to win elections," Mr. Widodo told The Wall Street Journal at the presidential palace outside Jakarta, days after a close ally from the Christian minority lost the vote for governor of the Indonesian capital. Islamists made religion the predominant election issue and in the run-up to the vote on Wednesday drew the country's largest protests in decades.

"We need to focus on policy issues and programs," Mr. Widodo said, after a race that consumed politics here for six months, slowing work on economic reforms.

The president, a Muslim who has championed Indonesia's secular democratic traditions, said there was nothing unusual about the tensions that erupted during the election, in which hundreds of thousands of people took to the streets against Jakarta Gov. Basuki Tiahaja Purnama. the most-high-profile politician among the country's long-persecuted ethnic Chinese minority.

Mr. Purnama lost his reelection bid by 15% to 18% of the vote to a ticket led by Anies Baswedan, a former university rector who promotes a moderate form of Islam, according to pollsters' projections of samples from Wednesday's balloting. Official results are expected next week.

Muslim Conservative groups showed increasing organization and power in the election, and politicians looking for their support lent them political credibility.

"Now it is my task to bring the people together again," Mr. Widodo said. He said he would promote tolerance by meeting with religious groups across Indonesia. "Our DNA is pluralism."

"This election was not normal," said Tobias Basuki of the Center for Strategic and Inter-

CORRECTIONS ど AMPLIFICATIONS

Euromonitor analyst Michelle Grant was misidentified as Michelle Evans, another Euromonitor analyst, in the Keywords column about the internet's lessons for retailers in Monday's Business & Fi-

nance section. Readers can alert The Wall Street Journal to any errors in news articles

by emailing wsjcontact@wsj.com.



Mr. Widodo has championed Indonesia's secular traditions.

national Studies in Jakarta, pointing to how mainstream politicians relied on hard-line groups, bringing an Islamist narrative to the fore. "It's never been this way before."

Mr. Purnama had won support in the notoriously chaotic capital for trying to unsnarl traffic and improve infrastructure as well as to shake up the bureaucracy. Yet he was criticized for a sometimes abrasive style and for clearing the poor from slums to clear floodprone areas.

Mr. Widodo said that "investors are not worried," about the election. The rupiah, weaker against the dollar by 1.7% in 2017, strengthened slightly after the election, as did the local stock market. The positive market reaction reflects a belief that "there won't be big rallies that could affect security and politics," said David Sumual, chief economist at Bank Central Asia.

"This was a bad result for the president, and so it is unsurprising to see him out doing damage control," said Matthew Busch, a research fellow at the Lowy Institute for International Policy. "Indonesia has had dirty and tense elections before...but the stakes were unusually high with the Jakarta governorship on the table."

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

Thorold Barker, Editor, Europe Grainne McCarthy, Senior News Editor, Europe Cicely K. Dyson, News Editor, Euro

rren Everson, International Editions Editor

Joseph C. Sternberg, Editorial Page Editor Anna Foot, Advertising Sales

Jacky Lo, Circulation Sales
Andrew Robinson, Communications
nathan Wright, Commercial Partnerships

Katie Vanneck-Smith. Global Managing Director & Publisher

Advertising through Dow Jones Advertising Sales: Hong Kong: 852-2831 2504; Singapore: 65-6415 4300; Tokyo: 81-3 6269-2701; Frankfurt: 49 69 29725390; London: 44 207 842 9600; Paris: 33 1 40 17 17 01; New York: 1-212-659-2176

Printers: France: POP La Courneuve; Gen nnters: Franke, POP La Courneave, Germany, ogan Media Group/Hürriyet A.S. Branch, Italy, aliprinters s.r.l.; United Kingdom: Newsprinter Broxbourne) Limited, Great Cambridge Road, Waltham Cross, EN8 8DY

Registered as a newspaper at the Post Office. Trademarks appearing herein are used under license from Dow Jones & Co. @2017 Dow Jones & Company. All rights reserved. **Editeur responsable:** Thorold Barker M-17936-2003. Registered address: Avenue de Cortenbergh 60/4F, 1040 Brussels, Belgium

NEED ASSISTANCE WITH YOUR SUBSCRIPTION?

email: subs.wsje@dowjones.com

By phone: +44(0)20 3426 1313

WORLD NEWS

Germany Goes on Defense

Nation's arms makers get busier as spending on military rises; prods from U.S. and Russia

By Christopher Alessi AND WILLIAM WILKES

MUNICH—The German arms industry is back in busi-

Germany's weapons manufacturers, long subject to the whim of the country's pacifistleaning politicians, had been struggling to find new European orders.

But in the wake of Russia's incursions in Ukraine and its tougher military stance on the North Atlantic Treaty Organization's eastern border. German military spending is rising more than at any time since the Cold War. Most of the orders for upgrades and new equipment are going to the country's biggest arms manufacturers: Rheinmetall AG and Krauss-Maffei Wegmann GmbH.

One of the largest orders on the table is an expected €800 million (\$858 million) deal for both Rheinmetall and KMW to modernize a fleet of roughly 100 Leopard 2 main battle tanks, a pillar of Western defense during the Cold War.

The deal, which has yet to be signed, would bring out tanks that have languished in storage into the 21st century, adding new armor to protect against roadside bombs, hightech communications equipment and night-vision capabil-

The upgraded tanks, which experts say Germany could use to defend against a Russian ground attack, would be similar to the Leopard 2s that Canada has deployed to fight in

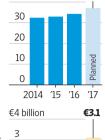
KMW Chief Executive Frank

Rearming

The German arms industry is benefiting from higher military spending by Germany and other NATO members amid mounting

€40 billion

Germany's budget is



...boosting sales at Rheinmetall, its largest manufacturer of arms

Sources: German government; the company THE WALL STREET JOURNAL.

Haun credits the general uptick in business to a 2014 NATO summit in Wales—just months after Russia annexed the Ukrainian peninsula of Crimea—at which members broadly committed to increase spending to 2% of gross domestic product.

"I think there is a need for refurbishment, as there is a need for new equipment without a doubt," Mr. Haun said.

The German defense budget is set to rise by 8% this year, to €37 billion, according to the Defense Ministry, slightly higher proportionally than China's expected increase for 2017. However, that surge still leaves German military spending well below NATO's 2% benchmark, at roughly 1.2% of

"This welcome change in direction is necessary to keep driving the modernization of the Bundeswehr," a spokeswoman for the Defense Minis-



The German arms market is dominated by domestic companies.

try said.

Should Berlin heed calls by U.S. President Donald Trump to accelerate spending in order to reach the target sooner, German arms makers stand to reap a bigger windfall. But Germany, the largest economy in Europe, has so far shown restraint due to limited public appetite for such a large defense budget.

"If [Mr. Trump] puts more pressure, it will help" the industry, Rheinmetall Chief Executive Armin Papperger said of the president's push for NATO allies to take on more defense responsibility.

For Mr. Papperger, the "turning point" for the German arms industry came in 2015. In December of that year, the German Defense Ministry signed a contract for a €467 million joint order with Rheinmetall and KMW for 131 Boxer armored wheeled vehicles, one of its largest orders

in nearly a decade. The Boxer has already been deployed by Germany's armed forces, the Bundeswehr, in Afghanistan as a transport vehicle and field ambulance.

Companies such as Rheinmetall largely have a monopoly on the domestic arms market. For most other Western contractors like BAE Systems PLC, Europe's largest arms maker, and Lockheed Martin Corp., the Pentagon's No. 1 supplier, Germany is effectively a closed market. European firm Airbus SE provides the bulk of the German military's helicopters and planes.

German shipyards are benefiting from the new wave of spending. Thyssenkrupp AG, Germany's largest producer of warships, announced plans this year to supply Norway with four new high-tech sub-

–Robert Wall

Crime Tied to Migrants Jumped in Germany

BERLIN-The number of crimes committed by migrants surged 52.7% in Germany last year, new statistics said, fueling a sharp rise in violent offenses and highlighting the challenges facing Chancellor Angela Merkel and other proimmigration politicians in coming elections.

Migrants, defined as refugees and rejected asylum seekers, committed 174,438 crimes in 2016, up from 114,238 a year earlier, according to police figures released Monday. Over the same period, crimes committed by German citizens declined 3.4% to 1.41 million.

The numbers come five months before a general election in Germany that is expected to be heavily influenced by the recent large inflow of refugees. More than one million asylum seekers entered Germany in the two years ended in December.

Anti-immigration parties and some members of Ms. Merkel's conservative-led coalition have argued that Ber-

lin's relatively generous refugee policies had left the country more susceptible to crime and terror attacks.

Criminologist Christian Pfeiffer, who is also a former justice minister from the Social Democrats in the state of lower Saxony, said Germany faces a problem with crime because of the inflow of migrants but cautioned that several factors are at play.

The rise in offenses committed by migrants is mostly due to the high number of young males traveling alone, he said. German immigration statistics show that about two-thirds of asylum seekers in 2016 were men mostly under the age of 30, a group that generally is responsible for the majority of crimes regardless of nationality, Mr. Pfeiffer said.

Interior Minister Thomas de Maizière said at a news conference that it was "frustrating that crimes committed by migrants have risen overproportionally over the past year. That is the case for nearly all categories of



contributed to this article. | Migration is a key issue for Angela Merkel, shown in March.

U.S. Sanctions 271 Syrians Tied to Chemical Weapons

By Felicia Schwartz

WASHINGTON—The Trump administration blacklisted 271 employees of the Syrian government agency involved in developing and producing chemical weapons, the Treasury department said.

Officials on Monday said the move is among the largest sanctions action in history and is in response to a chemicalweapons attack in Idlib province this month that killed at least 85 people.

"The United States is sending a strong message with this action that we will hold the entire Assad regime accountable for these blatant human-

rights violations in order to deter the spread of these types of barbaric chemical weapons," Treasury Secretary Steven Mnuchin said in a

He added "We take Syria's disregard for innocent human life very seriously, and will relentlessly pursue and shut down the financial networks of all individuals involved with the production of chemical weapons used to commit these atrocities."

The sanctions on employees of Syria's Scientific Studies and Research Center also follow a U.S. military strike on a Syrian air base a few days after the chemical attack.

Mattis Makes Surprise Afghan Visit quickly forced from power that Congress in February, Gen. lah Habibi, and the army chief

By GORDON LUBOLD AND HABIB KHAN TOTAKHIL

KABUL-U.S. Defense Secretary Jim Mattis arrived in Afghanistan for a surprise visit on Monday, just hours after the resignations of his Afghan counterpart and the army chief of staff following the deadliest attack by insurgents on government forces since the war began in 2001.

It is Mr. Mattis's first visit to Afghanistan as defense chief, but his experience here is deep: A former Marine, he was the first commander of American troops here following the U.S.-led invasion of the Central Asian country in 2001.

While the Taliban were

year, Afghanistan has been at war since then, and during his visit here, Mr. Mattis and the head of the U.S.-led international military force, Gen. John

The U.S. defense secretary commanded troops here after the

Nicholson, will discuss whether to recommend to President Donald Trump the deployment of more U.S. troops to the country.

In testimony to the U.S.

Nicholson said a few thousand additional American troops were needed to advise and train Afghan forces.

Currently, there are about 8,500 U.S. forces and some 6,000 soldiers from other members of the international coalition in Afghanistan in support of the central government in Kabul, which is fighting both the Taliban, the largest insurgency, and the local affiliate of the extremist group Islamic State.

Mr. Mattis's visit comes amid turmoil in the Afghan armed forces. The government of President Ashraf Ghani had no comment on the departures of the defense minister, Abdulof staff, Qadam Shah Shahim, and no reasons were given for the moves. Gen. Dawlat Waziri, the defense ministry spokesman, said only that their resignations had been accepted by Mr. Ghani.

Friday's Taliban attack on a government army base in Balkh province left about 170 people dead, Afghan officials said, after six Taliban fighters infiltrated the heavily guarded base aboard military vehicles and opened fire in what became a five-hour battle.

The Afghan defense ministry, which has come under pressure after initially trying to play down the attack, is examining what went wrong.





French presidential candidate Emmanuel Macron emerges from a car Monday. His campaign acknowledged phishing attempts.

Hackers Targeted Macron

Group matches profile of an entity identified as an organization backed by Moscow

By Sam Schechner

PARIS—Hackers matching the profile of a pro-Kremlin group have tried in recent weeks to access campaign email accounts of French presidential candidate Emmanuel Macron, a cybersecurity firm said Monday, raising fears of election interference in the final two weeks of France's presidential campaign.

In a report set to be published Tuesday, security-research firm Trend Micro identified a pro-Kremlin hacking group it calls Pawn Storm as the likely source of a multipronged phishing attack that started in mid-March against Mr. Macron's campaign.

As part of the attack, hackers set up multiple internet addresses that mimicked those of the campaign's own servers in an attempt to lure Mr. Macron's staffers into turning

over their network passwords, said Feike Hacquebord, a senior threat researcher for Tokyo-based Trend Micro and the author of the report, a copy of which was reviewed by The Wall Street Journal.

Mounir Mahjoubi, digital director of Mr. Macron's campaign, confirmed the attempted hacking, saying that several staffers had received emails leading to the fake websites.

The phishing emails were quickly identified and blocked, and it was unlikely others went undetected, Mr. Mahjoubi said.
"We can't be 100% sure," he

said, "but as soon as we saw the intrusion attempts, we took measures to block access."

The hacking group Pawn

Storm was identified by U.S. officials and cybersecurity experts last year as a Russian state-backed organization. They said the group had carried out hacks to obtain and subsequently leak emails from the Democratic National Committee and Hillary Clinton's campaign chairman during

last year's U.S. presidential election, allegations that Russia denied.

On Monday, referring to the allegations in the Trend Micro report, Kremlin spokesman Dmitry Peskov denied accusations that Moscow was involved.

"I repeat once again: Russia has never interfered, isn't interfering and will never interfere in the electoral processes of other countries," he told Russian news agencies.

Cybersecurity experts say hacks by pro-Kremlin groups are part of a broader pattern of propaganda aimed at delegitimizing Western institutions. In recent years, groups have targeted elections, at times favoring candidates who are seen as more favorable to Russia's interests, experts say.

Analysts say Mr. Macron's opponent, National Front leader Marine Le Pen, could be favored by Moscow because she has vowed to pull France out of the North Atlantic Treaty Organization and the European Union, organizations that Russian President Vladimir Putin views as threats to

Russian interests.
Ms. Le Pen, who met Mr.

Putin last month in Moscow, has also said she would lift the sanctions imposed on Russia following its annexation of Crimea in 2014.

A spokesman for Ms. Le Pen didn't respond Monday to request for comment on the latest hacking allegations. In February, Mr. Macron ac-

cused Russia of sponsoring cyberattacks against his campaign and of spreading smears about his character, accusations the Kremlin rejected. Trend Micro said that the

Trend Micro said that the hacker group attacked the computer systems of Germany's Christian Democratic Union, the political party of Chancellor Angela Merkel, as well as two German political think tanks in recent weeks.

Trend Micro said it discovered the phishing attempt against Mr. Macron's political party En Marche, or "On the Move," by monitoring new internet-address registrations that mimicked the names of possible targets.

—Thomas Grove in Moscow contributed to this article.

EU Body Backs French Centrist

By Valentina Pop And Laurence Norman

BRUSSELS—The European Union's executive body is breaking with longstanding tradition by taking sides in the French presidential election, a potentially risky strategy aimed at helping centrist candidate Emmanuel Macron.

European Commission President Jean-Claude Juncker on Sunday night called Mr. Macron to congratulate him and wish him luck for the second round, a conversation that was tweeted about by his staff.

Mr. Juncker's intervention represents a stepped-up effort by EU authorities to actively defend Brussels from the growing political opposition it faces across the bloc. Some of Mr. Juncker's commission team also publicly welcomed Mr. Macron's first-round win, as did leaders of Germany, Belgium and Luxembourg.

As a rule of thumb, the EU's executive typically stays above domestic party politics. Mr. Juncker's move comes as EU governments have increasingly bristled at Brussels' intervention.

Moreover, explicit commis-

sion backing of Mr. Macron could play into the hands of his May 7 runoff opponent, Marine Le Pen, who has derided Mr. Macron as a cheerleader for European and global elites.

On Monday, Mr. Juncker's spokesman, Margaritis Schinas, doubled down on the commission's support for Mr. Macron. Welcoming the prospect of a "strong, clear debate" on France's role in Europe ahead of the runoff, he said the choice on Sunday was "between defending what Europe represents and another option which aims to destroy Europe."

In the past, the EU has worked hard not to be seen as interfering in elections. EU offices in member states have sometimes been on hand to explain the EU's role to reporters or the public or, in the case of Britain's Brexit referendum last year, to push back against what they saw as unfair attacks.

But as political threats to

the EU have multiplied and some observers—including Donald Trump, shortly before his inauguration—predicted that other countries would follow Britain to the exit, Brussels has become less cautious.

In May 2016, between the first and second rounds of the Austrian presidential race, which pitted a center-left candidate against a politician from Austria's far-right Freedom Party, or FPO. Mr. Juncker told a German broadcaster: "I don't want to see the FPO candidate become president of the Austrian republic."

In March, when Dutch Prime Minister Mark Rutte's party ended comfortably ahead of the anti-EU, anti-immigration party of Geert Wilders in Dutch parliamentary elections, Mr. Juncker's spokesman called the result "a vote for Europe, a vote against extremists."

The EU's executive typically stays above domestic party politics.

Ahead of Sunday's elections, EU officials had been cautious. Mr. Juncker told a German newspaper that a victory for Ms. Le Pen in France wouldn't mean the end of the European project. The EU's other top official, European Council President Donald Tusk, steered clear of any direct comments on the French vote.

Senior EU officials said Mr. Juncker made the choice to go public with his support for Mr. Macron not as a calculated intervention but as a reflex to show the EU has certain values it will defend against what Brussels views as extremists.

What isn't clear is whether the endorsement will help.

Leonie Eland, from the Brussels-based European Policy Center, said Ms. Le Pen, who paints Mr. Macron as a proponent of "savage globalization," would use Brussels' blessing against him.

MARKET

Continued from Page One electoral worries fade and the Continent's improving economy comes further into focus. The increased appetite for riskier investments such as stocks is expected to hurt bonds, which have benefited from haven buying and a huge European Central Bank bond-buying program that some analysts believe will be scaled back this year.

"The balance of discourse was just so skewed against the euro," said Geoffrey Yu, head of the U.K. investment office at UBS Wealth Management. "As we move away from the politics, we think the euro is going higher. It's still quite cheap at these levels relative to long-term averages."

In the U.S., stocks also jumped after France's election results. The Dow Jones Industrial Average rose 216.13 points, or 1.1%, to 20763.89. The S&P 500 rose 1.1%, and the Nasdaq Composite climbed 1.2% to a record.

Political risks, particularly around the French election, have been investors' biggest concern for European markets this year, especially after the surprise results of last year's U.K. Brexit vote and the U.S. presidential election and after Italians rejected attempts at political overhaul. Investors had put money into safer investments, including bonds and German government debt, and often avoided Europe's weaker southern economies. German bonds fell sharply

Monday. The yield on 10-year bunds rose to 0.35% from around 0.245% on Friday. Yields move inversely to prices. The price of gold, another haven that has benefited from concern over political risk, fell 0.9% to \$1,275.80 a troy ounce.

French government bonds

rallied alongside those of Italy, Spain and Portugal, the three European markets that typically tumble when investors are concerned about the risks of a breakup of the eurozone.

Investors had been concerned by the prospect of a strong showing by Ms. Le Pen,

How France's Vote Jolted Markets

Here are some of the big moves:

- ◆ The euro shot to as high as \$1.0935 overnight as trading opened on Sunday night, a five-month high, before settling up around 1.3% at \$1.086.
- ◆ European stocks surged, with French and Italian equity indexes up by more than 4%, and the broad Stoxx 600 up 2%.
- ◆ Financial stocks led the surge, with banks listed on the Euro Stoxx rising by more than 7%. In dollar terms, the index is now outperforming the KBW Nasdaq Bank Index for the period since the U.S. presidential election in November.

the far-right leader of the National Front, or by the far-left candidate Jean-Luc Mélenchon. Ms. Le Pen wants to pull France out of the currency union, and Mr. Mélenchon had advocated scrapping some of its core fiscal rules, positions that would spell trouble for the euro and French government bonds.

As recently as last week, some analysts had forecast the euro would fall to parity with the U.S. dollar, a prediction that has been popular for more than two years but hasn't happened. After the French result, Deutsche Bank AG said it is in the process of updating its forecasts, which previously had been among the most bearish, and predicted the euro would fall to \$0.95 by the end of 2017.

One-month risk reversals, a measure of how much investors are paying for protection against a sudden crash in the euro's value, reached their most expensive levels on record last week, touching minus 4.4%. The measure returned to minus 1.45% on Monday, with more-negative numbers meaning investors

are shelling out more to hedge

◆ Bonds in Europe's stronger core economies sold off, while yields tumbled in France and Southern Europe. The spread between 10-year yields in France and Germany tightened to as little as 0.42 percentage point from as much as 0.75 last week.

- ◆ Investor protection against a sharp drop in the euro, which had reached the most expensive levels on record, plunged in price. One-month risk reversals cooled from minus 4.4 last week to minus 1.5 Monday, with more negative numbers meaning more expensive protection.
- ◆ The VSTOXX measure of volatility implied by Euro Stoxx 50 options slumped to a onemonth low, falling to 16.05. The previous week, it had reached its highest level since July 2016, at 25.95.

against a slump.

To be sure, political and other risks remain in Europe. Investors see a gamut of problems for Italy, the eurozone's third-largest economy, with weak growth, banks with bad loans and sky-high public debt. They also wonder what happens if the ECB begins to scale back its bond-buying program, which has supported the debt of weaker economies.

"European government bond yields will likely come under pressure in the months ahead," Anthony Doyle, fixed interest investment director at M&G Investments, said in an email. "As will European investment-grade corporate bonds that have benefited from the ECB's bond-buying program."

If Mr. Macron becomes

If Mr. Macron becomes president, most analysts expect investors to keep embracing risk in Europe. Economic data have outperformed expectations broadly this year. Business surveys in France are hinting at the fastest expansion for the country in nearly six years.

—Jon Sindreu, Emese Bartha and Noemie Bisserbe contributed to this article.

FRANCE

Continued from Page One prime minister from the opposition runs the government, effectively squeezing the head of state into a ceremonial role.

The presidential and legislative elections have different dynamics, warned Famke Krumbmüller, analyst at political risk consultancy Open-Citiz. She said having Mr. Macron's stamp of approval may not be enough for En Marche candidates to unseat rivals in constituencies where voters enjoy cultivating a direct bond with their elected officials.

"The question is whether they will be able to win against rivals with local bases, even if those rivals' parties got smashed in the presidential vote," Ms. Krumbmüller said.

Mr. Macron is expected to win the May 7 runoff against Ms. Le Pen with 61% of the vote, according to a survey conducted by the OpinionWay polling agency during and after Sunday's first round.

If she prevailed in the run-

off, Ms. Le Pen would face a different set of obstacles. Unlike Mr. Macron, she can rely on a nationwide and disciplined apparatus, as well as on the National Front's deeprooted local bases. But her

performance in the first round of the presidential election—she garnered 21.3% of the vote, up from 17.9% in 2012—suggests she has yet to broaden the party's mainstream appeal.

That is necessary to suc-

ceed in the two-round voting system introduced by Charles de Gaulle upon fathering the Fifth Republic, a new constitution designed to squeeze political majorities out of France's fractured postwar landscape.

In recent years, left and right mainstream parties have often coalesced in second-round votes to block the National Front, saying its history of xenophobia made it unfit to govern. The party currently holds only two seats out of 577 in the National Assembly, France's lower house.

The outcome of the legislative election will provide a measure of French voters' repulsion toward the socialist and conservative parties that have alternated to govern France in the past four decades.

On Sunday, both Benoît Hamon of the ruling Socialist Party, and François Fillon of the conservative Les Républicains, were ejected from the presidential race, garnering 6.4% and 20%, respectively.

Despite the humiliating blow, leaders of Les Républicains vowed to quickly regroup, conquer a majority in parliament, and impose a "cohabita-

tion" on Mr. Macron.

"It's wasn't our ideas that were defeated on Sunday, it was our candidate," Daniel Fasquelle, a lawmaker for Les Républicains and mayor of Le Touquet, a resort town, told French television. "Our ideas are shared by a majority across the country and we will demonstrate that in the legislative vote."

Socialist Party officials sought to display similar fighting spirit, saying they would line up candidates in all the constituencies against Mr. Macron's recruits. Michel Rombaut, a volunteer in Mr. Hamon's campaign and a Socialist for nearly 40 years, said Mr. Macron's candidates should expect fierce resistance.

"There are elected officials who have been in place for years and who have done a fantastic job," he said. "Many are big local personalities and it will be very difficult to dethrone them."

During the campaign, Mr. Macron has said he was confident in his capacity to build a parliamentary majority.

Speaking to supporters on Sunday evening, he set to work, spreading his arm wide open and saying: "Every woman and man is welcome. I won't ask those who join me where they come from."

—Nick Kostov

contributed to this article.



and Noemie Bisserbe contributed to this article. Marine Le Pen, an underdog in the May 7 runoff, in Rouvroy in northern France on Monday.

lighted with the price appreciation," he said. Does he feel lucky? Not particularly. "I'm

no different from my friends."

may be absorbed into Beijing

has driven up property prices

there at a rate matching that

of Beijing in the past couple of

years. But Yanjiao property values are still a quarter of

Across China, urban resi-

dents accumulated wealth at

twice the rate of rural dwell-

ers between 2002 and 2010,

leaving city dwellers with a

nest egg six times larger,

mostly because of housing, according to a 2015 study by Shi

Li and Haiyuan Wan in China

rural background becomes

The opportunity cost of a

those across the river.

Speculation that Yanjiao

Xi, Trump Discuss Pyongyang Threat

By Te-Ping Chen

BEIJING-Chinese President Xi Jinning urged U.S. President Donald Trump to exercise restraint over North Korea and said he opposed any action that would violate United Nations Security Council resolutions, Chinese state media reported.

The two leaders spoke by phone on Monday amid escalating tensions over North Korea's advancing nuclear and missile programs-their second phone discussion on the issue in the past two weeks following their Florida summit this month.

The conversations came a day before the 85th anniversary of the establishment of the Korean People's Army, when experts say Pyongyang may launch a sixth nuclear test, amid signs it has been preparing for one. On Sunday, it emerged that North Korea had arrested a U.S. citizen in Pyongyang, adding another potential flashpoint with the U.S. at a time of increasingly heated rhetoric.

Mr. Trump also spoke on Monday with Japanese Prime Minister Shinzo Abe, who said afterward that the American leader "has indicated by his words and actions that all possible options are on the table.'

Mr. Xi said all parties should avoid further ratchet ing up tensions on the peninsula, state media said, adding that the two pledged to stay in regular touch.

North Korea might launch another nuclear test on Tuesday, experts say.

The White House issued short statements about the calls hours after Chinese and Japanese officials commented. Officials said Messrs. Trump and Xi discussed North Korea's "continued belligerence."

"The two leaders reaffirmed the urgency of the threat posed by North Korea's missile and nuclear programs and committed to strengthen coordination in achieving the denuclearization of the Korean Peninsula," the White House said.

The White House provided no detail about specific issues discussed with Mr. Abe.

Mr. Trump and top U.S. officials have threatened to use unspecified military force against North Korea, and a U.S. aircraft carrier finally is en route to the Korean peninsula after White House and Pentagon officials prematurely announced its deployment.

Tensions between the U.S. and North Korea have risen since Mr. Trump indicated he will discard the Obama administration's policy of "strategic patience" and strike a more aggressive posture toward Pyongyang.

The U.S. leader has vowed to take unilateral action to blunt North Korea's nuclear threat if China doesn't restrain its ally.

In South Korea last week, U.S. Vice President Mike Pence warned that recent American military strikes in Syria and Afghanistan showed that Pyongyang should refrain from testing American resolve or armed forces in the region.

The U.S. Navy, meanwhile, said on Sunday that the USS Carl Vinson aircraft carrier began conducting exercises with the Japanese navy in the Philippine Sea, sending a warning to North Korea.

North Korea's state news agency on Monday said "it would be a fatal mistake of the

U.S. to think it can browbeat [North Korea] with such nuclear carrier.' Pyongyang doesn't appear

to be slowing down its programs in response. North Korea also fired another missile on April 16, which blew up on takeoff.

Over the weekend, Chinese Foreign Minister Wang Yi said there were enough displays of force and confrontation on the issue and called for "peaceful and rational voices," the statecontrolled Xinhua News Agency reported.

Rural China Misses Property Boom

YANJIAO, China—An epic property boom restricted to city dwellers has opened a wealth gap that continues to widen in China, setting back a state campaign to ease poverty and shunting rural dwellers from the middle-class dream.

China's system of hukou, or household registration, a decades-old legacy of the planned economy, binds most Chinese to their place of birth, and denies those outside China's booming megacities the right to buy property inside them. That has largely shut them

out of one of history's biggest wealth transfers: 98% of Chinese housing is now in private hands from virtually none a generation ago. Over the past decade, housing prices have increased as much as 700% in cities like Beijing and Shanghai. Property now accounts for 70% of personal wealth in the country.

"Housing is everything in China," said Li Gan, a professor at Southwestern University of Finance and Economics. Unless the Communist Party privatizes land, which is unlikely, farmers will continue to lose ground, he said. Meanwhile, home prices

keep rising at a faster pace, with March the quickest in the past five months. China has recently stepped up efforts to fight poverty, including extending medical insurance to the poor and resettling them from areas prone to landslides and other geological threats. It also said it is building a new megacity two hours from Beijing, bringing whirlwind growth to a dusty backwater. Both initiatives suggest leaders' awareness of the deep inequities along rural-urban lines.

In 1978, when China embarked on economic overhauls, city dwellers earned about twice as much as rural residents: they now earn about 3.5 times as much, according to a study released in April by Paris School of Economics professor Thomas Piketty and World



Wang Qiang's apartment just outside Beijing is valued at half what it would be if it were in the capital.

Bank consultant Li Yang.

Studies by the Asian Development Bank and the University of Michigan suggest China's rich-poor gap is even higher once property and hukou status are taken into account. "The urban-rural wealth divide is much greater than the income divide," Southwest-ern University's Mr. Gan said.

Often, the difference comes down to a line on a map.

Wang Qiang, a 30-year-old construction engineer from a village in northern China. bought an apartment in 2014 in the Banyan Tree Harbor residential complex astride a garbage dump in Yanjiao, just outside Beijing, across a dying river in Hebei province.

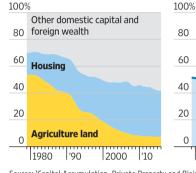
Looking across the dry riverbed separating Yanjiao from the capital, Mr. Wang said he hopes Beijing will someday absorb his community.

Giving him hope, some cities across China have extended property-buying rights to rural hukou holders around them. With a Beijing hukou, Mr. Wang's family would have access to better schools and hos-

Land Poor, House Rich

China's farmers have fallen behind as wealth has shifted from collectively owned land toward businesses and privately owned

Components of national wealth



Source: 'Capital Accumulation, Private Property and Rising Inequality in China, 1978-2015' by Thomas Piketty, Li Yang and Gabriel Zucman THE WALL STREET JOURNAL.

pitals, and his two-bedroom apartment would be twice as valuable.

But for now, "I feel stuck," he said. "Yanjiao schools have up to 80 children in a classroom. It's two different worlds."

On the other side, 38-yearold app developer Liu Wei emerges from his apartment in the insider deals handed to urbanites who lived in apart-

Economic Journal.

even starker when considering ments associated with their government jobs when China started to privatize housing.

Fang Liping, a 55-year-old retired math teacher, and her husband got their big break in the late 1990s when her school let her buy their three-bedroom government-owned apartment in central Shanghai for 500,000 yuan (around \$72,000). The five-story walk-up is now valued at around \$1 million and the family has since purchased two more apartments.

"We didn't consider it an investment," she said of her original apartment. "It's what everyone was doing."

China has for decades talked about overhauling the hukou system, which economists say undercuts economic growth. Political resistance is strong as city officials balk at providing services to more people. "The hukou system is kind

of like apartheid without the racism," said Scott Kennedy, a China expert with the Center for Strategic and International Studies. "The life chances of rural and urban Chinese are vastly different." —Liyan Qi,

> Fanfan Wang and Pei Li contributed to this article.

Israel Charges Teen Over Jewish Center Threats

By Rory Jones

AVIV—Prosecutors here charged an Israeli teenager accused of making more than 2,000 threatening calls to Jewish institutions, schools, airports and airlines in the U.S. and elsewhere.

The 18-year-old, who is Jewish and has dual Israeli and American citizenship, was charged with thousands of counts of various crimes over

the course of two years including extortion, carrying a weapon, assaulting a police officer, drug trafficking and money laundering. He was also charged with possession of obscene materials including child pornography, according to an indictment filed in a Tel Aviv court on Monday.

The suspect was named in the Israeli indictment but the court barred publication because some of his crimes were committed when he was under the age of 18. But a U.S. indictment on Friday of the same person on similar charges identified him as Michael Ron David Kadar.

At the time of his arrest, one of Mr. Kadar's lawyers said he suffers from a nonmalignant brain tumor that affects his behavior. Another lawyer for the defendant on Monday referred questions to a spokesperson who said he would respond later to charges.

upscale Jingmao International

City, a gated community with

bamboo groves and Maserati

cars. Over the past decade, his

Beijing residency status has

helped him to purchase several

apartments and a villa that he

said are now valued at as

much as 10 times what he paid

for them. "I'm absolutely de-

Private ownership as share

of all housing

Israeli police arrested Mr. Kadar last month as part of a monthslong investigation that involved the FBI and other security agencies in the U.S., Europe and Australia.

Following some of his threats and separate incidents of vandalism against Jewish property, American Jewish groups criticized President Donald Trump and his administration for not doing enough to combat anti-Semitism in the U.S.

Mr. Trump and the White House have denied turning a blind eye to anti-Semitism and pointed to the president's deep relationship with his Jewish son-in-law and adviser Jared Kushner as proof of his support for the Jewish community.

The White House also has hailed the president's good relationship with Israeli Prime Minister Benjamin Netanyahu.

WORLD WATCH

EUROPEAN UNION

Part Financing Found For Russian Gas Link

European energy firms pledged to finance half of the cost of a natural-gas link from Russia to Germany, lending support to a pipeline plan that is fueling tensions within the European Union A consortium of five compa-

nies-Engie, OMV, Royal Dutch Shell, Uniper and Wintershall Holding—said Monday they would provide as much as €4.75 billion (\$5.1 billion) in long-term financing to Nord Stream 2, a wholly owned subsidiary of PAO Gazprom, which is owned by the Russian state.

While European firms seek to protect access to Russia's market and resources, most EU countries oppose the Kremlin's intervention in Ukraine and fear its push to project more power around the world. That dichotomy has pitted EU countries against each other.

-Emre Peker

GREECE

Eurostat Confirms Government Surplus

The European Union's statistics arm verified that Greece posted its first overall budget surplus in 21 years, with debt re-

payments included, in 2016. Eurostat expressed no reservations about the quality of data provided by the Greek national statistics service and published Friday. Greece posted a primary surplus of 4.2% of gross domestic product, excluding interest

payments for 2016, Eurostat figures showed.

"This is significantly above the 0.5% of GDP program target set for 2016 and even above the target of 3.5% set for 2018," European Commission spokesman Margaritis Schinas said, adding that the body was confident Greece would reach its targets in 2017 and 2018.

The country's general government debt, however, rose to 179% of GDP in 2016 from 177.4% in 2015, according to Eurostat figures.

Under terms of its bailout program, Greece had to reach a 0.5% primary budget surplus in 2016. Greece has to reach a primary surplus of 1.75% in 2017 and 3.5% in 2018 and maintain it at that level in the medium —Nektaria Stamouli

Migrants at Sea Die In Aegean Sinking

The sinking of a boat carrying migrants in the eastern Aegean Sea between Greece and Turkey left at least 16 people dead, including two children, Greek authorities said, while two women-one of them pregnantwere rescued.

Patrol boats and helicopters were searching for several more people believed missing.

Greece's coast guard said the bodies of nine people-six women, two men and a childhad been recovered from Greek waters off the island of Lesbos, while Turkish authorities said the bodies of a further six men and a child were found in Turkish waters. —Associated Press



INSURGENTS ATTACK: Suspected Maoist rebels killed 24 paramilitary commandos and wounded six others on Monday in a remote part of central India, a police official said. The wounded, above, were airlifted to a hospital after the assault in the Sukma district of Chhattisgargh state.

U.S. NEWS

Health-Care Bill Takes A Back Seat

By Kristina Peterson

WASHINGTON — Congress's focus on averting a government shutdown this week is likely to push the House GOP debate over their health-care bill to the back burner for now, Republican lawmakers and aides said.

President Donald Trump had pressed House Republicans last week to vote as quickly as possible on a modified version of their health which House leaders pulled from the floor last month when it became clear it didn't have enough support to pass the chamber.

But House Republicans said that the negotiations aimed at keeping the government running after its current funding expires at 12:01 a.m. Saturday would overtake health care as this week's primary concern.

"The priority for most of us is to get a funding bill done by the end of the day Friday," Rep. Bradley Byrne (R., Ala.) said in an interview after House Republicans huddled over a conference call Saturday afternoon to discuss the

A new amendment from Rep. Tom MacArthur (R., N.J.) reignited discussions among the centrist and conservative Republicans whose defections sank the GOP bill that aimed to set up a new health-insurance system in place of much of former President Barack Obama's Affordable Care Act.

Mr. MacArthur's proposal would allow states to remove some insurance requirements established by the ACA if the states could argue to Washington that it would enable them to lower the cost of premiums or insure more people. States could relax requirements that set which benefits health plans must cover, as well as allow insurers to charge higher premiums to people with riskier medical records.

Some lawmakers in the House Freedom Caucus, a group of roughly three dozen House conservatives, have warmed to Mr. MacArthur's proposal, saying it marked a significant effort at bringing down the price of health-care premiums.



Congress, meeting at the U.S. Capitol, above, is focusing this week on a funding bill to prevent a partial government shutdown.

"We want to see some type of regulatory relief so we can see price reduction," said Rep. Dave Brat (R., Va.). But Mr. Brat and other Republicans have said they want to see the legislative text of the measure, expected to be released early this week, before making any decisions.

Mr. Byrne, who supported the earlier version of the bill, Republicans shouldn't rush the health-care bill, making sure their constituents have plenty of time to review new changes.

The new proposal has "reinvigorated the discussions, but I think it'd be premature to say we're ready to go with a bill yet," he said.

House Speaker Paul Ryan (R., Wis.) made clear to House Republicans on the Saturday call that he would only bring the health-care bill to the House floor when it had the 216 votes required to pass, according to a person on the call.

Mr. Trump said last week he was confident the House would be able to pass both a spending bill to keep the gov-

ernment funded and new health-care legislation in short "I believe we will get it, and

whether it's next week or shortly thereafter," Mr. Trump said last Thursday of the health bill. "As far as keeping the government open, I think we want to keep the government open, don't you agree?"

The House health-care bill aimed to dismantle much of the ACA's taxes and subsidies and replace them with tax credits, largely tied to age, to help people buy insurance if they don't get it through employers. The bill also would reduce funding for Medicaid, the health program for low-income and disabled Americans.

Congressional Democrats were broadly opposed to the GOP health-care bill and said Mr. MacArthur's amendment did nothing to improve it.

"Somehow, Republicans keep finding ways to make their health-care bill even more costly and more cruel," House Minority Leader Nancy Pelosi (D., Calif.) told reporters Monday.

States Shore Up Their Insurance Markets

By Anna Wilde Mathews AND MICHELLE HACKMAN

Amid uncertainty in Washington about the future of the Affordable Care Act, states are moving to bolster their own insurance markets, hoping to fend off big rate increases and pullbacks by insurers.

Idaho, Oklahoma and Minnesota have passed bills that aim to blunt insurers' costs for covering people who buy individual insurance and have health conditions that require expensive treatments. The measures would allow insurers to unload at least some of the expense of these enrollees' claims onto state programs, typically using a version of reinsurance.

Last year, Alaska created its own reinsurance setup, an effort that state officials there say has helped to limit rate increases and keep its individual insurance market functioning.

Worried state insurance commissioners are also pushing back deadlines for filing 2018 plans and lobbying companies to participate in their ACA marketplaces. Insurers are struggling to make decisions about their 2018 ACA exchange offerings. Industry officials have said that uncertainty over Washington's plans for overhauling the law, particularly key federal payments that help insurers reduce costs for low-income ACA enrollees, may prompt higher premiums

and exits from more markets. Tennessee's insurance regulator, Julie Mix McPeak, has



been meeting with insurers in hopes of filling a gap in her state where, after Humana Inc.'s announced departure next year, residents may have no exchange plans available.

'The message I'm conveying is, 'We'll do whatever we can to make this area attractive to you on the individual exchange market," she said, adding that the department is "trying to show flexibility and consideration" to any insurers willing to come in, including being open to their rate proposals.

The reinsurance programs typically require a state to pass legislation. Insurers generally welcome the chance to unload the risk and claims expense tied to their sickest en-

Under the ACA, insurers can't charge sick consumers more or refuse to sell them plans. Some insurers have said their ACA plans haven't enrolled enough healthy people to balance out the costs of those with serious medical needs, resulting in the past in some sharp premium increases and financial losses.

"We felt the need to try to do what we could to stabilize the market and encourage the carriers to stay in the market, and provide some relief," said Dean Cameron, director of the

Idaho Department of Insurance.

A few weeks ago, the state passed a law that will create a new reinsurance program. It is a revamped version of an existing program, sometimes called a high-risk pool.

Before the ACA's rules took effect, 35 states operated programs that aimed to ensure coverage for people who found it hard to obtain traditional individual plans. Under its new setup, Idaho's program will help pay claims for people with certain health conditions who are enrolled in regular ACA

Mr. Cameron said that all of the insurers in Idaho's insurance exchange are losing money on the business. After the state's individual market saw a 25% average premium increase this year, he feared even larger ones next year. He hopes the new initiative will help hold down premiums.

The challenge for states is the price tag of such reinsurance efforts. Idaho officials said the state can use money from an existing insurance tax to help pay for its reinsurance effort, and Alaska used a similar setup to start its program.

In Oklahoma, however, state regulators are counting on federal funding to pay for a reinsurance program, which they hope to request from the federal government by July. They haven't yet settled on many of the program's details. The state is seeking the money under an existing waiver option within the ACA that allows states to tweak the law's setup if they meet certain requirements, including showing that the changes won't reduce the num-

ber of people with coverage. Alaska has applied for a similar waiver, and it is seeking money with the argument that its program is saving federal dollars, which can be routed back to the state to support its effort.

Minnesota has made its reinsurance program contingent on a federal waiver, though its law would dedicate up to \$540 million in state money over two years to help insurance companies cover people whose claims expenses rise past \$50,000 a year.

Fox Anchor Accepts Trump Job

President Donald Trump's administration has tapped former Fox anchor Heather Nauert to be the spokeswoman for the State Department, officials said Monday.

Ms. Nauert arrives at Foggy Bottom as Secretary of State Rex Tillerson has begun to make more regular public appearances, but on-camera briefings have taken place in fits and starts.

Mr. Tillerson has given few interviews since he took office in February and had initially faced public criticism for his inaccessibility to the public

and reporters. He held an impromptu news conference on Iran last week and earlier this month made two Sunday show appearances. He has also held several news conferences on overseas

trips.

Ms. Nauert was most recently an anchor on "Fox & Friends," a favorite morning show of Mr. Trump. She was a television reporter and anchor for 15 years and covered international and domestic news including the Sept. 11, 2001, terror attacks, the Iraq war and four presidential elections.

21st Century Fox and News Corp, parent company of The Wall Street Journal, share common ownership.

Obama, With Talk in Chicago, Slowly Returns to Public Stage

By CAROL E. LEE AND MICHELLE HACKMAN

Former President Barack Obama broke his public silence President Donald Trump's inauguration, saying Monday his top post-White House priority is encouraging a new generation of political

Mr. Obama, a Democrat, spoke at a forum on civic-engagement at the University of Chicago, which was scheduled before his GOP successor reaches the 100-day mark of his time in office.

"I'm spending a lot of time thinking about what is the most important thing I can do for my next job," Mr. Obama said. "And what I'm convinced of is that although there are all kinds of issues that I care about, and all kinds of issues that I intend to work on, the single most important thing that I can do is to help in any way I can prepare the next generation of leadership to take up the baton and take their own crack at changing the world."

Mr. Obama also said the country's political discourse has suffered amid the media's polarizing effect and the decline of what he described as mediating" institutions that bring together people with different types of political views.

Mr. Obama, who had vowed to avoid meddling in Mr. Trump's handling of the office, has largely declined to make public statements as his successor works to dismantle portions of his legacy in areas that include immigration, health care and the environment.

Instead, the former president has taken a succession of vacations, with photographs most recently showing him on a trip to French Polynesia,

where he was seen with rock star Bruce Springsteen, actor Tom Hanks and media mogul Oprah Winfrev.

Mr. Obama has set up a postpresidential office and staff in Washington, while his younger daughter, Sasha, finishes high school. So far, though, details on his postpresidential plans have been scant.

Mr. Obama's appearance Monday was expected to be followed by one in May in Boston, where Mr. Obama is scheduled to attend an awards ceremony, and another in Berlin, where he plans to join German Chancellor Angela Merkel for an event at the Brandenburg Gate.

Mr. Trump has been facing growing resistance from Democratic Party activists, who are working to stymie his policy agenda ahead of the 2018 midterm elections.

Many of those activists leased by Mr. Obama's office



Former President Barack Obama discusses civic engagement at the University of Chicago Monday.

have expressed a desire to hear from Mr. Obama on specific issues, but he has largely steered clear since Mr.

took a muted tone—praising Trump's Jan. 20 inauguration. the resulting protests as a One public statement reform of civic engagement. "Citizens exercising their

since the inauguration, follow-

ing the rocky implementation

of Mr. Trump's travel ban.

constitutional right to assemble, organize and have their voices heard by their elected officials is exactly what we expect to see when American values are at stake," the January statement read.

Congress Gets Poor Marks In Survey

By Aaron Zitner

Americans have little confidence in Congress's ability to investigate Russia's meddling in the 2016 presidential election and would give the task to an independent panel, a new Wall Street Journal/NBC News survey finds.

Some 73% of adults in the survey said that a nonpartisan, independent commission should look into Russia's involvement in the election, compared with 16% who said Congress should take the initiative.

Some Democrats have called for an independent commission to conduct such an investigation, which is now being carried out by the intelligence committees in the Republican-controlled House and Senate, as well as by the Federal Bureau of Investigation. Republican leaders have said the intelligence committees are the appropriate panels to look into the matter.

But 61% of adults in the survey said they had little or no confidence in Congress to conduct a fair and impartial inquiry into Russia's involvement in the election.

By contrast, some 39% of people in the new survey said they had "a great deal of confidence" or "some confidence" in Congress to conduct an evenhanded and impartial investigation.

A majority of adults in the survey also said Congress should investigate whether there were contacts between the Russian government and President Donald Trump's 2016 campaign.

Some 54% of adults in the survey said Congress should investigate whether those contacts existed, while just over one-quarter of people said Congress shouldn't conduct such an inquiry. Those numbers were largely unchanged from the most recent prior Journal/NBC News survey, in February.

The U.S. intelligence community has assessed that Russian President Vladimir Putin ordered a campaign to influence the outcome of the 2016 U.S. presidential election and that he aimed to help Mr. Trump prevail. In March, FBI Director James Comey testified that the FBI is investigating the Russian government's efforts to intervene in the election, including any relations between individuals associated with the Trump campaign and the Russian government. The White House has denied that any such collusion took place.

Russia has denied any involvement in the election.

The Wall Street Journal/ NBC News poll was based on nationwide telephone interviews with 900 adults from April 17-20.

It has a margin of error of plus or minus 3.27 percentage points, with larger margins of error for subgroups.



Treasury Secretary Steven Mnuchin takes questions during the daily press briefing with White House press secretary Sean Spicer, left, on Monday.

TAXES

Continued from page A1 important to him that such a plan could result in a loss of revenue, though that could make it more difficult to pass through Congress. Mr. Trump told his team to "get it done," in time to release a plan by Wednesday.

Mr. Trump's push for a 15% corporate tax rate would prioritize steep rate cuts over attempts to prevent deficits from running higher. That choice could make it much harder to pass tax cuts that are permanent because Republicans plan on using a procedural tool that allows legislation to pass with a 51-vote majority in the Senate. Under those rules, changes can't add to deficits beyond a decade.

"It's the same discussion they had about the Bush tax cuts in the previous administration: Are you better off having a smaller cut that is permanent, or a larger cut that is temporary," said Mick Mulvaney, the president's budget director, in an interview last week.

Treasury Secretary Steven

Mnuchin and National Economic Council Director Gary Cohn are scheduled to meet Tuesday to discuss Mr. Trump's tax proposals with Senate Majority Leader Mitch McConnell, House Speaker Paul Ryan, Senate Finance Chairman Orrin Hatch and House Ways and Means Chairman Kevin Brady of Texas. The meeting comes in advance of a Wednesday announcement by Mr. Trump about his principles for tax policy.

"This is part of our continuing dialogue with the Trump administration on tax reform," said AshLee Strong, a spokeswoman for Mr. Ryan.

Mr. Trump during the campaign proposed to cut corporate rates to 15% from 35%. There likely aren't enough business tax breaks that could be repealed to offset the fiscal cost, meaning such a move would increase budget deficits. Roughly, each percentagepoint cut in the tax rate lowers federal revenue by \$100 billion over a decade, so a 20point cut would cost the government \$2 trillion, according to the congressional Joint Committee on Taxation.

Any plan that adds to budget deficits would be difficult

to advance on Capitol Hill. The president's fellow Republicans, who control both the House and Senate, are aiming to pass a tax bill through a process known as reconciliation, which means they wouldn't need votes from Democrats. However, bills passed under reconciliation can't increase deficits beyond the typical 10-year time frame

The U.S. has the developed world's highest statutory corporate tax rate.

against which tax and spending policies are projected.

That makes it difficult if not impossible for Republicans to pass a deficit-financed tax cut that doesn't expire without getting Democratic votes in the Senate.

Some White House advisers have said changes that aren't permanent would undercut the rationale for a corporatetax cut, which is to boost business investment. Businesses are "making long-term"

capital decisions. People are deciding to move this to the United States, and...they need some permanence of the tax code," Mr. Cohn said at a conference last week.

Democrats are against

large tax cuts for corporations, especially at a time when Mr. Trump is proposing cuts to government spending programs that they prioritize, such as housing, arts and the environment.

The House Republican tax

The House Republican tax proposal calls for a 20% corporate tax rate, with the cost covered by including a border-adjustment feature that taxes imports and exempts exports. Mr. Trump's White House has sent mixed messages about whether it would support the border-adjustment plan.

Asked Monday if the president's tax plan would be revenue-neutral, meaning it wouldn't add to the debt, Mr. Mnuchin told reporters that it would "pay for itself with economic growth." By that he meant that the administration expects to be able to project faster growth due to tax cuts, which would in turn increase revenue and avert the risk of bigger budget deficits. Many economists doubt whether

economic growth can ramp up on a sustained basis without a big pickup in productivity and labor-force growth, and it is uncertain the tax-policy changes would do that.

"They will lose a boatload of revenue that we can't afford to lose and far more than this team will offset by closing loopholes," said Jared Bernstein, who was an economic adviser to former Vice President Joe Biden. Cutting marginal tax rates for businesses could generate some economic growth, he said, but not nearly enough to pay for itself with increased revenue.

The U.S. has the developed world's highest statutory corporate tax rate, and advocates for lower corporate tax rates say the system discourages job creation and investment in the U.S. Including state and local taxes, the U.S.'s corporate rate is 39.1%, according to the Congressional Budget Office.

Over the past decade, other

countries have been lowering their tax rates to attract corporate investment, while the U.S. has left its federal rate at 35%. American companies have thus increasingly found ways to book their profits in low-tax foreign jurisdictions.

Antigovernment Activists Guilty in Nevada

By Sara Randazzo

A Nevada jury found two men guilty on several counts for actions stemming from a 2014 standoff with federal officers incited by rancher Cliven Bundy, but continued to deliberate Monday on dozens of other charges against the two defendants and four other people.

U.S. District Judge Gloria Navarro told jurors to keep working after they reported they were deadlocked on the bulk of the charges, which include conspiracy to commit an offense against the U.S., assault on a federal officer and using a firearm in a violent crime.

After roughly five days of deliberations, the jury's partial verdict Monday found Gregory Burleson guilty of eight counts and Todd Engel of two counts. Each of the six defendants faced 10 charges.

Mr. Bundy and his family have become some of the most visible, and often violent, protesters against federal land management policies in the West.

The trial under way in Nevada doesn't include Mr. Bundy and his closest allies. But the difficulty the jury faces could influence how prosecutors shape a trial slated to begin June 26 against Mr. Bundy, his sons Ammon and Ryan and two other defendants. The three Bundys have remained in federal custody since last fall.

The first trial comes after federal prosecutors indicted 19 defendants for the 2014 standoff between federal officers and a few hundred Bundy supporters. The confrontation was prompted by the government's seizure of the rancher's cattle for alleged illegal grazing. Prosecutors claim Mr.

Bundy failed to pay federal grazing fees for his use of federal lands near his ranch for more than two decades. Prosecutors say he used the internet to call for help when 400 of his cows were seized for trespass and, when reinforcements arrived, forcibly took his cattle back.

Six others are slated to be

part of a third trial later this year. Two defendants have pleaded guilty.

In March, four men were found guilty on some charges in another trial stemming from actions of the Bundy family. That case followed the 2016 armed takeover of an Oregon wildlife refuge, which ended in a highway showdown after 41 days. The verdict was partial redemption for federal prosecutors after a separate jury acquitted other defendants in the Oregon standoff case.

U.S. WATCH

INDIANA

Student-Athlete Rule Fuels Concerns

A new policy at Indiana University that aims to ban prospective student athletes with a history of sexual abuse was hailed by advocates of tougher rules on violence against women, but some critics worry about creating a double standard for athletes and nonathletes.

The policy, which was approved this month, says the university will screen prospective applicants or transfer students who might play intercollegiate sports or receive athletic financial aid, barring any who had been convicted of or pleaded nocontest to a felony involving sexual violence or had been formally disciplined by a previous institution for such behavior.

The new rule will apply to potential freshmen, transfer students and walk-on athletes.

Critics said it sets a higher bar for student athletes than for the larger student body. One concern for schools is that such a distinction could open them up to the argument that these student athletes are undergoing what looks like an employment screening process.

—Laura Kusisto

and Melissa Korn

ENVIRONMENT

California Man Wins Prize for Activism

An East Los Angeles man who helped shut down a toxic battery recycler joined activists who blocked other industrial projects as 2017 recipients of the Goldman Environmental Prize, the green world's highest honor.

The six activists were scheduled to be at a ceremony Monday in San Francisco by the Goldman Environmental Foundation, which was launched by the late San Francisco philanthropists Richard and Rhoda Goldman.

—Jim Carlton

NEW JERSEY Historic White Oak Takes Its Final Bow

A white oak tree that has watched over a New Jersey community and a church for hundreds of years began its final bow Monday as crews started to remove it. The tree has been part of the community since the town's inception in the 1700s. Officials say it was the site of a picnic Gen. George Washington held with the Marquis de Lafayette. Crews at the Basking Ridge Presbyterian Church in Bernards started to take down the 600-year-old tree that was declared dead after it began showing rot and weakness. —Associated Press

NEW ORLEANS

Confederate Statues Start to Come Down

Workers in New Orleans removed the first of four prominent Confederate monuments Monday, becoming the latest Southern institution to sever itself from symbols viewed by many as a representation of racism and white supremacy. The Liberty Place monument commemorates whites who tried to topple a biracial post-Civil War government in New Orleans. —AP

Space Odyssey: Trump Lauds NASA Astronaut



CONGRATULATIONS: President Trump on Monday lauded NASA astronaut Peggy Whitson, shown with Flight Engineer Jack Fischer, for her record-setting stay aboard the international space station.

KEVIN LAMARQUE/REUTERS

IN DEPTH

LOANS

Continued from Page One come to resemble the subprime mortgage industry a decade ago, given the shaky quality of many of the loans.

The number of Americans with federal student loans, including through programs for undergraduates, parents and graduate students, grew by 14 million to 42 million in the decade through last year. Overall student debt, most of it issued by the federal government, more than doubled to \$1.3 trillion over that period.

The financing fueled a surge in college enrollment. Between 2005 and 2010, enrollment grew 20%, the biggest increase since the 1970s. Former President Barack Obama's administration supported such lending in an effort to widen access to college education.

Subprime scores

Nearly four in 10 student loans—the vast majority of them federal ones—went to borrowers with credit scores below the subprime threshold of 620, indicating they were at the highest risk of defaulting, according to a Wall Street Journal analysis of data from credit-rating firm Equifax Inc. That figure excludes borrowers, such as many 18-year-old freshmen, who lacked scores because of shallow credit histories. By comparison, subprime mortgages peaked at nearly 20% of all mortgage originations in 2006.

About eight million Americans owing \$137 billion are at least 360 days delinquent on federal student loans, nearly the number of homeowners who lost their homes because of the housing crisis. More than three million others owing \$88 billion have fallen at least a month behind or have been granted temporary reprieves on payments because of financial distress. New research from Federal Reserve economists shows that most student-loan defaults are among borrowers who had weak credit.

Consumer advocates said defaults will continue to mount as loans taken out after the recession enter the repayment cycle.

An Education Department spokesman said the agency is reviewing Parent Plus and all other programs "to determine how best they can fit into the administration's goals of helping students and taxpayers, while promoting excellence in education.'

President Donald Trump, a

during the housing bubble.

Subprime Student Loans

Percentage of new mortgages considered subprime

Percentage of new student loans considered subprime

The percentage of student loans made to borrowers with subprime

credit scores exceeds the percentage of mortgages rated as subprime

Republican, pledged during his campaign to ease families' student-debt burdens, and his campaign at one point suggested privatizing federal student loans. Senate Republicans plan to study whether to restrict access to Parent Plus as part of a broader higher-education bill expected to be debated as early as this year.

Parent Plus, created by Congress in 1980, allows parents to borrow to cover tuition and living expenses—often after their children borrow the maximum in undergraduate federal loans, capped by law at \$5,500 a year for freshmen, \$6,500 for sophomores and \$7,500 for juniors and seniors. There is no limit to how much parents can borrow. Supporters said the program ensures students can go to schools of their choice.

Rebecca McEvoy, 53 years old, had been a retired publicschool teacher for several years, coping with multiple sclerosis, when she turned to Parent Plus in 2010. She borrowed \$84.000 to help her oldest son through an art and design college.

After he graduated, she successfully appealed to the government to have the debt expunged under a federal law that forgives balances for borrowers deemed permanently disabled.

Three years ago, she and her husband, Dave, 64, also a retired schoolteacher, turned to Parent Plus again to help their younger son, Alex, cover costs at Ohio University. Dave McEvov took out the loans under his name. They borrowed \$40,000 over the past several years and expect to borrow another \$10,000 for his senior year.

The McEvoys' finances likely would have raised red flags with private lenders: They are living off modest pensions and have existing debts that eat up much of their income. "I have nothing left by the time I do my mortgage, the car, food and medical," Ms. McEvoy said.

She said they have started paying down the debt and plan to continue, but they likely won't be able to cover the full monthly payment once her son graduates in 2018.

Valerie Miller, Ohio University's director of student financial aid, said she can't comment on individual borrowers. She said the school counsels parents on all their options and on whether they will be able to make payments under Parent Plus.

Alex McEvoy, 20, said he plans to work in the tech industry and pay off his parents' loans. "I'm like, 'Mom don't worry about it. It's going to be fine.' " he said.

Obama administration offi-



Rebecca McEvoy, a retired public-school teacher coping with multiple sclerosis, borrowed \$84,000 through Parent Plus to help her oldest son through an art and design college.

cials, worried Parent Plus was heaping debt on high-risk borrowers, put in place tighter restrictions in 2011. But after schools argued stiffer underwriting would prevent many students from covering tuition, thus reducing college access for minorities and poor students, the administration rolled back the new rules.

Without this program, our fear is that many of these families would be getting private loans at less-favorable terms or less-favorable repayment options," or they wouldn't be able to cover tuition at all, said Cheryl Smith, head of government affairs for the United Negro College Fund.

Research shows that restricting access to loans based on credit scores leads to lower college enrollment.

Enrollment in Parent Plus has grown quickly since the early 2000s. When the recession hit, private lenders tightened underwriting and many families saw savings and access to other forms of credit wiped out.

The number of families enrolled in Parent Plus jumped more than 60% since 2005, to 3.5 million as of Jan. 1. They owed about \$77.5 billion—an average \$22,000 per borrower, federal figures show.

Many borrowers are poor and older. More than one-third of such loans in recent years have gone to households that also received Pell grants, a student-aid program for families typically earning below \$30,000 a year, federal data show. Other research suggests about onethird were single parents and a similar share lacked college degrees themselves.

The program checks only a borrower's past five years of credit for major blemishes such as bankruptcy or foreclosure, and the past two years for delinquency on debts of more than \$2,085.

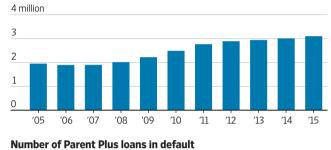
Consumer counselors are hearing from borrowers who make as little as minimum wage but borrowed tens of thousands of dollars and now can't repay. Some expected their children to get good jobs and pay off the loans for them. In many cases, their balances have grown with interestmost Parent Plus loans issued over the past decade carried rates of between 6% and 8%and thousands of dollars in fees the government charges when borrowers default.

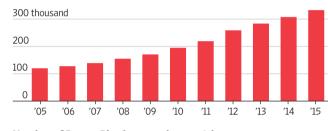
Federal law prohibits borrowers from discharging stu-

The Parent Problem

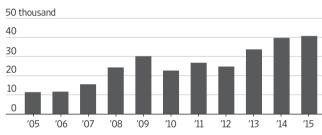
As the number of federal loans to parents of college students under the Parent Plus program has grown, so too have the numbers of defaults and federal garnishments of borrowers' Social Security and

Number of Parent Plus Ioans





Number of Parent Plus loans under garnishment



Source: Government Accountability Office,

THE WALL STREET JOURNAL.

dent loans in bankruptcy, except in extremely rare circumstances. Instead, the government reduces tax refunds and Social Security checks of borrowers, leaving some with below-poverty incomes, the GAO reported in December.

"If Bank of America did that, Sen. [Elizabeth] Warren would have them in the biggest hearing you've ever seen," said Betsy Mayotte, a consumer advocate and student-loan expert.

The number of Americans who had wages, tax refunds or Social Security checks reduced because of unpaid student debt increased 71% between September 2010 and September 2015, according to the GAO. About 41,000 Parent Plus borrowers were among one million student-loan recipients who had checks garnished in the 2015 fiscal year. The government garnished the Social Security checks of 173,000 borrowers from student-loan programs in 2015, up from 36,000 in 2002.

Other borrowers are seeking

relief through plans that cut their monthly payments and ultimately forgive some debt. Enrollment in the plans, known as income-driven repayment, has more than doubled in the last three years. The government doesn't publish data on parent participation.

"At some point, we're going to have to realize that a bunch of loans that have been made are not going to be repaid," said James Kvaal, Mr. Obama's top education adviser.

The GAO estimates taxpayers ultimately will forgive \$108 billion on student loans made through the current fiscal year. By comparison, the savings-andloan crisis of the 1980s cost the federal government about \$181 billion, in today's dollars, according to the Federal Deposit Insurance Corp.

Shaky credit

Sherry McPherson took out Parent Plus debt in 2006 so her son could enroll in a sevenmonth certificate program at a Seattle for-profit school that teaches commercial diving. She was an unemployed single mother with thousands of dollars in credit-card debt, a car loan and a subprime credit score. She had just retired from the Army after suffering an injury in Iraq.

The school, the Divers Institute of Technology, told Ms. McPherson she needed to borrow nearly \$16,000 to cover remaining tuition after her son maxed out on undergraduate federal loans, she said.

Ms. McPherson, now 50, telling emembers school's financial-aid administrator she wouldn't be approved because of her shaky credit and unemployment.

"She looked at me and said, Look, all we need is your Social Security number,' " Ms. McPherson said. "They approved me in three minutes." She hasn't worked since,

partly because she attended college and graduate school herself. Her Parent Plus balance has more than doubled. Combined with her own student loans, she now owes more than \$100,000 to the federal government. Ms. McPherson has refi-

nanced into an income-driven plan, which sets her payments at zero while she is unemployed.

She and her son plan to start a commercial-diving company that she hopes will allow her to pay off the debt. John Paul Johnston, execu-

tive director at the Divers Institute, said the financial-aid offiwho dealt with Ms. McPherson has left the school, and that he couldn't confirm her account. The current financial-aid director, Caycee Clark, said the school informs parents of all their options, and that often Parent Plus is the only alternative for families with no sav-The school charges \$26,000 tuition for a sevenmonth course.

As of late 2015, nearly twothirds of borrowers with Parent Plus debt were between ages 50 and 64, the GAO said. Nearly four in 10 Americans age 60 and above with student debt-most of whom borrowed for children grandchildren-reported skipping health-care needs in 2014, according to an analysis of survey data from the Consumer Financial Protection Bureau. That compares with 25% of above-60 Americans without student debt who said they went without such needs.

Harry Hagan, 66, of Syracuse, N.Y., delayed retirement to repay debt. He owes about \$130,000 in Parent Plus debt after helping four children through college over the past decade, including a son still in school. He estimated the debt will rise to \$175,000 once he graduates.

Mr. Hagan also owes about \$60,000 to \$70,000 in creditcard debt and a mortgage, and has a subprime credit score. He has no savings and receives a small pension from a previous employer.

A couple of years ago, he said, he called the company that services the loans and said there was no way he would be able to make the roughly \$1,200 a month payment it was expecting. The company suggested he refinance into a 30-year plan.

"I said, 'Listen, I'm 64 years old. In 30 years, God willing, I'll be 94. There's a very good chance I'm not going to make it. What happens?" Mr. Hagan recalled asking.

"They said, 'If you die before the loan goes up, it goes away.' I said, 'Good, let's do that."

'06 '07

Source: Equifax Inc.

Continued from Page One made one time and share faded photos from the 1990s.

'08

'09 2010 '11

Former IndvMac employees meet annually for dinner and drinks at El Torito, a Mexican restaurant in Pasadena near where customers lined up in July 2008 to withdraw deposits from IndyMac. At the time, IndyMac was the third-largest bank failure in U.S. history. The ex-colleagues dwell on

the good times they enjoyed together, including baseball games, picnics with root-beer floats and hamburgers, and trips with IndvMac executives to Six Flags Magic Mountain amusement park. 43, who Yvette Hadloc,

worked in the securitization department, says friends and family members sometimes needle her about why she still loves a company that imploded in epic fashion. Indy-

Mac specialized in a type of mortgage often extended to people who had no proof of income.

'15

′14

THE WALL STREET JOURNAL.

′12 ′13

IndyMac's history resurfaced earlier this year during the confirmation process of Treasury Secretary Steven Mnuchin, who acquired Indy-Mac with his investment partners about six months after it was seized by regulators. At reunions, the failure is

avoided altogether, say former employees. "Whatever happened, happened," Ms. Hadloc says. When banks fail, federal

and state regulators march in, usually after closing time Friday, seize the assets and turn them over to the Federal Deposit Insurance Corp. The FDIC tries to sell the assets to another bank. Bank employees are kept in the dark, and the surprise of that experience is a bond, according to some people who worked at financial institutions that failed

during the crisis. Psychologists say that forg-



Ex-WaMu employee Janette Lewis styled a doll to look like a WaMu Action Teller doll.

ing such connections is a natural way for humans to rehigh-stress situations such as combat or being held hostage. But a bank failure? "It's surprising," says Frank Ochberg, a psychiatry professor at Michigan State University and expert on posttraumatic stress disorder.

Failed-bank devotees say outsiders wouldn't understand. "There's a very strong loyalty because of that," says Ms. Ensor. Former employees of Wash-

ington Mutual, the largest bank collapse of the crisis, have a Facebook page called "WaMulians." That's the internal nickname they were given while working at the Seattle thrift, where reckless lending practices led to thousands of foreclosures and huge investor losses. WaMu failed in September 2008. WaMulians post photos of

WaMu-branded memorabilia that they have saved for years: nametags, shirts featuring its last big marketing campaign (with the slogan "Whoo-

Hoo!"), pens and piggy banks. The Facebook page also includes WaMu Action Teller dolls, Barbie-style figurines outfitted in blue and khaki that the bank sold for \$19.95 in the early 2000s. (They cur-

rently go for roughly \$15 to

\$30 on eBay.)

"Best Employer Ever!!!!" former employee Reggie Russell posted recently, next to a picture of himself wearing a WaMu hat. Janette Lewis, 54, worked

for more than 20 years at a WaMu branch in Oregon. She savs she lost half her retirement savings when WaMu failed, but she still adores it.

When she couldn't find an Action Teller doll that looked like her, Ms. Lewis bought a Barbie instead—and dressed it in WaMu garb. The doll is on display in her house, along with certificates showing ownership of 60 shares of WaMu stock, which WaMu gave her to mark work anniversaries. The shares are worthless, "I love the peo-

ple," she says of her former colleagues. In October 2009, regulators shut down San Diego National Bank after its capital was depleted by securities losses. In 2014, more than

100 former employees gath-

ered at Rock Bottom Restau-

rant & Brewery to commemorate "five years since we were taken over by U.S. Bank.' savs Linda Falconer, who helped plan the reunion. Ms. Falconer and other ex-

employees printed fliers that said "banks will come and go, friendships last a lifetime!" So many former employees wanted to attend that she had to turn some away, she says. Ms. Falconer has begun planning a 10th anniversary event for 2019. Nostalgia sometimes veers

into the obscure as failedbank casualties reminisce about their old business cards and customer-service phone numbers they are unable to forget. Former employees say they

are still haunted by some of their experiences. On a Facebook page where ex-IndyMac employees were organizing a gathering, one of them implored: "Please do not invite that crazy ass temp who ate my food at her desk with my fork."

YOUR HEALTH | By Sumathi Reddy

The Ticks are Coming

Mild winters and growing deer and mice populations point to a big year for ticks and Lyme disease diagnoses

MILDER WINTERS,

burgeoning mice and deer populations and a bumper acorn crop from two years ago mean this year's tick season is expected to be bad and more widespread, experts say. With that comes the threat of more tick-borne diseases, including the most common, Lyme dis-

States like Connecticut—home to the town of Old Lyme where the disease was first diagnosed—are already reporting a higher number of ticks infected with the Borrelia burgdorferi bacterium, which causes Lyme disease, as well as other tick-borne pathogens. The deer or blacklegged tick can infect humans with Lyme disease, as well as up to seven other sometimes fatal diseases.

Of the more than 800 ticks the state has received from residents so far this year, nearly 38% have tested positive for Lyme disease, compared with an average of about 27% in the past five years for the full season, said Goudarz Molaei, a research scientist at the Center for Vector Biology and Zoonotic Diseases, part of the Connecticut Agricultural Experiment Station, a state-owned research facility.

About 10% of ticks have tested positive for the pathogen that causes Babesiosis, a malaria-like disease, and 5% have tested positive for the bacteria that causes Anaplasmosis, a flulike disease that can be fatal if left untreated.

"This problem is going to stay with us and it is going to get worse," said Dr. Molaei. Milder winters and no snow cover or frost means more ticks survive, he said.

The harbinger of how bad a tick season is going to be is the acorn supply, said Richard S. Ostfeld, a senior scientist at the Cary Institute of Ecosystem Studies in Millbrook, New York, who has been monitoring local tick populations and their hosts for 25 years.

In 2015 there was a bumper acorn crop, he said, which led to an explosion of white-footed mice last summer. That meant more hosts for baby ticks to latch onto. The mice are what infect some ticks with Lyme and other dis-

"Ticks survive really well when they feed on a mouse compared to other animal hosts so more ticks survive to the nymph stage," said Dr. Ostfeld. "So our expectation is that we should have an unusually large number of infected nymphstage ticks starting next month"

Ticks have a two-year life cycle and feed from hosts three times during that period. Most cases of Lyme disease in humans are transmitted by nymph stage ticks. The adult ticks also feed on deer so



How to Avoid Ticks and Prevent Lyme Disease

- **Avoid** tall grass, leaf piles and wooded areas. Stay in the center of walking and hiking trail.
- Use repellent that contains DEET 20% or more — on skin and cloth-
- If camping or hiking, treat clothing and gear with permethrin.
- When working outside or walking in the woods, wear long sleeves and long pants and stick your pants inside your socks. Wear lighter colored clothing so you can see ticks more easily
- Do a thorough tick check of the body using a mirror. Make sure to

deer populations help adult ticks

reproduce, although the deer don't

infect the ticks and when they bite

humans they are bigger and easier

Lyme disease is the most com-

to detect and remove.

- check hard-to-reach areas, including under the arms, behind the ears, inside the belly button, behind the knees and in the groin area. A lice comb can help for checking hair.
- Showering or bathing after spending time outside can wash off ticks that haven't latched on yet.
- Check pets and clothing and equipment that has been outside for crawling ticks.
- **Drying clothes** on high heat for 10 minutes can kill ticks. Add additional drying time for wet clothes.
- Regularly mow or trim your lawn to avoid tall grass and rake leaves.

mon vector-borne disease in the

Symptoms and Treatment

Symptoms can include a ringlike rash, along with flulike sympgravel or wood chips between the lawn and wooded areas. Try to maintain a 9-foot barrier between the wood chips and areas such as the patio, garden and play areas.

■ Place a **3-foot wide barrier** of

Try to **plant crops** that deer don't like or erect an 8-foot fence to keep them out.

Spray your yard with acaricides or tick pesticides to help reduce the number of ticks.

Sources: CDC; Connecticut Agricultural Experiment Station; Patricia DeLaMora, Weill Cornell Medicine, Manhattan, N York; Jorge Parada, Loyola University Medical Center, Maywood, Illinois.

toms, muscle and joint aches and swollen lymph nodes. It is usually diagnosed based on symptoms or a blood test.

It is treated with antibiotics. Longer-term infections can cause

more serious symptoms, including arthritis, severe muscle pain and headaches, heart palpitations, brain inflammation and nerve pain. Diagnosis and treatment of Lyme disease is controversial with many differences of opinion between patient groups and doctors.

The Centers for Disease Control and Prevention estimates there are more than 300,000 new cases of Lyme disease a year, about triple the rate from two decades ago. Most cases are centered in the Northeast, mid-Atlantic region and Upper Midwest states, such as Minnesota and Wisconsin. On the West Coast, where it is less common, it is spread by a different species, the western blacklegged

disease. On average 10 to 30% of deer nymphal ticks are infected with Lyme disease, depending on the region, said Rebecca Eisen, a research biologist with CDC's Division of Vector-borne Diseases. Ticks typically feed on humans for three to five days, said Jorge Parada,

Getting bit by a deer tick

doesn't mean you will get Lyme

a medical director of infection prevention and control at Loyola University Medical Center in Maywood, Illinois. A tick that latches on for only a few hours is unlikely to transmit infection. For Lyme disease to be

transmitted, a tick usually has to be attached for 24 to 48 hours, said Dr. Parada, though for some other diseases it is less time. Thus, "the importance of doing tick checks."

Tick Detection and Removal

Ticks won't crawl a lot once on a host, said Dr. Parada. They are usually found on the lower extremities, as they cling on to legs when people are walking through wooded areas or grass. Sometimes they will drop down onto people from a higher bush and end up in someone's hair or behind the ear.

Once done with a feeding, the tick will fall off on its own, said Dr. Parada. Many Lyme disease patients never see a tick on them, which can make diagnosis of the disease difficult.

Valneva, a biotech company based in France, recently started a phase one clinical trial for a Lyme disease vaccine in humans in both Europe and the U.S.

The trial includes 180 subjects and is focusing on the safety of the vaccine.

Unfortunately, approval is far away.

A spokeswoman for the company said the first approval could happen at the end of 2024 at the

DREAMSPACE

A PARIS MUSEUM ALSO SERVES AS A MUSE

BY HEIDI MITCHELL

AS AN ARTISTICALLY inclined youngster in Paris, Myriam Badault loved whiling away hours in her grandmother's apartment. She was particularly captivated by an armoire crammed with art supplies, where she would gravitate during visits.

"It was a secret place, where one drawer had water colors, pastels and everything you needed to draw. Another drawer was filled with candies," says Ms. Badault, now the creative director of Diptyque, a French maker of body-care products,

perfumes, home fragrances and other items. "It was paradise, a place where I never felt bored."

After graduating from business school and working for perfumer Annick Goutal and the fashion houses of Chanel and Rochas, Ms. Badault sought out an equally magical successor to the armoire. She found it at the Musée des Arts décoratifs, one of the muse-

ums housed within the Louvre. On a slow day at Diptyque's

Paris headquarters, located above the company's original boutique at 34 boulevard Saint-Germain, Ms. Badault might slip out to immerse herself in the galleries of furniture, wallpaper and objets. The museum has collected wall coverings since 1864 and counts about 400,000 swatches of fabric among its holdings. The collection is "a treasure," says Ms. Badault,

who is 48. "It is amazing to find thousands of wall coverings gathered together in one place."

Ms. Badault seeks out art wherever she goes, but always returns to the Musée des Arts décoratifs. "One recent exhibit I saw was on

wallpapers which are not often shown because they are so fragile," she says. The retrospective, "Papier peint panoramique: Tombeau de Clorinde et Camp des croisés," "was fascinating because it mixed prints from the 18th century with contemporary wall coverings. It was funny to see the way people interpret the idea of decorative arts. I love that the museum doesn't try to be too intellectual. It's art on a



The Musée des Arts décoratifs, in Paris, above, inspires Myriam Badault, inset, the creative director of Diptyque.

human scale."

After a few hours at the museum, Ms. Badault is filled with ideas. On one visit she stumbled upon archival fabrics from Dipty-

que, which was founded in 1961 and recently reintroduced many of its original patterns on cloth tote bags and cases for throw pillows. "I am constantly seeking in-

spiration for unique designs." Ms. Badault says, "and the Musée des Arts décoratifs is a wonderful place ... to collect my thoughts and further develop my visions."

REVIEW & OUTLOOK

Theresa May's Left Turn

On taxes and energy

price controls, the

Tories try Labour-lite.

heresa May called for an early British election on June 8 to take advantage of Labour Party weakness, but does she have to do it by adopting the

Labour agenda? That's a question the Tories should ask after the Prime Minister's puzzling policy start to her campaign.

Chancellor Philip Hammond implied on the weekend that

the Tories might abandon David Cameron's 2015 promise not to raise tax rates on personal income, social insurance or consumption. Mrs. May also refused when asked to commit to renewing the low-tax pledge when the Tories roll out their campaign manifesto next month.

This is strange politics and self-defeating policy. Especially during Brexit negotiations, tax policy is Britain's trump card. The government's pledge to continue cutting the corporate rate to 17% from 30% in 2008 has reassured business. The Tory promise not to increase other rates the personal-income tax maxes out at 45%, and the value-added tax at 20%—offers some comfort to global talent. Now this is in doubt.

Mr. Hammond apparently worries about balancing the government's books and whether the country can afford a post-Brexit fiscal stimulus. But this election is a chance for Mrs. May to sell voters on a Brexit plan involving more enterprise and a lower tax burden. Instead she's squandering the hard work Mr. Cameron did persuading voters on the importance of spending restraint—and perhaps hamstringing the post-Brexit economy.

Meanwhile, Damian Green, a secretary in Mrs. May's government, said on Sunday the Tory manifesto will include price caps on home energy to save some households around £100 (\$128) a year. If that sounds familiar, it's because former Labour leader Ed Miliband proposed it during the 2015 election campaign. Mr. Cameron lampooned

it by saying Mr. Miliband lived in a "Marxist universe."

Mrs. May had been on the right track by abandoning some of Mr. Cameron's more expensive green-energy mandates on utilities, and she has embraced

fracking to boost domestic natural-gas production. But if she follows through on energy-price caps, utility executives say they might have to raise rates on businesses and skimp on customer service. And will other price controls be next?

Mrs. May may figure she can get away with this left turn because Labour is divided and unpopular under leader Jeremy Corbyn. She may figure she can put more Labour seats in play by sounding more like a Labour candidate.

But that assumes voters won't look at her metoo politics and decide they'd rather vote for the left-wing candidate who really believes this stuff. Mr. Corbyn is barely mentioning Brexit, focusing instead on funding for social services and bashing bankers and CEOs. Mrs. May has also echoed those themes with her talk of reforming capitalism, but Mr. Corbyn does it with greater conviction.

Mrs. May's main purpose in calling an election is to deliver a majority in Parliament large enough that she can negotiate a workable Brexit from the European Union without being held hostage by hard Brexiters or fervent Remainers in the back benches. But even a historically large majority will be diminished if it's achieved by limiting Ms. May's ability to promote faster economic growth outside the EU. This election would be a terrible thing to waste.

North Korea's Latest Hostage

s global events go, one of the safest predictions is that North Korea would take another American hostage amid growing tensions over its nuclear program. Sure enough, the Kim Jong Un regime on Saturday arrested an American teacher as he waited to board a flight out of the country.

South Korean media identified the new hostage as Kim Sang-duk, who was teaching a class in international finance and management at the Pyongyang University of Science and Technology. The mere thought of such a class is puzzling since North Korea's "international finance" is smuggling. But Mr. Kim had taught at a sister school in China near the border with North Korea, and perhaps he thought he could spread some goodwill. Bad mistake.

In addition to Kim Sang-duk, the North is known to hold two other Americans. Otto Warmbier, a University of Virginia student who was on a tour of North Korea, was detained last year for allegedly trying to steal a propaganda poster. He was convicted of subversion and sentenced to 15 years of hard labor. He hasn't been seen since March 2016. American businessman Kim Dong-chul was charged with spying last year and sentenced to 10 years in prison.

Hostage politics is a hardy Korean perennial, perhaps because it always seems to yield some political or diplomatic benefit. Pyongyang recently detained Malaysian citizens and traded them to Kuala Lumpur in return for the North Koreans suspected of conspiring to assassinate Kim Jong Un's brother. The North has also traded Americans over the years for visits by high-ranking U.S. officials, even former Presidents, who offer the regime some legitimacy and sometimes more tangible benefits.

That's the best reason for the Trump Administration not to engage in hostage negotiations. The U.S. warns Americans not to travel to North Korea, yet some still tempt fate by doing so. The U.S. can ask China to intercede for the imprisoned Americans on humanitarian grounds, but the U.S. also needs China's help against North Korea's nuclear missiles.

North Korea is a terrorist government that obeys none of the norms of international behavior. The only solution is regime change. But in the meantime, the U.S. should make clear that Americans who travel to North Korea do so at

Religious Liberty on the Playground

eligious liberty had a good day at the U.S. Supreme Court last week as the Justices √heard arguments in a case about whether Missouri could bar a church from a playgroundresurfacing program merely because it's a church. The state didn't get many converts.

Discrimination against the church is a "clear burden on a constitutional right," Justice Elena Kagan said, because "people of a certain religious status are being prevented from competing in the same way everybody else is for a neutral benefit." Can you say Hallelujah?

Columbia, Missouri-based Trinity Lutheran Church wanted to participate in a state program that reimburses groups or schools that want to resurface their playgrounds with rubber tire mulch to make them safer. Though the program is secular and serves a routine public purpose, the state used its Blaine Amendment, an anti-Catholic law that many states passed in the 1800s, to claim no public playground money could flow to a religious institution (Trinity Lutheran v. Comer).

"There's a constitutional principle. It's as strong as any constitutional principle that there is," Justice Kagan continued, "that when we have a program of funding—and here we're funding playground surfaces—that everybody is entitled" to that funding "whether or not they are a religious institution doing religious things."

If a state used public money to protect highrisk buildings from terrorism, Justice Samuel Alito wondered, could it refuse to defend synagogues? Yes, replied the attorney for Missouri, "State money could not be used" to provide "that kind of physical addition to a—to a church or synagogue.

What if you had a program, like the federal one after the Oklahoma City bombing, Justice Alito continued, that helped repair damaged buildings. Could that money repair a house of worship? "It would not be permitted," Missouri's lawyer said.

Earlier last week Missouri Governor Eric Greitens said he would change the policy to no longer discriminate against churches, and Justice Sonia Sotomayor seemed to be hoping that the change would render the case moot. But that's unlikely since Mr. Greitens's policy could be shot down by the state Supreme Court citing the state's Blaine law if the Supreme Court doesn't make a clear ruling that such bans are unconstitutional.

Progressives have rallied in opposition to Trinity Lutheran's case for fear that acknowledging the principle of government neutrality toward religion will undermine their claims that public vouchers for religious schools are unconstitutional. They should have picked a better case.

A Boon for New York's Black Market

ew York's Mayor Bill de Blasio has a plan to make his city more lucrative for cigarette smugglers, organized crime and terrorists. That's not the way he would put it. But that will be the effect of his new bid to raise the minimum price of cigarettes to \$13 a pack from \$10.50.

High taxes already make cigarettes legally sold in New York state the most expensive in the nation, and New York City is even more expensive with its own layer of taxes. Not coincidentally, the Empire State has the highest smuggling rate in America. A January study from the Tax Foundation reports that 55.4% of cigarettes consumed in

New York state are from smuggled sources. Mr. de Blasio says making cigarettes more expensive in the Big Apple will drive down the number of city smokers. But what he's really doing is feeding an already huge black market that funds terrorists and organized crime—in addition to folks like the man busted last year after cops

found hundreds of thousands of illegal cigarettes

and fake tax stamps in a garage. Two years ago the State Department released a report called "The Global Illicit Trade in Tobacco: A Threat to National Security," saying that cigarette smuggling provides funding for everything from terrorism and human trafficking to weapons.

The smuggling boom means that New York's police are devoting more effort to chasing down "loosies"—untaxed, black-market cigarettes. This can't be the best use of scarce police resources, and Eric Garner died on Staten Island in 2014 after police put him in a chokehold after suspecting him of selling smuggled smokes.

By increasing the already huge price difference between smuggled and lawful cigarettes, the mayor will drive up profits in the black market, diverting even more business from honest shopkeepers to those selling the cheaper, illegal smokes, and feeding other criminality. But Mr. de Blasio's intentions are good, which is all that seems to matter in modern progressivism.

Bad Intelligence Behind the Wheel

By Andy Kessler

his month Apple became the 30th company to receive a permit to test autonomous vehicles on the mean streets of California. I can't wait to have that ponytail guy at the Apple Store Genius Bar check my oil. Beyond a \$150 permit fee, the Department of Motor Vehicles requires these businesses to report all traffic accidents involving their self-driving cars. I read all the reports, and they're mostly minor fender-benders.

Self-driving cars exist only because of artificial intelligence and machine learning. They aren't so much programmed; rather, their sophisticated pattern-recognition-systems identify oncoming traffic, road stripes and stop signs. Autonomous cars will eventually be safer than what we have today. A time of fewer accidents and saved lives is coming.

But these cars still have a lot to learn. Most of the posted accidents involve Google's cars, which have clocked some two million street miles. Impres sive, but it's still only the equivalent of what 200 normal drivers put on their vehicles in a year. That's statistically insignificant given there are more than 250 million cars and trucks on American roads. Artificial intelligence needs lots more data.

Google Photos, which uses similar machine learning for facial recognition, hosts billions, maybe even trillions, of pictures. It is wicked smart, a window into a fantastic, if not slightly creepy, future. You tag a face with a name. It then correctly finds that face in other photos—even if they're a decade old and have 30 other people in them. If you ask Google how it works, the company will say machine learning. But no one really knows exactly.

Artificial intelligence is a catchall phrase, ranging from the science-fiction view of C-3PO in "Star Wars" to programs built for specific tasks like language translation or facial recognition. Machine learning involves training the computer by crunching large amounts of data—for example, millions of photos of deer-rather than having programmers write code that looks for antlers.

Neural networks, one of many machine-learning techniques, are modeled on the human brain. Information passes between nodes that look for patterns by weighing signals among these artificial neurons. After devouring millions of deer pictures, the identifying signals become stronger and stronger until the machine can easily identify the animal.

Deep learning, which came of age in the past two years thanks to faster processor architectures, uses multiple layers of neural networks to intensify the training—patterns of patterns. As you markets for the Journal.

go deeper down the stack of neural networks, signals emerge for patterns that humans don't consciously sense. Maybe it is the distance between eves or the tail-to-torso ratio. No one knows. As Professor Tommi Jaakkola explained to the MIT Technology Review, once a neural network becomes extremely large, "it has thousands of units per layer and maybe hundreds of layers, then it becomes quite un-understandable." This can cause some trouble.

In 2015 Google Photos tagged two African-Americans as gorillas, The You-Tube Kids App, meant for children 5 and under, suggested videos that included foul language and jokes about pedophilia. In March 2016, Microsoft released a chatbot named Tay.ai. letting people on the internet train it. The bot quickly turned into "a Hitler-loving, feminist-bashing troll," according to TechRepublic. Microsoft shut it down.

Machine learning will bring amazing innovations and dangers and lawsuits.

Bad artificial intelligence can be deadly. There was the Tesla crash in Florida last year, when the car's autopilot sensors mistook a white truck trailer for the sky. The National Highway Traffic Safety Administration closed its investigation stating that "a safety-related defect trend has not been identified at this time." Four months before the Florida crash, 23year-old Gao Yaning died in Handan, China, when his Tesla rear-ended a slow-moving road-cleaning truck. His family is suing Tesla.

I can already imagine the crossexamination: "So, Mr. Musk, can you show me the code that instructs the car to avoid trucks or deer or drunk spring breakers? No? Can you give me the name of the programmer who wrote the code?" Of course not. This kind of code doesn't exist. If it did, someone holding up a picture of a deer could get your car to swerve. Treble damages.

In the future it will be hard to find a business that artificial intelligence hasn't disrupted. But be ready for a mangy mop of mesothelioma lawvers rushing headfirst into the artificialintelligence injury racket. The industry desperately needs a safe harbor—much like the Digital Millennium Copyright Act of 1998, which kept legal paws off the emerging web.

AI also needs a framework for functionality and verification, plus clear legal and regulatory rules. Otherwise trial lawyers would be happy to fill the void with lawsuits.

Mr. Kessler writes on technology and

LETTERS TO THE EDITOR

Most Countries Handle Income Taxes Bette

their time.

Regarding Nina E. Olson's "Complexity Is the Root of All Evil (at Least in the U.S. Tax Code)" (op-ed, April 19): Other countries use a sensible, logical system in which their revenue services prepare preliminary returns based on wage and investment figures that have been reported to them as required by law. Usually these figures are correct, but the taxpayer has the opportunity to amend the returns if they are not accurate. This has been stymied when it has been proposed in the U.S. due to the might of lobbyists for tax preparation companies that wish to keep the system as incomprehensible as possible so as to profit from Americans' distress and incompetence.

A bull-in-the-china-shop revolutionary president should be able to bring about some level of ease in the filing of Americans' tax returns if he truly wishes to aid "the forgotten

Strikes on Syria, Congress And Constitutional Powers

I agree with Bret Stephens that it was a serious mistake for President Obama to threaten action if Syrian President Bashar Assad used chemical weapons, and then do nothing when chemical weapons were used ("Paying the Price for Obama's Deadly Mendacity," Global View, However, Mr. Stephens is wrong to

place all the blame on Mr. Obama while ignoring Congress's role. The U.S. Constitution gives Congress—not the president—the power to declare war. Mr. Obama asked Congress to act, and Congress refused.

When it comes to war powers, it seems both political parties prefer to defer to the imperial presidency rather than have the people's representatives in Congress assert their

rights under the Constitution. It's easier to sit on the sidelines and complain than to take a standespecially when your party's leader

has declared that making the president fail is your party's No. 1 priority. CARL SCHROEDER

Olympia, Wash.

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.

Americans"—individual taxpayers. The good people who staff Volunteer Income Tax Assistance offices may be freed to do something worthwhile and beneficial to society with

> OREN SPIEGLER Upper St. Clair, Pa.

The most expeditious and meaningful reform would be to tax all types of income at the same progressive rates with very few exceptions. Exceptions breed complexity. Rate change is relatively easy as well as an obfuscation for genuine

Why tax people and corporations at different rates? A flatter tax rate applied to a broader taxable base should lower the rate for both corporations and individuals to the point where deductions and credits wouldn't be necessary.

Winners and losers cannot be avoided if tax law is to be simplified. Higher-income earners would be the obvious losers, and lower-income earners, specifically wage earners, would be the winners. Congress can simplify the Internal Revenue Code by eliminating most of the exceptions, exclusions that have little to do with raising revenue.

KEN TOMCICH, EA, M.B.A. Arlington, Va.

Ms. Olson's reasonable suggestions are complicated. Let's rid the thousands of arcane, attorney-written rules and regulationss in the tax code and write a simple flat tax based on income. No deductions, no "ifs, ands or buts." No tax lobbying, no need for tax attorneys, no need for tax CPAs, no IRS political policing by any administration, no tax software.

Cape Rosier, Maine

AARON GLAZER

By Trashing Mexico, Trump Hurts the U.S.

By Robert B. Zoellick

resident Trump interrupted his prepared remarks in Wisconsin last Tuesday to excoriate, yet again, the North American Free Trade Agreement. "We're going to make some very big changes," the president pledged, "or we are going to get rid of Nafta once and for all.'

Mr. Trump is playing with fire. Over the past 30 years, presidents of both parties have recognized that the U.S. benefits from working with Mexico and Canada. The more robust North America is, the better it can compete and project power globally.

Without Nafta, American businesses would lose protection from populism south of the border.

In contrast, Mr. Trump's approach seems almost designed to help elect an anti-American, pro-Castro populist, Andrés Manuel López Obrador, to the Mexican presidency in 2018.

Mr. Trump's policy of confrontation pits his hostile nationalism against an American tradition of practical internationalism. Because of historical legacies and national pride, North American integration and cooperation have been built on respect for the sovereignty and independence of Canada. Mexico and the U.S. That differs sharply from the European model of integration, which has sought shared sovereignty.

Consider how Mr. Trump's own priorities would fare under his Mexican policy, starting with illegal immigration. Today's illegal immigrants are coming to the U.S. primarily from Central America. Washington should cooperate with Mexico to create a multistage defense. Working with Mexico to strengthen law enforcement, the rule of law, and intelligence would leave both countries better positioned to stop drug traffickers, criminals, human smugglers

Insulting Mexico, on the other hand, will make it impossible for politicians there to work with Yankee gringos. A hostile Mexico can ignore the flow of people northward, while American policies that weaken investment and growth in Mexico simply create more incentives for Mexicans to migrate to the U.S.

Mr. Trump's great wall would be a waste of money, as conservative Republicans from border states now acknowledge. A combination of fencadditional border electronic surveillance and other intelligence tools would stop illegal immigration more effectively and at a lower cost. Fiscal conservatives should just say no to Mr. Trump's \$20 billion boondoggle.

U.S. Secretary of State Rex Tillerson knows that the amendments Mexico's President Enrique Peña Nieto made to his country's constitution in 2013 open the door to investment that will expand North American energy security and Mexico's income. Mr. Tillerson may not be aware, however, that because Nafta's energy terms refer to Mexico's constitution, American investors are now protected against a populist reversal of Mexican policy but only as long as the U.S. remains in Nafta. The integration of North American energy markets helps the U.S. sell gas and electricity to Mexico while lowering costs of production in

Mr. Trump's policies will actually increase costs and weaken the global



competitiveness of the U.S. auto sector, his favorite subject for industrial policy. Efficient manufacturing relies on integrated supply chains that crisscross borders. U.S. producers seeking to compete with Asian and European manufacturers now transfer components across North American borders up to 14 times in the process of completing final goods. More than 30% of Mexico's exports to the U.S. contribute to the integrated auto sector.

Mr. Trump's protectionist economists have questioned the data on U.S. exports. Yet when the Manufacturers Alliance for Productivity and Innovation recalculated trade statistics to count only the value added by each country, the U.S. had a surplus in manufactured goods with Mexico and Canada.

If Mr. Trump blocks Mexico's exports, Mexico will strike back, hurting other parts of the U.S. economy. American farmers, already struggling with low prices, could forfeit sales of soybeans, corn and fruit. Poorer Mexicans will consume less, so U.S. sales

will drop. American exporters of services, a source of competitive advantage and surplus, could suffer. Six million U.S. jobs depend on exports to Mexico, with workers in Arizona, Louisiana, Michigan and Texas particularly vulnerable to self-defeating economic nationalism. Mr. Trump will also discover that

the U.S. needs friends. When I first started working with Mexico in the 1980s, I could usually guess Mexico's foreign policy by putting a minus sign in front of any U.S. position. The old one-party state of the PRI, which ruled for more than 60 years, placated leftist intellectuals by posting them to the Ministry of External Affairs, where they were free to indulge in anti-American policies.

But when I became the U.S. trade representative in 2001, my closest partners in opening markets were Mexican and Canadian counterparts. Mexico's central bankers and economic officials became natural allies as macroeconomic policies converged.

Until recently, Europeans, Asians and even other Latin Americans assumed that the three North American countries would be aligned on most foreign policies. The Mexican public's attitude toward the U.S. had shifted from sullen resentment to admiration and friendship.

Looking to the future, the alliance of the three North American democracies-being energy self-sufficient with integrated infrastructure and efficient and secure borders-could offer the U.S. a resilient and powerful base from which to face global challenges. Defense Secretary Jim Mattis and Homeland Security Secretary John Kelly should brief the president on the high number of Mexican-Americans in the U.S. Marine Corps.

When White House Chief of Staff Reince Priebus was chairman of the Republican National Committee, he concluded that the GOP needed to reach out to Mexican-Americans and other Hispanics. Insults and attacks on citizens' home countries are not a winning formula for the

William Seward, Lincoln's secretary of state and the man with the vision to purchase Alaska, wrote in 1853 that someday Mexico, Canada and the U.S. would create a North American union, but only after a long process and solely through free choice. Seward fought for America's national union while also promoting an internationalist vision.

Vice President Mike Pence and members of the cabinet have tried to reassure allies in Europe and Asia that a nationalist America can be internationalist, too. Mr. Trump should apply this correction at home and stop abusing America's amicable and vital neighbors.

Mr. Zoellick is a former World Bank president, U.S. trade representative and deputy secretary of state.

The Folly of Investing in China's 'One Belt, One Road'

By Patrick McCabe

n May 13, Beijing will host a summit meeting of countries participating in its massive infrastructure initiative known as "One Belt, One Road"—a belt of overland corridors and a complementary road of sea routes linking China to Eurasia and Africa. Neighboring countries may benefit from Beijing's investment, but investors have reason to be wary.

The summit follows President Xi Jinping's January star turn at the Davos World Economic Forum where he touted OBOR as an investment opportunity: "Over three years ago, I put forward the 'Belt and Road' initiative. Since then, over 100 countries and international organizations have given warm responses and support to the initiative . . . and our circle of friends along the 'Belt and Road' is growing bigger.

OBOR and the associated Asian Infrastructure Investment Bank (AIIB) raise important geostrategic questions: What risks will OBOR recipients incur when all roads lead to Beijing? How will China extract its pound of flesh from developing nations who borrow but cannot repay? Will OBOR facilitate China's overseas military basing?

Putting those concerns aside, some in the U.S. agree with Mr. Xi that OBOR offers investment opportunities. There are several problems with this view.

OBOR has a number of red flags that should give prospective backers pause. First, it was announced in 2013, meaning it was conceived using financial assumptions that are now unrealistic. The cash-flow projections were made at a time when China's double-digit GDP growth seemed unstoppable. The Communist Party, striding

through the financial wreckage of 2008 unsullied, saw its decades of propaganda about Western decline seemingly coming true. Basking in boom times, OBOR's architects certainly didn't plan for a halving of Fast forward to 2017 and China is

achieving a more modest 6.5% GDP growth target, and then only through massive expansion in borrowing. We saw in 2008 what happens when people and businesses borrow recklessly on the assumption that prices and incomes will alwavs rise.

China has spent trillions propping up its stock market and currency with questionable results, and its foreign-currency reserves have fallen by more than \$1 trillion since their peak in June 2014.

China's debt-to-GDP ratio has skyrocketed to 282% from 150% over the past decade. This year China's capital outflows surged to a record \$725 billion, suggesting the

Beijing seeks foreign money for an infrastructure-led growth model just as the initiative begins to fail.

country's own citizens are skeptical of its growth prospects.

Second, OBOR outlays are snowballing as other huge ventures with dubious returns take ever-bigger bites of China's finances. The People's Liberation Army is building armadas of advanced warplanes, warships and missiles, while China's space program envisages a space station by 2022 and a man on the moon by 2036.

Meanwhile, China spent billions to encase disputed South China Sea coral reefs in concrete. That has no economic payoff. As well as antagonizing neighboring countries, it destroyed an ecosystem that sustains millions of fishermen, many of whom are Chinese.

China's politically directed investments in excess infrastructure, "zombie" firms, vanity projects and tens of billions in bad loans to Bolivia, Brazil, Libya, and Venezuela, among others, are notoriously unproductive. Stack China's losses and obligations on top of slowing growth and it's no wonder Beijing is eager to find new OBOR investors.

Third, the initiative is unlikely to deliver on its promises. A 2016 report from the Center for Strategic and International Studies states Chinese officials privately expect to lose 30% of their investments in Central Asia, 50% in Myanmar and 80% in Pakistan.

That shouldn't come as a surprise. A 2016 Oxford University study found costs exceeded benefits for a majority of infrastructure investments in China since 1986. It predicts that unless China shifts to fewer and higher-quality infrastructure investments, the country is headed for a financial crisis. The infrastructure-led growth China touts as a development model should be avoided.

In March Chinese state media quoted Zhang Tao, the International Monetary Fund's deputy managing director, as he reassured the world that "China will remain a strong engine of global recovery with its ongoing economic reforms." Even as Mr. Xi burnishes his globalist credentials, Beijing has been tightening decidedly nonglobalist capital controls, trying to stem a torrent of capital flight.

These actions resemble the strategy of a property developer whose financing fell through while his condo tower is half-built: exude strength and confidence to attract desperately needed investors while obscuring imminent insolvency. If OBOR is so successful, why would the Communist Party ask foreigners for help?

At next month's summit, Mr. Xi will no doubt reiterate the message that China is an unstoppable development juggernaut poised to seize the mantle of globalism from the U.S. Beijing will pressure financial institutions to buy the debt of the AIIB and OBOR-related entities, because it's an \$8 trillion "sure thing." The smart money will stay far awav.

Mr. McCabe is a federal employee at the U.S. Pacific Command. The views expressed here

'Emotional Labor' Gets Organized at an American College

By Sophie Mann

Claremont, Calif. n a new twist on student protests, a group of resident advisers at California's Scripps College went on "strike" last week after issuing a list of demands-mostly for more money. Other students working in the admissions office threatened to wreak havoc during special tours for newly admitted students who are trying to decide whether to enroll. Essentially, the tour guides threatened to trash-talk their own college.

Campuses across America are in the midst of radical, racially tinged, sometimes violent protests over free speech versus "safe spaces." This inland California city, home to the five undergraduate colleges of the Claremont University Consortium, is no exception.

Two weeks ago protesters at Claremont McKenna College shut down a talk by Heather Mac Donald of the Manhattan Institute. Last Monday three African-American students at Pomona College demanded that editors of the conservative Claremont Independent be expelled for committing journalism against "students of marginalized backgrounds."

Still, the demands at Scripps, a private women's school that has re-

> William Lewis Chief Executive Officer and Publisher

Edward Roussel, Innovation & Communications;

Anna Sedgley, Chief Operating Officer & CFO;

Kristin Heitmann, Transformation; Nancy McNeill, Advertising & Corporate Sales,

DOW JONES MANAGEMENT:

Katie Vanneck-Smith, President

Jason P. Conti, General Counsel;

Steve Grycuk, Customer Service;

Jonathan Wright, International

DJ Media Group: Almar Latour, Publisher;

OPERATING EXECUTIVES:

Mark Musgrave, Chief People Officer:

Ramin Beheshti, Product & Technology;

Frank Filippo, Print Products & Services;

cently scaled the U.S. News rankings, stand out. They make no pretense of higher principle-or even manufactured fears. This is a shakedown over money, dressed up in the language of victimhood.

Scripps resident advisers, most of whom are African-American and Latina, get room and board worth almost \$16,000 a year. They feel their work is worth more. In an April 13 letter to new college president Lara Tiedens, these RAs declare that they're on strike to "put pressure on Scripps to fulfill its obligation to students" and to "demonstrate the extent of the labor we perform on campus."

That "labor" largely consists of opening dorm doors for residents who forget keys, asking students to turn down music on weekend evenings, and so forth.

The RAs also want more financial aid. They allege that Scripps "discourages students from seeking external support to pay for their education, but does not provide the necessary funding"-but they also admit that "we do not completely understand the complexities of the financial aid system."

Then there are the mental-health problems purportedly generated by the "emotional labor" RAs do. The letter acknowledges that Scripps already subsidizes students' visits to private, off-campus therapy. But the school only pays \$75 a session, and even if students can get insurance to cover the rest they must front the cost. "This financial burden," the letter complains, "should not be

put on any student who seeks to im-

prove their mental health." Should a college provide therapy to RAs whom it pays to be the mature authorities in its dorms?

"intersectionality," Citing "admissions ambassa-Scripps's dors"-the student tour guidesjoined the strike. "In our act of solidarity, the majority of us will not

Resident advisers at a women's school call a strike, and campus tour guides join the action.

guide the normal tours beginning

Ms. Tiedens quickly caved in. She promised to pay for students' private therapy and to hire a "wellness" administrator. (Harvey Mudd College, another school in the Clareits shrink budget in response to stu-

Ms. Tiedens did refuse one de-

Talk about "intersectionality." After the victory, the strike contour guides to "engage students critically around issues of mental health, financial aid, emergency preparedness, and the lack of institutional support for students by the Dean of Students office." That is, they suggested telling prospective students that Scripps is mean and uncaring—never mind that the maiority of students consider Scripps a happy community of students seeking to learn and to succeed.

How did these young women, who are receiving an elite liberalarts education at pennies on the \$68,000 a year price, acquire such a deep sense of grievance?

Perhaps from Scripps's three required semesters of Core Curriculum, advertised as "interdisciplinary learning," which indoctrinate malleable minds into progressive thought. Freshmen are encouraged to see themselves as permanently oppressed victims of great structural forces—racism, sexism, transphobia, ableism, etc. Radical faculty encourage and enjoy watching their students work themselves into frenzies against their institution.

Perhaps this creates a special burden for women of color, who hear that they are permanently marginalized, a claim echoed endlessly in identity-based campus organizations. It is the precise opposite of "empowering women." Ms. Tiedens's actions guarantee that the airing of the grievances will continue.

Ms. Mann is a junior at Scripps College and senior associate editor of the Claremont Independent.

PUBLISHED SINCE 1889 BY DOW JONES & COMPANY Chief Executive Officer, News Corp

Executive Chairman, News Corp **Gerard Baker**

Matthew J. Murray Deputy Editor in Chief DEPUTY MANAGING EDITORS: Michael W. Miller, Senior Deputy Thorold Barker, Europe: Paul Beckett, Washington; Andrew Dowell, Asia; Christine Glancey, Operations;

Jennifer J. Hicks, Digital; Neal Lipschutz, Standards; Alex Martin, News; Shazna Nessa, Visuals; Ann Podd, Initiatives, Matthew Rose, Enterprise; Stephen Wisnefski, Professional News

Paul A. Gigot, Editor of the Editorial Page. Daniel Henninger, Deputy Editor, Editorial Page WALL STREET JOURNAL MANAGEMENT:

EDITORIAL AND CORPORATE HEADQUARTERS:

1211 Avenue of the Americas, New York, N.Y., 10036 Telephone 1-800-DOWJONES

Suzi Watford, Marketing and Circulation, Joseph B. Vincent, Operations; Larry L. Hoffman, Production

News Corp

Kenneth Breen, Commercial Professional Information Business: Christopher Lloyd, Head; Ingrid Verschuren, Deputy Head **DOW JONES**

Monday, April 17th," they declared in a statement. "As an alternative, we will use our tours as a platform to share with prospective students and families the toxic and frustrating climate that Scripps has created and perpetuates against marginalized students."

mont Consortium, also ratcheted up dent tantrums last week.)

mand—to fire the dean of students, Charlotte Johnson, whom the RAs find insufficiently sympathetic. But Ms. Johnson is African-American

tinued. The RAs encouraged the

LIFE **営 ARTS**

BONDS: ON RELATIONSHIPS | By Elizabeth Bernstein

Let's Think More About Sex

Better communication in your relationship can come from more sexual thoughts, not just being nicer

WANT A BETTER relationship?

Think about sex more.

Typically, everyone—moms, best friends, therapists—gives the same advice on how to improve a relationship: Be nice. Listen more. Help out around the house. And they're

But now researchers say that just thinking about sex can help. When we have sexy thoughts we are more likely to open up and share information about ourselves. That helps us bond.

The new research, which will be published in print next month in the Personality and Social Psychology Bulletin, consists of three studies with a total of 245 heterosexual participants conducted by psychologists at the Interdisciplinary Center, a private university in Herzliya, Israel. In study one, participants were asked seven questions about what food, clothing and locations they would prefer for a first date. In between questions, pictures flashed on the screen so quickly the participants weren't consciously aware of them. Half the participants were shown erotic photos of a naked member of the opposite sex. Half were shown pictures of fish. Then they were asked to share a personal story via Instant Messenger with someone they thought was an attractive member of the opposite sex (but was really a researcher).

In study two, some participants watched a scene from the movie "Original Sin" where the actors Antonio Banderas and Angelina Jolie have sex. Others watched a film on cat behavior. All were then asked to tell an embarrassing personal story while face-to-face with another participant of the opposite sex.

In study three, participants watched several videos of couples interacting sexually or several movies of couples talking about their feelings. Then they were asked to tell an embarrassing personal story via online chat to an attractive member of the opposite sex (again, really a researcher). They were also asked whether or not they wanted to go on a date with that person.

The findings in all three studies were consistent: The people who were exposed to sexual stimuli revealed significantly more personal information. They also were more likely to want to meet the person they had just opened up to online. There were no gender differences in the results.

Previously, psychologists looked at sexual arousal as our body's way to initiate sex



with a desirable partner. These findings show that the point may also be to establish emotional bonding.

"Sexual desire makes you chatty," says Gurit Birnbaum, a social psychologist and associate professor of psychology at the Interdisciplinary Center, who is the lead researcher on the new studies. She says this is because we are wired to bond.

This chattiness obviously helps out when two people first start dating. But it is good news for couples in long-term relationships, too. Dr. Birnbaum says that thinking about sex starts a positive cycle of emotional intimacy: When you think about sex and then disclose personal information, the other person likes you more. If the attraction is

mutual, he or she typically reciprocates by sharing as well. That, in turn, makes you feel more affection.

How can you harness this sexually prompted chattiness to boost the emotional connection in your relationship? Dr. Birnbaum has some advice:

First, be aware of it. And be careful to whom you are blabbing. If you see a suggestive ad in a magazine and start oversharing to the bus driver or a cute co-worker you're not helping your marriage.

Pick up your partner's cues. If he or she seems more romantic, maybe it is a good time to talk. You don't have to delve into life's big issues. And certainly don't choose this time to bring up any problems in the

marriage. But an amorous partner is probably an attentive audience.

Don't dump. Reciprocal, and gradual opening up is attractive. Spewing your emotions without control—or rambling about every insignificant detail—is not. And make sure it is a good time for your partner to talk. The middle of a weekend-long visit from your in-laws is not the time.

Create a sexy atmosphere. If you're feeling emotionally distant, put on some music. Light candles at dinner. Wear that shirt your partner thinks matches your eyes. Watch

and sharing mood, have sex. Remember, it boosts relationship satisfaction, too.

_ (some

65 Fresh look

67 Pro-

66 Vase inserts

1 Hispaniolan

nation

3 Act opener 4 Nick and Nora's

terrier

5 Commotion

6 New Jersey city

Delaware from

across the

Philadelphia

8 Scoring amts.

Confederacy

Slammer liqueur

7 "Give it _

9 Jeb of the

Alabama

12 Pupil's place

15 Measures of

brightness

18 Ranch problem

24 "The Daily Show

host Trevor

27 "That's strange"

20 Busybody

26 "Niftv!"

11 Distant

2 Collar

golf tourneys)

Weather AccuWeather.com -10 -5 0 5 10 15 20 25 30 35 • Kiev

Warm Rain T-storms Snow Athens Flurries Ìce Lo W

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

City Amsterdam sh 11 Anchorage 13 Athens 15 15 12 17 16 13 Atlanta 29 31 26 29 16 38 20 10 20 Baghdad 22 Bangkok Beijing Berlin 10 Bogota

Brussels Cairo -2 25 13 Calgary 4 32 21 24 32 14 21 Caracas 27 Charlotte 16 Chicago 21 -1 12 Dallas Detroit pc Dubai 26 1 25 4 Edinburah

City 5 24 Ottawa 31 23 19 Paris 18 24 23 23 Havana Hong Kong Honolulu 23 22 Phoenix 14 Houston рс 31 Jakarta 8 10 15 Johannesburg 19 24 26 25 12 Riyadh Kansas City 18 Las Vegas 30 26 11 28 18 London 2 17 Los Angeles 15 25 9 11 Manila 35 12 27 9 Mexico City рс 28 11 Seattle Minneapolis 6 39 17 Monterrey 12 Montreal Sydney 25 14 24 Mumbai рс Tehran Nashville 30 18 25 Tel Aviv 39 29 18

рс

21 13

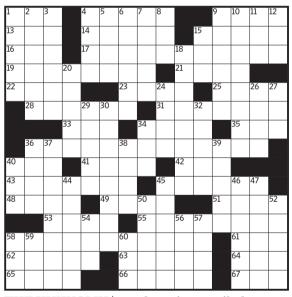
10

32 17

12 2 14 sh sh 12 21 Philadelphia 18 15 pc r s 33 22 Port-au-Prince 23 Portland, Ore. 6 24 r pc Rio de Janeiro 21 12 5 Salt Lake City 13 23 San Francisco 13 San Juan sh 25 Santiago 31 27 Santo Domi sh Shanghai Singapore Stockholm 31 25 -2 12 19 12 Tokyo Toronto 10 14 17 14 22 6 17 Washington, D.C.

19

The WSJ Daily Crossword | Edited by Mike Shenk



THE UNKNOWN | By Zhouqin Burnikel 25 Casino city in 45 Ranked, as

1 Features

on New Year's

distance

22 Words of

23 Sicilian smoker

understanding

Punk, e.g. 43 Unified whole,

40 Friend, en francais

41 First son

42 Music's Daft

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

in psychology

indicating phrase,

first words of the

and a hint to the

starred answers

62 Dunne of

61 Seek answers

48 No longer

sudden!"

poetically

55 *Fans of Gene

Simmons's band

58 *Ready-to-attack

49 "This

53 Ireland.

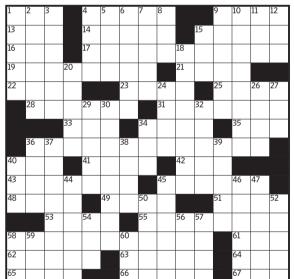
deceived by

51 Bearded bloom

"I Remember

64 Cal. column heading

"Original Sin" together. And if your partner is in a happy, open



28 Destroyer, in

33 Up to, briefly

34 Guidebook

features

36 Treasure-

35 Bit

naval slang

31 Forgot to put in

the Silver State

4 Musicians' copyright org. 9 Money holder

13 Pendulum's path

14 Found, say

15 "To whom.

concern"

16 Incensed feeling

17 *Crowded place

19 *First down

21 Catherine Palace

Mama

63 Buy a round

29 Around 30 Battery type

32 Debate topic

34 Range part: Abbr. 36 Beast, Cyclops,

Storm et al.

37 1960s sitcom

with a title

palomino

38 Joins a jury

39 Speakers' stands

40 Before today

44 2006 Winter Olympics host

45 Evening gala

46 Printed mistakes

47 Bite-sized

Cantonese dish

50 Woman's golf

52 Wanda of comedy

54 Likable candidate

of 1952

56 Too-good-to-be-

true offer

57 Match

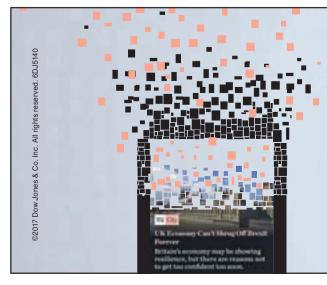
components

58 Military address

59 Number before

quattro 60 Mil. outposts

Previous Puzzle's Solution



New Delhi

Omaha

New Orleans

Carry The Square Mile

The WSJ City App. Now on Android and iOS.

Stay up to date with essential news from the City of London and beyond Get the most crucial stories, sector insights and markets data delivered straight to your iPhone or Android device with the WSJ City App

DOWNLOAD NOW





THE WALL STREET JOURNAL. Read ambitiously

BUSINESS & FINANCE

© 2017 Dow Jones & Company. All Rights Reserved.

THE WALL STREET JOURNAL.

Tuesday, April 25, 2017 | **B1**

Market's

Focus Is

Now on

By Jon Sindreu

AND TOM FAIRLESS

The ECB

An ascension of Emmanuel

Macron to France's presidency

could trigger a much-antici-

pated event in European finan-

cial markets: the scaling back

of the European Central Bank's

ECB policy makers have been wary of signaling an end

to their monetary stimulus

amid the risk posed by the

rise of euroskepticism. That is

widely expected to leave their

Pen, places him in pole posi-

tion for May's second round and puts a reduction of monetary stimulus back on the

Any such move by the ECB

would have a big effect on markets, driving money out of bonds and, if investors stay

confident about the local economy, moving more cash into riskier assets. On Monday,

European stocks rallied, and German and other safe-haven government bonds sold off.

to the improving eurozone economy and the prospect of

the European Central Bank

beginning to withdraw mone-

tary policy stimulus," said

Anthony Doyle, fixed-interest

investment director at M&G

When the Federal Reserve

program,

signaled in mid-2013 that it

might start scaling back its

known as quantitative easing,

or QE, market volatility spiked and bond yields

jumped more than a percent-

age point in an episode known

rozone has been brightening

for months. Eurozone business

Markit on Friday indicated ac-

tivity is at its strongest

level in six years. The region's

unemployment rate, at 9.5%, is

the lowest since May 2009

and consumer prices rose 1.5%

published

Away from the political sphere, the outlook for the eu-

as the "taper tantrum."

Investments.

bond-purchase

survevs

"The focus will now shift

But Mr. Macron's first-place finish on Sunday, ahead of anti-euro candidate Marine Le

policy mix unchanged.

agenda, investors say.

vast stimulus program.

Euro vs. Dollar 1.0851 ▲ 1.16%

FTSE 100 7264.68 ▲ 2.11%

Gold 1275.80 ▼ 0.90%

WTI crude 49.23 **▼** 0.79%

German Bund yield 0.330%

10-Year Treasury yield 2.275%

PPG Sweetens Its Offer for Akzo

The \$26.4 billion bid by the U.S. paint giant marks its third effort to win over Akzo

Paint giant **PPG Industries** Inc. on Monday raised its offer for Dutch rival Akzo Nobel NV to €24.6 billion (\$26.4 billion), the U.S. firm's third takeover attempt in a two-month-long, unsolicited courtship.

> By Christopher Alessi, Austen Hufford and Andrew Tangel

PPG increased its offer price for Akzo to €96.75 a share from its bid last month of €88.72 a share. PPG's initial approach at the start of March was at €83 a share.

"It's clear we're not going away," PPG Chairman and Chief Executive Michael Mc-Garry said in an interview, calling the latest bid the company's final offer. "It's clear that the shareholders

and the stakeholders will all Akzo at a premium of 24% benefit from PPG being the over its closing price of €78.20 owner of the larger, combined company."

Akzo confirmed it had received PPG's updated offer and would "carefully review and consider" the proposal.

PPG's latest offer comes as Akzo is warding off an effort by some of its largest investors, including activist inves-Elliott Management Corp., to push the Amsterdam-based company to engage in negotiations with the Pittsburgh-based firm.

Elliott earlier this month called for a special meeting of Akzo's shareholders to try to oust the chairman of its supervisory board, who is seen as an opponent of such a deal. Akzo responded by saying it strongly supported Chairman Antony Burgmans and would reject an agenda item seeking to dismiss him. Akzo has yet to say whether it will agree to hold the extraordinary meeting.

PPG said the new bid values

over its closing price of €78.20 a share on April 21, the last full day of trading before the revised offer.

That was just days after Akzo unveiled the details of a new strategy to separate its specialty-chemicals which is part of Chief Executive Ton Büchner's continuing effort to ward off PPG. Mr. Büchner has repeatedly refused to engage with PPG, calling the first two takeover offers inadequate.

Mr. McGarry said PPG has gone out of its way to assuage concerns over the acquisition, including a pledge that the combined company would be listed on stock exchanges in both New York and in Amsterdam. "We have bent over backwards to appease them," Mr. McGarry said, adding: "There is no room left for them to raise for any further concerns. It's time for them to come to the table."

Mr. McGarry has said all options remain on the table,

Unmixed Paint

Akzo Nobel has resisted several merger approaches by U.S. rival PPG, which made its most recent overture on Monday.

Akzo Nobel's share price (1) and PPG's offers



Note: assumes PPG share price of \$105.94 €1 = \$1.073 Source: WSJ MDG (Akzo shares); PPG (offers)

THE WALL STREET JOURNAL.

though he wanted to avoid a hostile bid. "We strongly prefer a negotiated deal with Akzo Nobel, and it to be done privately," he said. The company told investors on April 19 that it plans to pursue a dualtrack process to have the op-

cialty chemicals business as a separate listed entity or sell it outright, to be completed within the next 12 months.

snub grows thin.

despite evidence of a strong economic rebound in the 19tion to either spin off the spenation eurozone. ECB rate setters will gather in Frankfurt on Wednesday and Thursday for their next policy meeting. They are

♦ Heard: Akzo's logic in PPG

STREETWISE By James Mackintosh

European Shares: Not As Cheap as



It is easiest worried inves-

doesn't happen. In the case of France, the relief evident in Monday's market reaction showed the scale of dread that had been priced in ahead of Sunday's election.

European bank stocks soared 7.4%, but the jump was somewhat less notable, only slightly above three big daily gains early last year and frequently exceeded during the rescues from 2008-2012. The euro's initial 2% leap against the dollar after the French result on Sunday night would have been the best in a year if sustained, but faded back to a more ordinary 1% rally by the end of Paris' day. Meanwhile, gold and yen fell about 0.7% each—notable drops but not unusual for the global sanctu-

So the market story about France was that a populist win risked the creditworthiness of the French government, which would be very bad for European banks. The euro itself was never seen as under any serious threat, while knock-on global effects were expected to be relatively small.

There is still two weeks to go until the second-round runoff between the centrist winner Emmanuel Macron and far-right runner-up Marine Le Pen. Polls suggest Mr. Macron will win with a big margin, and the mainstream losers of the first round already have backed Mr. Macron. There is clearly scope for a surprise revelation to hurt Mr. Macron's chances, but the market's gains if and when he wins are likely to be much smaller than in the tight first round.

What about the longer run? Many investors think U.S. stocks are expensive, and for the past month or so money has been switching from U.S. funds to European funds. On the face of it, it is true that Europe is cheaper, with eurozone stocks at 15

They Look

to judge how tors were about some-

thing when it

The French fears can be pinned down more precisely. The standard measure of eurozone panic, the spread of French bond yields over Germany's safe-haven bunds, dropped by the most since the height of the eurozone crisis in 2011, and had its second-best day since the calm of the 2000s.

Please see STREET page B2



India's Supreme Court has banned the sale of booze within 500 meters of national and state highways starting this month.

India Spirits Makers Feel a Chill

By Saabira Chaudhuri

GOA, India—An increasingly hard-line view on alcohol in India is threatening sales for global spirits makers as a new ruling forces many local sellers to shut down or adapt.

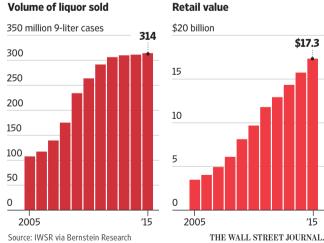
In an attempt to reduce alcohol-fueled road accidents, India's Supreme Court banned the sale of booze within 500 meters, or 547 yards, of national and state highways starting this month, a decision that affects liquor stores. bars, restaurants and hotels.

The move has shaken India's bar and restaurant industry and sent a chill through large spirits makers that are betting on growing demand in the emerging middle class in India, the country that is the world's largest whiskey market by volume.

On Thursday, Pernod Ricard SA. which owns brands such as Chivas Regal Scotch whisky and Absolut vodka,

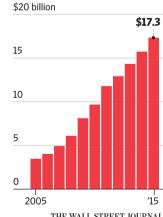
Subcontinental Surge

Liquor sales have risen for years in India, by volume and revenue, but new regulations threaten to crimp that growth.



warned that the highway liquor ban would hurt its sales in India through 2017.

Financial Officer Retail value



Gilles Bogaert said on an investor call that it was still too early to assess the full impact. "It will just create disruption over the short term," he said. Investment bank Jefferies Group LLC estimated the ruling affects roughly 35% of India's liquor outlets. Danish brewer Carlsberg A/S estimates there are 66,000 of these across the country.

Roughly one million jobs could be affected and \$9 billion to \$15 billion lost because of the ban, according to estimates from Riyaaz Amlani, president of the National Restaurant Association of India. In the touristheavy state of Goa, 85% of liquor stores could close or be forced to move because of their proximity to highways, he said.

Jefferies earlier this month cut its per-share earnings estimate on Diageo PLC's Indian affiliate, United Spirits Ltd., for fiscal 2019 by 6.5%, saying volumes of high-end liquor would be weaker through 2018 than previously expected.

Carlsberg CEO Cees 't Please see INDIA page B2

in March from a year earlier, a rate not far away from the central bank's target of close to, but below, 2%. The big question is: When will officials start reacting to

this data? While the central bank has moved to curb its stimulus in recent months by slowing its bond purchases and phasing out a series of free loans, some top officials have denied that those changes

mark a turning point.

"It's not signaling a change in monetary policy stance, it's simply reflecting a different assessment of real conditions," Belgian central-bank governor Jan Smets said in an interview.

ECB rate setters will meet again in Frankfurt on June 8. While few investors expect

significant policy moves to Please see ECB page B2

Apple Races to Catch Up in Driverless Cars

By TRIPP MICKLE AND TIM HIGGINS

Apple Inc.'s plan for autonomous vehicles calls for putting more-senior engineers in all of its cars than some of its rivals are using for road tests, a move that suggests the company is still in the early phases of testing its technology, analysts say.

In a permit issued April 14 by the state of California, obtained Friday through a public-records request. Apple identifies six employees,

including roboticists who

worked at the U.S. National

Aeronautics and Space Ad-

ministration, who will be in the front seat of three Lexus sport-utility vehicles outfitted with technology to make them autonomous.

The road tests are critical for Apple as it tries to catch up in the race to develop self-driving cars. Alphabet Inc.'s Waymo has been testing autonomous vehicles on roads since 2009, with senior engineers in the front seat for many early tests.

At stake is a shuffling of the auto industry and the \$2 trillion in annual revenue tied to it, according to estimates by Deloitte. Traditional auto makers such as

Ford Motor Co. and General Motors Co., as well as Silicon Valley companies such as **Uber Technologies** Inc. and Tesla Inc., are investing in self-driving technology.

Though Apple has been working since at least 2014 on self-driving cars—an effort dubbed Project Titan-it has been guarded publicly about the people working on the project.

Shilpa Gulati, the first person named on the Apple permit, has been in the field since at least 2009, when she was part of a team working in Antarctica on a NASAfunded project to develop an

autonomous vehicle to explore one of Jupiter's moons.

She later worked on selfdriving cars at Robert Bosch GmbH, a German technology and auto-parts supplier. According to her LinkedIn page, she is a manager working on special projects at a "Silicon Valley company," where she built a team of about 30 researchers and engineers.

California in recent years began issuing permits specifically for road-testing driverless vehicles. The permit granted Apple also names three engineers who worked

at NASA's Jet Propulsion Please see APPLE page B3

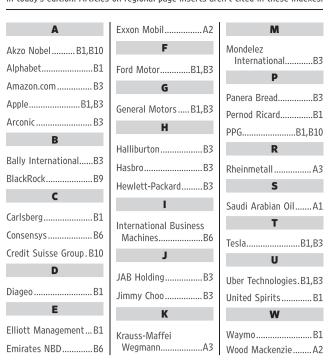


TRUMP'S POINT MAN ON WALL STREET

FINANCE & MARKETS, B9

INDEX TO BUSINESSES

in today's edition. Articles on regional page inserts aren't cited in these indexes



B Bain, Caroline	EX TO PE
_	Hebert, PaulE
Bishr, Aisha BinB6 Büchner, TonB1	Hwang, VictorE
Burgmans, AntonyB1	Kern, NatA Kleinfeld, KlausE
Carney, MarkB6	L Lapthorne, AndrewE
Denev, AlexanderB7	Lootah, WesamE Lumb, RichardE
Farmer, J. DoyneB7 Flood, MarkB7	Macron, EmmanuelB1
Haldane, AndyB7	McGarry, MichaelE

A TU PEU	PLC
Hebert, PaulB3	0
Hess, BeatB2	Olsen, EricB2
Hwang, VictorB3	P
K	Peter PraetB10
Kern, NatA2	R
Kleinfeld, KlausB3	Rodrigues, AlexB4
L	S
Lapthorne, AndrewB3 Lootah, WesamB6	Saadi, Mohammed Shael AlB6
Lumb, RichardB6	Sajwani, AliB6
M	Shah, NiteshB9
Macron, EmmanuelB10	Soramäki, KimmoB7
Ma, JeremyB3	T
McGarry, MichaelB1	Tohamy, Takreem ElB6

Lafarge CEO Steps Down; Firm Clears Him on Syria

ZURICH-LafargeHolcim Ltd. Chief Executive Eric Olsen abruptly resigned in the wake of a controversy over payments the cement company made to armed groups in Syria amid the country's civil war.

The Franco-Swiss company said Mr. Olsen, a U.S.-French dual national, will leave July 15. It said it had started a search for a successor. Chairman Beat Hess will serve as interim CEO after Mr. Olsen departs

Lafarge said Monday in a separate release detailing the findings of an internal probe into the Syria payments that the role of Mr. Olsen as CEO had been a "point of attention" in the review. But it said its internal investigation cleared him of any wrongdoing regarding the payments, or knowledge of them. It declined to comment further, citing legal proceedings in France.

The Paris prosecutor has opened a preliminary investigation into whether Lafarge-Holcim violated international sanctions on doing business with Islamic State or other extremist groups in Syria, a spokeswoman for the prosecutor's office said.

Mr. Olsen, in a written statement, said his decision to

BUSINESS & FINANCE

LafargeHolcim's Eric Olsen said he wasn't aware of payments the Franco-Swiss cement company made to armed groups in Syria.

resign "is driven by my conviction that it will contribute to addressing strong tensions that have recently arisen around the Syria case." He said he was "absolutely not involved" with, or aware of, the payments. "I believe my departure will contribute to bringing back serenity to a company that has been exposed for months on this case," he said.

Lafarge had previously disclosed that its local unit in 2013 and 2014 provided funds to third parties, who then hired armed groups, including groups on Western sanctions lists, to "maintain operations

and ensure safe passage of employees and supplies to and from the plant."

The disclosures over the Syrian payments have been a distraction for the company as it pushes ahead with the complex integration of Switzerland's Holcim and France's Lafarge, two of the world's biggest cement makers. Holcim and Lafarge merged less than two years ago.

Mr. Olsen has been chief executive since 2015.

In a written statement Monday, the company provided some further detail about its internal probe into the paymeasures taken to continue safe operations at the Syrian plant were unacceptable, and significant errors of judgment were made that contravened the applicable code of con-

The company said it determined that "although these measures were instigated by local and regional management, selected members of group management were aware of circumstances indicating that violations of Lafarge's established standards of business conduct had taken

Last month, Lafarge said the Syria allegations weren't expected to have a material financial effect. It posted a net profit of 1.79 billion Swiss francs (\$1.8 billion) for 2016, a turnaround from a pro forma net loss of 2.12 billion francs the previous year.

Some analysts said the departure could be further disruptive to Lafarge's integration efforts.

"In our view, it is extremely disappointing that Eric Olsen has to leave at a time when the company is gaining traction and delivering on targeted synergies," said analysts at Vontobel.

–Matthew Dalton in Paris contributed to this article.

Continued from the prior page happen then, many believe that officials will start preparing markets for tighter money in the future. They may drop a pledge to increase the bank's stimulus efforts again were the outlook to darken. That so-called easing bias "could well be discontinued in light of all the positive news that is coming in," said Dutch centralbank governor Klaas Knot.

Investors are also zeroing in on increasing discrepancies between the views of officials from Northern and Southern Europe. The former have appeared more eager to unpeg

the central bank's benchmark interest rate from its current record-low level of minus

Mr. Macron's victory will "increase the possibility of tapering," said Nadège Dufossé, head of asset allocation at French firm Candriam Investors Group.

But unlike in the U.S., where stocks came under pressure during the taper tantrum, the ECB's shift might come a time when investors are increasingly willing to take risks.

On Monday, the Stoxx Europe 600 index gained 2.1% and eurozone bank stocks jumped almost 7%, not least as investors imagined the benefits of higher interest rates to

their profits. Meanwhile, the spread between 10-year yields in French and German government bonds—a sign of how much riskier investors deem

ECB rate setters are widely expected to leave their policy mix unchanged.

French debt to be—has almost halved from February levels, the widest since 2012.

Indeed, the political risks that have sandbagged European markets over the past year may be starting to dissipate. While eurozone stocks continue to trade at a discount to those in the U.S., money has cautiously started to return to the region's equity funds, according to data provider EPFR Global.

"If anything we could be towing back from populism," Mark Dowding, portfolio manager at London-based BlueBay Asset Management, who bet against French government bonds earlier in the year.

Last month, fears that Geert Wilders' euroskeptic Party for Freedom might emerge victorious in Dutch national elections also proved unfounded. In Germany, support for the euroskeptic Alternative for Germany party ahead of the Sept. 24 election is now below 10%, while Chancellor Angela Merkel's Christian Democratic Union and her main rival, Martin Schulz's Social Democrats, are both polling above 30%. A policy reversal from the

ECB may actually help mainstream parties, as it would relieve pressure on the nation's conservative savers. "It would definitely make

Merkel happy," said Paresh Upadhyaya, a portfolio manager at Pioneer Investments.

Over the last two months, markets have only timidly started positioning for tighter ECB policy. Derivatives that protect investors against moves in short-term interest rates have shown a consistent trend toward signaling that future rates might be slightly higher. To be sure, top officials

continue to urge caution in their last public comments before this week's policy meet-

ECB chief Mario Draghi warned in Washington on Friday that underlying inflation in the eurozone was too weak and the bloc's economy still needed "very substantial" support from Frankfurt. His top officials struck a similar tone.

"Inflation is just not there outside of energy," said Kathy Jones, chief fixed-income strategist at the Schwab Center for Financial Research. "I think that expectations of ECB tapering are a little bit premature."

ADVERTISEMENT

BUSINESS OPPORTUNITY



The complete tender document including EMD, Bid Qualification Criteria (BQC) etc. can also be viewed at our web site www.hindustanpetroleum.com under tender section: link "Tenders & Contracts". All further revisions, clarifications, corrigenda, addenda, time extensions etc, to above tender will be hosted on above HPCL websites only. Bidders should regularly visit this website to Manager · Purchase



Dune Metropolitan Region Development Authority, Pune

S.No. 152-153, Maharaja Sayajirao Gaikwad Udyog Bhawan, Aundh, Pune – 411067 Maharashtra (India) Phone No: 020-259 33 344/356/333 Email: hqpmrda@gmail.com दूरध्वनी क्र.: 020-25933344/356/333 mpp.pmrda@gmail.com

Corrigendum No.3 to E-Tender Notice No. 18/2017 The PMRDA has published E-Tender notice for Request for proposal (RFP) for

Appointment of Consultancy Firm for preparation and Implementation of Towr Planning Scheme/s (TPS) vide Tender ID No. 2017 PMRDA 204573 1.

Now the date of submission of RFP is extended upto 09/05/2017 upto 02.00 p.m. Al

Metropolitan Commissioner & C.E.O

Vishakapatanam

Pineline Project at

Vishakapatanam

By Order of Secured Creditor UCC 9-610 Foreclosure Auction ay and Date: Friday, April 28th, 201: Time: 10:00am PDT ocation: Offices of Brian Testo Associates, LLC 208 Costanso St. #1, Woodland Hills, CA 9136

Description of assets to be sold:
The assets to be sold consist of certain of the
ngible and intangible assets used in the busines
of Signorelli ("Assets") including all inventory,
quipment, general intangibles, investment propert
and all other assets (except Accounts).

For a more detailed list of Assets or to arrange an inspection of them, please contact: Brian Testo, Brian Testo Associates, LLC www.btesto.com

BUSINESS FOR SALE

Highly Profitable Express Car Wash C Store / Gas Station \$15,000,000

Confidential Private Sale **Exceptional Investment Opportunity** R/F Included • SOUTHERN CA

Please NO Brokers • Principals/Investors Only

noneymanager@dc.rr.com • 760-507-7079

BUSINESS OPPORTUNITY

 As with all investments, appropriate advice should be obtained prior to entering into any binding contract. ♦

Save Up To 60% First & Business

INTERNATIONAL Major Airlines, Corporate Travel Never Fly Coach Again! www.cooktravel.net (800) 435-8776

Businesses For Sale. Advertise in The Mart.

Call +44 (0) 207 572 2124

THE WALL STREET JOURNAL.

Continued from the prior page times next year's estimated earnings, according to Thomson Reuters IBES, and the U.S. close to 18 times.

European profit margins are also depressed by historic standards, helping the argument that they are more likely to rise than fall. By contrast, in the U.S., margins are close to record highs, so further gains are harder.

There are three big problems with the argument that the eurozone is cheaper. Firstly, it is virtually always cheaper, Second, the cheapness is concentrated in banks, which still scare many, and oil stocks, which only look cheaper in Europe because of the collapse in U.S. shale profits. Finally, being cheaper than the most expensive major market isn't much help if Europe's still expensive itself.

History shows investors demand a discount for European stocks, perhaps because of less economic dynamism, perhaps because of slower long-run profit growth, perhaps because employees have more say. The average discount since Thomson Reuters IBES data began in the mid-1980s is a discount of 2 points on the price/earnings

Europe's current discount is even bigger than the historic norm, but all of it is down to banks and oil. Exclude those, and the discount for eurozone stocks is fractionally smaller than the long-run average.

Andrew Lapthorne, head of quantitative equity research at Société Générale, uses the valuation of the median stock to try to avoid being skewed by a few large or very expensive companies or sectors. "Europe's at peak valuations as much as everywhere else on an equal-

weighted basis," he says. An alternative bet on Europe is that the economy is recovering faster as global growth picks up, and that a reformist in France's Elvsée Palace could make Germany more willing to help out (although Mr. Macron may have to work with a prime minister from another party.) Again, the biggest winners from a faster expansion and a rise in interest rates should be the banks. If the economy doesn't behave, the banks will be the big losers. European banks are cheap, and it isn't hard to see why.

The European Stock Discount

European shares typically trade at a valuation discount to the U.S. The discount is currently bigger than usual, but all of the extra discount is explained by financial and energy stocks.

1987 90 2000

Discount of eurozone stocks* to U.S. Spread between forward P/E ratios Total Excluding financial and energy sectors 1987 | '90 2000

*Historical data show equivalent countries before euro was created Source: Thomson Reuters THE WALL STREET JOURNAL.

Hart in February warned that 2017 "could be a volatile year for India."

impact is the Leela Ambience, a five-star hotel in the city of Gurugram near Delhi. Just off a major highway, the hotel this month stopped serving alcohol throughout the property, including via room service. "As of now, until we get in-

formation through the government, we won't be able to serve anything," said Siddharth Singh. a reservations associate.

class, young population and longstanding preference for

ond-biggest market by sales behind the U.S. after the Johnnie Walker maker in 2013 and 2014 built up a stake in Bangalorebased United Spirits, India's largest liquor maker. India has also become Pernod Ricard's second-U.S., pushing China to third.

biggest market by sales after the Spirits companies have already seen sales hit in India after the government in November abruptly scrapped high-denomination bank notes in an attempt to crack down on tax evaders. Pernod on

months ended March 31, com-

pared with growth of 14% in the year-earlier period.

India is also one of the toughest places in the world to sell alcohol, thanks to a complex patchwork of regulations. The country's constitution recommends prohibition, influenced by Mahatma Gandhi's antipathy to alcohol, which he viewed as the root of many social evils. Imported spirits are taxed 150%, and each of its 29 states separately regulates domestic liquor manufacturing, pricing and distribution.

Some states ban alcohol entirely, and a number of others are considering doing so, as recommending prohibition has be-Thursday reported just 1% come a tactic to secure votes. growth in India for the nine The chief minister of the Indian

state of Madhya Pradesh said

this month that the state would move to ban alcohol. Still, state governments de-

pend on liquor as a revenue stream, and some have moved to have state highways reclassified as roads in response to the ban. Indian liquor retailers have taken their own creative measures. One outlet in the coastal state

of Kerala constructed a maze patrons must walk through, which puts the door more than 500 meters from a highway, according to media reports. Others have moved their entrances, forcing people to drive more than 500 meters. The Supreme Court ruling hasn't clarified whether the distance is measured as the crow flies or otherwise, leaving open a loophole that retailers and bars exploit.

Continued from the prior page

One venue already feeling the

Global spirits makers have invested heavily in India, at-

tracted by its expanding middle

hard liquor over wine or beer. India became Diageo's sec-

Amazon Studies Driverless Ideas

Technology fits into the company's push to get more involved in transporting goods

By Laura Stevens AND TIM HIGGINS

Amazon.com Inc. has created a team focused on driverless-vehicle technology to help the retail giant navigate the shake-up of transportation, according to people briefed on the matter.

Amazon quietly formed the team, which has comprised about a dozen employees, more than a year ago as part of a broader ambition to transport more of its goods itself. For now, Amazon doesn't intend to build a fleet of vehicles, according to these people. Instead, the team serves as an in-house think tank to figure out how to exploit autonomous vehicles. The initiative, still in its

early phases, could help the Seattle-based company address one of its biggest logistical complications and costs: delivering packages quickly. Amazon could use autonomous vehicles including trucks, forklifts and drones to move goods. In addition, driverless cars could play a broader role in the future of last-mile delivery, enabling easier package drop-offs, experts say.

Many details of the team's work, such as the extent of its progress, couldn't be determined. An Amazon spokeswoman declined to comment.

Amazon hosted an event last week titled "Radical Transportation Salon" to discuss the future of transportation with other companies, the people said. The event, spearheaded by H.B. Siegel, whose responsibilities at Amazon include new ideas, in part targeted experts in autonomous vehicles. It wasn't clear which companies attended.

"Amazon has a plan in place



Autonomous vehicles could serve Amazon in its warehouses, but also someday on highways and city streets transporting its goods.

to shake up the entire supply chain as we know it today," said Dave Sullivan, an automotive analyst for consultancy AutoPacific Inc.

Tech giants and auto makers are in a race to develop autonomous-vehicle technology that, while unproven, has the potential to reshape what Deloitte Consulting estimates to be the \$2 trillion in annual revenue tied to the automotive industry. Waymo LLC, the selfdriving tech unit of Google parent Alphabet Inc.; General Motors Co., Tesla Inc. and Uber Technologies Inc. are among the many global companies aiming to put self-driving vehicles on the road in the near future. They are joined by Silicon Valley startups eager to beat these bigger companies to market and players such as Apple Inc., whose in-

tentions haven't become clear. There have been early signs of Amazon's interest in autonomous-vehicle technology. In January, Amazon won a patent for coordinating autonomous vehicles in a roadway, earlier reported by technology news website Recode. A job posting on Amazon's site calls for a research scientist "to develop future mobility and transportation systems" at Amazon Robotics, which largely focuses on the company's warehousing technology.

Over the past few years, Amazon has been building out its supply chain and logistics network, aiming to deliver more of its own packages. It also envisions transporting goods on a large scale for other companies, one day competing with delivery giants United Parcel Service Inc. and FedEx Corp., according to people familiar with the matter.

The company is leasing 40 planes and has bought thousands of branded truck trailers. Tractor trailers have long been considered a likely first target for widespread driverless technology, in part due to how regularly they drive the same stretches of highway.

Humans have a 10-hour limit when driving, but a selfdriving truck could drive through the night, said Alex Rodrigues, co-founder of Embark, a startup that aims to develop technology to enable long-haul trucks to operate on the highway.

The biggest portion of Amazon's spending and energy has gone toward another type of autonomous means of transport: drones. That initiative, announced in 2013, is further along and has a bigger team dedicated to the effort.

In December, Amazon tested a commercial drone delivery in the U.K., but regulations in the U.S. make it unlikely drones would become a major delivery option domestically soon.

Amazon could see potential in linking self-driving technology with its payments and services, as cars play a bigger role in placing and receiving deliveries

Its voice-command software, Alexa, which has been successful in its Echo speakers, is being used in cars. Ford Motor Co., Daimler AG's Mercedes-Benz and others have announced ways to integrate Alexa into their vehicles, enabling drivers to tap into some functions from home, such as starting the engine and unlocking doors.

In January, when German auto maker BMW AG demonstrated a semiautonomous 5 Series sedan in Las Vegas that enabled the driver to go hands free in certain scenarios, it joined with Amazon to demonstrate how a customer could order chocolate while driving and stop to pick it up from an Amazon delivery person.

Contests French Lawsuit

By Natalia Drozdiak

BRUSSELS-Uber Technologies Inc. on Monday opened a new front in its European legal battles, part of its combative effort to convince governments that it should be regulated as a technology, not a transportation, company.

The case, before the European Union's top court, challenges French transport rules and fits within Uber's broader strategy of legally challenging almost every European effort to regulate it. The ride-hailing company has faced local or national bans on at least some of its services in Germany, Belgium, the Netherlands, Spain and Hungary.

The outcome of the case before the European Court of Justice on Monday could be influenced by another battle at the court, one that would decide whether Uber should be regulated in Europe as a transport company or an online-service provider.

An adviser to the court is expected to issue his opinion in the latter case on May 11, with a decision due midyear. While the opinion is nonbinding, judges typically rule in line with the adviser's opinion.

Monday's case centers on a legal technicality but fits within Uber's pugilistic approach toward its would-be overseers. The dispute stems from a French lawsuit lodged by a taxi driver and hinges on whether French officials should have first flagged French legislation to the European Commission, the bloc's executive body. EU rules require such notification for national legislation governing in-

If the court finds that France should have given Brussels advanced notice about its national rules, the court would also determine whether Uber can escape criminal liability on the basis of that requirement.

formation-technology services.

The French government launched criminal proceedings against Uber for violating French transport rules, which ban platforms from connecting customers to unlicensed transport providers. Two Uber executives were convicted in a French court last year, partly

In the more-advanced case before the court. Uber argues that because it is an "information society services provider" that matches drivers with passengers, it should benefit from EU protections for such businesses' freedom to provide services anywhere in the bloc without facing disproportionate licensing requirements.

for violating those rules.

APPLE

Continued from page B1

Laboratory: Paul Hebert, who designed a robot that could unlock a door; Jeremy Ma, who focused on algorithms for detecting three-dimensional objects; and Victor Hwang, who has worked on motion-planning algorithms for robots, according to their them as working at Apple.

Rivals such as Wavmo and Uber have more vehicles on the road than Apple. Waymo, for example, now mainly relies on technicians for testing, industry watchers say. For Apple, keeping engineers close to the technology could allow them to make quicker improvements, said Jeremy Carlson, an automotive analyst with research firm IHS

Apple declined to comment on its autonomousdriving plans or employees named in the document. The drivers named in the permit didn't reply to requests for comment.

The employees named in the permit are among an estimated 1,000 people work-LinkedIn pages, which list ing on Project Titan, said people familiar with the effort. Their experience in robotics and camera vision from their work on space programs would be valuable to a self-driving program. Ms. Gulati, for example, has researched making autonomous wheelchairs move more gracefully.

"The fundamental problems of controlling a wheelchair overlap a great deal with the fundamental problems of controlling a car," said Benjamin Kuipers, the

Hiring experts with self-driving car experience has become fiercely competitive.

University of Michigan professor who oversaw Ms. Gulati's wheelchair research when she was a Ph.D. student

at the University of Texas. Hiring experts with selfdriving car experience has

become fiercely competitive

and expensive in recent vears. Sebastian Thrun, the so-called godfather Google's self-driving car project, created a stir last fall when he told Recode that experienced autonomous-vehicle researchers were valued at \$10 million each, based on GM's acquisition of Cruise Automation Inc., which had about 40 employees, and Uber's acquisition of Ottomotto LLC, which had about 70 employees.

Ms. Gulati brought to Ap ple her experience in robotics and time spent at an automotive supplier. graduate of the Indian Institute of Technology, she went from working on the NASAfunded Jupiter project to joining a Bosch team that developed algorithms for a car that could drive on highways, according to her personal website.

In a 2013 Bosch marketing video, she is featured riding in a BMW car retrofitted with sensors and computers to make it drive autonomously. Apple listed Bosch for the first time as one of its top 200 suppliers in 2016 and included an address for a Bosch facility focused on automotive electronics and mobility solutions.

The permit also includes a 10-page training plan for test drivers, outlining when they might need to take control of a vehicle on the road. Each driver is given two practice runs and three trials to pass tests such as responding to a vehicle's rapid acceleration by tapping the brakes.

BUSINESS NEWS

JAB Holding to Put Jimmy Choo Up for Sale

By Saabira Chaudhuri

JAB Holding Co.—the European investment fund that has binged on coffee and restaurant chains—is stepping back from the luxury sector, saving it plans to put shoemakers **Jimmy Choo** PLC and **Bally International** AG on the block.

JAB also expects to explore the sale of upscale motorcyclejacket maker Belstaff, its third major luxury holding, a company spokesman said.

Luxembourg-based JAB is the controlling shareholder of Jimmy Choo, whose Italiancrafted shoes sell for up to

London, where it has a market

Jimmy Choo is traded in

value of £636.6 million (\$816 million). The brand said it hadn't received any offers so

Shares in Jimmy Choo climbed 11% in London on Monday. JAB said it considered its

holdings in the luxury sector as noncore, given its significant investments in coffee and related areas in recent years. The company—controlled by members of Germany's wealthy and reclusive Reimann family—said it planned to focus on its consumergoods holdings.

JAB has invested in an array of well-known consumer brands in recent years, despite maintaining a low profile. This month, JAB said that it would buy Panera Bread Co. for about \$7.16 billion, taking the coffee-and-sandwich chain pri-

In addition, JAB bought U.S. company Krispy Kreme Doughnuts Inc. in 2016 for about \$1.35 billion, and a JAB-led investor group acquired Keurig Green Mountain Inc. for about \$14 billion.

In 2015, the European investment fund paid roughly \$5 billion for control of Mondelez International Inc.'s coffee business. It also owns Peet's Coffee & Tea and Danish coffee-bar chain Baresso Coffee

The stance that JAB outlined on Monday is a departure from 2014, when JAB said its increasing commitment to

luxury goods was key to its investment strategy.

But in 2015, JAB folded Italian leather-goods brand Zagliani into Bally, leaving Belstaff as its only other luxury hold-

Jimmy Choo floated its shares in London in October 2014 in an initial public offering that represented a partial divestment by JAB, which $\stackrel{\circ}{=}$ bought the brand in 2011. JAB is still the controlling shareholder in Jimmy Choo, with a roughly 68% stake.

JAB acquired Bally in 2008 from U.S. private-equity firm TPG. The European investment fund said it expected its review of the Swiss luxury footwear brand to be completed in the second half of 2017.



Italian-crafted Jimmy Choo shoes can sell for up to \$3,800.

Jimmy Choo has reported improved results, with growth in markets like China, Japan and the U.S., although U.S. department-store sales continue to be a drag. –Nina Adam

contributed to this article.

BUSINESS WATCH

HALLIBURTON

Stepped-Up Drilling **Gave Boost in Quarter**

Stepped-up drilling for oil in the U.S. may have global producers on edge about oversupply, but the increased activity in the domestic energy sector is a boon for oil-field services firm Halliburton Co.

The Houston company reported its first quarterly increase in revenue since the fourth quarter of 2014, when oil prices fell and started to pressure production. The company said its results in the first three months of 2017 reflected more activity in its pressure-pumping and well-construction services.

Over all, Halliburton reported a net loss of \$32 million, or four cents a share, compared with a year-ago loss of \$2.41 billion, or \$2.81 a share. Excluding certain items, such as the early extinguishment of debt, the company said it earned four cents a share in the latest period. Revenue rose 1.9% to \$4.28 billion. -Joshua Jamerson

HP ENTERPRISE

Kleinfeld Leaves Another Board

Klaus Kleinfeld resigned from the board of Hewlett Packard Enterprise Co. on Sunday, his

pany's board since he was ousted as chief executive of Arconic Inc. last week. Mr. Kleinfeld left the alumi-

second exit from a public com-

num-parts maker after sending a bizarre letter to an activist investor. Hewlett Packard Enterprise disclosed the board change in a filing Monday. Mr. Kleinfeld has been on the

board of Hewlett Packard Enterprise since the corporate tech company spun out of Hewlett-

Packard Co. in 2015. —Austen Hufford

Toy Maker's Revenue **Beats Rival Mattel**

After years of trailing behind Mattel Inc., Hasbro Inc. passed its rival in quarterly revenue for the first time since 2000, highlighting the diverging fortunes of the two toy makers.

the two main U.S. toy makers, has posted strong quarters back to back, while Mattel's performance has languished. Traditional toys increasingly

Hasbro, long the smaller of

have to compete with smartphone apps and videogames for children's attention. After rebounding some last year. Mattel said Barbie sales were down significantly in the most recent

—Imani Moise

B4 | Tuesday, April 25, 2017

THE WALL STREET JOURNAL.

Introducing The Journal y Jones ಲೆ Company. All Rights Reserved. Report Podcast

Where Financial Regulation **Goes From Here**

A closer look at the two main competing visions—and what they mean for consumers, institutions and the economy



BY RYAN TRACY AND ANDREW ACKERMAN

he 2008 financial crisis was a global economic catastrophe that triggered years of new regulations designed to prevent another meltdown. Now that tide of rules is cresting, with officials across the globe talking about pulling back regulations instead of adding new ones. The defenders of the current regime are fighting to save it.

At the heart of the debate are opposing philosophies about free markets, regulation and the role of government. After 2008, the Obama administration in the U.S. pursued an aggressive rule-making path, injecting the government further into bank boardrooms, loan-underwriting decisions and conversations about retirement advice—all in the name of protecting citizens from a financial crisis and risky financial products.

With Republicans in control of the White House and Congress, the U.S. is seeing a resurgence of a different philosophy, one that favors freer markets and is skeptical of Washington's recent approach to overseeing Wall Street. The government, these critics say, has repeatedly overreached in trying to prevent another crisis. It should take stock of all the work that has been done since the crisis—and consider rolling back many rules that critics say aren't working as intended or weren't needed in the first place.

As the debate rages on, here's a closer look at the two competing visions for financial regulation.

REIN IN THE BANKS:

The Need for Discipline

Advocates who support active financial oversight favor an approach that can be summed up this way: Let the markets work, but within significant regulatory constraints to protect society from excesses.

Left to their own devices, financiers can cause a lot of trouble, advocates say. Big banks have incentives to seek short-term profits without regard for the longterm consequences of their actions—and the 2008 crisis provided an example of just how

much damage they can do if they succumb to those incentives.

Financial firms and consumers lent or borrowed too much, and regulators failed to act on warning signs before this excessive risk-taking spiraled out of control. Worst of all, the government bailed out some firms because it determined they were "too big to fail"

without the financial system imploding. The result was a panic so sweeping, it dried up credit for Main Street

and threatened the entire economy. Regulatory hawks concede that government housing policies may have played some role in inflating the housing bubble but say it wasn't central to the meltdown. Lack of oversight was. So, they argue, the government has an obligation to protect the economy from risky behavior—by banning those behaviors entirely or adopting policies that act like a tax on it, making it less attractive in the short term. Financial firms and their customers may have less freedom under these rules, but these advocates say that the effects of those restrictions pale in comparison to the cost of a huge financial crisis.

cratic Congress and signed by Democratic President Barack Obama, expanded the government's power to react to what it viewed as emerging risks in financial markets. Firms considered "systemically important" to the economy now face tougher rules and more intrusive oversight than smaller competitors. A new regulatory committee can designate any firm for these

The idea is that if these firms pose an outsize risk,

Philosophies

clash on the role

and free markets

of government

they should pay for it though higher regulation, even if those rules are complex. Federal Reserve Chairwoman Janet Yellen has said huge banks must "bear the costs that their failure would impose on others." If the firms don't like the regulation, so be it, these policy makers say: They can shrink or split themselves apart.

Tougher rules have meant that regulators take a far more active role in the continuing management of large firms, and to some extent smaller ones as well.

The pro-regulation advocates acknowledge that such involvement might be uncomfortable, but say it's a lot better than burdening taxpayers in the event of future bailouts.

Take the case of dividends. Large banks can no longer decide on their own to raise the dividend they pay to shareholders. They

must get permission from the Federal Reserve first as part of their annual stress tests. The Fed justified the restrictions by pointing out that in the lead-up to the 2008 crisis, big banks paid out capital via dividends, then months later needed capital from taxpayers to stay alive. These restrictions are just one example of the myriad extra rules firms must now keep in mind as they make day-to-day business decisions.

In another case, when financial firms started ramping up a practice bank examiners considered dangerous—"leveraged loans" to companies already deep in debt—regulators at the Fed and the Office of the Comptroller of the Currency responded with prescriptive lending standards that they relentlessly enforced. Crit- \{ ics say the regulators should have let firms make their own lending decisions, but the Fed and Office of the Comptroller say that when a type of lending poses a \S risk to the broader economy, they have an obligation to \geq try to nip it in the bud.

Backers of an expanded regulatory regime also be- 🗟 lieve the government has an important role in setting Please turn to the next page

The 2010 Dodd-Frank law, approved by a Demo-

INSIDE

British Banking Braces for Hard Times

Brexit may have limited impact, but other trouble looms

A City Built on Blockchain

Dubai wants to use the technology to conduct its business

Central Banks Ponder What to Do With All Their Assets

They built up their portfolios after the financial crisis. Now comes the even trickier part.



Regulators Get a Better Picture of Risk, Literally

Simple images show much about weak spots in the financial system

AT WSJ.COM/LEADERSHIPREPORT **Venture-Capital Firms**

Turn to Big Data Some firms use analytics in search of the next big thing

Personal Banking Gets Even **More Personal**

Financial institutions are eager to make more use of the knowledge they have about their customers



The Hidden Cash in Your Assets

Get money from your home, careven unused vacation days

Vulture Funds Start to Take a **Longer-Term View**

For investors, less liquidity may mean greater potential profits

Fintech Apps Bring Stability to Stressed Families

Offerings help people save and cope with fluctuating income

Is It a Lie or the Truth?

Finance pros can't tell, boding ill for their ability to detect fraud

JOURNAL REPORT THE FUTURE OF FINANCE

Advocates for loosened reg-

loans from banks.

the

showed

cates want to curb the powers

of the Consumer Financial

Protection Bureau, an agency

created under Dodd-Frank to

police consumer-finance mar-

kets. The bureau's defenders

needed a new financial cop.

But critics say restraining the

bureau would lead to more

lending and availability of

peal of stricter standards for

Yet another priority: a re-

U.S.

mortgage

crisis

consumers

Regulation

Continued from the prior page standards for the sale of financial products to limit fraud and deception. Lenders must document a borrower's ability to repay a mortgage loan, for Under another instance. Obama-era rule, financial advisers must take their clients' best interest into account when giving advice about investing for retirement.

WSJ PRO FINANCIAL REGULATION In-depth news, analysis and interactives Subscribe at wsj.com/pro/finreg

Supporters of this approach acknowledge that it will restrict financial firms from doing certain kinds of transactions, but say it still leaves them plenty of room to operative and innovate. They just won't be able to operate quite so freely as to do considerable potential harm to their customers and the public. They also say more needs to be done to improve financial oversight, such as addressing the continued purgatory of Fannie Mae and Freddie Mac, the mortgage firms that are still under government control, and looking for ways to ease the burden of enhanced regulation on community

Those who support a hard line on regulation agree with critics that regulators won't be able to stop every crisis. But they believe disasters would be more likely if regulators didn't act strongly when they see budding risks.

"Wall Street Reform isn't perfect," former Treasury Secretary Jacob Lew wrote in an academic journal in December. But he added: "It would be a grave mistake if technical refinements were to give way to a dismantling of the new forward-looking, flexible approach to regulating the financial sector that Wall Street Reform established."

LET THE MARKET WORK: Complex Regulations Do More Harm Than Good

Proponents of freer financial markets say the government should let the banks and markets function with limited constraints from bureaucrats. In their view, post-financialcrisis regulations have harmed the broader economy through expensive and unduly restrictive red tape.

Government interference in any industry or market prounintended consequences, because bureaucrats and regulators don't have the knowledge that people working in the field do, regulatory critics say. That leads to problems and distortions when the government tries to push an industry to do something to achieve a political goal that's unrealistic.

The housing bubble was a particularly disastrous example of this kind of meddling, the critics believe. They argue that the government pushed a goal of boosting homeownership through policies that essentially forced banks to take on risky borrowers. Fannie Mae and Freddie Mac lowered their standards, further signaling that lenders should take on low-quality borrowers.

Regulatory critics think the way to head off severe crises is to have fewer rules, not more. Have the government set simple guidelines about what fi-

Mr. Tracy and Mr. Ackerman are reporters in The Wall Street Journal's Washington bureau. Email them at ryan.tracy@wsj.com and andrew.ackerman@wsj.com. nancial firms are allowed to do, and then let the markets decide the rest. Executives will have a natural incentive not to go overboard because they won't have the government to back them up if they make mistakes—and if they do things that may harm consumers, they will lose business.

Ultimately, this side argues. the market does a better job of rewarding good ideas and behavior-and punishing badthan the government ever could. Regulators, meanwhile. aren't infallible, and could just as easily miss a future crisis as they missed the last one, deregulation boosters say.

So they strongly favor eas ing post-crisis financial regulations, including the 2010 Dodd-Frank financial law, which they say will end a period they see as unduly restric-

For instance, the so-called Volcker rule bans banks from most trading or speculating unless they are doing so on customers' behalf. Proponents say the rule is designed to rein in reckless risk-taking at taxpayer-insured banks, but conservative critics complain that it is unduly burdensome to comply with, and deprives banks of legitimate moneymaking opportunities. They also say it has harmed liquidity—the ability to easily buy or sell-in certain financial mar-

Critics have also argued against the post-crisis rules for trading financial instruments known as swaps. In the lead-up to the crisis, these vehicles acted as a form of insurance against defaults on all sorts of debts. Dodd-Frank supporters in Congress argued that the market for swaps was kept opaque, and mandated that banks report swaps, among a series of sweeping changes. But Republican critics say regulators needlessly limited the methods by which hanks are allowed to execute such trades. The limited flexibility has sent trading of these instruments overseas and away from U.S. markets, these critics say, fragmenting markets in potentially harmful

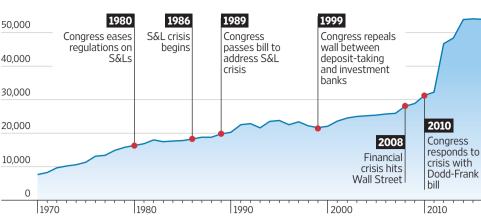
A plan on the table—from Rep. Jeb Hensarling (R., Texas), who heads the powerful House Financial Services Committee-would reverse course on Dodd-Frank. It would scrap most of the law's provisions and exempt big financial institutions from many rules as long as they maintain higher capital levels, measured in a simple calculation. Mr. Hensarling says this approach would curb excessive risk-taking by banks, because they would fund loans with a larger share of investor equity in stead of riskier forms of funding. And that, in turn, would mean banks wouldn't have to rely on the government to assess and head off financial risks, returning the management of financial firms to their executives.

"This approach not only helps unleash greater opportunities for small businesses, innovators and job creators, it also stops investors from betting with taxpayer money," Mr. Hensarling said in a speech last fall.

Some policy makers, who maintain regulators are too slow to embrace innovations, see other benefits from lightened rules. Chris Giancarlo. the top U.S. derivatives regulator, has been especially vocal about the need for Washington to fully embrace financialtechnology firms. His concern is that rules created for an analog world haven't kept pace with—and may stifle—digital innovation. For instance, financial-services firms should be encouraged to experiment with new digital strategies rather than be constrained by numerous rules. Proponents of stricter rules also say those rules should accommodate in-

ulations also say fewer rules would benefit borrowers. For one thing, they argue, postcrisis Washington has forced

The number of times the terms "shall," "must," "may not," "prohibited" or "required" appeared, by year, in Title 12, Banks and Banking, of the U.S. Code of Federal Regulations



The investment-advice rule unduly restricts options for

like putting only healthy food on the menu," he said, "because unhealthy food tastes good but you still shouldn't eat it because you might die

THE WALL STREET JOURNAL.

Rough Guide to Regulation

60,000 uses banks to be overly conservative in their lending decisions, which hurts consumers. For 50,000 instance, in the name of protecting borrowers from bad practices by so-called preda-40.000 tory lenders, people with lessthan-pristine credit histories 30,000 have trouble obtaining home Along similar lines, advo-

Sources: Mercatus Center, George Mason University (statistics); WSJ reporting (events)

brokers who provide retirement advice. The rules, they say, are overly complex and will reduce access to advice for investors with lower-balance accounts.

retirement savers, Gary Cohn, a top economic adviser to President Donald Trump, said in a February interview. It "is vounger."



Journal Reports Podcasts

Journal Report podcasts examine timely topics that matter to you. Leadership, investing, health, lifestyle and more. Listen or subscribe at WSJ.com/

JRpodcasts. Recent podcasts include: ◆ "How Your Body Language Can Tell People You're a Leader—or Not," with Wall Street Journal contributor Aili McConnon, on how nonverbal communication from

executives can speak volumes to employees and others. "Highs and Lows of Living a Nomadic Life." Andrew Blackman and Genie Austin shed most of their belongings and now live and work full time while traveling. It's a life many dream about, but does the reality match up to the dream?

JOURNAL REPORT | THE FUTURE OF FINANCE

British Banking Braces For Hard Times

The good news: Brexit may not hurt London's financial sector as much as people think. The bad news: Other things will hurt it a lot more.

BY PAUL J. DAVIES

BREXIT ISN'T THE toughest challenge facing the City of

Banks in Britain are still languishing in the doldrums brought on by the financial crisis of 2008. Weak banking activity and low investment returns have caused revenue to shrink, leading to widespread cost-cutting and automation.

While Britain's planned departure from the European Union threatens London's position as the "investment banker to Europe," in the words of Bank of England Gov. Mark Carney, the impact that will have on London itself will likely be smaller than people think. EU clients provide only one-fifth to one-quarter of revenue for the City's finance

Other, continuing pressures

look more significant—in particular, low investment returns and pressure from clients to cut costs. In a low-return world, everyone from fund managers to small individual investors wants to pay lower

"Trading [is] a commodity business, it's about who can do it most efficiently," says Andrew Formica, chief executive of fund manager Henderson Group. "It's becoming a bit of an arms race in terms of technology investment."

Passive investing

Pressure to cut costs is fueling a move to passive investing, in which fund managers do much less trading and research. Where active managers remain, they have to cut costs, too, to stay competitive. This all feeds into less revenue for investment banks, forcing them to cut more costs.

And the same trends that

are hurting banks in Britain are affecting big banks everywhere.

"The continued uncertainty makes it a lot harder to invest in the future," says Hakan Enver, operations director at Morgan McKinley Financial Services, a recruitment company. "It's a lot of things, not just Brexit," Mr. Enver says. "But that is good cover" for layoffs as well, he says.

The total number of people employed by all kinds of banking in the U.K. has fallen 22% from its precrisis peak in 2008, or by about 120,000 jobs, according to data from Britain's statistics office.

Technology is replacing people on trading floors and in the middle and back offices where trades are checked, confirmed and settled. Some of this is to give investors an edge in markets with computer-driven tools such as algorithmic and high-frequency

Analysts here and there

But technology also means more work can be moved offshore or to cheaper locations. More reliable internet links with India, for example, mean people can work together on the same documents or files in real time.

One U.K. firm, Frontline Analysts, runs teams of equity and credit analysts based in India on behalf of investment banks in London. The bank can cut back its more expensive big-city staff to just those who interact with clients directly, but still have access to a cheaper team to do much of the number crunching and report writing.

Frontline's senior people can work from anywhere. One managing director, Daniel Davies, spent more than a decade

as a bank-stock analyst at Exane BNP Paribas, Credit Suisse and elsewhere, but now trains and oversees teams of Indiabased analysts from his home in Exeter in southwest England.

"Investment banks can't shift the front office and they can't shift the brand, but as time has gone on and margin pressure has been brought to bear, they've realized they need to cut costs per head,' Mr. Davies says.

Investment-bank executives don't want all their research to be run from elsewhere because it is harder to monitor, while their most important analysts have to spend time selling ideas to clients rather than training and checking faraway number crunchers.

"We in Frontline stand in between and do the quality assurance," Mr. Davies says. "I can do that from a cafe or from my home office."

Thinning research

In Europe, new regulations will soon force all banks to charge clients for research. That is going to put even more focus on costs because investors won't be willing to pay for many research teams. Henderson's Mr. Formica says banks could set up joint ventures just for research to reis the more likely outcomeeither by outsourcing or no longer doing research. Another big cost for banks

for some, cutting more people

Canary Wharf in London. Many trends hurting Britain's financial industry are being felt globally.

everywhere is satisfying all of the extra reporting and compliance demands from regulators since the crisis. This involves a lot of repetitive, dataprocessing activity that is labor intensive, which has kept staff and real-estate costs high in banks' middle and back offices, particularly in the City, where office space is among Europe's most expensive.

How big banks are handling their compliance and other back-office work is something being looked at by Accenture, the global consulting and services firm.

The impact of AI

Accenture cut 17,000 of its own back-office processing jobs, it says, by adopting what it calls artificial-intelligence tools. The company says it is now promoting the same kind of technology to banks, while also talking up the importance of retraining those who are displaced, as it did itself.

"No question, AI will lead to substantial job displacements over time," says Richard Lumb, Accenture's global head of financial services. "But the technology is still young....The real power of AI is in how it augments workforces and makes it possible for people to do higher-value

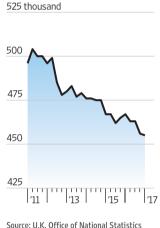
Ultimately, Brexit is just one symptom of the growing desire in the U.S., the U.K., and across Europe to put up more borders between international trade and finance to protect unhappy voters at home. When it comes to banking, this protectionist theme was at work long before the Brexit campaign began. It is a theme that has led regulators increasingly to put up barriers between global banks' operations and capital bases in different countries, making them less efficient.

Kinner Lakhani, an analyst at Deutsche Bank, believes that the postcrisis crunch in financial activity has passed. But to stay profitable, he says, investment banks will need to cut costs further to substitute for economies lost through increased regulation. "Subsidiarization and Balkanization will challenge business models that don't have scale," he says. "Investment banks have adjusted significantly, but the process is not complete."

Mr. Davies is a Londonbased writer for The Wall Street Journal's Heard on the Street column. Email paul.davies@wsj.com.

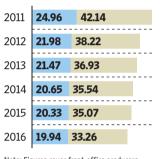
Bigger Than Brexit The financial industry in London

has been shedding jobs for years, as it has across Europe and globally. British banking jobs:



Source: U.K. Office of National Statistics

Investment bankers and traders by year for Europe (dominated by London) and the rest of the world, in thousands Europe Rest of world



Note: Figures cover front-office producers (bankers and traders who bring in revenue for their employer) and exclude middle or Source: Coalition

THE WALL STREET JOURNAL.

duce and share the output. But

the technology's potential. Following these workshops, Smart Dubai expects the public and private sectors to collaborate and start rolling out blockchain pilot projects this year. It also plans to build a shared platform— Blockchain as a Service—for Dubai governmental entities to use for implementing their projects.

Wesam Lootah, the chief executive of Smart Dubai, says a collaborative effort is crucial to ensure that the emirate as a whole is moving in the same direction to take advantage of synergies and avoid duplication of efforts and costs.

Smart Dubai has appointed International Business Ma**chines** Corp. as its blockchain lead strategic partner and Consensys, a custom-software development consultancy, as its blockchain ad-

Dubai is adopting this technology as "government agencies and businesses realize the need to have a shared, secured ledger that establishes accountability and transparency while streamlining business processes," says Takreem El Tohamy, IBM's general manager for the Middle East and Africa. "The key is to always keep business value at the forefront.

First steps Several key Dubai entities

are already trying out the blockchain technology.

The Department of Economic Development, a government agency, is usually the first stop for any company planning to do business in Dubai. Its role includes facilitating the setting up of busi-

entire business registration and licensing services blockchain.

"We want to transfer existing data to blockchain as well as create a system for new information," says Mohammed Shael Al Saadi, the department's chief executive for corporate strategy. "This data would be available to other Dubai entities, cutting down on duplication and easing and accelerating the process to set up businesses in Dubai," he

Another big early investor in blockchain is Emirates NBD, Dubai's largest bank, which is majority owned by the **Investment Corporation** of Dubai. manager of the Dubai government's portfolio of commercial investments. Emirates NBD in February started working with IBM and some other Dubai entities to explore the use of blockchain for trade finance and logistics.

Trade is Dubai's biggest business. It has used its ports and free zones to become a major import-export hub, connecting markets in Asia with those in Africa, Europe and beyond. Non-oil foreign trade in the emirate totaled about \$348 billion in 2016.

"The aim is to replace paper-based contracts with smart contracts that will help reduce complex documentation for the tracking, shipping and movement of goods," says Ali Sajwani, the group chief information officer at Emirates

"We have a very clear objective to make Dubai the capital of the blockchain industry," says Smart Dubai's Ms. Bishr. "By 2020 we'll have 100% of applicable government services and transactions happen on blockchain."

Mr. Lohade is an assistant news editor for The Wall Street Journal in Dubai. He can be reached at

A City That's Built on Blockchain

Dubai wants to use the technology to conduct its business

DUBAI HAS GROWN from a tiny fishing village to a major trading hub by attracting businesses with near-zero taxes. advanced transportation infrastructure and a secure environment in a tumultuous re-

Now it's planning another transformation to bolster its claim as the leading center for business in the Middle Eastto an economy that relies heavily on blockchain technol-

Blockchain is perhaps best know as the technology behind the digital currency bitcoin, but it can serve many purposes. It uses a digital ledger to efficiently share and track information related to contracts and transactions, the records of which are permanent. verifiable and secure.

The goal of Dubai's government is to conduct a majority of the emirate's business using blockchain, which it expects will make government services more efficient and help promote enterprise in Dubai as it will become easier to do business there.

"We want to make Dubai the first blockchain-powered government in the world by 2020," says Aisha Bin Bishr, director general of Smart Dubai, a government office tasked with facilitating innovation in the emirate. "It is disruptive for existing systems, but will help us prepare for the future," she says.

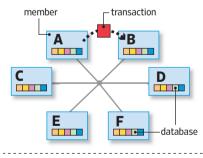
Testing it out Blockchain has yet to be de-

ploved widely for commercial use, but many big global companies are testing the technology. It has attracted the most attention in the financial-services sector and is seeing growing interest from industries such as supply-chain management, health care and shipping.

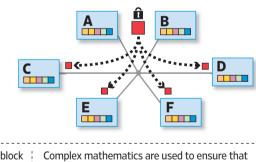
Building Block to the Future

Dubai hopes to use blockchain, the technology behind the digital currency bitcoin, both to power its government and to enhance its status as a trade and finance hub. Blockchain allows for secure record keeping in online ledgers where members share and confirm information with no central authority. It can be used, for instance, to consolidate records for shipping goods around the globe. How it works:

All members have a copy of the shared database/ledger. When a member wants to send money to another member (e.g., A to B), a "block," or chunk of data, is created to represent the transaction.



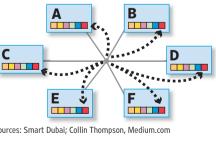
Cryptography is used to share the transaction with the group while also maintaining privacy if the parties desire. The network recognizes the transaction as valid because the digital signature—which only the signatory can see—is mathematically linked to a public signature that only a bona fide transaction could bear.



which prevents tampering.

there is consensus among the database copies,

Once a block is confirmed, all members add the block to their copies of the database.



Stores Inc. is trying out blockchain to improve the way food is tracked, transported and sold to consumers across China. And **Depository Trust & Clearing** Corp., a big Wall Street firm that processes financial transactions, plans to start using blockchain by early next year. The technology shift could help cut its cost of warehousing information on the transactions it handles, sav-

ings that could be passed on to customers. In general, blockchain has the potential to speed up transactions, increase transparency and help reduce fraud such as money laundering. But it also faces several challenges

to broad adoption.

ers of blockchains claim they are secure by design, but the technology hasn't been adopted widely enough yet for it to be seriously tested. Several hacking attacks against digital currencies in recent years underscore the security con-Regulatory uncertainty is

another hurdle, especially in the financial-services industry. Legal frameworks globally will have to change to adapt to the growing use of the new technology.

The costs to shift to the new technology, which continues to evolve, are also high.

grating blockchain databases

with existing systems. Despite all that, the advan-

THE WALL STREET JOURNAL.

tages of blockchain are attractive for many businesses and institutions. Dubai, a semiautonomous member of the United Arab Emirates, is the first city to back the technology on a governmental level. **Public-private effort**

In March, Smart Dubai

kicked off a citywide effort to implement blockchain. Over

hanced by blockchain.

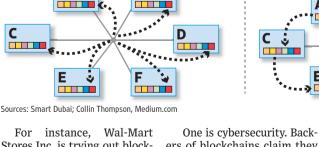
It also will educate the public and private sectors about

nesses, issuance of commercial licenses, protecting the rights of businesses and consumers. and promoting enterprise and trade in Dubai. The department, to start

with, is working on shifting its

the coming months, it will conduct workshops with key government, semigovernment and private organizations to identify and prioritize the services that can be most en-And there are many technical challenges involved in inte-

nikhil.lohade@wsj.com.



Central Banks Ponder Whether To Trim Assets

They've built up their portfolios since the financial crisis. Now comes the even trickier part.

BY TOM FAIRLESS

FRANKFURT—Major central banks stocked up on trillions of dollars of government bonds and other assets since the financial crisis to support lending and growth, pushing their balance sheets to unprecedented levels.

With advanced economies now recovering, policy makers have started to phase out their most aggressive stimulus measures. A big question hanging over financial markets: What will central banks do with their massive securities portfolios?



Any move to shrink their balance sheets has risks, economists say, and a misstep could endanger the economic recovery. But keeping a big balance sheet may be risky, too.

The Federal Reserve's balance sheet has roughly quintupled to \$4.5 trillion, or around a quarter of U.S. gross domestic product, from about 7% before the crisis. The Bank of England's balance sheet has undergone a similar expansion. The value of assets held by the European Central Bank has more than doubled to around 36% of GDP. For the Bank of Japan, the balance sheet and the size of the nation's economy are roughly equal.

The Fed started raising interest rates more than a year ago, but has yet to elaborate plans for its portfolio of U.S. Treasurv and mortgagebacked securities. Fed officials cleared up one big question at their March policy meeting, agreeing they would likely begin shrinking the balance sheet later this year, according to minutes released April 5.

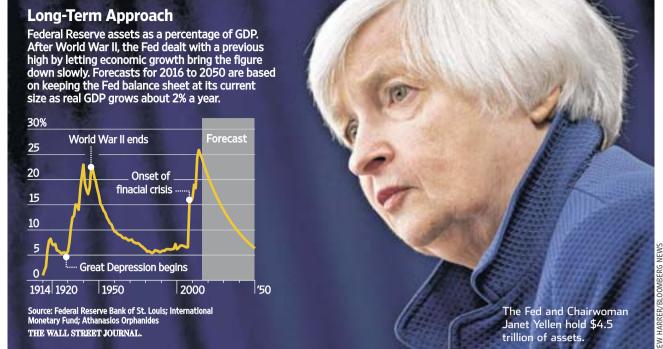
But how fast the Fed moves, and how far, remained undecided. the minutes showed. Some economists say the Fed and other central banks might hold on to much of their portfolios for decades.

"I doubt whether the big increase in balance sheets will be fully reversed at all," says David Miles, a former Bank of England policy maker who is now a professor at Imperial College in London.

Unlike with interest-rate hikes, the effects of selling assets are uncertain. When former Fed Chairman Ben Bernanke indicated in 2013 that the central bank might slow its bond purchases, that sent long-term interest rates sharply higher.

On the other hand, large central-bank balance sheets have often been correlated with high levels of inflation. although that relationship weakened in recent decades, according to a 2014 paper whose authors include Niall Ferguson, a professor of history at Harvard University.

Central banks might also have to report losses—which accrue to taxpayers—if the value of their massive portfolios falls. Those assets have so far been spinning off large profits for central banks, but that could change if interest rates start to rise rapidly. The resulting political pressures



might call into question their independence and undermine their ability to fight inflation.

The last time the Fed's balance sheet was so large, in the wake of World War II. the U.S. central bank didn't actively run it down. Instead, it allowed its balance sheet to shrink as a share of GDP over some 30 years, as the economy grew.

"If the Fed keeps its balance sheet at the current dollar size, the ratio of the balance sheet as a multiple of GDP will be reduced over time, as happened after the previous episode," says Athanasios Orphanides, a former European Central Bank policy maker who now teaches at the Massachusetts Institute of Technology.

Here are four reasons why central banks are right to be cautious—and may ultimately unwind their balance sheets only to a limited extent.

Central-bank balance sheets may not be that big after all.

According to Mr. Ferguson and his colleagues, centralbank balance sheets aren't that large by historical standards. despite the recent rise. The academics studied the balance sheets of 12 central banks in advanced economies and found that they typically fluctuated between 10% and 20% of GDP.

"Relative to the size of the financial sector, central-bank balance sheets had shrunk dramatically in the three decades preceding the global financial crisis," the academics wrote.

Any decision by a central bank to actively reduce its holdings would also be historically unusual: Central banks have rarely reduced the size of their balance sheets in nominal terms.

Assets are still needed ∠ ∎ to support the financial sector and demand for currency.

The lower bound of the balance sheet is determined by the public's demand for currencyand that demand is growing globally, though mostly for dollars. In the U.S., currency in circulation has risen to around \$1.5 trillion from \$800 billion before the crisis, Mr. Bernanke noted in a recent blog post. Fed staff estimate that will grow to \$2.5 trillion or more over the next decade.

Financial institutions are also holding much higher levels of reserves with central banks than before the crisis. partly as a result of new regulations aimed at strengthening the financial sector.

Given higher demand for currency and reserves, Mr. Bernanke argues that the "optimal" size of the Fed's balance sheet may reach \$4 trillion or more over the next decadenot far off its current size.

Former Fed board member Jeremy Stein thinks a big central-bank balance sheet might help bolster the stability of the financial system. Before 2008, corporations raised short-term debt from private firms. But those debt markets froze over during the financial crisis, forcing central banks to step in. Rather than return to the old system, Mr. Stein says the Fed could take on the role of supplying short-term assets, which would require it to keep a sizable balance sheet.

Owning more assets gives central banks Owning more assets more flexibility.

A large balance sheet could serve as an additional policy tool for central banks, even when interest rates are above

For instance, the Fed could sell some of its mortgagebacked securities to push up mortgage rates and curb any excesses in the housing market, says Benjamin Friedman, professor of political economy at Harvard University. Such a tool might have been useful going into the financial crisis, when the Fed refused to rein in the housing bubble using short-term interest rates. which it regarded as a blunt instrument for the purpose.

A reduction in central-4 bank assets could prove costly for governments.

The profits that the Fed remits to the Treasury have soared in recent years to around \$100 billion annually, juiced by returns on the Fed's securities portfolio. Other central banks have found it similarly lucrative to stock up on interest-paying securities using newly printed money. If the Fed were to sell most of its assets, the Treasury would miss out on around \$900 billion over the course of a decade, compared with a scenario where the Fed holds on to its securities, says Dean Baker, co-director of the Center for Economic and Policy Research.

In other regions, central banks might be more willing to pare their balance sheets aggressively. In Europe, for instance, corporations rely more on banks than on financial markets for funding, reducing the need for central banks to step into those markets.

Mr. Fairless is a reporter for The Wall Street Journal in Frankfurt. He can be reached at tom.fairless@wsj.com.

Regulators Get a Better Picture of Risk, Literally

Researchers can now draw simple images that reveal much about systemic weak spots

BY PAUL J. DAVIES

KIMMO SORAMÄKI has seen something strange happening in U.S. house prices. The math behind his findings is fiendishly complex, but he can show the results to anyone in seconds.

Mr. Soramäki is a specialist in a kind of financial mapmaking: He takes a complex analysis of the relations between fiinstitutions markets, and by weeding out some information and focusing on the most significant links, he can create simple treelike images that reveal something—in this case, that housing prices have become increasingly correlated—that might otherwise go unnoticed.

This type of analysis is part of a growing area of research that is changing how regulators and banks manage financial risk. Network analytics such as that used by Mr. Soramäki, as well as new modeling approaches, allow researchers to show how thousands or millions of iterations of apparently simple financial exchanges or actions together can create a far more complex and at times unstable financial system than traditional economic theory might suggest.

A surprising finding

Already, such approaches are being used in bank stresstesting and to spot weaknesses in global markets. Some envision the technology eventually could be used to build a dashboard of the global financial system that regulators could monitor to

spot crises before they hit. Andy Haldane, chief economist at the Bank of England, fantasized in a 2014 speech about sitting in the financial equivalent of the bridge of the

Starship Enterprise, from which regulators could test and watch for impending disasters, then intervene when necessary. The world isn't there yet—and some argue it might not be desirable even if it were possible—but the theories and computer models behind this vision already are being tested.

Mr. Soramäki's company, Financial Network Analytics, is helping the Colombian central bank build a systemic-risk tool using data on payments that flow through the financial system. Institutions such as the Bank of England and the U.S. Office of Financial Research, meanwhile, have been working to build their own network models of banks, money managers and clearinghouses to study how shocks such as a bank failure or the Swiss central bank's abandoning its currency link to the dollar propagate through the financial system. In recent years, they have begun publishing the results of this work.

Mr. Soramäki created the map of home prices to demonstrate his technology. On the map, which shifts and changes over the period from 2000 to the present, U.S. states are depicted as dots, linked to one another by lines. The shorter the line, the greater the similarity in house-price movements in those two states.

On a map showing the data for 2000, the dots are small and mostly far apart, and the "tree" appears very spread out. From roughly 2004 to 2008, as the housing bubble builds and then enters the crisis, the dots grow in size and turn from green to red, moving closer together and forming clusters, as price changes across the country become

larger and more similar. As



This sprawling tree shows housing prices in U.S. markets moving with little correlation in 2000. The tree has gotten shorter and shorter since, indicating higher correlation between markets.

the links get shorter, so does the tree, signifying greater correlation. But what is really surprising is what has happened since the 2008 crisis: Changes in home values across states are more alike today than ever before.

"In the U.S. housing market, correlations have continued to rise even after the collapse of the bubble: The tree span has continued to shrink," says Mr. Soramäki, who worked at the Bank of Finland and the New York Federal Reserve before starting his company in 2013.

"Visual network analysis improves our answer to existing questions, but can also expose questions we didn't know we had," he says. His work can't explain why this is happening; it can simply show that it is, highlighting an unexpected risk-in this case that everyone could start losing money on real estate at the same time-that would likely otherwise go unnoticed.

Other researchers are working on models that could

someday be used to monitor financial markets. J. Doyne Farmer, an American scientist now at Oxford University's Institute for New Economic Thinking, is helping the Bank of England develop agentbased models to better understand how markets and other complex financial systems be-

The models simulate how agents-people, companies, institutional investors, etc.—act and interact in markets and financial systems. Such programs have produced outcomes that more closely resemble what happens in the real world than do the predictions of classical economics.

Prof. Farmer thinks that in five to 10 years' time, such models could be used to make market and economic forecasts in much the same way we can now predict the weather. "The economy is more difficult—we don't know the laws of physics for the

economy-but on first princi-

stand clouds either," he says. Yet with enough data from the past, meteorologists can make reliable forecasts. Similarly, enough historical data about activity in financial markets could help make better models of the future. The problem is, people can adapt and change their behavior in a

way that water molecules

can't. "Clouds don't think,"

Prof. Farmer says.

Still, he believes that a lot of what happens in markets or economics comes down to accounting rules and legal contracts that are quite mechanical, so much of it is predictable and stable.

A moral hazard?

Many of the techniques and ideas in this field have come from other disciplines, including biology and engineering. Mr. Soramäki's correlation trees, for example, are adapted from a method for mapping genomes. This cross-fertilization began in New Mexico at ples we don't really underthe Santa Fe Institute in the

late 1980s, and it has led to an entire field of study known as complexity economics.

Even before the financial crisis, regulators were starting to take note. Now, private companies are investing in this research, aiming to develop products for the finance industry.

Alexander Deney, the head of quantitative research at data company IHS Markit, says there is still uncertainty about the answers such tools produce. One problem is that there isn't enough high-quality data. Another issue is selecting which model to use and even how to define what constitutes systemic risk. In stress-testing, U.S. and U.K. regulators require banks to use more than one model as a cross-check. But Mr. Denev says they ought to be using multiple models, even thousands, to show the variety of potential outcomes under different starting assumptions.

"This is where computing power and machine learning come in," he says, and the private sector tends to have more of that than regulators and central banks.

All of this could feed into a futuristic dashboard, but that leads to questions about how much influence regulators should have. "Dashboards lead to human insights, human insights lead to decisions, but no automatic rules should be used to circumvent the human part," Mr. Denev says.

Mark Flood, a research principal at the Office of Financial Research, says regulators shouldn't be in control of the financial system. "We need a gap between the regulator and the free market," he says. "You don't want the police driving everyone's car. You want them setting the speed limits and checking for drunken drivers."

Mr. Davies is a Londonbased writer for The Wall Street Journal's Heard on the Street column. Email paul.davies@wsj.com.

17000

Data as of 4 p.m. New York time

MARKETS DIGEST

Nikkei 225 Index

18875.88 △255.13, or 1.37% High, low, open and close for each trading day of the past three months.

Year-to-date **1.25**% 52-wk high/low 19633.75 14952.02 All-time high 38915.87 12/29/89

386.09 ▲ 7.97, or 2.11% High, low, open and close for each

trading day of the past three months.

STOXX 600 Index

Year-to-date **▲** 6.83% 52-wk high/low 386.09 308.75 414.06 4/15/15

390

330

Global government bonds

S&P 500 Index **2374.15 \(\)** 25.46, or 1.08\%

Last Year ago Trailing P/E ratio 24.39 24.11 P/E estimate 18.24 17.80 High, low, open and close for each Dividend yield 1.98 trading day of the past three months. All-time high: 2395.96, 03/01/17







International Stock Indexes

Bars measure the point change from session's open

Region/Country	/ Index	Close	— Latest NetChg	% chg	Low	– 52-Week Range Close	High	YTD % chg
World	The Global Dow	2715.57	55.15	2,07	2193.75		2720.47	7.4
	MSCIEAFE	1827.22	46.45	2.61	1471.88		1956.39	6.5
	MSCIEMUSD	971.03	9.25	0.96	691.21	•	1044.05	
Americas	DJ Americas	572.71	5.99	1.06	480.90		577.65	6.0
Brazil	Sao Paulo Bovespa	64358.25		0.94	48066.67		69487.58	6.9
Canada	S&P/TSX Comp	15731.88		0.75	13535.54	•	15943.09	2.9
Mexico	IPC All-Share	49424.91		0.93	43902.25		49753.57	8.3
Chile	Santiago IPSA	3731.77	20.95	0.56	2998.64	•	3786.05	
J.S.	DJIA	20763.89	216.13	1.05	17063.08	•	21169.11	5.3
	Nasdag Composite	5983.82	73.30	1.24	4574.25		5989.92	11.2
	S&P 500	2374.15	25.46	1.08	1991.68	•	2400.98	6.0
	CBOE Volatility	10.92	-3.71	-25.36	9.97	•		
EMEA	Stoxx Europe 600	386.09	7.97	2.11	308.75			6.8
	Stoxx Europe 50	3179.14	63.67	2.04	2626.52			5.0
Austria	ATX	2939.73	88.10	3.09	1981.93			
Belgium	Bel-20	3887.87	117.42	3.11	3127.94			7.8
rance	CAC 40	5268.85	209.65	4.14	3955.98		5295.47	8.4
Germany	DAX	12454.98	406.41	3.37	9214.10		12456.18	8.5
Greece	ATG	683.30	11.73	1.75	517.10	•	686.23	6.2
Hungary	BUX	33226.46	257.02	0.78	25126.36	•	34334.92	3.8
srael	Tel Aviv	1402.53	17.37	1.25	1372.23	•	1496.34	-4.0
taly	FTSE MIB	20684.41	942.66	4.77	15017.42	•	20684.41	7.5
Netherlands	AEX	523.73	11.54	2.25	409.23	•	525.02	8.4
Poland	WIG	60061.41	775.84	1.31	42812.99	•	60631.65	16.3
Russia	RTS Index	1116.58	32.41	2.99	873.58	•	1196.99	-3.1
Spain	IBEX 35	10766.80	389.80	3.76	7579.80	•	10769.80	15.1
Sweden	SX All Share	574.70	10.68	1.89	443.66	•	574.70	7.5
Switzerland	Swiss Market	8711.32	157.33	1.84	7475.54	•	8713.16	6.0
South Africa	Johannesburg All Share	52921.41		1.39	48935.90	•	54704.22	4.5
Turkey	BIST 100	93802.81		1.49	70426.16			
J.K.	FTSE 100	7264.68	150.13	2.11	5788.74	•	7447.00	1.7
Asia-Pacific	DJ Asia-Pacific TSM	1556.20	6.89	0.44	1308.52	•	1570.38	9.4
Australia	S&P/ASX 200	5871.80	17.70	0.30	5103.30	•	5934.00	3.6
China	Shanghai Composite	3129.53	-43.62	-1.37	2806.91	•	3288.97	0.8
Hong Kong	Hang Seng	24139.48	97.46	0.41	19694.33	•	24593.12	9.
ndia	S&P BSE Sensex	29655.84	290.54	0.99	25101.73	•	29974.24	11.4
Japan	Nikkei Stock Avg	18875.88	255.13	1.37	14952.02	•	19633.75	-1.2
Singapore	Straits Times	3144.03	4.20	0.13	2729.85	•	3187.51	9.
South Korea	Kospi	2173.74	8.70	0.40	1925.24	•	2178.38	7.3
		0747.07		10.00	0050 (0		0070 40	

0.01

8053.69

Bulgaria lev

Feb.

Data as of 4 p.m. New York time

......

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

Feb.

-								
Country/			Spread Over Treas	urys, in basis points	s ——		Yield	
Maturity, in years	Yield	Latest	Previous	Month Ago	Yearago	Previous	Month ago	Year ago
Australia 2	1.669	43.5	47.8	51.5	123.7	1.666	1.767	2.059
10	2.607	33.7	30.1	34.8	75.4	2.549	2.761	2.643
Belgium 2	-0.519	-175.2	-171.4	-175.8	-129.9	-0.525	-0.505	-0.478
10	0.774	-149.6	-143.8	-152.9	-144.1	0.811	0.883	0.448
France 2	-0.444	-167. 8	-149.1	-174.6	-128.4	-0.303	-0.493	-0.462
10	0.833	-143.7	-130.9	-141.7	-132.2	0.939	0.996	0.567
Germany 2	-0.696	-192.9	-197.9	-199.2	-131.6	-0.790	-0.739	-0.495
10	0.330	-194.0	-199.3	-200.6	-165.5	0.255	0.406	0.234
Italy 2	-0.067	-130.0	-120.0	-133.1	-81.6	-0.012	-0.078	0.005
10	2.190	-8.0	3.2	-18.5	-40.3	2.280	2.228	1.486
Japan 2	-0.209	-144.2	-140.8	-151.2	-111.0	-0.220	-0.259	-0.288
10	0.022	-224.8	-223.2	-234.8	-201.4	0.016	0.065	-0.125
Netherlands 2	-0.631	-186.4	-186.8	-199.0	-131.5	-0.679	-0.738	-0.494
10	0.566	-170.4	-173.8	-176.2	-157.7	0.510	0.651	0.312
Portugal 2	0.343	-89.1	-79.1	-133.6	-54.1	0.398	-0.084	0.281
10	3.540	127.0	148.4	138.6	121.9	3.732	3.799	3.108
Spain 2	-0.223	-145.6	-136.9	-145.0	-85.0	-0.180	-0.197	-0.029
10	1.605	-66.5	-55.3	-71.7	-29.4	1.695	1.696	1.595
Sweden 2	-0.653	-188.7	-186.6	-180.8	-120.6	-0.677	-0.556	-0.384
10	0.595	-167.5	-170.2	-173.6	-96.5	0.546	0.676	0.924
U.K. 2	0.083	-115.0	-108.9	-110.0	-30.8	0.099	0.153	0.514
10	1.051	-121.9	-121.3	-121.5	-28.7	1.036	1.198	1.602
U.S. 2	1.234					1.188	1.253	0.822
10	2.270					2.248	2.413	1.889
	Maturity, in years Australia 2	Maturity, in years Yield Australia 2 1.669 10 2.607 Belgium 2 -0.519 10 0.774 France 2 -0.444 10 0.833 Germany 2 -0.696 10 0.330 Italy 2 -0.067 10 2.190 Japan 2 -0.209 10 0.022 Netherlands 2 -0.631 10 0.566 Portugal 2 0.343 10 3.540 Spain 2 -0.223 10 1.605 Sweden 2 -0.653 10 0.595 U.K. 2 0.083 10 1.051 U.S. 2 1.234	Maturity, in years Yield Latest Australia 2 1.669 43.5 10 2.607 33.7 Belgium 2 -0.519 -175.2 10 0.774 -149.6 France 2 -0.444 -167.8 10 0.833 -143.7 Germany 2 -0.696 -192.9 10 0.330 -194.0 italy 2 -0.067 -130.0 10 2.190 -8.0 Japan 2 -0.09 -144.2 10 0.022 -224.8 Netherlands 2 -0.631 -186.4 Portugal 2 0.343 -89.1 Spain 2 -0.223 -145.6 D 1.605 -66.5 Sweden 2 -0.653 -188.7 U.K. 2 0.083 -115.0 U.S. 2 1.234	Maturity, in years Yield Latest Previous Australia 2 1.669 43.5 47.8 10 2.607 33.7 30.1 Belgium 2 -0.519 -175.2 -171.4 10 0.774 -149.6 -143.8 France 2 -0.444 -167.8 -149.1 10 0.833 -143.7 -130.9 Germany 2 -0.696 -192.9 -197.9 10 0.330 -194.0 -199.3 Italy 2 -0.067 -130.0 -120.0 10 2.190 -8.0 3.2 Japan 2 -0.209 -144.2 -140.8 10 0.022 -224.8 -223.2 Netherlands 2 -0.631 -186.4 -186.8 Portugal 2 0.343 -89.1 -79.1 10 3.540 127.0 148.4 Spain 2 -0.223	Maturity, in years Yield Latest Previous Month Ago Australia 2 1.669 43.5 47.8 51.5 10 2.607 33.7 30.1 34.8 Belgium 2 -0.519 -175.2 -171.4 -175.8 10 0.774 -149.6 -143.8 -152.9 France 2 -0.444 -167.8 -149.1 -174.6 10 0.833 -143.7 -130.9 -141.7 Germany 2 -0.696 -192.9 -197.9 -199.2 10 0.330 -194.0 -199.3 -200.6 italy 2 -0.067 -130.0 -120.0 -133.1 10 2.190 -8.0 3.2 -18.5 Japan 2 -0.209 -144.2 -140.8 -151.2 10 0.022 -224.8 -223.2 -234.8 Netherlands 2 -0.631 -186.4 -186.8 -199.0 10 0.566 -170.4 -173.8 <	Maturity, in years Yield Latest Previous Month Ago Year ago Australia 2 1.669 43.5 47.8 51.5 123.7 10 2.607 33.7 30.1 34.8 75.4 Belgium 2 -0.519 -175.2 -171.4 -175.8 -129.9 10 0.774 -149.6 -143.8 -152.9 -144.1 France 2 -0.444 -167.8 -149.1 -174.6 -128.4 10 0.833 -143.7 -130.9 -141.7 -132.2 Germany 2 -0.696 -192.9 -197.9 -199.2 -131.6 10 0.330 -194.0 -199.3 -200.6 -165.5 italy 2 -0.067 -130.0 -120.0 -133.1 -81.6 10 2.190 -8.0 3.2 -18.5 -40.3 Japan 2 -0.209 -144.2 -140.8 -151.2 -111.0 10 0.022 -224.8 <td< td=""><td>Maturity, in years Yield Latest Previous Month Ago Year ago Previous Australia 2 1.669 43.5 47.8 51.5 123.7 1.666 10 2.607 33.7 301 34.8 75.4 2.549 Belgium 2 -0.519 -175.2 -171.4 -175.8 -129.9 -0.525 10 0.774 -149.6 -143.8 -152.9 -144.1 0.811 France 2 -0.444 -167.8 -149.1 -174.6 -128.4 -0.303 10 0.833 -143.7 -130.9 -141.7 -132.2 0.939 Germany 2 -0.696 -192.9 -197.9 -199.2 -131.6 -0.790 10 0.330 -194.0 -199.3 -200.6 -165.5 0.255 Italy 2 -0.067 -130.0 -120.0 -133.1 -81.6 -0.012 10 2.190 -8.0 3.2 -18.5 -40.3 2.280</td><td>Maturity, in years Yield Latest Previous Month Ago Yearago Previous Month Ago Australia 2 1.669 43.5 47.8 51.5 123.7 1.666 1.767 10 2.607 33.7 30.1 34.8 75.4 2.549 2.761 Belgium 2 -0.519 -175.2 -171.4 -175.8 -129.9 -0.525 -0.505 10 0.774 -149.6 -143.8 -152.9 -144.1 0.811 0.883 France 2 -0.444 -167.8 -149.1 -174.6 -128.4 -0.303 -0.493 10 0.833 -143.7 -130.9 -141.7 -132.2 0.939 0.996 Germany 2 -0.696 -192.9 -197.9 -199.2 -131.6 -0.790 -0.739 10 0.330 -194.0 -199.3 -200.6 -165.5 0.255 0.406 Italy 2 -0.067 -130.0 -120.0 -133.1 -81.6</td></td<>	Maturity, in years Yield Latest Previous Month Ago Year ago Previous Australia 2 1.669 43.5 47.8 51.5 123.7 1.666 10 2.607 33.7 301 34.8 75.4 2.549 Belgium 2 -0.519 -175.2 -171.4 -175.8 -129.9 -0.525 10 0.774 -149.6 -143.8 -152.9 -144.1 0.811 France 2 -0.444 -167.8 -149.1 -174.6 -128.4 -0.303 10 0.833 -143.7 -130.9 -141.7 -132.2 0.939 Germany 2 -0.696 -192.9 -197.9 -199.2 -131.6 -0.790 10 0.330 -194.0 -199.3 -200.6 -165.5 0.255 Italy 2 -0.067 -130.0 -120.0 -133.1 -81.6 -0.012 10 2.190 -8.0 3.2 -18.5 -40.3 2.280	Maturity, in years Yield Latest Previous Month Ago Yearago Previous Month Ago Australia 2 1.669 43.5 47.8 51.5 123.7 1.666 1.767 10 2.607 33.7 30.1 34.8 75.4 2.549 2.761 Belgium 2 -0.519 -175.2 -171.4 -175.8 -129.9 -0.525 -0.505 10 0.774 -149.6 -143.8 -152.9 -144.1 0.811 0.883 France 2 -0.444 -167.8 -149.1 -174.6 -128.4 -0.303 -0.493 10 0.833 -143.7 -130.9 -141.7 -132.2 0.939 0.996 Germany 2 -0.696 -192.9 -197.9 -199.2 -131.6 -0.790 -0.739 10 0.330 -194.0 -199.3 -200.6 -165.5 0.255 0.406 Italy 2 -0.067 -130.0 -120.0 -133.1 -81.6

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;

Commodity Exchange Last price Corn (cents/bu.) CBOT 365.50 1.75

NYMEX: New York Mercantile Exchange; ICE-EU: ICE Futures Europe. *Data as of 4/23/2017

	Corn (cents/bu.)	СВОТ	365.50	1.75	0.48%	393.75	360.75
	Soybeans (cents/bu	i.) CBOT	970.25	9.50	0.99	1,092.50	941.25
A CONTRACTOR OF THE PARTY OF TH	Wheat (cents/bu.)	CBOT	419.25	-1.75	-0.42%	488.75	416.25
	Live cattle (cents/lb	.) CME	115.275	-1.425	-1.22	117.575	103.150
	Cocoa (\$/ton)	ICE-US	1,807	-43	-2.32	2,270	1,756
	Coffee (cents/lb.)	ICE-US	132.00	-0.90	-0.68	161.55	131.55
	Sugar (cents/lb.)	ICE-US	16.32	-0.19	-1.15	20.81	16.17
	Cotton (cents/lb.)	ICE-US	78.80	-0.53	-0.67	80.27	71.86
	Robusta coffee (\$/tor	n) ICE-EU	1934.00	-56.00	-2.81	2,283.00	1,906.00
	Copper (\$/lb.)	COMEX	2.5705	0.0195	0.76	2.8400	2.4905
-	Gold (\$/troy oz.)	COMEX	1276.70	-12.40	-0.96	1,297.40	1,152.20
	Silver (\$/troy oz.)	COMEX	17.930	-0.007	-0.04	18.725	16.100
V	Aluminum (\$/mt)*	LME	1,939.50	-3.00	-0.15	1,972.00	1,688.50
	Tin (\$/mt)*	LME	19,900.00	unch.	unch.	21,225.00	18,760.00
	Copper (\$/mt)*	LME	5,633.00	-12.00	-0.21	6,156.00	5,518.00
	Lead (\$/mt)*	LME	2,141.00	-19.00	-0.88	2,445.00	2,022.00
	Zinc (\$/mt)*	LME	2,605.00	-17.00	-0.65	2,958.50	2,555.00
	Nickel (\$/mt)*	LME	9,460.00	30.00	0.32	11,095.00	9,430.00
	Rubber (Y.01/ton)	TCE	217.20	1.20	0.56	n.a.	n.a.
	Palm oil (MYR/mt)	MDEX	2528.00	-2.00	-0.08	3,004.00	2,450.00
	Crude oil (\$/bbl.)	NYMEX	49.24	-0.38	-0.77	57.95	47.58
	Robusta coffee (\$/ton) Copper (\$/lb.) Gold (\$/troy oz.) Silver (\$/troy oz.) Aluminum (\$/mt)* Tin (\$/mt)* Copper (\$/mt)* Lead (\$/mt)* Zinc (\$/mt)* Nickel (\$/mt)* Rubber (Y.01/ton) Palm oil (MYR/mt)	I.) NYMEX	1.5476	-0.0118	-0.76	1.7833	1.4910
		I.) NYMEX	1.6285	-0.0168	-1.02	1.9012	1.5908
	Natural gas (\$/mm8ti	n) NYMEX	3 160	-0.032	-1 00	3 5410	2 8170

0.5553 1.8008 **-3.1** 0.1455 6.873 **-4.2** 1.0851 0.9216 **-3.1 Czech Rep.** koruna-b 0.0404 24.739 **-3.7** 9293 107.61 **-4.7**

9972.49 5.0

London close on April 24

in US\$ per US\$ (%)

Οπτει (φ/ αιο y οξ.)	00111271	17.770	0.007	0.07	10.727	10.100
Aluminum (\$/mt)*	LME	1,939.50	-3.00	-0.15	1,972.00	1,688.50
Tin (\$/mt)*	LME	19,900.00	unch.	unch.	21,225.00	18,760.00
Copper (\$/mt)*	LME	5,633.00	-12.00	-0.21	6,156.00	5,518.00
Lead (\$/mt)*	LME	2,141.00	-19.00	-0.88	2,445.00	2,022.00
Zinc (\$/mt)*	LME	2,605.00	-17.00	-0.65	2,958.50	2,555.00
Nickel (\$/mt)*	LME	9,460.00	30.00	0.32	11,095.00	9,430.00
Rubber (Y.01/ton)	TCE	217.20	1.20	0.56	n.a.	n.a.
Palm oil (MYR/mt)	MDEX	2528.00	-2.00	-0.08	3,004.00	2,450.00
Crude oil (\$/bbl.)	NYMEX	49.24	-0.38	-0.77	57.95	47.58
NY Harbor ULSD (\$/gal	.) NYMEX	1.5476	-0.0118	-0.76	1.7833	1.4910
RBOB gasoline (\$/gal	.) NYMEX	1.6285	-0.0168	-1.02	1.9012	1.5908
Natural gas (\$/mmBtu) NYMEX	3.160	-0.032	-1.00	3.5410	2.8170
Brent crude (\$/bbl.)	ICE-EU	52.16	-0.28	-0.53	60.09	50.29
Gas oil (\$/ton)	ICE-EU	465.75	-1.75	-0.37	525.00	446.25

Sources: SIX Financial Information: WSJ Market Data Group

London close on Apr 24

Year

high

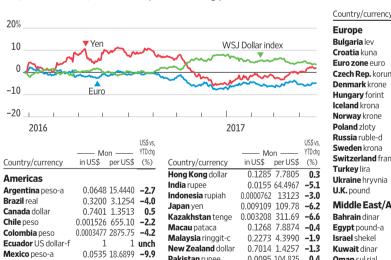
Currencies

Taiwan

Weighted

Source: SIX Financial Information; WSJ Market Data Group

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



9717.95

0.54

2016			20	17	
	Mon	US\$ vs, YTD chg		Mon	US\$ vs, YTD chg
Country/currency	in US\$ per US\$	(%)	Country/currency	in US\$ per US\$	(%)
Americas Argentina peso-a	0.0648 15.4440		Hong Kong dollar India rupee	0.1285 7.7805 0.0155 64.4967	0.3 -5.1
Brazil real Canada dollar	0.3200 3.1254 0.7401 1.3513	-4.0	Indonesia rupiah Japan yen	0.0000762 13123 0.009109 109.78	-3.0 -6.2
Chile peso Colombia peso	0.001526 655.10 0.0003477 2875.75	-2.2	Kazakhstan tenge Macau pataca	0.003208 311.69 0.1268 7.8874	-6.6 -0.4
Ecuador US dollar-f Mexico peso-a		unch	Malaysia ringgit-c New Zealand dollar	0.2273 4.3990 0.7014 1.4257	-1.9 -1.3
Peru sol Uruguay peso-e	0.3084 3.2423 0.0351 28.450	-3.3	Pakistan rupee Philippines peso	0.0095 104.825 0.0201 49.790	0.4 0.4
Venezuela bolivar	0.098886 10.1		Singapore dollar South Korea won	0.7179 1.3929 0.0008821 1133.62	-3.8 -6.2
Asia-Pacific Australia dollar	0.7559 1.3229		Sri Lanka rupee Taiwan dollar	0.0065681 152.25 0.03308 30.227	2.6 -6.9
China yuan	0.1452 6.8848	-0.9	Thailand baht	0.02909 34.380	-4.0

	czecii kep. koruna-b	0.0404	24.127	-3.7
	Denmark krone	0.1458	6.8564	-3.0
	Hungary forint	0.003482	287.17	-2. 4
	Iceland krona	0.009293	107.61	-4.7
	Norway krone	0.1168	8.5591	-1.0
	Poland zloty	0.2559	3.9079	-6.7
10	Russia ruble-d	0.01790	55.879	-8.8
/S, hg	Sweden krona	0.1127	8.8695	-2.6
	Switzerland franc	1.0039	0.9961	-2.2
<u>3</u>	Turkey lira	0.2797	3.5752	1.5
1	Ukraine hryvnia	0.0375	26.6850	-1.5
0	U.K. pound	1.2782	0.7824	-3.4
2	Middle East/Afric	a		
6	Bahrain dinar	2.6525	0.3770	-0.05
4	Egypt pound-a	0.0551	18.1623	0.2
9	Israel shekel	0.2736	3.6547	-5.0
3	Kuwait dinar	3.2831	0.3046	-0.3
4	Oman sul rial	2.5972	0.3850	0.02
4	Qatar rial	0.2747	3.641	0.01
8	Saudi Arabia riyal	0.2666	3.7505	-0.01
2	South Africa rand	0.0768	13.0160	-4.9

/liddle East/Af	rica			
ahrain dinar	2	.6525	0.3770	-0.05
gypt pound-a	0	.0551	18.1623	0.2
srael shekel	0	.2736	3.6547	-5.0
uwait dinar	3	.2831	0.3046	-0.3
man sul rial	2	.5972	0.3850	0.02
atar rial	0	.2747	3.641	0.01
audi Arabia riyal	0	.2666	3.7505	-0.01
outh Africa rand	0	.0768	13.0160	-4.9
	Close	Net Cho	% Chg	YTD%Chg
VSJ Dollar Index	89.48	-0.23	-0.26	-3.72
ources: Tullett Prebon,	WSJ Ma	rket Dat	ta Group	

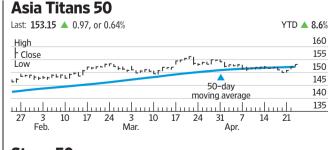
	USD
Australia	1.3229
Canada	1.3513
Euro	0.9216
Hong Kong	7.7805

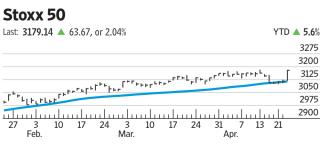
Cross rates

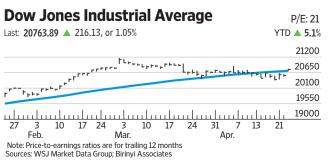
	USD	GBP	CHF	JPY	HKD	EUR	CDN	AUD
Australia	1.3229	1.6910	1.3284	0.0121	0.1700	1.4354	0.9790	
Canada	1.3513	1.7271	1.3567	0.0123	0.1737	1.4661		1.0213
Euro	0.9216	1.1781	0.9254	0.0084	0.1185		0.6820	0.6966
Hong Kong	7.7805	9.9451	7.8110	0.0709		8.4423	5.7580	5.8813
Japan	109.7830	140.3200	110.2200		14.1100	119.1100	81.2500	82.9800
Switzerland	0.9961	1.2732		0.0091	0.1280	1.0807	0.7371	0.7528
U.K.	0.7824		0.7854	0.0071	0.1006	0.8489	0.5789	0.5914
U.S.		1.2782	1.0039	0.0091	0.1285	1.0851	0.7401	0.7559
		•	•			•	Source: Tu	llett Prebon

	es			op Sto			.95													
	Latest	52 wks ago		Charle	C	1		YTD%	٠	Charle	C			YTD%	٠	Charle	C	1		YTD9
ibor			Cur	Stock	Sym	Last	Chg	Chg	Cur	Stock	Sym	Last	Chg	Chg	Cur	Stock	Sym	Last	Chg	Chg
one month	0.99111%	0.43695%		Λο	ia Ti	tans			¥	TakedaPharm	4502	5318.00	0.64	9.99	£	RoyDtchShell A	RDSA	2033.00	2.03	-9.
hree month	1.16650	0.63385		A.	na i i	Lans			HK\$	TencentHoldings	0700	238.00	0.68	25.46	€	SAP	SAP	92.99	2.28	12.
ix month	1.42072	0.91040	HK\$	AIAGroup	1299	49.80	0.10	13.83	¥	TokioMarineHldg	8766	4614.00	0.02	-3.79	€	Sanofi	SAN	84.84	3.01	10.
)ne year	1.76817	1.23885	¥	AstellasPharma	4503	1550.00	1.71	-4.53	¥	ToyotaMtr	7203	5887.00	0.55	-14.41	€	SchneiderElectric	SU	74.20	5.10	12.
uro Libor			AU\$	AustNZBk	ANZ	31.98	0.53	5.13	AU\$	Wesfarmers	WES	43.75	-0.32	3.82	€	Siemens	SIE	132.75	5.90	13.
)ne month	-0.39571%	-0.34843%	AU\$	BHP	BHP	23.94	-0.42	-4.47	AU\$	WestpacBanking	WBC	34.61	0.76	6.17	CHF	Syngenta	SYNN	453.10	0.22	12.
hree month	-0.35857	-0.26929	HK\$	BankofChina	3988	3.70	0.54	7.56	AU\$	Woolworths	wow	26.67	0.60	10.66	€	Telefonica	TEF	10.48	3.20	18.
ix month	-0.26014	-0.15643	HK\$	CKHutchison	0001	95.05	2.04	8.13							€	Total	FP	47.83	2.89	-0.
ne year	-0.14471	-0.03014	HK\$	CNOOC	0883	9.06	0.11	-6.60		S	toxx	(50			CHF	UBSGroup	UBSG	16.33	4.95	2.
uribor			AU\$	CSL	CSL	128.59	0.13	28.06	CHF	ABB	ABBN	23.76	2.55	10.61	€	Unilever	UNA	48.24	1.13	23.
ne month	-0.37100%	-0.34300%	¥	Canon	7751	3501.00	0.57	6.25	€	ASMLHolding	ASML	122.65	0.86	15.00	£	Unilever	ULVR	4021.00	2.12	
hree month	-0.32900	-0.25000	¥	CentralJapanRwy	9022	18575	1.67	-3.41	€	AXA	CS	25.03	6.53	4.36	€	Vinci	DG	78.50	7.05	21.
ix month	-0.24700	-0.14400	HK\$	ChinaConstructnBk		6.23	0.81	4.36	€		Al				£	VodafoneGroup	VOD	202.60	1.94	1
ne year	-0.12100	-0.01300	HK\$	ChinaLifeInsurance		23.00	1.32	13.86	€	AirLiquide Allianz	ALV	110.75 175.15	4.73 2.88	4.83 11.56	CHF	Zurichlnsurance	ZURN	271.20	2.49	-3.
en Libor			HK\$	ChinaMobile	0941	82.80	-1.25	0.73	€			103.85					DJI	Λ		
ne month	-0.01900%	-0.06557%	HK\$	ChinaPetro&Chem		6.30	0.48	14.55	£	AB InBev	ABI AZN		2.26	3.28			ונט	A		
hree month	0.01314	-0.04243	AU\$	CmwlthBkAust	CBA	86.23	0.69	4.64	£	AstraZeneca		4662.50	2.11	5.07	\$	AmericanExpress	AXP	80.45	1.08	8.
ix month	0.03357	-0.01943	¥	EastJapanRailway		9822.00	1.33	-2.75	€	BASF	BAS BNP	92.53	4.24 7.52	4.78 10.09	\$	Apple	AAPL	143.62	0.95	24.
ne year	0.13500	0.07257	¥	Fanuc	6954	22790	1.81	15.01	€	BNP Paribas		66.66			\$	Boeing	BA	182.09	0.95	16.
ne year	Offer	Bid	¥	Hitachi	6501	590.50	0.53	-6.57	£	BT Group	BT.A	314.00	0.98	-14.42	\$	Caterpillar	CAT	96.83	2.66	4.
	Offer	DIU	TW\$	Hon Hai Precisn	2317	97.00	0.53	15.20		BancoBilVizAr	BBVA	7.60	7.17	19.74	\$	Chevron	CVX	105.94	1.00	-9.
urodollars		100000	¥	HondaMotor	7267	3165.00	1.61	-7.32	€	BancoSantander	SAN	6.00	5.82	20.99	\$	CiscoSystems	CSCO	33.29	1.43	10.
ne month	1.1000%	1.0000%	KRW	HvundaiMtr	005380	141500	1.01	-3.08	£	Barclays	BARC	219.20	5.41	-1.90	\$	Coca-Cola	КО	43.28	0.49	4.
hree month	1.2000	1.1000	HK\$	Ind&Comml	1398	4.99	0.60	7.31	€	Bayer	BAYN	108.70	3.33	9.65	\$	Disney	DIS	113.73	-0.62	9.
ix month	1.3500	1.2500	¥	JapanTobacco	2914	3736.00	0.00	-2.81	£	BP	BP.	449.30	1.79	-11.83	\$	DuPont	DD	79.43	0.99	8.
ne year	1.6000	1.5000	¥	KDDI	9433	2939.00	1.80	-0.69	£	BritishAmTob	BATS	5328.00	2.46	15.29	\$	ExxonMobil	XOM	81.10	0.51	-10.
	Latest	52 wks ago				2939.00	0.74		€	Daimler	DAI	67.78	2.43	-4.16	\$	GeneralElec	GE	29.56	0.03	-6.
rime rates			¥ ¥	Mitsubishi	8058			-6.99	€	DeutscheTelekom		16.36	2.67		\$	GoldmanSachs	GS	223.28	2.96	-6.
.S.	4.00%	3.50%	¥	MitsubishiElectric		1486.50	-0.80	-8.78	£	Diageo	DGE	2261.00	2.40	7.16	\$	HomeDepot	HD	151.89	1.26	13.
anada	2.70	2.70	¥	MitsubishiUFJFin		688.00	1.42	-4.47	€	ENI	ENI	14.54	2.97	-6.01	\$	Intel	INTC	36.75	1.18	1.
apan	1.475	1.475		Mitsui	8031	1525.00	0.23	-5.10	£	GlaxoSmithKline		1585.00	1.25	1.47	\$	IBM	IBM	160.78	0.25	-3.
ong Kong	5.00	5.00	¥	Mizuho Fin	8411	198.10	1.07	-5.58	£	HSBC Hldgs	HSBA	638.30	2.29	-2.83	\$	JPMorganChase	JPM	87.50	3.53	1.
olicy rates			¥	NTTDoCoMo	9437	2636.50	1.21	-1.00	€	INGGroep	INGA	15.06	6.02	12.68	\$	J&J	LINI	122.89	0.93	6.
СВ	0.00%	0.00%	AU\$	NatAustBnk	NAB	33.37	0.91	8.80	£	ImperialBrands	IMB	3836.00	2.43	8.29	\$	McDonalds	MCD	134.26	0.64	10.
ritain	0.25	0.50	¥	NipponTeleg	9432	4854.00	1.10	-1.18	€	IntesaSanpaolo	ISP	2.70	7.48	11.38	\$	Merck	MRK	62.12	0.37	5.
witzerland	0.50	0.50	¥	NissanMotor	7201	1039.50	0.34	-11.57	€	LVMHMoetHennessy		214.70	3.77	18.36	\$	Microsoft	MSFT	67.53	1.70	8.
ustralia	1.50	2.00	¥	Panasonic	6752	1308.00	3.36	9.96	£	LloydsBankingGroup		66.24	2.91	5.97	\$	Nike	NKE	55.49	-0.64	9.
S. discount	1.50	1.00	HK\$	PingAnInsofChina		42.40	0.95	9.28	€	LOreal	OR	185.55	2.63	7.01	\$	Pfizer	PFE	33.74	0.30	3.
ed-funds target	0.75-1.00	0.25-0.50	\$	RelianceIndsGDR		44.25	2.31	40.25	£	NationalGrid	NG.	1017.50	1.55	6.93	\$	Procter&Gamble	PG	89.55	1.05	6.
all money	2.75	2.25	KRW	SamsungElectronics		2062000	1.18	14.43	CHF	Nestle	NESN	77.30	2.11	5.82	\$	3M	MMM	194.24	1.43	8.
vernight repurch			¥	Seven&I Hldgs	3382	4563.00	0.55	2.47	CHF	Novartis	NOVN	74.10	1.09		\$	Travelers	TRV	120.57	1.23	-1
.S.	0.91%	0.47%	¥	SoftBankGroup	9984	8174.00	1.04	5.27	DKK	NovoNordiskB	NOVO-B	250.00	0.12	-1.85	\$	UnitedTech	UTX	116.32	1.16	6
.s. uro zone	0.91% n.a.	0.47% n.a.	¥	Sony	6758	3730.00	3.84	13.89	£	Prudential	PRU	1691.50	3.11	3.93	\$	UnitedHealth	UNH	172.32	0.68	7
ui o zone	II.d.	II.a.	¥	Sumitomo Mitsui	8316	4052.00	1.30	-9.15	£	ReckittBenckiser	RB.	7305.00	1.25	6.08	\$	Visa	V	91.83	0.75	17
Sn	urces: WSJ Market	Data Group, SIX	HK\$	SunHngKaiPrp	0016	115.00	-1.29	17.35	£	RioTinto	RIO	3112.50	1.77	-1.46	\$	Verizon	VZ	47.04	-0.44	-11.
30		ormation, Tullett	TW\$	TaiwanSemiMfg	2330	190.00		4.68	CHF	RocheHldgctf	ROG	255.00	1.31	9.63	¢	Wal-Mart	WMT	74.80	-0.19	

4 p.m. New York time







FINANCE & MARKETS

Trump's Point Man on Wall Street Rules | China's Pollution Push

By Ryan Tracy

WASHINGTON-After Donald Trump won the presidency, Craig Phillips shifted gears. The recent retiree from Black-**Rock** Inc. had been donating to Hillary Clinton's campaign and angling for a job in a Democratic administration.

Immediately after the November election, Mr. Phillips logged on to Mr. Trump's new transition website, GreatAgain.gov, and filled out a form for volunteers, according to people familiar with the mat-

Five months later, he has emerged as a central figure in Trump's understaffed Treasury Department, helming the administration's plan for financial deregulation and serving as a key point of contact with the financial indus-

Mr. Phillips is one of the many deal-making Wall Street millionaires the Trump team has tapped for a first-time government role, and he embodies both the potential advantages and pitfalls of that experience. Former colleagues described him as both a brilliant financier and a volatile boss prone to dressing down subordinates with expletivelaced tongue-lashings.

Mr. Phillips' influence as a counselor to Treasury Secretary Steven Mnuchin may continue for the foreseeable future. Mr. Trump has nominated other senior Treasury officials but not an undersecretary of domestic finance, an area on which Mr. Phillips is advising the Treasury.

Through a Treasury spokeswoman, Mr. Phillips declined to comment for this article. In a statement, the spokeswoman touted his "forty years of domestic and global capital markets experience" and said "he is dedicated to lending his expertise to public service, and he is a key member of our team at the Treasury Depart-

His primary job at the Treasury Department is to craft a response to Mr. Trump's Feb-



Craig Phillips is known for his brilliance and tongue-lashings.

ruary executive order asking for a broad review by the department of financial regulations to determine whether they are consistent with the goals like expanding the econ-

As officials gather ideas from industry executives, advocacy groups and others about what regulations should be scrapped or changed, Mr. Phillips, 62 years old, has often been the senior Treasury representative in the room.

Mr. Phillips didn't speak much publicly about his regulatory views during his time at BlackRock, which began during the 2008 financial crisis. What he has said suggests he saw the Obama administration's regulatory approach as too aggressive, while rejecting some conservatives' views that the government should have little if any role in backstopping financial markets.

In August 2015, during a round-table discussion on housing finance, he said regulations are restricting big banks from playing their role as financial-market middle-

"We worry about it at BlackRock," he said. "Some of the banking policies that protect the bank balance sheets aren't really thinking about market liquidity."

Discussing the financial crisis in December 2008 at the National Press Club, he said he felt terrible about the level of

government support of the financial system at that time. but government actions such as injecting capital into banks were "critical because we can't have systematic failure and a breakdown in all markets."

Besides the regulatory review, Mr. Phillips also appears primed to play a role in other Treasury initiatives, such as Mr. Mnuchin's goal of re-examining the U.S. housing finance industry. He and Mr. Mnuchin have known each other for decades, having both worked in the mortgage finance business—Mr. Mnuchin at Goldman Sachs Group Inc. and Mr. Phillips at Credit Suisse First Boston and then Morgan Stanley.

Mr. Phillips's first job on Wall Street in 1976 was with Kuhn Loeb & Co. at 40 Wall St., a property now known as the Trump Building.

In the 1980s, Mr. Phillips worked at the Credit Suisse First Boston investment bank alongside Laurence Fink, part of a team that was at the cutting edge of creating complex new bonds made up of mortgages. He didn't join Mr. Fink and others when they left to form BlackRock, now the world's largest asset manager,

At Morgan Stanley from 1994 through 2006, Mr. Phillips made a name for himself selling mortgage securities backed by commercial real estate and expanding that business into Europe.

Former colleagues say he had a talent for attacking complex problems. "Easily one of the five smartest people I have known in my 25-year career," said Arvind Bajaj, a realestate investor who worked for Mr. Phillips at Morgan Stanley.

His Morgan Stanley group provided billions of dollars in financing for mortgages it could bundle and resell. They worked closely with subprime lender New Century Financial Corp., which went bankrupt amid accusations it coaxed borrowers into loans they couldn't repay. Morgan Stanley later admitted its bankers failed to disclose to investors important information about mortgages as part of a \$2.6 billion federal civil settlement.

Mr. Phillips departed Morgan Stanley in 2006 as the housing market began to unravel. In 2008, he landed at BlackRock, where he dealt with the unraveling, leading a sort of financial SWAT team. The group evaluated toxic assets of bailout recipient Amer ican International Group Inc., assessed Greek bank loans and provided financial models for the Federal Reserve's annual bank "stress tests."

The business was profitable, but Mr. Phillips was an unpopular manager at Black-Rock, former colleagues there said. His team's job-satisfaction ratings were below other BlackRock divisions, they said. BlackRock declined to com-

ment on Mr. Phillips. -Sarah Krouse

contributed to this article.

Lifts Aluminum Prices

By David Hodari

Pollution is helping the price of aluminum to thrive.

The metal has defied the recent selloff in copper, lead and other industrial metals, in anticipation of a Chinese clampdown on pollution that is expected to lead to the closure of some aluminum smelters this year.

Most industrial metals have been hit by concerns that Chinese demand is waning and the fading of the global reflation trade—the rally pinned to expectations of higher economic growth and inflation since the election of President Donald Trump.

But aluminum has risen 4.1% in the past three months and is up 15% in London year to date. That is against a fall of 7.6% in the year so far for nickel and a gain of 2.4% for copper.

In late February, China's government issued directives aimed at tackling smog created by burning coal, moves that some analysts say could later this year cut as much as 30% of aluminum production from a country that accounts for roughly half of the world's output.

Most global aluminum producers use a mix of electricity sources, but China's energy-intensive smelters receive 90% of their power from coal, according to the International Aluminium Institute, an industry body.

Smelters in China's Henan, Shandong and Shanxi provinces are due to close this coming winter, in a move that would remove 6% of global capacity at that time, according to ETF Securities.

"That could be enough to tip the global balance of aluminum into a deficit," said Ni-

tesh Shah, a commodities

strategist at the firm. Though similar government directives have been broadly ignored by provincial authorities in the past, there are signs that Beijing is taking a tougher stance this time, said Caroline Bain, an economist at Capital Economics.

Since those February directives, the Chinese government has halted construction at three smelters in Xinjiang province, she said. But some analysts question

how long the price bump will

With the smelting ban only hitting facilities close to major cities, those in unaffected areas may capitalize on higher aluminum prices by increasing production.

The short-term direction of aluminum prices depends on whether other regions can raise production at a rate that outpaces the cuts in China, said Xiao Fu, head of commodities research at BOCI Global Commodities.

"Aluminum is usually a range-bound metal, but producers have improved profitability in recent months and these higher prices are likely to incentivize them to try to capture further profit," Ms. Fu

Advertisement

INTERNATIONAL INVESTMENT FUNDS

[Search by company, category or country at europe.WSJ.com/funds]

U.S. Securities and Exchange Commission and aren't available for sale to office. States citizens and/or residents except as noted. Prices are in local currencies All performance figures are calculated using the most recent prices available.

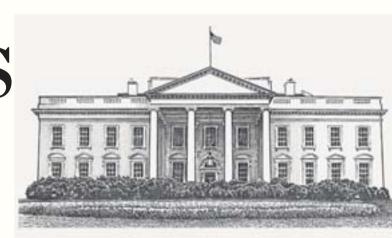
GF AT LB DATE CR NAV ■ Chartered Asset Management Pte Ltd - Tel No: 65-6835-8866

Fax No: 65-6835 8865, Website: www.cam.com.sg, Email: cam@cam.cc CAM-GTF Limited 0T 0T MUS 04/13 USD 313438.35 3.8 8.7

For information about listing your funds, please contact: Freda Fung tel: +852 2831 2504; email: freda.fung@wsj.com

WSJ TALK / EXPERIENCE / OFFER / GETAWAY

pinion Live: Trump's First 100 Days



Join Paul Gigot and Thorold Barker for an evening of strong opinion and uncompromising debate on President Trump's first 100 days in office. Members and their guests will enjoy a no-holds-barred analysis of how the new administration is reshaping the geopolitical landscape, business, finance, trade and the U.S. economy.



PAUL GIGOT



WHERE: LONDON

WHEN: APRIL 27, 2017

EXCLUSIVE TO WSJ MEMBERS

BOOK NOW AT WSJPLUS.COM/TRUMP100UK



© 2017 Dow Jones & Co., Inc. All rights reserved. 6DJ5324

MARKETS

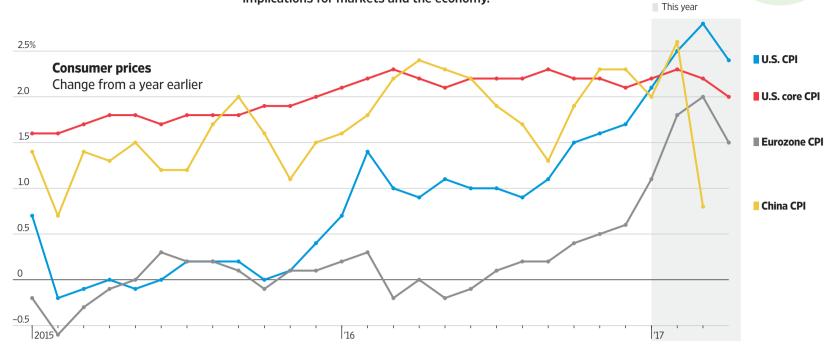
THE DAILY SHOT | By Lev Borodovsky

The Case for Peak Inflation

Have we hit peak inflation? Investors are certainly acting like we have. It's a potential shift with broad implications for markets and the economy.

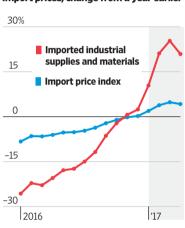
WSJ subscribers can get The Daily Shota chart-by-chart briefing on markets and economicssent to their email each morning. Subscribe at wsj.com/newsletters

From South Africa to Slovakia, we see the same pattern of inflation falling after a rise over the past year.



Much of it is driven by China, the manufacturer to the world.

Import prices, change from a year earlier



Shelter CPI, which includes rent, seems to have peaked and market inflation expectations are now declining.

Shelter CPI and inflation expectations

Five-year, five-year inflation expectations

Sources: Federal Reserve Bank of St. Louis: Bureau of Labor Statistics (CPI, core CPI, import prices, shelter CPI); OECD (China CPI); U.S. Energy Information Administration (crude);

Shelter CPI Change from

a year earlie

4.0%

3.0

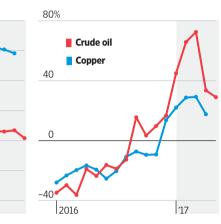
2.0

1.0

2016

Prices for oil and other industrial commodities such as iron ore and copper have declined after long rallies.

Prices, change from a year earlier



It's not all bad. Lower yields have trimmed corporate funding costs and pushed mortgage rates lower.

Corporate bond yield and mortgage rate



But if they stay low, it could throw more cold water on once-hot sectors like the banks.

Performance since 2015



THE WALL STREET JOURNAL.

Email: heard@wsj.com

FINANCIAL ANALYSIS & COMMENTARY

WSJ.com/Heard

Akzo's Logic In PPG Snub **Grows Thin**

Akzo Nobel's takeover defense just took another battering. The Dutch paint group received a third offer from its deal-hungry U.S. rival **PPG** on Monday. It isn't as generous as the headline figure of €96.75 (about \$105) a share implies, but it will still make it harder for Akzo Nobel's management to

maintain its opposition. Akzo Nobel unveiled a strategic review last week that included the promise of a 50% increase in the regular dividend and a €1 billion special dividend. PPG has rolled these shareholder goodies into a new offer. Strip them out and the latest cash-andstock bid is only 25 cents higher than the previous one iust over a month ago. Given PPG's rising share price, the higher bid isn't a stretch.

It may be telling that when Akzo unveiled the increased shareholder payouts. the stock barely budged. Yet when they were included in PPG's offer, the stock took another leg up. Investors perhaps have more faith in the latter's management.

The Dutchmen have consistently stressed broader "stakeholder" concerns over pure shareholder returns as a justification for not entering talks with PPG. Such arguments are substantially weakened by the U.S. company's pledges to—among other things—honor existing labor and pension agreements, keep divisional headquarters in the Netherlands and retain an Amsterdam listing for the combined

Akzo Nobel is running out of good reasons not to engage with PPG. The more it relies on bad ones, the less support it can expect from shareholders.

—Stephen Wilmot ∣ ers by 40%.

Euro Slips Its Political Shackles

When it comes to the euro, what doesn't kill it should make it stronger.

The existential threat posed to the single currency by the French elections has faded. That should allow investors to look more at the favorable conditions for European assets, including the

The single currency was the immediate beneficiary of the market-friendly outcome of Sunday's vote, which pits centrist Emmanuel Macron against far-right euroskeptic Marine Le Pen in a runoff May 7. Unless there is a huge shock, Mr. Macron, who is staunchly pro-European, looks set to win. That will remove a cloud that has hung over European assets.

The euro rose to a fivemonth high against the dollar above \$1.09 late Sunday before consolidating around \$1.085. It put in an even bigger move against the yen, gaining more than 2%. French stocks shone, with the CAC-40 index up more than 4%. French bonds rallied sharply, too.



Note: Daily, as of 3:30 p.m. Monday in New Yo Source: WSJ Market Data Group THE WALL STREET JOURNAL

Looking past the politics should be a good thing for investors. While the French elections were in the foreground, the economic backdrop for the eurozone has been quietly improving. Political worries haven't deterred consumers or businesses. On Friday, the flash eurozone purchasing managers' index hit a six-year high at 56.7; On Monday, Germany's closely followed Ifo business-climate index rose



French election's threat to the common currency has faded.

to 112.9, its highest since July 2011. The threat of deflation has receded, and corporate earnings have shown signs of life. European stocks trade at a discount to their U.S. counterparts, with the Stoxx Europe 600 on 14.9 times forward earnings, versus 17.4 times for the S&P

The better news from Europe will put new focus on the European Central Bank's ultraloose policy stance, with

interest rates still negative and large-scale bond purchases continuing. Already in March there was a wave of market speculation about how and when the ECB might start to head for the exit.

ECB officials led by President Mario Draghi and executive board member Peter Praet have spent a good deal of time pushing back against that. That makes this week's meeting unlikely to provide much new for bulls on Europe, potentially acting as a near-term restraint on the

But by June, if Mr. Macron is installed in the Élysée Palace and the eurozone economy is still on track, the ECB may have to give greater acknowledgment to the good news from Europe.

That should buoy the euro, steepen the vield curve and potentially give a further lift to bank stocks, helping equities more broadly. Focusing on the fundamentals could pay off for inves-

-Richard Barley

OVERHEARD

Markets are relieved that the first round of the French election has payed the way to victory for former investment banker Emmanuel Macron. But investors' literary patience has been tested. "Le Macron is mightier than Le Pen?" currency strategists at Westpac asked in a note analyzing the May 7 secondround runoff between Mr. Macron and euro-hating rival Marine Le Pen. Stocks and the euro were indeed happy Monday morning, as Nomura put it: "Macr-On vs. Le Pen is Risk-On...Because it's his Tou-

At least the outcome saves investors from leftist firebrand Jean-Luc Mélen**chon**, who is out of the game after Sunday's vote. He was apt to make investors "Melenchon-ly," wrote the fixedincome team at Royal London Asset Management. With young Mr. Macron leading handily over Ms. Le Pen in the polls, we will inevitably be left to study the intricacies of "Macron-economics." Mon dieu.

louse.

What Credit Suisse Needs to Get Investors Back on Its Side

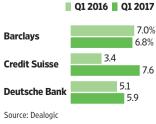
Europe's investment banks need a big first quarter, none more so than Credit Suisse Group.

After a dire opening to 2016, most banks should see a big recovery for the start of 2017 similar to rivals in the U.S., where bond and currency trading revenue was up 24% year over year. Credit Suisse will be first

to report among European peers on Wednesday ahead of a likely uncomfortable annual meeting on Friday: Shareholders are expected to protest its executive pay plans even after the board cut the bonuses of Chief Executive Tidiane Thiam and other lead-

Taking Credit Market share of global

syndicated-loan revenue



THE WALL STREET JOURNAL.

A strong first-quarter performance after two years of losses would help ease tensions. However, the bank is in the middle of a restructuring during which Mr. Thiam has

already had a couple of strategic changes of heart. Those changes make it harder to predict where or whether Credit Suisse's investment bank will do well, while there are also questions about how sustainable last vear's sharp growth in interest income will U.S. bank results this

month suggested most money was made in U.S. corporate bond trading, securitized products, such as mortgage bonds, and equity derivatives. That should be a boon to Barclavs. Credit Suisse and even Deutsche Bank on the corporate bond side, while good equity derivatives activity bodes well for French banks BNP

Credit Suisse always used to be strong in trading securi-

Paribas and Société Générale. tized products, and Mr. Thiam initially kept faith with that in his first strategic plan even though it didn't fit with the main aim of using less capital. But he reversed course after Credit Suisse suffered shock losses at the start of 2016. The bank decided to cut all European and some U.S. trading of such bonds. That means it may miss out on some of the recovery seen by U.S. rivals.

One area where it has done well is syndicated loans, which are debts arranged for companies or private-equity groups that banks sell to

other lenders and investors. Credit Suisse more than doubled its global market share in the first quarter of 2017 compared with last year, according to Dealogic. It also more than tripled its revenue from syndicated loans, according to Thomson Reuters, a far better recovery than any

This isn't always the most profitable business, but it can help a bank win other more lucrative work.

Decent results on Wednesday will buy the bank's leadership more time to win some credibility; anything less and Friday's investor meeting will be truly stormy.

-Paul J. Davies