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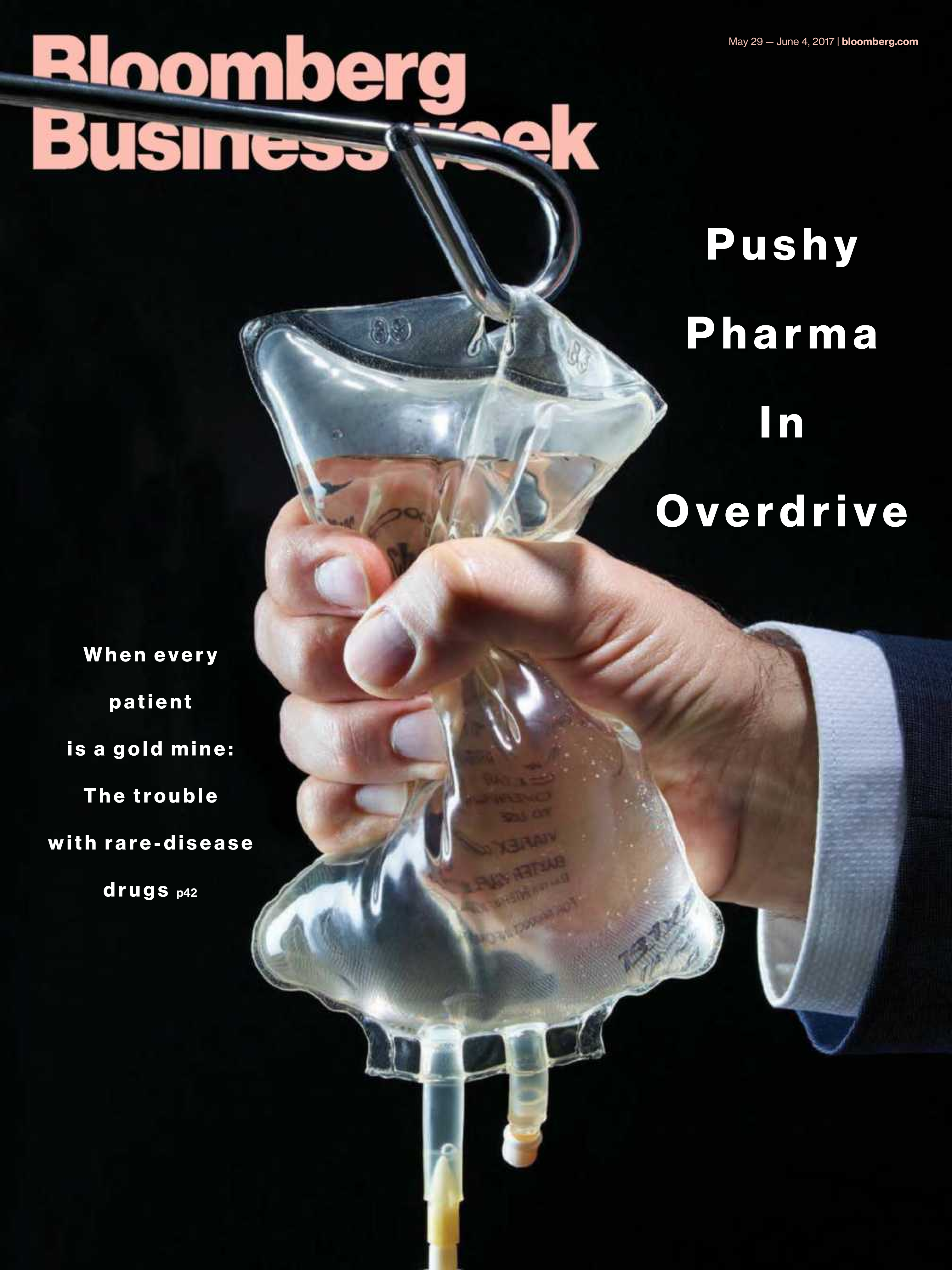
Bloomberg Businessweek



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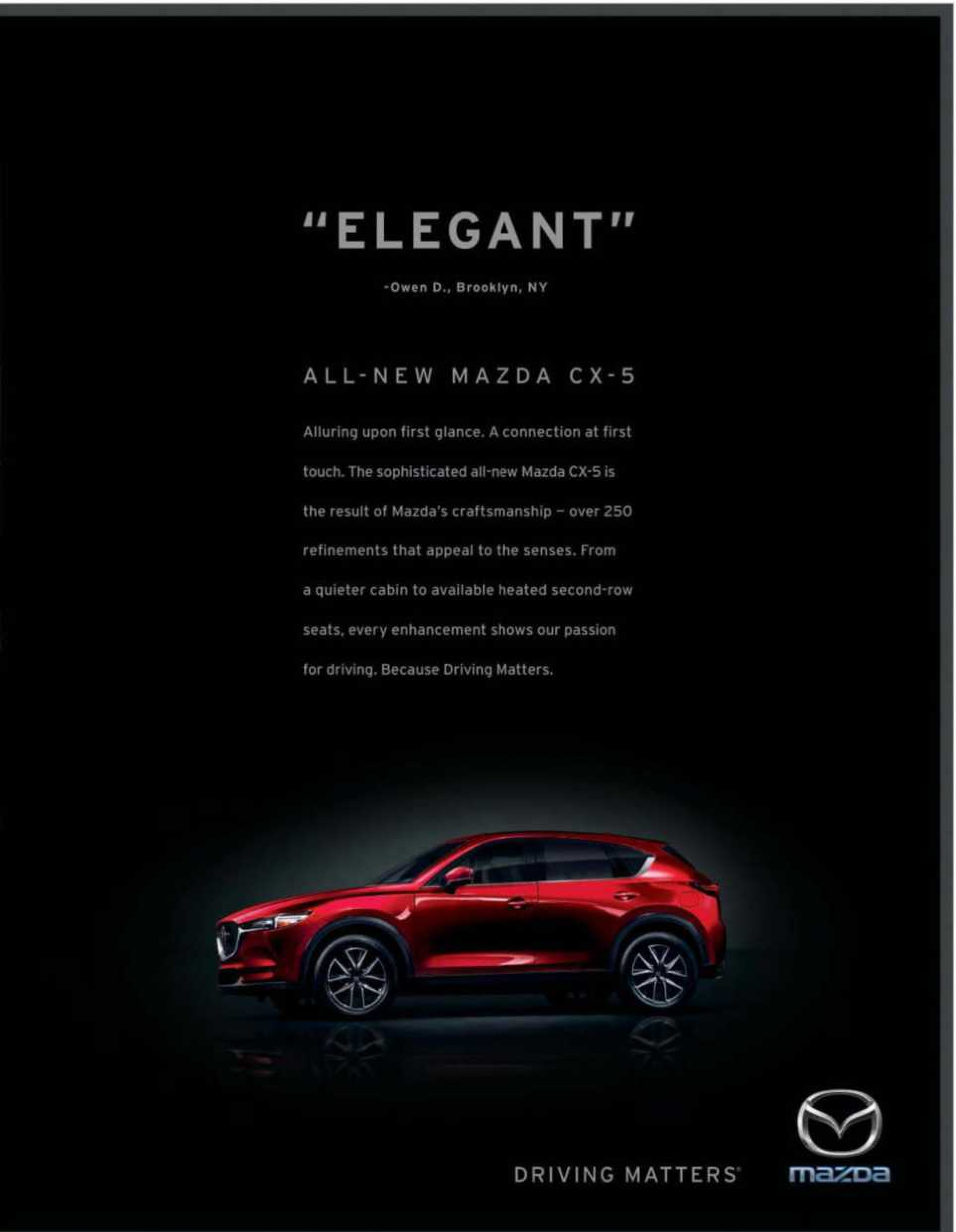
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-Owen D., Brooklyn, NY
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PHOTOGRAPH BY NICK BALLON FOR BLOOMBERG BUSINESSWEEK

"If music becomes more popular, no one will listen to the imams"

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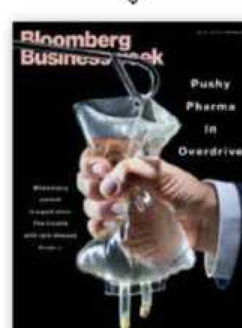

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Corrections & Clarifications

"The Mystery of Tepid Wage Growth" (Global Economics, May 22-May 28, 2017) cited 2.3 percent as the growth in average hourly earnings over the past year. That was for production and nonsupervisory workers. The growth for all private nonfarm workers was 2.5 percent. Ⓑ "How to Launder a Russian" (Global Economics, May 15-May 21, 2017) incorrectly stated that Cyprus attracted about $4 billion in foreign investment in 2016 from a program that grants passports to investors. The figure is for the years 2013 through 2016.

PHOTOGRAPH BY EDWARD LINSMIER FOR BLOOMBERG BUSINESSWEEK; CLOONEY: MONICA SCHIPPER/GETTY IMAGES; PALTROW: PAUL ARCHULETA/GETTY IMAGES

Bloomberg

By Tim Padgett

In U.S. history, entire cities and states have been branded corrupt: Think Richard J. Daley's Chicago or Huey Long's Louisiana. But amid even the worst federal scandals, Watergate included, the country has never been nationally profiled as crooked—a venal society from coast to coast, from dogcatcher to commander-in-chief.

Brazil feels that way right now, largely the result of a bribery scandal of Amazonian proportions known in Portuguese as *Lava Jato*, or Operation Car Wash, believed to be the largest corruption case in modern history. The multibillion-dollar tsunami of sleaze barreling through Latin America's largest country and economy is deeper and broader than any Trump-Russia allegations pouring out of Washington. And it could force the resignation of Brazilian President Michel Temer, who's been fingered repeatedly in recent weeks for allegedly orchestrating and receiving millions of dollars in bribes.

The 76-year-old conservative denies the accusations—his lawyer, laughably, says Temer is too old to have to answer them—but he's not the only Brazilian president under the interrogation lamp. His predecessor, Dilma Rousseff, who was impeached and removed from office last year, and her predecessor and mentor, Luiz Inácio Lula da Silva, are also alleged to have received tens of millions of dollars in graft.

They, too, deny it—but it hardly stops with them. Eight of Temer's cabinet ministers are under investigation. So are powerful senators such as Aécio Neves, who narrowly lost the 2014 presidential election. The head of Brazil's Chamber of Deputies, Eduardo da Cunha—who was shameless enough to hide some of the $40 million in bribes he pocketed in a religious shell company called Jesus.com—was convicted in March and sentenced to 15 years in prison. He has appealed the verdict.

Hundreds more legislators, governors, mayors, political bosses, and business executives are caught up in Lava Jato (named for a Brasília gas station

ILLUSTRATION BY SIMON ABRANOWICZ

where some of the payoff cash was laundered). They're part of an epic network of bribes, kickbacks, hush money, and money laundering focused mainly on Brazil's state-run oil company, Petrobras. Its executives, as well as such politicians as da Cunha, took bribes from businesses in exchange for greatly inflated Petrobras work contracts.

Since the scheme was detected three years ago, prosecutors have yet to reach bottom in their investigation—and the total sum of payoffs may exceed $5 billion. The criminality may also cost Petrobras, South America's largest corporation, $13 billion in contract losses and legal settlements, and it's already resulted in the layoff of thousands of Petrobras workers. Meanwhile, Odebrecht, the Brazilian construction giant that led the bribery bacchanal, is a disgraced and crumbling conglomerate. Its boss, Marcelo Odebrecht, was sentenced last year to 19 years in prison. He's now a key witness and negotiating a lighter sentence. "This is a tense moment in our history," Sérgio Moro, the federal judge heading the Lava Jato prosecution, said recently. "It is a crossroads."

Moro and most Brazilians hope Lava Jato will be a crossroads for change. But sadly, that's been said of most Brazilian scandals—which were then followed by even bigger ones. The 1992 corruption impeachment of President Fernando Collor de Mello for influence peddling was supposedly such a crossroads. But a decade later, during Lula's presidency, came the Mensalão scandal, in which Lula's Workers' Party paid deputies and senators $50 million to sway legislation.

Mensalão should have been a turning point, too, especially since Lula's chief of staff, José Dirceu, was sentenced to 32 years for his involvement—perhaps the first time in Brazil's history that a high-ranking crooked official heard a cell door close behind him. (Dirceu is appealing the sentence.) But then came Lava Jato, as well as last year's $2.5 billion federal pension fund scandal and the financial chicanery that tainted Brazil's 2014 FIFA World Cup and Rio de Janeiro's 2016 Summer Olympics.

And did I mention the just-as-appalling rot at state and local levels? Many lower-ranking public servants enjoy what Brazilians call *O Trem da Alegria*—the Joy Train—an embezzlement locomotive that can make overnight millionaires out of backwater bureaucrats such as Lidiane Leite.

When Leite became mayor of the northeastern town of Bom Jardim in 2012, she put the Joy Train in high gear. She gave herself an astronomical raise, bought a Toyota SUV, went on lavish shopping sprees, and attended Champagne parties, bragging about it on social media. Investigators say she pilfered as much as $4 million—a big reason kids in Bom Jardim went without school lunches. After being jailed briefly in 2016, Leite was convicted this year. But her sentence included only a fine and suspension from political activity, not prison time.

Cases like Leite's are common in Brazil. I once interviewed a small-town mayor in Rio de Janeiro state who rode the Joy Train to make $264,000 a year—then twice the salary of Brazil's president. Those minor league outrages help explain why major league catastrophes such as Lava Jato never become meaningful crossroads for Brazil's 208 million people. It's because corruption is the road in Brazil—a default path that experts estimate costs the country as much as 5 percent of its $2 trillion gross domestic product every year.

"When you think you're headed to a different Brazil," says Brazilian-born writer Juliana Barbassa, who investigated questionable spending for the Rio Olympiad, "you usually end up in the same Brazil."

To understand why, you have to reach back two centuries, to when the country was a monarchy. In 1807, Napoleon's Iberian invasion forced the Portuguese royal court into exile in Brazil, its colony at the time. The king returned to Lisbon in 1821. But when Brazilians declared independence a year later, they made his son who'd stayed behind their head of state: Emperor Dom Pedro I.

Brazil's royal rule, the only real monarchy the New World has known, lasted until 1889. It helped Brazil avoid the civil warfare that plagued fledgling republics such as next-door Venezuela. But it also meant that for its first 67 years, the nation lived under a courtly system based less on public institutions than on personal favors. That bred three cancers, which, while widespread in Latin America, seem most malignant in Brazil.

The first is an incestuous relationship between business and a government run by a chaotic array of political parties. When Brazil became a republic, the palms to be greased now belonged to deputies in congress instead of dukes in castles. Public ethics rarely if ever took root because graft continued to be the accepted public ethos. Lava Jato is simply the latest, largest tumor to grow from that

Most Brazilians hope Lava Jato will be a crossroads for change. But sadly, that's been said of most Brazilian scandals

reality. Executives at the meatpacking company JBS SA tell Brazil's high court that the multimillion-dollar bribes they paid Planalto, the Brasília presidential palace, got them dirt-cheap loans from the state development bank JBS might not have been eligible for otherwise.

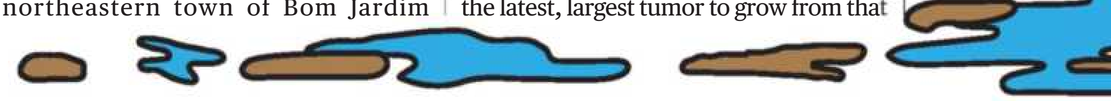
The second is staggering economic inequality. The monarchy created a caste structure (Brazil was the last country in the Americas to abolish slavery, in 1888) that kept wealth locked in the hands of the elites who were paying and receiving all those bribes and kickbacks. That squalid arrangement still exists—and it's a big reason a recent University of Brasília study shows less than 1 percent of Brazil's population still owns almost half its GDP.

And third, a monstrously bloated bureaucracy. The parasitic royal courtiers of Brazil's 19th century morphed into the parasitic civil servants of its 20th. And, like Leite, they're alive and well in the 21st, cadging outrageously inordinate salaries and pensions that drain two-thirds of all public revenue. Yet their performance hardly reflects their pay: In Brazil it takes four months of red tape just to get approval to start a business.

Granted, Moro's aggressive Lava Jato prosecution spawns hope that at least the serial impunity associated with Brazilian corruption might be ending. Ironically, the legacies of the most recent presidents are also encouraging: Lula put a dent in inequality, bringing some 40 million Brazilians into the middle class; Rousseff ordered the first real anticorruption campaign; Temer's legislative agenda is a bureaucracy buster.

But it will take a generation or more before Brazil's future finally overpowers its history, before the ghost of Dom Pedro is finally exorcised from the country. Ⓑ

Padgett is Americas editor at Miami NPR affiliate WLRN.



To read Mohamed El-Erian on central bankers' bad timing and Justin Fox on housing and sprawl, go to
Bloombergview.com

Don't Scrap Nafta, Improve It

The way to fix the trade pact is to use the template of the abandoned TPP

Donald Trump has frequently denounced the North American Free Trade Agreement, promising either to renegotiate it with extreme prejudice or terminate it altogether. On May 18 his administration served official notice that he's serious, notifying Congress that it intends to start negotiations with Canada and Mexico in 90 days.

So is Nafta as good as doomed? Maybe not. The agreement can easily be changed in ways that enlarge rather than shrink opportunities for mutually beneficial trade—and there's reason to hope that this might actually happen.

U.S. Trade Representative Robert Lighthizer's letter to Congress is far from belligerent. It proposes "modernization" of the agreement, with new provisions on digital trade, intellectual-property rights, labor and environmental standards, regulatory measures, and so on. There's no suggestion of higher tariffs. Lighthizer told reporters, "As a starting point for negotiations, we should build on what has worked in Nafta and change and improve what has not."

Good idea! And it so happens that a convenient template for most of those changes already exists in the abandoned Trans-Pacific Partnership, which the U.S. stupidly failed to approve last year. TPP's purpose was precisely to establish a modern approach to free trade by encompassing new products and services—sectors in which the U.S. has most to gain—and by making labor and environmental standards easier to enforce. A Nafta modernized along those lines would indeed be a better deal than the good one that's already in force.

Supporters of TPP, Canada and Mexico might be open to renegotiating Nafta in that way. Of course, they expected TPP to help them mainly by granting better access to Asian export markets—something that Nafta-plus can't give them. This shows the benefits to the U.S. of pursuing big multilateral trade deals, where bargains of that kind can be struck, rather than the narrow or bilateral agreements that the president says he prefers. Even so, a modernized Nafta seems achievable.

An earlier draft of the letter to Congress included several booby traps capable of spoiling this plan. In particular, it proposed tougher "rules of origin" that would require imports from Canada and Mexico to include more U.S.-made content. Insisting on ideas like that would make agreement hard to reach. The much shorter letter that was actually sent makes no mention of this.

Recently the Trump administration announced a mini-deal with China on trade—the first fruits of a larger effort to renegotiate the U.S.-China trade relationship. Small as it was and despite Trump's campaign promises, that agreement expanded trade. With luck, the Nafta renegotiation might do the same.

For the U.S., a Big Stake In Africa's Success

Focusing strictly on security issues is likely to exacerbate the causes of violent extremism

The Trump administration shows little interest in sub-Saharan Africa beyond terrorism. That's a mistake. The U.S. has a stake in Africa's broader stability and prosperity.

Since taking office, Trump has left senior Africa-policy positions unfilled and has had only brief phone conversations with three African leaders. Those calls stressed counterterrorism and security. Trump's preliminary budget for the next fiscal year squeezes U.S. aid programs in Africa more than in any other region, cutting humanitarian funding at a time of extreme need and eliminating cultural exchange and other so-called soft-power programs. His reinstatement of the rule banning funding for aid groups that "perform or actively promote abortion as a method of family planning" will also hit Africa hard.

Given the threat posed by Islamist militants across the region, the commander of U.S. defense operations in Africa is right to say "the greatest threat to U.S. interests emanating from Africa is violent extremist organizations." But he also argued for a "whole of government approach" to the high unemployment and governance failures that breed extremism.

That calls for maintaining, if not stepping up, U.S. aid to Africa—the approach that Congress wisely took in blunting the administration's cuts for the rest of this fiscal year. It also calls for building a stronger partnership in the region with Japan, which has made increased African aid and investment a priority. And geopolitical competition and old animosities should come second to working with countries such as China and Cuba on the problem at hand.

This would save and improve lives. It could pay other dividends as well—like promoting African cooperation in sanctions against North Korea. Speaking of dividends, don't forget that, despite Chinese involvement, the U.S. is still the biggest investor in Africa, a market that may be worth $6 trillion by 2025.

ILLUSTRATION BY TOMI UM


A STAR ALLIANCE MEMBER
WIDEN YOUR WORLD
TURKISH AIRLINES
EXPLORE MORE
WITH THE AIRLINE THAT FLIES
TO MORE COUNTRIES THAN ANY OTHER
TURKISHAIRLINES.COM

Movers

By Kyle Stock

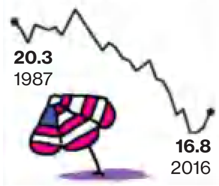
Ups

▲ Fidelity Investments said it would integrate bitcoin and other digital currencies into its suite of services for retail investors. **Fidelity also disclosed its own bitcoin-mining operation**, and that it allows employees to use it in the company cafeteria.

▲ **Huntsman and Clariant have agreed to a $14 billion merger**, as both companies seek pricing power for their industrial chemicals. Together they employ 32,000.

▲ **Stephen Colbert was cleared of wrongdoing by the Federal Communications Commission after a profanity-tinged tirade about President Trump** on May 1. *The Late Show With Stephen Colbert* also garnered first place in ratings for the recently ended TV season.

▲ On average, **Americans took 16.8 paid vacation days in 2016**, according to a survey commissioned by the travel industry. That's a slight increase from 2015, but still well below long-term levels.



▲ The Golden State Warriors became **the first NBA team to go 12-0 in the playoffs**, sweeping the Portland Trail Blazers, Utah Jazz, and San Antonio Spurs en route to the finals.

▲ **Zhejiang Geely Holding Group agreed to buy a 51 percent stake in long-struggling Lotus Cars for $66 million.** The Chinese owner of Volvo also acquired almost half of Malaysia's Proton.

▲ **The Trump administration unveiled a budget** on May 23 that calls for

$469b

in additional discretionary defense spending in the coming decade...

$4b

▲ SoftBank Group has quietly built a stake of about 5 percent in chipmaker Nvidia, which saw its stock triple last year. **SoftBank's $93 billion Vision Fund is designed to create a new herd of tech unicorns.**

▲ **Trump hired lawyer Marc Kasowitz**, who's represented him in the past, to help him navigate the investigations into Russian interference in the 2016 election. He'd been relying on White House counsel.

Downs

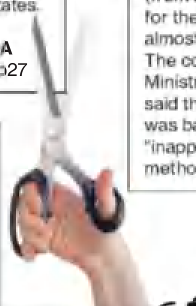
▼ ...but reduces Medicaid spending by

$610b

in part by shifting some costs to states. **The proposal is regarded as DOA in Congress.** ▷ p27

▼ French authorities raided the homes of two Argentine soccer stars, Javier Pastore and Ángel Di María in a money-laundering probe. **Investigators are also looking into whether their Qatar-owned club, Paris Saint-Germain, helped them avoid paying taxes.** The club released a statement to French media deflecting accusations.

▼ **The U.S. sued Fiat Chrysler Automobiles over 104,000 diesel-powered vehicles allegedly designed to cheat emissions tests.** The complaint is smaller in scale than Volkswagen's diesel scandal. Fiat Chrysler said it would defend itself vigorously.



▼ Shares of meatpacker JBS fell sharply after **Brazilian regulators launched an investigation into bribery involving Chairman Joesley Batista and Michel Temer**, the country's president, who's denied wrongdoing. Batista is testifying in exchange for immunity in the so-called Lava Jato scandal. ▷ p8

▼ **Moody's Investors Service downgraded China's credit rating** (from Aa3 to A1) for the first time in almost 30 years. The country's Ministry of Finance said the assessment was based on "inappropriate" methodology.

▼ California is preparing to pay $1.3 billion to fix roads after a wet winter, not including the cost of repairing **a massive landslide that cascaded across Big Sur's scenic highway on May 20.**

▼ Police in the U.K. are investigating the bombing at Manchester Arena that killed 22 people and injured 64 others, making it **the worst terror attack in Britain since 2005.**

▼ **Philippine President Rodrigo Duterte declared martial law on Mindanao**, the country's second-largest island, after government troops there clashed with Islamic militants.

▼ Tiffany & Co. shares slid by almost

9%

on May 24, after the company posted a surprising sales drop for the first three months of the year. **Wealthy tourists stayed away and new designs failed to win the affection of younger customers.**

> "Frequently, individuals who go along a treasonous path do not even realize they are along that path until it gets to be a bit too late."

▼ **Former CIA Director John Brennan, speaking to Congress on May 23**, said he was alarmed by correspondence between Russian officials and Trump's inner circle during the campaign.

COLBERT: SCOTT KOWALCHYK/CBS/GETTY IMAGES; JASON H. HARPER/BLOOMBERG/GETTY IMAGES; BIG SUR: JOHN MADONNA/AP; PASTORE: ANTHONY DIBON/ICON SPORT/GETTY IMAGES; DI MARIA: AURELIEN MEUNIER/GETTY IMAGES; SCISSORS: DJA65/ISTOCK/GETTY IMAGES; MANCHESTER: PETER NICHOLLS/REUTERS; ILLUSTRATIONS BY OSCAR BOLTON GREEN

Bloomberg Businessweek May 29 — June 4, 2017

Iran's Islamic Evolution

MAJID SAEEDI/GETTY IMAGES

▶ Both conservatives and reformists consider the ballot box an essential instrument

▶ "There may be two candidates, but they are part of the system"

Maryam was 22 days old when Iranians dethroned their king in 1979. The Islamic regime that followed—with its black and brown robes, covered heads, and dour religiosity—was "just a fact" of life, she says. "We never thought about anything different, because we hadn't seen anything else." Thirty-eight years later, that acceptance is wearing thin.

The May 19 presidential vote—and the jubilant street celebrations that followed the reelection of President Hassan Rouhani, the nearest thing to a liberal allowed onto the ballot—showed an Iranian society much changed since the days of Ayatollah Ruhollah Khomeini's Islamic revolution and unwilling to turn back. "One of my teachers used to tell us that if any strand of your hair showed, you would be hung up by it," says Maryam, who like others interviewed for this article declined to give her last name for fear of retribution. "Now you can drive around in a car with your boyfriend, and no one says anything."

Khomeini's successor, Ayatollah Ali Khamenei, and the coterie of clerics and unelected officials who hold most power in Iran see elections as a means to preserve and legitimize the Islamic revolution; many voters view them as a means to force the liberalization of the regime. Although those propositions are at odds, the shared belief that the ballot box is an important instrument has been a source of stability in a region where several recent experiments in democracy have flamed out.

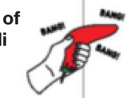
Nobody interviewed on May 20 at the Tehran street parties celebrating Rouhani's victory said they had the stomach for another revolution. Memories of the brutal crackdown that followed the birth of the Green Movement in 2009—in which Iranians challenged Mahmoud Ahmadinejad's victory in an election many believe was rigged—and of the Middle East bursting into flames in the wake of the 2011 Arab Spring uprisings have damped Iranians' appetite for revolt.

While Iran's presidential elections offer a very limited form of democracy, the quadrennial ritual has been instrumental in moving the country in a more liberal direction. "In every election aspirations and demands are expressed, and that gives them legitimacy. And what is ceded can't be taken back," says Saeed Laylaz, an Iranian economist who advised former President Mohammad Khatami.

Since a divide emerged between the regime's conservatives and reformists in the 1990s, a conservative candidate has claimed the presidency only twice:

Puerto Rico raised its sales tax, and now cash is king 17

Hot on the trail of Indonesia's chili mafia 18



in 2005, when Ahmadinejad won amid record-low turnout, and in 2009, when he was returned to power in a poll marred by allegations of massive fraud.

Rouhani's 19-point victory margin, despite rising unemployment and stagnant living standards, underscores the widespread support that opening up the economy and expanding personal freedoms enjoy across generations of voters. Turnout reached 73 percent not because the incumbent is hugely popular, but because reform-minded Iranians worried that high levels of absenteeism would hand victory to a hard-liner, turning the clock back toward 1979. The conservative cleric Ebrahim Raisi, who was widely perceived to have Khamenei's backing, drew just 38 percent of the vote.

Among those 16 million Raisi voters are many who support a more Islamicized country; many Rouhani voters also back the system. Mahdi, 28, voted for Raisi, and Iman, 25, for Rouhani, yet both regard the revolution as "sacred." The young men, who are members of the Basij, a volunteer paramilitary group, view the Islamic Republic as having a unique form of religion-infused governance in which elections play a supporting role. "There may be two candidates, but they are part of the system," Mahdi says. "Neither is operating outside this framework."

If most Iranian youth are conservative by Western standards, their outlooks and lifestyles are also becoming more diverse. Hanging out at a Tehran skateboarding park in a baseball cap and T-shirt, Arshia, 19, says he listens to rap and trap, a subgenre of American hip-hop. At home, he watches *The Walking Dead* on satellite TV. "We get our ideas from Instagram and social media," he says. "If it wasn't for them, I'd probably be like my grandfather and pray."

Arshia is unimpressed with Iran's politicians—"they're all clerics"—but he voted for Rouhani because he says life has improved under him. Skateboarding was frowned upon just a few years ago, when a policeman once stopped him riding home from school to ask if he thought he was living in America. Says Arshia: "For me the revolution represents mass stupidity. Only people who are brainwashed talk about it."

Iman, a 33-year-old born at the height of the 1980s baby boom, which has contributed to a youth-unemployment rate that averaged 26 percent last year, voted for the first time on May 19. The owner of a music store in central Tehran that sells tars, setars, and other traditional Persian instruments says he feared that a Raisi win would bring back the bans on broadcasts of Western music and limits on live concerts that Ahmadinejad instituted during his eight-year rule. Conservatives hate music, Iman says, "because if music becomes more popular, no one will listen to the imams."

Rouhani's strongest support came from the over-60s, according to a pre-election poll by the Washington-based Ippo Group. Already adults at the time of the revolution, they remember how things were before 1979, when they lived in an autocracy but had fewer religious and social restrictions. Farah, 55, who joined the post-election celebrations on Valiasr Street, the 12-mile artery that cuts through Tehran, along with her sisters, age 50 and 60, says she has "no connection" to the Islamic ideals of the regime.

All three took part in the demonstrations that set the stage for the Shah's overthrow, but they supported the secular government that initially took power. Khomeini's Islamists, who wrested control, "cheated us," Farah says. "We were looking for more political freedom, but instead we lost all our freedoms."

Maryam says her mother and five aunts were ardent, educated, young revolutionaries. "I learned a lot from them, but I missed out on other things," she says. "Like, I didn't know how to dance. I still don't." Nightclubs, like alcohol, are banned in Iran, yet private dance parties are now ubiquitous.

The revolution was quickly followed by an eight-year war with Iraq, in which at least half a million Iranians died. It was a time of sacrifice and privation, Maryam recalls, in which the only clothes available for women were dark, full-length robes. Dissent was put on hold until the conflict ended, in 1988. "We had to fight for everything, even things that today's children take for granted, like wearing colored clothes," she says. The 1997 election of Khatami, a reformist, ushered in what Maryam says was a golden age for personal freedoms. "I saw the change in my aunts," she says. "They used to be very strict, but they came to see it was a mistake."

Her own crisis of faith was triggered by the brutal crackdown on the Green Movement protests. An observant though not devout Muslim, Maryam says she gave up religion when security forces killed protesters in the streets on Ashura, the holiest day in the Shiite calendar.

Despite this history of repression, Maryam appreciates Khamenei—who's led Iran as president and then supreme leader for 36 years—for his ability to keep the country safe from the surrounding turmoil. "It is not easy," she says, "to run such a country, in such a region, with such a people." —*Marc Champion and Ladane Nasseri*

The bottom line Despite a paucity of reform-minded candidates, many Iranians are committed to voting: They see it as the best way to force change.

Election Watch

The Race to Lead South Africa Is On

▶ **The ANC chooses its presidential candidate in December**

▶ **"Investors will look for more market-friendly credentials"**

Jacob Zuma, South Africa's embattled president, still has two years left in his term, but for most business leaders, labor unionists, and even some of his own party's most venerated leaders, he can't go soon enough. The campaign to succeed him is already in full swing.

The contest will likely be decided in December, when the ruling African National Congress meets to choose a new leader, who'll also be the party's candidate in 2019 elections. The ▶

ILLUSTRATION BY SIMON ABRANOWICZ

front-runners are Deputy President Cyril Ramaphosa and Nkosazana Dlamini-Zuma, former chairwoman of the African Union Commission.

While Zuma is constitutionally barred from serving a third term, he has a vested interest in the succession race: He may be reliant on his replacement to shield him from graft charges that were dropped weeks before he became president in 2009 and which the main opposition party is fighting to have reinstated. He's thrown his weight behind Dlamini-Zuma, his ex-wife and the mother of four of his more than 20 children. "Zuma's own fate beyond 2017 hinges on who gets elected as ANC leader," says Daryl Glaser, a politics professor at the University of the Witwatersrand in Johannesburg. "As long as he's around, he'll be in a position to influence who becomes his successor."

Zuma, who joined the ANC in his youth and like Nelson Mandela served time in South Africa's infamous Robben Island prison before rising through the party's ranks, has been dogged by a succession of scandals, including a finding by the nation's top court that he violated his oath of office by refusing to repay taxpayer money spent on a swimming pool and other upgrades to his private home. Discontent with his rule contributed in August 2016 to the ANC's worst electoral performance since the end of apartheid in municipal elections. The party lost control of Pretoria, the capital, and Johannesburg, the country's economic hub, though it retained a 62 percent majority in Parliament, which elects the president.

The Deputy

Cyril Ramaphosa, 64

A lawyer by training, Ramaphosa helped negotiate an end to apartheid. He left politics in 1999 and went into business. He's served as deputy president since 2014.

Anti-Zuma sentiment reached an apex after he fired his well-respected finance minister, Pravin Gordhan, on March 31, a decision that prompted S&P Global Ratings and Fitch Ratings Ltd. to cut South Africa's credit rating to junk. Tens of thousands of people took to the streets to demand the president's ouster, opposition parties filed a motion of no confidence in Parliament, and unionists who helped him win control of the ANC in 2007 booed him at a May Day rally. Former President Kgalema Motlanthe and Nobel laureate Archbishop Desmond Tutu were among those who called on him to quit. "Zuma has been sustained by a faction of the ANC that has created a business patronage network that protects him," says Solly Mapaila, the second deputy general-secretary of the South African Communist Party, which is part of the ANC-led ruling coalition. "It is time we stand up to protect South Africa's resources and not allow him to run away with them. He must go."

The Ex

Nkosazana Dlamini-Zuma, 68

Dlamini-Zuma, a doctor, was minister of home affairs under her ex-husband. She headed the African Union Commission until March.

Zuma, 75, denies wrongdoing, accuses his critics of trying to protect the interests of "white monopoly capital," and says he'll serve out his second term unless the ANC decides otherwise. While the party's executive committee has backed him so far, an increasing number of its members have been speaking out against him.

Dlamini-Zuma, 68, remains on good terms with Zuma, whom she divorced in 1998. A medical doctor by training, she's served as minister of health and minister of home affairs, among other posts. Despite those qualifications, her close ties to Zuma mean she risks being seen as his proxy, says Mcebisi Ndletyana, an associate professor of political science at the University of Johannesburg. Campaigning for the ANC's top job, Dlamini-Zuma has supported Zuma's call for "radical economic transformation" and land redistribution to address the racial inequality that persists 23 years after apartheid's end. In addition to the president's backing, she has the endorsement of the ANC's women's league and the premiers of three rural provinces.

Ramaphosa, 64, whom Zuma appointed deputy president in 2014, publicly disagreed with his boss for the first time after Gordhan was unilaterally fired. On the campaign trail, he's been speaking out against corruption and has won the backing of the 1.8 million-member Congress of South African Trade Unions and ANC leaders in Northern Cape province.

A lawyer, Ramaphosa helped negotiate a peaceful end to apartheid and draft South Africa's first democratic constitution. After losing to Thabo Mbeki in the contest to succeed Mandela as president in 1999, he started an investment company, amassing a fortune before returning to politics in 2012 as the ANC's deputy leader.

A Bloomberg survey of 26 analysts in February showed that the succession race was too close to call. A victory for Dlamini-Zuma would bode ill for investor confidence, warns Ian Bremmer, president of Eurasia Group, a global risk advisory firm. "Ramaphosa is the only person out there who reflects a desire to get towards sustainable economic development and working with the business community," he says.

Uncertainty about Zuma's leadership and who will succeed him is weighing on the economy. The International Monetary Fund projects growth of 1 percent this year, an improvement on last year's 0.3 percent, but still well short of the more than 5 percent the government is targeting to address a 26.5 percent unemployment rate.

Investor unease with the country's trajectory has only been partially reflected in the financial markets. Foreign portfolio managers dumped a net 55.4 billion rand ($4.3 billion) in South African equities from the start of the year to May 23, while purchasing 37.8 billion rand in bonds. The rand was up 5 percent against the dollar over the period. "The resilience of rand assets thus far is a testament to the lack of attractive alternative investments, rather than affirmation of Zuma's stewardship of the country," says Phoenix Kalen, director of emerging-markets strategy at Société Générale SA. "Investors will look for more market-friendly credentials in a successor."

Saif Malik, Standard Chartered Plc's global head of banking for Africa, is unperturbed by the messy politics. "Many parts of the underlying economy are still quite robust," he says. "I think it's too soon to say suddenly everything has fallen off a cliff."

The country's competitive advantages include Africa's best transport

FROM TOP: RAJESH JANTILAL/AFP/GETTY IMAGES; ANTONIO MUCHAVE/SOWETAN/GALLO IMAGES/GETTY IMAGES links and energy supply, a financial system the Geneva-based World Economic Forum ranks among the world's best, and a trove of untapped minerals. The country also consistently ranks as Africa's top destination for foreign direct investment in an annual survey conducted by accounting firm EY. Last year, Beijing Automotive International Corp., a Chinese state-owned carmaker, agreed to build an $829 million plant, the biggest auto-manufacturing project in South Africa in four decades.

Jeff Radebe, the ANC's head of policy, expects the political noise to quiet down after the December party conference and says the government remains committed to working with business and reattaining an investment-grade credit rating.

Gordhan, the former finance minister, warns that there needs to be better alignment between politics and economics if the country is to set itself back on the right path. "We must make tough leadership choices," he says, "and give the country the direction that it requires." *—Mike Cohen, with David Malingha Doya and Paul Vecchiatto*

The bottom line The contest for leadership of the ANC pits a business-savvy deputy president against President Zuma's ex-wife.

Fiscal Policy

Can Puerto Rico Corral Its Tax Dodgers?

- **About one-third of economic activity is off the books**
- **"It's a huge contributing factor to why they're in the debt crisis"**

XAVIER GARCIA/BLOOMBERG; DATA: COUNTRY ESTIMATES ARE FROM F. SCHNEIDER'S "THE SIZE OF THE SHADOW ECONOMY," 2017

On Avenida Borinquen in San Juan, you can buy a DVD of *La La Land* or *Moonlight* for $2. Cash only. It's the same at the lunch counters in Barrio Obrero, a gritty district in the Puerto Rican capital. Ask if you can pay for your *mofongo* with a credit card, and you get the same answer: There's an ATM down the street.

Economists estimate that about a third of Puerto Rico's goods and services—as much as $21 billion—is produced off the books. This underground economy deprives the government, which is seeking protection from creditors in the largest municipal bankruptcy in U.S. history, of income from sales and income taxes. "It's a huge contributing factor to why they're in the debt crisis," says Andrew Trahan, a country-risk analyst for BMI Research in New York.

The phenomenon, by its very nature, is hard to measure—but its causes are clear. More than 45 percent of Puerto Rico's population lives below the poverty level. The unemployment rate is higher than 11 percent. Many of those without a job get by *chiripeando*, slang for scrounging together a small under-the-table income from multiple sources.

Another contributing factor: The 11.5 percent sales tax is the steepest in the U.S. Ducking it with cash-only trades is routine for businesses of all sizes, says Miguel Santiago, 80, the owner of a commercial building in San Juan's Santurce neighborhood. Its occupants over the years have included a bar, a roofing-supply company, and an auto mechanic shop. "What they can evade," he says, "they will evade."

Francisco Tirado's hair salon on Avenida Borinquen doesn't have a machine to process credit cards, and he doesn't trust banks. But the business owner says he pays his fair share to the tax collector. "It's just easier to work with cash." Jose Ortiz, who's been selling seafood, including sea bass and sawfish, in the neighborhood for 15 years, says "there are people around here who don't pay a thing." The fishmonger says he's on the up and up but doesn't blame those who aren't.

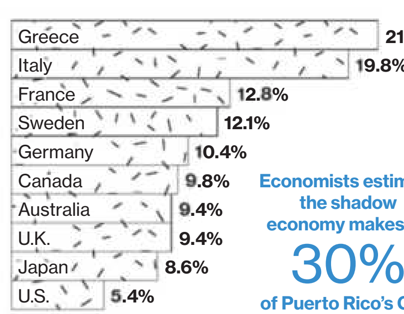
Puerto Rico has tried for years to figure out how to extract revenue from the informal economy. Authorities sometimes conduct raids on businesses to catch dodgers; Tirado says they periodically make the rounds to check that paperwork is in order.

The government hasn't had the will to take drastic steps, says Gustavo Velez, an economist who runs the consulting firm Inteligencia Económica in San Juan. "The political costs are too much." Now the island, a U.S. territory for 100 years, faces pressure to take action as bondholders make demands to Laura Taylor Swain, the judge in the $123 billion bankruptcy case. A spokeswoman for the office of Governor Ricardo Rossello didn't respond to a request for comment.

Hiking the sales tax from 7 percent two years ago made the problem worse, says Manuel Amador, who owns a ▶

Under the Table

The shadow economy as a share of gross domestic product in selected countries, 2017 projections



Economists estimate the shadow economy makes up **30%** of Puerto Rico's GDP

◀ shop that embroiders corporate logos on clothes and custom-makes shirts and jackets. The tax now is so high, he says he's been surprised in the past year at how many customers have told him they don't want to use cards or checks. "These are significant clients crying to me, 'Please, I will pay you in cash.'"

Tirado, the barber, says there's no incentive to pay taxes. "The government doesn't stop charging, but what they do doesn't yield any benefits." —*Patricia Laya and Jonathan Levin, with Steven Church*

The bottom line High unemployment and a steep sales tax encourage an underground economy that deprives Puerto Rico of revenue.

Inflation

Justice Served With a Dash of Chili

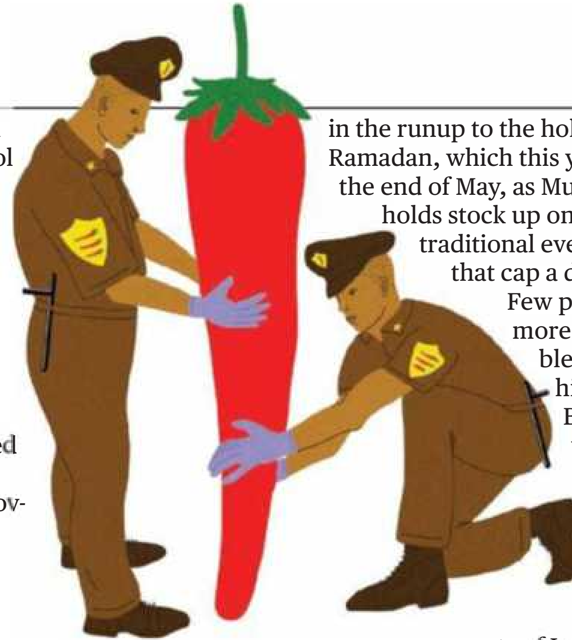
▶ **Indonesia's central bank wages battle against price-fixing cartels**

▶ **"It was the mafia running the distribution chain"**

Chilies are just one of the 859 items that make up the reference basket of goods and services Bank Indonesia uses to track consumer price inflation. But because they're an integral ingredient in the country's cuisine, a sudden spike in the price of the eye-watering red peppers can set off alarms at the central bank. "Indonesians must have chili every day," says Suharman Tabrani, deputy director of the Balikpapan office. "We eat chili for breakfast."

So when in February the spice hit a record 200,000 rupiah ($15) a kilogram—three times the normal level—in Balikpapan, an oil boomtown on the southern part of the island of Borneo, the bank's Regional Inflation Control Team swung into action. A kind of SWAT unit that includes police and officials from other ministries such as fisheries and agriculture, the group has more than 500 field divisions scattered across Indonesia's 34 provinces. They feed information to the bank's headquarters, where the data are used to assess the economy and help craft monetary policy.

To crack the chili case, the head of the Balikpapan inflation control unit, Sayid Fadli, enlisted the local police and the nation's competition watchdog, the KPPU. The investigation quickly widened from East Kalimantan province in Borneo to the island of Java, home to the capital, Jakarta, and more than half the nation's population. It revealed that a group of wholesalers had banded together to manipulate the price of the peppers by selling supplies destined for domestic markets to companies making packaged foods. "It was the mafia running the distribution chain," Fadli says. The dragnet produced four arrests.



Cartel-like behavior affecting the cost of staples such as chilies is a "serious economic problem" in Indonesia, says Brigadier General Agung Setya, director of the special economic crimes unit at the Indonesian National Police, which didn't disclose the names of those arrested or the companies involved. Unreliable harvests, restrictions on food imports, and the difficulty of moving produce around an archipelago of 7,000 inhabited islands, many with poor infrastructure, make smuggling and price manipulation constant hazards. President Joko Widodo has instructed government agencies to crack down on food racketeers, says Akhmad Muhari, who heads the Balikpapan office of the competition watchdog. "Pak Jokowi said, Stop the cartels," says Muhari, using the president's nickname.

While living standards have improved in the past two decades, half of Indonesia's 260 million people still live below or marginally above the official poverty line, according to the World Bank, making them especially vulnerable to sharp increases in food prices. Inflation jumped to 4.2 percent in April, the highest in more than a year, and close to the 5 percent that's the outer limit of the central bank's target. Things may get worse in the runup to the holy month of Ramadan, which this year begins at the end of May, as Muslim households stock up on food for the traditional evening feasts that cap a day of fasting. Few places are more susceptible to price hikes than Balikpapan, which imports most of its food, including chilies, from other parts of Indonesia. The area has been battered by slumping prices for oil and coal, its main products. While the nation's economy grew 5 percent in 2016, East Kalimantan's shrank.

Because of such regional disparities, Bank Indonesia wages its fight against inflation on multiple fronts, like a guerrilla war. Occasionally, bank staff have to get their hands dirty. On Java, they harvest tomatoes in the hills above Bandung and have deployed owls to ward off rats from fields in Banyuwangi. In Sumatra, they help farmers near Medan grow rice. Such activities are designed to dampen inflationary pressures by expanding food supplies.

In Balikpapan, civil servants distribute chili seeds, and the bank's office in the city has its own plant. Even the army cultivates the peppers, "because there is no war," jokes Tabrani, who's become known in the city as Pak Cabe, or "Mr. Chili."

Chilies aren't the only staple that's attracted the attention of the bank's competition watchdog. Beef, poultry, and garlic have also been investigated for price manipulation, according to KPPU's Muhari. Last year, 32 cattle importers were found to be withholding stock from being sent to slaughter. "Right now we are looking into sugar," he says. "I can't talk much, but we are investigating." —*Karlis Salna*

The bottom line Indonesia's central bank staff is on the front line of the fight against food inflation, smashing cartels and helping boost crop yields.

Edited by Cristina Lindblad
Bloomberg.com

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Bloomberg Businessweek May 29 — June 4, 2017

Ford Has Some Catching Up to Do

▶ It's tapped outsider Jim Hackett as CEO to prepare for the industry's digital and driverless reboot

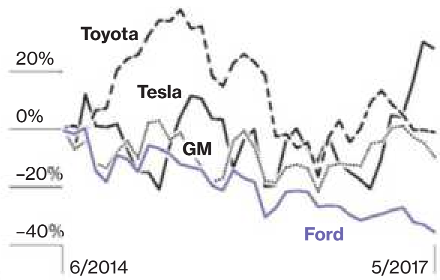
▶ "I've made it clear to everyone that everything is on the table in terms of what do we need"

Even as the long bull run in global car sales begins to wane, no one can deny that the past few years have been good times for most automobile makers. Freer-spending consumers and demand for SUVs in North America and China helped drive the industry to a seventh consecutive year of record global sales in 2016. **General Motors Co.**—less than a decade after it exited bankruptcy—and **Daimler AG** logged the best earnings in their histories last year. Even shareholders of onetime laggard **Fiat Chrysler Automobiles NV** got a boost from the improved environment, with its stock cranking out a total return of about 80 percent from late 2014 to May 19.

Yet despite remaining solidly profitable, **Ford Motor Co.** hasn't exactly been running in high gear. The No. 2 U.S. automaker's shares fell 32 percent in the three years ended May 19, dropping the company's market value to below that of upstart electric vehicle maker **Tesla Inc.** Ford last fall received a public tongue-lashing from Donald Trump over its plans to move some small-car production to Mexico and ultimately canceled plans to build a factory there. Its 2016 earnings sank 38 percent. And in mid-May the company announced a program to cut 1,400 salaried employees in a bid to show investors that it's controlling costs.

The weight of all that news came tumbling down on Chief Executive Officer Mark Fields, who led the company during the big stock slide. On May 19, Fields was ousted by Executive Chairman Bill Ford because of the disappointing results and a view that the company needs to increase efforts to keep pace as the industry is transformed by electric vehicles, driverless cars, and both ride-hailing and ride-sharing services that could result in fewer sales in the not-too-distant future.

Ford's Stock Slide



"We need to speed up our decision-making, we need to invest our capital where we can create value, and we have to move decisively to address underperforming areas," says Bill Ford.

He's given the task of remaking the company for the digital age to Jim Hackett, a 62-year-old outsider who spent most of his career running a furniture business. Yet the former CEO of **Steelcase Inc.** has a reputation as a persuasive visionary who's comfortable in the high-tech world—and who's also willing to take a scalpel to a workforce. In his 20 years as Steelcase's CEO, Hackett cut 12,000 jobs and shifted the company from simply making furniture to reenvisioning how people work. He's widely credited with remaking the dreary office cubicle. Now, after three years on Ford's board and a year running its tech-driven Smart Mobility unit, he's responsible for leading the automaker through the same kind of cultural revolution.

Imax brings virtual reality to the mall 22

Food makers in China bring home the (foreign) bacon 22

Shoes that move the masses 24

CEO Profile

Jim Hackett
Born London, Ohio
Age 62
Education University of Michigan
Experience Served 20 years as CEO of Steelcase Inc., refocusing it for the open-office age. After retirement, he became interim athletic director at his alma mater, where he hired football coach Jim Harbaugh

On working with family shareholders:

"You... can have no more committed shareholders because these folks put most of their net worth in"

"Jim took a company that defined itself as a furniture maker, and said, 'Let's imagine the future of the workplace, let's build our company around that,' " says Bill Ford. "Of course they still make furniture, but in doing so he grew the company and took them to first in the industry."

Hackett will need all his powers of persuasion to convince commuters that Ford has a better idea for self-driving cars and ridesharing than the Silicon Valley crowd. Both Wall Street and many consumers are increasingly enamored with Tesla's vision of electricity as the clean power source of future vehicles. Yet besting buzz-driven Tesla isn't the only challenge in EVs. GM already has a long-range electric vehicle on the market—the Chevy Bolt, which debuted last year—and Ford is still years away from fielding a similar car.

Likewise in ride hailing, **Uber Technologies Inc.** is far bigger and more global than Ford's own Chariot shared-van service, which plans to operate in only 11 cities by yearend. GM last year invested $500 million for a 9 percent stake in **Lyft Inc.**, the No. 2 ride-hailing service in the U.S. And in autonomous vehicles, Ford says it won't have a fully driverless vehicle on the road until 2021, but Waymo, **Google**'s driverless technology unit, is already letting the public sign up to use its autonomous hybrid Chrysler Pacifica minivans.

In an era when emerging markets—especially China—have become the holy land for GM and big foreign manufacturers such as **Volkswagen AG** and **BMW**, North America accounted for about 66 percent of Ford's first-quarter revenue. While GM has exited five underperforming markets since 2015, Ford has been slower to pull the plug. The automaker's South American region, for instance, has operated at a loss for 14 consecutive quarters, racking up $3.4 billion in red ink since the first quarter of 2013.

While Hackett cautions that it's too soon to discuss specific changes, he says he's not afraid to shake things up. "I've made it clear to everyone that everything is on the table in terms of what do we need to get to where Bill and I and the board believe we need to be," he says.

Holes in the company's lineup are one thing that will likely command his attention early on. Despite sport utility vehicles and truck models being in greater demand in the U.S. for years, the company didn't announce until January that it would revive the Ranger midsize pickup and Bronco SUV models. Dealers will have to wait until 2020 for both to be in the lineup.

Ford's profits have been suffering relative to GM's because the company hasn't invested as much in larger SUVs, says Eric Noble, president of consultant CarLab. GM dominates the market with models including the Cadillac Escalade, Chevrolet Tahoe, and Suburban. "They have given up tremendous market share almost exclusively to GM," says Noble, who estimates GM makes about $20,000 apiece in profit on its big SUVs. Ford's "neglect" of the Expedition and Lincoln Navigator, which are being redesigned this year, is "almost unforgivable at a time when SUVs are selling so well."

Where Ford still rules is in trucks. Its F-Series pickup is the company's top-selling model, accounting for about 40 percent of its U.S. revenue as calculated using base-level prices, Bloomberg Intelligence estimates. And with an average sale price of more than $48,000 per vehicle, the F-Series likely accounts for an even bigger share of the automaker's profits, especially since some of Ford's small-car models are believed to be barely profitable. Still, Hackett won't say whether jettisoning small vehicles is in the cards. "Getting out is a big choice," he says. "So I would tell you [I'm] not ready to make that decision today."

Fields came under pressure from Ford's board in May before an annual shareholder meeting, where investors excoriated management for a poorly performing stock price. Hackett has a reputation for acting quickly and a strong relationship with Bill Ford, who was impressed with him during a trip they took to Silicon Valley last year. The executive chairman's family exerts power through a special class of stock and is involved in the company's public communications, so the support of the namesake family is key for a Ford CEO.

That's a similarity between Ford and Hackett's previous employer, Steelcase. At the furniture maker, the descendants of the founding families still have representatives on the board and control a majority of the voting rights. At Ford the family has 40 percent voting control, with two members sitting on the board.

"You actually can have no more committed shareholders because ▶

FROM LEFT: PHOTO ILLUSTRATION BY 731; PHOTOS: COURTESY WAYMO; COURTESY FORD; DATA: COMPILED BY BLOOMBERG these folks put most of their net worth in the business," Hackett says of the familial nature of both boards. "Their interests are so aligned with everybody else. So I love that." —*Keith Naughton, Jeff Green, and Jamie Butters*

The bottom line Ford, whose shareholders missed out on much of the recent good times for automakers, is turning to an outsider as CEO.

Entertainment

Can VR Find a Seat In the Parlor?

▶ **Imax's new centers hope to augment—not supplant—films**

▶ **Attractions "are going to be the first way many consumers see VR"**

When Nic Wehmeyer, an associate creative director from Brooklyn, visited Los Angeles recently, he was determined to check out the future of entertainment. But rather than tour one of the big movie studios, he headed to a nondescript building with blacked-out windows across the street from trendy L.A. mall the Grove. There, in **Imax Corp.**'s first pilot virtual reality center in the U.S., he and his buddies had their senses engaged in ways no conventional film can match. "The multiplayer game was by far the most enjoyable," says Wehmeyer. "The immersive, shared experience was a lot of fun and something I would totally do again."

Imax, best known for its high-tech movie screens, hopes others will feel the same at its new VR parlors. For $1 a minute, a group of friends can experience flight as eagles above a deserted Paris or dive into a world of criminals as assassin John Wick from the movie franchise of the same name. Ticketing is similar to most theaters: You can book time slots in advance online or purchase them at the center.

Imax says the initial reception to VR content—often around 10 minutes—at the Imax VR center in L.A. has been so enthusiastic that it's increasing the number of locations, to 11 from 6, for the rollout. On May 26 the company will open its second VR parlor in the U.S. at a multiplex in Manhattan. A total of five U.S. centers are planned, as well as locations in Tokyo; Shanghai; Toronto; Manchester, England; the Middle East; and France. "The idea of the pilot phase was to pick a variety of locations, with different characteristics so we could ascertain what kind of areas this worked in and didn't," says Imax Chief Executive Officer Richard Gelfond. "It's really a learning phase."

Technology and entertainment companies are racing for a slice of the virtual-reality business that analysts at Goldman Sachs Group Inc. estimate could generate $80 billion in revenue by 2025. With U.S. movie market growth stagnating, exhibitors are looking for new ways to widen their audience.

Consumers have been slow to embrace the expensive hardware necessary to enjoy virtual reality at home, which can cost $1,600 for the Oculus VR bundle of a headset and a computer powerful enough to run the games. VR content is also expensive, and there's a limited amount of it available. "One of the catalysts was that it was getting less traction in the home than was expected," Gelfond says. "We thought that might be an opportunity."

In the first four months of 2017, the L.A. center registered more than 25,000 admissions and an average revenue of $15,000 per week. It estimates that 100 locations could contribute about $25 million in annual revenue.

Imax recently cut a deal with **Time Warner Inc.**'s Warner Bros. for VR content linked to future DC Comics Inc. superhero movies such as *Justice League* and *Aquaman*. For a time, the content will run exclusively in the centers.

Unlike in L.A., the center in New York will give Imax feedback on how consumers react to a facility next to a theater. "You walk out of a movie all excited about having seen *John Wick* or *The Avengers*, and you can walk right next door and continue that by being immersed in the experience," says Eric Wold, an analyst at B. Riley & Co.

Given the novelty of the experience, he says some in the industry think Imax's pricing may be too low.

Rupert Murdoch's **21st Century Fox Inc.** has been one of the most active companies to develop virtual-reality projects linked to features from its movie studio. Its most recent, *Alien: Covenant in Utero*, is a virtual-reality journey released on April 26, based on the prequel *Alien: Covenant*. It was available on Facebook Inc.'s Oculus and Samsung Gear headsets.

Fox has also invested in Dreamscape Immersive, another location-based VR experience, which will open its flagship venue at Westfield Century City mall in L.A. later this year. Instead of being tethered to a computer, as users at most Imax center games are, Dreamscape customers can walk inside a virtual space. The mall operator and Steven Spielberg are among the investors.

"The location-based attractions that are developing all around the world are going to be the first way many consumers see VR," says Salil Mehta, president of FoxNext, the Fox division that oversees its VR ventures. "We see this as the beginning of something that will revolutionize the way stories are told." —*Anousha Sakoui*

The bottom line The cost of equipment has been a drag on consumers' embrace of virtual reality. So Imax is piloting VR centers.

Your Entertainment Options

Price per person, per hour

DATA: BOX OFFICE MOJO, ULTRAZONE LASER TAG, THRILLIST, CLAUSTROPHOBIA, TICKETMASTER

Food

China's Foodmakers Try New Growth Recipes

▶ **Local processors are mimicking Western rivals' focus on quality**

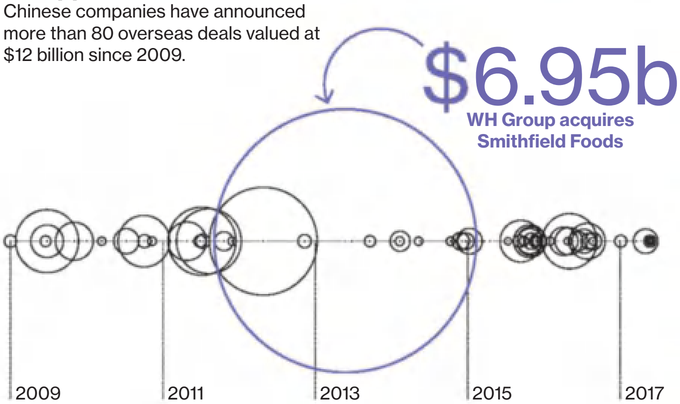
▶ **"They understand the fears and are going as high-end as possible"**

China's $226 billion packaged food market has become so big that domestic companies such as state-owned behemoth **Cofco Corp.** and meat producer **WH Group Ltd.** have joined the ranks of the world's biggest foodmakers. But getting many Chinese consumers to embrace local products remains a tough sell. In a nation where even eggs and milk can be deadly fakes, consumers have become cynical about homegrown

Chinese demand for pork keeps things busy at a WH Group plant that opened in 2015 and produces American-style products

An Appetite for M&A

Chinese companies have announced more than 80 overseas deals valued at $12 billion since 2009.



DATA: COMPILED BY BLOOMBERG

food and are willing to pay a premium for foreign brands they assume contain better ingredients and have passed tougher safety checks.

The prospect of charging more is pushing players such as WH Group and **Bright Dairy & Food Co.** to look abroad for ingredients or product lines targeted at quality-minded mainland consumers. Chinese food companies have announced more than 80 overseas deals valued at $12 billion since 2009. In 2008 six people died from drinking melamine-laced concoctions sold as milk. "The food companies have been smartest in moving up the value chain," says Shaun Rein, managing director of China Market Research Group. "They understand the fears and are going as high-end as possible."

The biggest deal was in 2013, when WH Group acquired Virginia-based Smithfield Foods Inc., the world's largest pork producer, for $6.95 billion. Smithfield owns Armour salami and Eckrich sausages, among other labels. Having U.S. brands gives WH Group a way to appeal to upscale consumers in China, where residents eat half the world's pork, says Kenneth Sullivan, chief executive officer of Smithfield.

Chinese per capita pork consumption is 39.4 kilograms (87 pounds) a year, and domestic hog farms can't keep up. U.S. pork exports to China and Hong Kong rose 61 percent last year. "There is a bit of a halo effect with the idea that the U.S. has very high food safety standards and a high food safety record," Sullivan says. As a result, Smithfield is considered a premium brand in China, with prices at least 20 percent higher than WH Group's Chinese labels.

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Pounds per capita annual pork consumption in China

Smithfield can't export sausage, ham, and bacon to the mainland from its roughly 30 U.S. factories, because China prohibits imports of processed meat. So WH Group in 2015 opened a factory in Zhengzhou that will produce 30,000 metric tons (66.1 million pounds) of those meats when it reaches full capacity next year. "The whole idea was to incorporate the everyday protocols that we have in the U.S.," Sullivan says.

Inner Mongolia Yili Industrial Group Co. bid $850 million for Danone SA's Stonyfield brand in May, but one of the most active acquirers of foreign food is state-owned Bright Food Group Co. In 2015 it bought control of Israeli dairy Tnuva Food Industries Ltd. in a $2.16 billion deal. Other Bright units bought New Zealand dairy Synlait Milk Ltd. and Manassen Foods Australia Pty. In December, **Shanghai Maling Aquarius Co.** bought half of New Zealand meat cooperative **Silver Fern Farms Ltd.** "Walking out of China to use global food resources and the global food market can help us bring the best food technology into Bright Food, and can also be a channel to push out Bright Food's domestic products to the world," spokesman Pan Jianjun wrote in an email. ▶

FROM LEFT: COURTESY IMAX (1); QILAI SHEN/BLOOMBERG (2)

◀ **Tingyi (Cayman Islands) Holding Corp.** is trying a China-grown solution. Its Master Kong brand, which accounts for half the 3.4 million tons of instant noodles eaten annually there, saw revenue slide 10 percent in 2016, as middle-class consumers looked for healthier options. So Tingyi is pouring millions into customer education, food science, sponsorships, and *Kung Fu Panda* movie shorts to convince diners its snacks should remain a diet staple.

Tingyi has built a 500 million-yuan complex in Shanghai, where researchers are working with Japanese partners such as **Itochu Corp.** to develop chemical-free flavorings and palm oil-free noodles. It also opened mini theme parks alongside its plants in Hangzhou and Tianjin. The goal: Hook youngsters with train rides and video games featuring animated pots of instant noodles while their parents see its pristine food manufacturing lines. "We want to grow up, and 'premium up,' with our Chinese consumers," says Richard Chen, Tingyi's chief technology officer. "In a couple of years we will be able to reach the gold standard, which is when you can't tell our noodles apart from what you would get in a noodle shop." —*Rachel Chang and Bruce Einhorn*

The bottom line Local companies are hungry to expand their share of China's $226 billion packaged food industry.

Nationalism

Buying Syrian Shoes To Bolster Putin's Pride

▶ **A Moscow retailer trumpets its footwear's origins: Conflict zones**

▶ **"Can't decide which would be more patriotic to buy"**

After Turkey shot down a Russian warplane near the Syrian border in 2015, Andrey Pavlov was angry. So the former soldier did what any patriotic Moscow businessperson might, and stopped buying from Turkey. Then, in a twist on the kind of consumer nationalism championed by Donald Trump, Pavlov hit on a way to make up for the lost supply while appealing to consumers eager to show their support for Russian President Vladimir Putin: Purchase footwear for his chain of 350 shoe stores from Crimea and Syria. The goal was "to help a fraternal nation," Pavlov says over green tea in his office, adjacent to one of his Moscow stores.

Pavlov is tapping into nationalist sentiment fueled by Putin's annexation of Crimea from Ukraine in 2014 and by Russia's entry into Syria's civil war 18 months later to prop up the regime of Bashar al-Assad. Pavlov's chain, called **Zenden**, has created buzz on social media with "Made in Syria" and "Made in Crimea" shelves in its stores, helping to lift revenue at the end of a recession that's bankrupted two rivals. To prove his point, a smiling Pavlov whips out his phone to show a photo of side-by-side Syria and Crimea shoe displays a customer has just posted on Instagram, with the caption "Can't decide which would be more patriotic to buy."

Finding suppliers in Syria was tough after six years of war that has displaced half the population and left more than 400,000 dead. Pavlov says associates with contacts in the Middle East put him in touch with manufacturers in the coastal province of Latakia, where Russia maintains an air base. An initial shipment of 10,000 pairs of women's sandals in several different designs arrived by truck at Zenden's warehouses via Iran and Azerbaijan last winter. He says the leather sandals, which retail for about $15 a pair, are selling well. "The 'Made in Syria' tag caught my attention," says Irina Ershova, a marketing manager who bought a pair at a Zenden shop in northern Moscow. "But it's the value for money that won me over."

Pavlov declined to give many details about Zenden's relationships in Latakia, fearing his suppliers could be forced to make boots for Assad's army. But he intends to expand his ties to Syria, where he says quality is high and costs are lower than in China, which supplied almost 80 percent of the 8.5 million pairs of shoes Zenden sold last year. (Turkey accounted for about 7 percent before he stopped buying there.) The logistical and political hurdles have been greater than he anticipated, so he's had to scale back plans to order some 350,000 pairs of summer shoes from Latakia.

He's more bullish on Crimea, where tax breaks aimed at deepening the region's ties to Russia make it cheaper to produce there than elsewhere in the country. Zenden made 80,000 pairs of shoes at a rented facility in the Black Sea port city of Yevpatoria last year. Pavlov says volume will more than double when a 1 billion-ruble ($18 million) factory he's building there opens at yearend. He expects total sales to jump to 12 million pairs this year, boosting revenue by about 30 percent, to 28 billion rubles, as he expands into Siberia and opens about 50 new stores. "The low-budget shoppers targeted by Zenden are more inclined toward patriotism," says Galina Kravchenko, an analyst at researcher Fashion Consulting Group in Moscow.

Pavlov got his start in business buying Big Macs from a McDonald's near Luzhniki, Russia's largest outdoor market, stuffing them into shoe boxes, and hawking them to vendors for twice what he paid. He soon moved on to distributing shoes, setting up a footwear wholesaler to supply many of the people he met selling burgers. In 1997 he launched Zenden. Pavlov, a lifelong soccer enthusiast, wanted to create a foreign-sounding brand, so he adopted Dutch midfielder Boudewijn Zenden's name.

The makers of Zenden shoes are marketing products for patriotic Russian consumers

The appeal to patriotism is smart, says Ivan Fedyakov, who runs InfoLine, a market researcher in St. Petersburg. He says the penalties the U.S. and the European Union imposed over Ukraine sharpened the "friend or foe" attitude of many Russians. "Consumers are ready to support goods from Russia and its political allies with their rubles," Fedyakov says. Pavlov doesn't disagree, but he says the stir created by his Syrian and Crimean campaigns would be worthless without competitive pricing. "I don't know of any place," he says, "where these sandals could be produced at a lower cost than in Syria." —*Ilya Khrennikov*

The bottom line Shoe retailer Zenden says an appeal to Russian patriotism will help boost sales this year by 30 percent, to 12 million pairs.

Edited by James E. Ellis and David Rocks
Bloomberg.com

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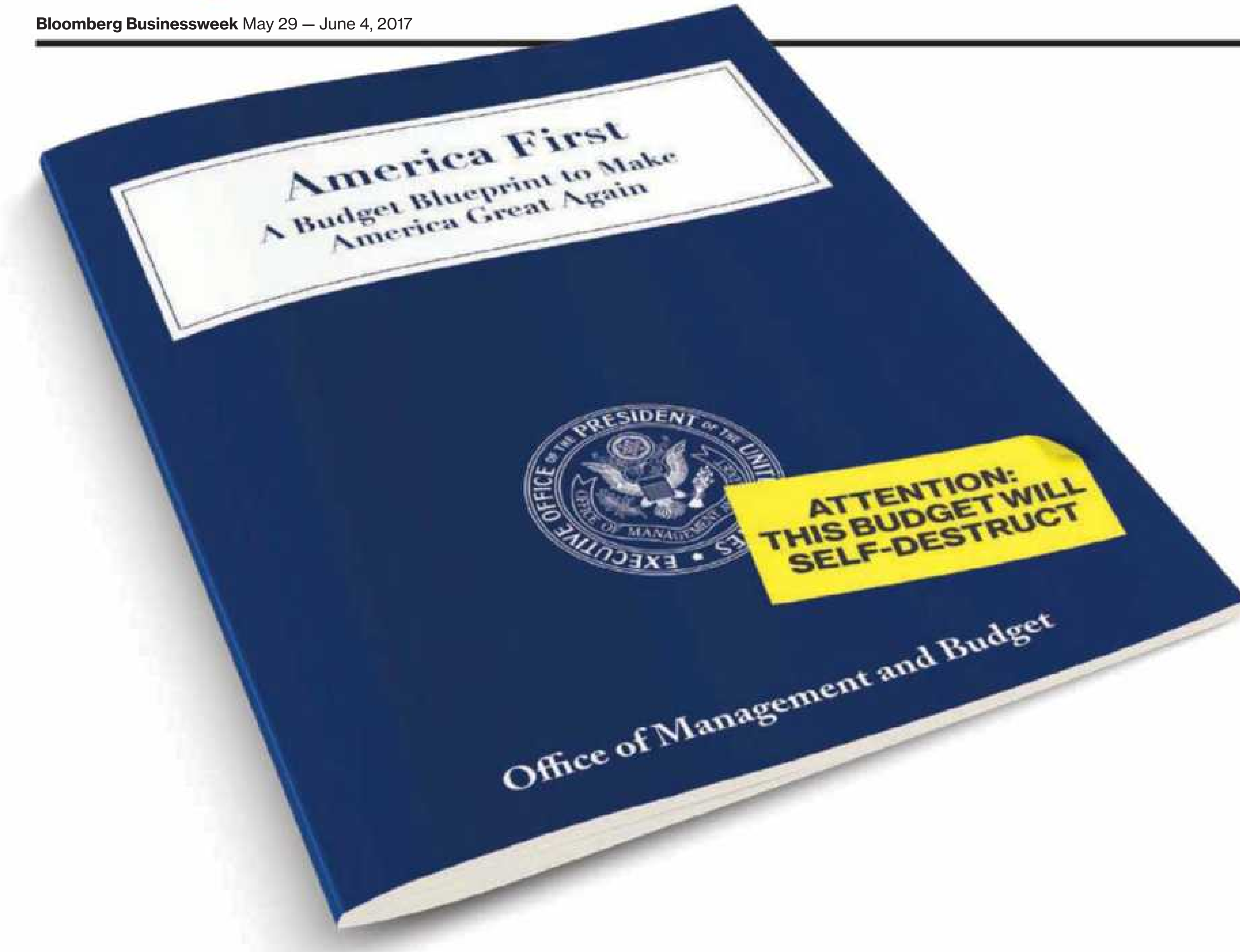
A doctor's advice the GOP may want to heed 28

Whoops! A drug testing rule that backfired 30

Does the steel industry need this sledgehammer? 31

Bloomberg Businessweek May 29 — June 4, 2017



▶ Trump seeks to score political points by dropping a supposedly balanced budget on Congress

▶ "We know the president's budget isn't going to be passed as it is"

The most common reaction to the austere budget released by the Trump administration on May 23 is that it can't possibly get past Congress. President Donald Trump himself may be fine with that. In its current form, his budget looks more like a sop to the far-right wing of the Republican Party—cheap currency to buy the goodwill of a crucial part of his base.

Trump has already scored a meaningful political victory—meaningful to him, at least—by eliciting the right responses from the right people. Americans for Limited Government praised the plan as "sober," while former Treasury Secretary Larry Summers, a Democrat, called it "simply ludicrous."

Budget Director Mick Mulvaney, a founding member of the House's conservative Freedom Caucus, brags the plan would wipe out the entire budget deficit and produce a small surplus by 2027, even while spending more on the military and border control and protecting Medicare and the retirement portion of Social Security. That requires leaps of faith both economic and political.

Economically, the proposal assumes 3 percent average annual growth beginning in 2020—way above the 1.8 percent average predicted by the nonpartisan Congressional Budget Office—partly fueled by tax cuts. Until now, the administration had been saying extra growth would simply offset revenue losses from lower tax rates. Now it's claiming the tax plan itself will be revenue-neutral and the growth it stimulates will produce more tax revenue to close deficits.

Politically, the plan whacks a hornet's nest by cutting Medicaid, food stamps, Social Security disability payments, student loans, farm subsidies, and federal employee benefits. It also includes a "two-penny plan" that cuts an additional 2¢ each year from every $1 of nondefense discretionary spending, i.e., everything from federal courts to the Department of State to the Environmental Protection Agency.

Among those most harmed by the budget cuts would be a lot of people who voted for Trump. "If the Trump ▶

ILLUSTRATION BY 731

◀ budget were to be implemented as he's proposed it, there would be a sense of betrayal in Trumpland that would be extraordinary," says Stan Collender, executive vice president of Qorvis MSLGroup, a Washington-based communications firm.

Fortunately for Trump, his budget doesn't stand a chance on Capitol Hill. And not just because of Democrats. "We know the president's budget isn't going to be passed as it is," John Cornyn of Texas, the No. 2 Senate Republican, told reporters. North Carolina Representative Mark Meadows, chairman of the Freedom Caucus, which favors deep spending cuts, told the *New York Times*, "Meals on Wheels, even for some of us who are considered to be fiscal hawks, may be a bridge too far."

The big picture is this: Trump can afford to use his first budget as a purely political document, because Congress, not the White House, is in charge of taxing and spending. That's always been true, but it matters even more today, because Trump's ability to lead has been diminished by his own erratic personality, a handful of unforced errors, plus multiple investigations into possible Russian meddling in the presidential election. Never has the old saw, "the president proposes, Congress disposes," been more accurate.

GOP congressional leaders know they'll be judged harshly by history—and midterm election voters—if they fail to pass important legislation while their party controls both the White House and Congress. Republicans' majority in the House is just off the high the party reached in the 2014 election, which was the most since 1947. But the time for action is running out, with breaks for Memorial Day, Independence Day, and the monthlong August recess looming, a new fiscal year beginning on Oct. 1, and the debt ceiling expected to be hit sometime in the fall.

The GOP faces a tricky legislative schedule: To pass a tax cut in the Senate without Democratic votes, Republicans need to use a budget procedure known as reconciliation. To do that, they first need both chambers to pass a 2018 budget resolution. And before doing that, they must wrap up the American Health Care Act, which is being negotiated under terms of the 2017 budget resolution. Moderate Republicans in the Senate, such as Bill Cassidy of Louisiana (next story), are balking at the House version of the AHCA.

Senate Majority Leader Mitch McConnell is meeting with his colleagues about health care behind closed doors, knowing that a public hearing would throw a spotlight on opponents' objections and hoping, perhaps, that the pressure to act will spur most Republicans to fall in line. "The logic of Republicans' feeling like they need to get this done is probably enough to get it over the finish line," says Jon Lieber of the consulting firm Eurasia Group Ltd. (On May 24 the CBO said the House-passed bill would cut deficits by $119 billion over 10 years, $32 billion less than the defeated version.)

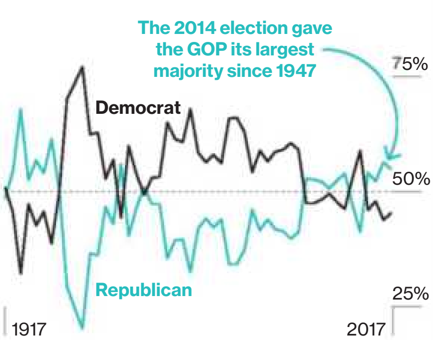
A tax cut would be comparatively easy. Trump's one-page tax plan is skewed toward the wealthy, which chafes Democrats. A compromise that shifts cuts toward the middle class could probably get through both chambers of Congress. The casualty would likely be the federal budget deficit. Speaker Paul Ryan has insisted that any tax package must keep deficits from growing, but he acknowledged on May 24 that his favored way to raise revenue, a border-adjusted tax, is being resisted by the White House.

A tax compromise that Trump could claim credit for isn't hard to imagine. Business would be pleased. "A quarter of a loaf is better than none," says Tom Giovanetti, president of the center-right Institute for Policy Innovation in Irving, Texas.

In short, we aren't living in a world where Trump's budget is setting the agenda for change. And that's why the Democrats' brave talk about the budget being "dead on arrival" is empty. It's like declaring a piñata dead on arrival: The thing is designed to be smashed apart. For Trump, appearances matter, and the appearance he's trying to convey is that he can out-Reagan Reagan. Says Stephen Myrow, managing partner of Beacon Policy Advisors LLC: "He isn't trying to make a difference with the budget; he's trying to make a point." —*Peter Coy*

The bottom line Trump's budget is so politically toxic that Congress won't come close to passing it, which is exactly what the president wants.

Congressional Majority



Congress

To Pass Health Care, The Senate Needs Him

▶ **Bill Cassidy has emerged as the crucial vote on the repeal bill**

▶ **Charity hospital work "gives him a great deal of credibility"**

Bill Cassidy, the first-term Republican senator from Louisiana, thinks the House's Obamacare repeal bill failed to consider the impact it will have on one crucial constituency: patients. A medical doctor whose political life was forged in the aftermath of Hurricane Katrina and during decades working in a charity hospital, Cassidy wants a more robust replacement for Obamacare, one that lives up to Donald Trump's campaign promise to replace it with a law that covers more people at a lower cost.

That might sound like wishful thinking, yet if Senate Republicans want to do anything on health care, they have no choice but to listen to Cassidy. Although he wasn't included in the 13-member working group tasked with crafting a Senate bill, Cassidy has emerged as perhaps the most critical vote—the elusive Republican who can make or break Trump's top legislative priority.

With 52 seats in the Senate, the GOP can afford to lose just two of its own and still pass a bill without Democratic support. Given conservative insistence on defunding Planned Parenthood as part of the effort, Republicans could, for instance, lose the support of moderates Susan Collins of Maine and Lisa Murkowski of Alaska. That would set up a scenario where Cassidy becomes the decisive vote and Vice President Mike

DATA: U.S. CONGRESS; PHOTOGRAPH BY CAITLIN TEAL PRICE FOR BLOOMBERG BUSINESSWEEK

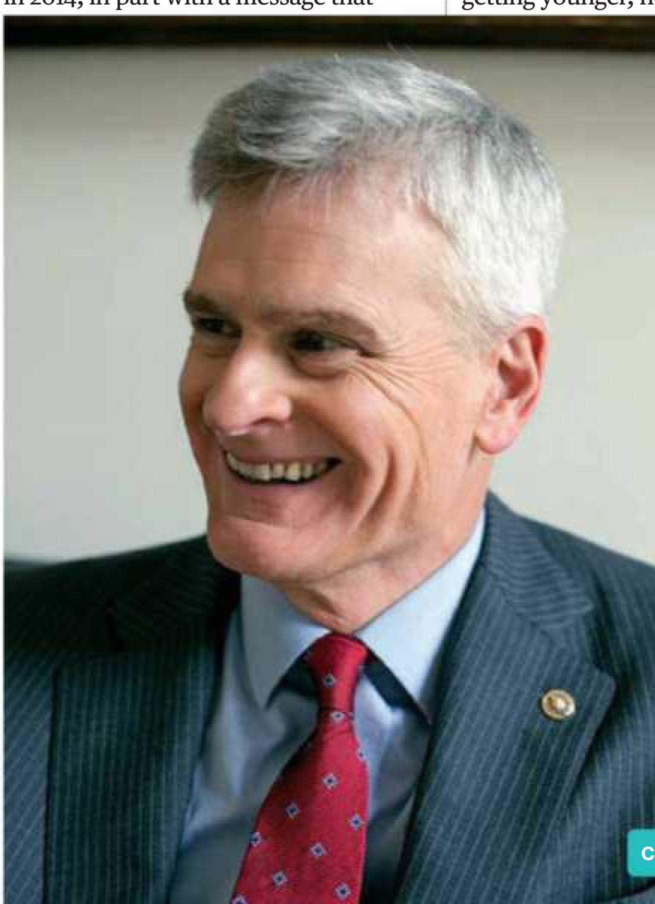
Pence casts a tiebreaking 51st vote, with Democrats powerless to filibuster under special budget reconciliation rules.

Cassidy wants a bill that lowers premiums and expands coverage, and says the American Health Care Act passed by the House fails to deliver. The Congressional Budget Office estimates the House bill would lead to much higher premiums for poorer seniors; 23 million fewer people would have insurance by 2026. "If they come up with a solution that makes that person who's struggling with premiums now struggle even more, I'm on her side," Cassidy says. "And I will fight for her. And that's where my loyalty lies."

Cassidy has been in politics for a little more than a decade—first running for state office after Katrina exposed a government unable to protect its people. In the days after the 2005 hurricane, he organized a makeshift medical center in an abandoned Kmart. "I've known Bill since before he got into politics," says fellow Louisiana Republican Senator John Kennedy. "He's whip-smart, and as big as his brain is, he's got an even bigger heart." After stints in the state legislature and the U.S. House of Representatives, he beat Democrat Mary Landrieu in 2014, in part with a message that helped sweep Republicans into power nationwide: Repeal Obamacare.

Cassidy has sometimes bucked his own party, including in 2014 when he worked with Democrats to reinstate lower flood insurance rates, a move that temporarily cost him his seat on the House GOP whip team. He's also forged a close relationship with Maine's Collins. The pair sit next to each other on the Senate's health panel, and Cassidy recruited Collins to collaborate on a health-care bill in the last Congress, knowing she'd overseen Maine's bureau of insurance for five years. "He has experience working in a public hospital, and that gives him a great deal of credibility," Collins says. "He makes what is a point that everyone needs to be reminded of, and that is that someone eventually is going to pay for the care" of the uninsured.

The Cassidy-Collins bill, introduced in January, would keep most of Obamacare's taxes in place to pay for a more robust replacement. "It is the fiscally conservative position to actually pay for that which you are promising," Cassidy says. His biggest idea is to replace the individual mandate with a rule that allows states to auto-enroll people in insurance—a potential key to getting younger, healthier people into the market and lowering overall costs. Cassidy borrowed the idea from the 401(k) industry, which for years has pushed states and companies to make people opt out, rather than opt in. "If it is an opt-out, you get 95 percent of the folks participating," he says. "If it is an opt-in, you start at 60 percent and you work up with a lot of education. So taking 401(k) data, kind of behavioral economics, you allow states to do automatic enrollment, and you immediately expand the risk pool." Cassidy says an insurer modeled a plan with automatic enrollment that shrunk premiums 20 percent.


Cassidy

Cassidy bio

1979
B.A., Louisiana State University

1983
M.D., LSU

2006-08
State senator

2009-15
U.S. House of Representatives

2015-Present
U.S. Senate

To spur competition, he also wants new price transparency requirements tied to federally funded health savings accounts for poorer people, who will have an incentive to find cheaper providers. He thinks insurers should be allowed to charge older people as much as seven times what they charge younger people for premiums. To even that out, Cassidy would give them seven times the tax credit. Those changes, he says, would make premiums affordable enough that younger people would stay in the pool while providing older people enough money to keep plans economical.

In a rare bid to attract Democrats, Cassidy would also like to give states the option to keep most of Obamacare if they like it. "There is no long-term social solution that occurs in our society unless it's bipartisan. And I love history, and that's what history teaches me," he says. But so far he's gotten little more than a nibble from Democrats, which he blames on politics. Democratic senators know the current system is dysfunctional, and Cassidy is frustrated they won't engage in serious talks unless Republicans drop their plans to use a procedure aimed at preventing filibusters. Two years into the Senate, he's still surprised by how little consideration his colleagues give to the plight of their voters. "I'm thinking, Why were you elected? It's just the most amazing thing in the world. You were elected to take care of your folks, even if they're not quite the rules you would prefer."

Cassidy, meanwhile, has gone from being a little-noticed, quiet backbencher to a staple on cable news. In a rarity for any senator, he made his late-night TV debut on May 8 when he appeared on *Jimmy Kimmel Live!* Earlier that month, after Kimmel made an emotional appeal against the House bill, sparked by his newborn son's congenital heart problem, that went viral, Cassidy declared on Twitter that any bill should pass the "Jimmy Kimmel test." In other words, insurance companies shouldn't be able to cap payouts to ▶

◀ customers, preventing, for example, a sick newborn from getting the care he needs. On the show, Kimmel immediately got political, asking Cassidy why Republicans are against making sure Americans have adequate coverage. Cassidy replied by invoking Trump's campaign promise of lowering premiums. "We have got to have insurance that passes the Jimmy Kimmel test, but a middle-class family can no longer afford it," said Cassidy. When Kimmel suggested that Republicans keep Obamacare's taxes on the wealthy to pay for health care, Cassidy urged viewers to call their senators. Surely, some of his GOP colleagues were watching. —*Steven T. Dennis*

The bottom line Cassidy, a first-term GOP senator from Louisiana, wants to give states the option of keeping most of Obamacare if they like it.

Safety Net

Republicans Fail Their Own Drug Test

▶ **The GOP tries to give states more power but hampers them instead**

▶ **In passing legislation, "they shot themselves in the foot"**

On St. Patrick's Day, Speaker of the House Paul Ryan tweeted a photo of himself and Republican Representative Kevin Brady of Texas, both in green ties, sitting down to sign a resolution headed for President Donald Trump's desk. "This legislation allows states to have drug testing to receive federal unemployment benefits," Ryan tweeted.

That's not true. The bill, which Trump signed on March 31, scrapped drug testing rules the Obama administration reluctantly issued last year. But it does nothing to expand states' freedom to require the tests. Nor does it help Congress or the Trump administration authorize states to test for drugs, administrative law experts say. In fact, it takes away some limited authority states already had, and thanks to a quirk in a 1996 law, it could sabotage the president's attempts to allow more tests. "They shot themselves in the foot," says Thomas McGarity, a professor of administrative law at the University of Texas at Austin. "It's surprising that no one raised a red flag in the administration saying, 'You may not get what you want here.' "

Republicans have long wanted to broaden states' limited authority to require drug tests of people applying for unemployment benefits, arguing that would encourage jobless drug users to get sober. For years states couldn't test people unless they'd been fired because of drugs. In 2012 the GOP struck a compromise with the Obama administration on a bill extending tax cuts and unemployment insurance. It legalized testing people for whom a suitable job "is only available in an occupation that regularly conducts drug testing." The measure left it up to the Labor Department to decide which occupations were covered.

The department rule-making dragged on for years, finally concluding in August 2016. The list disappointed states eager to test for drugs, and it was limited to the transportation and pipeline industries, as well as jobs that require carrying a gun or were already legally mandated to have drug tests, such as nuclear plant staff.

After the election, Republicans saw a chance to chuck Obama's rules by using the Congressional Review Act, a 1996 law that allows a recently issued regulation to be overturned by majorities in the House and Senate. When the resolution passed in March, its House sponsor, Brady, said it would "empower our states to help fully qualified workers get back to work."

The effort backfired. Because the 2012 law let states test people suited for jobs specified by federal regulations, now that those regulations have been scrapped, there are no jobs for which states are able to test for drugs. Before Congress revoked Obama's rules, states could have tested aspiring pipeline operators and commercial drivers; now they can't.

"The irony of it is, now that they've disapproved this law, they're in a worse position than they were before." **—*Jeffrey Lubbers, American University law professor***

States will get to impose broader testing requirements only if the Labor Department goes through its own formal rule-making process to issue stricter regulations, or if Congress passes a law setting states loose. Because Congress got rid of the old rules, Trump's labor secretary, Alexander Acosta, could be more likely to make the issue a top priority, says Scott Sanders, executive director of the National Association of State Workforce Agencies.

But legal experts say developing new regulations will be harder now that Congress has eliminated the old ones. That's because the 1996 review act bans an agency whose regulation has been voided from enacting any new regulation that's "substantially the same." Before Trump took office, the law had been used only once, to undo ergonomics rules issued under President Bill Clinton, and no president tried to regulate that area again. Any regulation Acosta comes up with is likely to be challenged in court on the grounds that it resembles Obama's. "Nobody can predict with any degree of confidence how a court is going to react to any rule that covers the same subject matter," says Richard Pierce, a George Washington University law professor.

Jeffrey Lubbers, a law professor at American University and special counsel for the Administrative Conference of the United States, says if he were the Labor Department's lawyer, he would warn against attempting any new drug testing regulation without Congress passing a law first. "They'd be doing it under a cloud of uncertainty," Lubbers says. "The irony of it is, now that they've disapproved this law, they're in a worse position than they were before."

Secretary Acosta hasn't signaled how he'll handle the issue. When asked for comment, a spokesperson referred to a March 31 statement in which then-acting Labor Secretary Ed Hugler said the department "supports the president's nullification and looks forward to examining additional flexibilities for states."

Republicans have made it harder for Acosta to allow any kind of drug testing for unemployment insurance, says Obama's former acting labor

THIS SPREAD: PHOTO ILLUSTRATION BY 731; PHOTOS: COURTESY U.S. CONGRESS; WASEEM IQBAL/ALAMY; NEXT SPREAD: ETE MAROVICH/BLOOMBERG/GETTY IMAGES secretary, Seth Harris. "We didn't want to produce this regulation, but we did it because Congress required it. Now Congress has created a new problem it will have to fix."

Red state officials such as Larry Temple, executive director of the Texas Workforce Commission, say they're confident rules from Acosta can pass legal muster. "I don't think by any stretch of the imagination you're going to see rules coming out anywhere close to the junk that was put out in the last administration," Temple says. Because of the CRA, he says, "Now there's a clean slate to start from. So 'what if, what if, what if?' I'm not worried about what ifs." —*Josh Eidelson*

The bottom line Republicans have inadvertently made it harder for states to require drug tests of people who receive unemployment benefits.

Trade

Does Foreign Steel Threaten U.S. Security?

▶ **Trump invokes an obscure trade law to find out**

▶ **"It almost seems to be a blank check"**

Surrounded by top steel executives in the Oval Office, President Donald Trump gave a speech in April that painted a grim picture of the U.S. steel industry. For decades, he said, American steel companies have been under siege from foreign competitors "who have made a living off taking advantage" of lax trade laws, flooding the U.S. with cheap steel and leading to shuttered mills and widespread layoffs.

The reality for the industry isn't quite so dire. In 2016 the stock prices of the two biggest U.S. steel producers rose the greatest amount in at least a decade, as a raft of trade cases resulted in tariffs on imports from China and other countries. But Trump insisted something larger was at stake. "It's not just the pricing, it's not just employment, it also has to do with the national security of our country," he said.

The night before the president's speech, Secretary of Commerce Wilbur Ross had initiated what's known as a Section 232 investigation by invoking an obscure section of a Kennedy-era trade law that allows the president to investigate whether certain imports threaten national security. The Commerce Department has until later this year to conclude whether steel and aluminum imports qualify as national security threats; Ross says he hopes to finish by June. If it decides they do, Trump will be vested with significantly more power to impose tariffs and otherwise limit imports than he would under a simple antidumping ruling.

Trump and executives in the Oval Office after Ross (far left) initiated a probe of steel imports

"It almost seems to be a blank check," says John Anton, director for steel services at consulting firm IHS Markit. "I look at it and have a hard time seeing any limitation under law on what the president can declare as a remedy." To prove a 232 case, the administration doesn't need to find that imports are being unfairly subsidized, as with World Trade Organization cases, says Jeff Bialos, who helped bring a 232 case against imported oil as a Commerce Department official in the Clinton administration. "This proceeding is an exception to WTO rules," he says. "It's a big sledgehammer."

In his April remarks, Trump said maintaining U.S. steel production is crucial to protecting the country's defense industrial base. Yet the defense industry accounts for less than 5 percent of total domestic steel consumption, according to KeyBanc Capital Markets Inc. The aluminum industry is slightly more important to the military. High-purity aluminum is a key material for fighter jets and warships. Even then, less than 1 percent of total U.S. aluminum production is consumed by the Department of Defense, according to research firm Harbor Aluminum.

Over the past 54 years, only 26 Section 232 cases have been brought, and just five of those resulted in presidential action. The last one, initiated in 2001 by the Bush administration, resulted in no action. It's unclear what a 232 case would mean for U.S. allies, particularly Canada, which supplies about 6 percent of the steel and 42 percent of the aluminum used in the U.S., according to data from researcher Wood Mackenzie Ltd. The administration may have to exclude Canada from any actions taken because it's part of the National Defense Technology and Industrial Base, a consortium engaged in research, development, and production of defense technology in the U.S.

Trump may be using the 232 case simply as a bargaining tool to get China or any other presumed trade offenders to negotiate. "If they're prudent, they'll use this for the basis of negotiation," Bialos says. Either way, it's hard to predict what will come of these investigations, whether Trump will follow through with restrictions on imports, and if he does, what impact that will have. The U.S. doesn't have the capacity to support all its own aluminum and steel needs, so anything the administration does to limit imports may result in higher prices for domestic consumers, says Uday Patel, a senior research manager at Wood Mackenzie.

The move fits with Trump's campaign rhetoric of protecting U.S. industry from imports. However unprecedented, invoking a 232 case may be the only way he can make good on those promises, says Alan Price, a partner at Wiley Rein LLP who represents U.S. steel and aluminum companies. "To achieve all the goals they enunciated in the campaign, they're going to have to use statutory tools that haven't been used in several decades." —*Joe Deaux*

The bottom line If the Trump administration finds that steel and aluminum imports pose a security threat, it will have the power to impose tariffs.

Edited by Matthew Philips
Bloomberg.com

D.C. taxis take a digital stand against Uber 34
Cars: The fast and the frugal 35
How to hail a Cessna 35
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Bloomberg Businessweek May 29 — June 4, 2017

Pants on Fyre

▶ The app maker behind the festival was in trouble well before partygoers arrived in the Bahamas

▶ "If you'd like to stick it out with us, that's great"

Now that **Fyre Media Inc.** is infamous for its aborted music festival in the Bahamas, the one that's prompted lawsuits from vendors and a $100 million class action from attendees, it's hard to remember the whole thing was meant to promote an app. The Fyre software is essentially a mobile-friendly speakers bureau for performers available for appearances at concerts, clubs, and parties for a price. Current and former staff say Fyre Media co-founder Billy McFarland made it seem like the two-year-old app was well-funded, even attracting interest from **Comcast Corp.**'s venture capital arm.

Whoops. Court papers and public records reviewed by Bloomberg show that in the weeks before the festival disaster, Fyre Media took on as much as $7 million in debt. The funds were meant to carry the company through the festival, partly to be repaid with a cut of tickets and sales made via attendees' digital-payment wristbands. Court filings claim that almost $1 million is unaccounted for, and it's unclear exactly how the rest was spent.

McFarland told Fyre employees on an internal conference call that the company didn't close its funding deal with Comcast Ventures, according to a recording of the call reviewed by Bloomberg. (Comcast confirms that the deal didn't go through.) The former employee who made the recording says the call took place on May 5, days after the festival flopped. On the call, McFarland tells staffers to preserve all company files and emails and that while no one is being fired, he can't guarantee they'll be paid for work after that day. When an employee says the company is essentially forcing them to voluntarily quit and lose out on unemployment benefits, McFarland says, "If you'd like to stick it out with us, that's great. If you'd like to resign, I'm sorry, and I totally understand."

Fyre Media, McFarland, and his co-founder, rapper Ja Rule (Jeffrey Atkins), didn't respond to requests for comment for this story. Court dockets in the suits against Fyre have yet to list defense counsel, and an attorney who previously represented the Fyre Festival says he no longer works for the company.

The app was meant to organize a group of musicians (Lil Wayne, Rita Ora) and athletes (Rick Fox, Brandon Flowers), as well as a smattering of actors, comedians, models, and internet celebrities for live-event bookings. Fyre's users were to negotiate the performers' fees and pay through the app, which would collect a 10 percent commission for the media company from the buyers. Fyre was seeking $10.5 million from Comcast Ventures as part of a $15 million funding round that would have valued the startup at $90 million, according to a March 21 ▶

ILLUSTRATION BY 731; PHOTOS: GETTY (7)

◀ Comcast term sheet reviewed by Bloomberg.

While the festival was still weeks away, Comcast got cold feet. On April 10, less than three weeks before the festival was set to begin, Fyre borrowed $3 million from **EHL Funding LLC**, a New York lender, according to records included in a May 10 lawsuit filed by Ezra Birnbaum, who describes himself in the suit as a "member" of EHL. Birnbaum is suing Fyre, Ja Rule, and Robert Nemeth, the guarantor of the loan, for defaulting on its terms. A second loan, for as much as $4 million, was tied to Carola Jain, the wife of a prominent hedge fund executive in New York. Birnbaum, Nemeth, and Jain didn't respond to requests for comment, nor did an EHL attorney.

The terms of Jain's investment, disclosed in a March 21 document prepared by Comcast Ventures, aren't entirely clear. Jain socialized with McFarland and Ja Rule in the Hamptons last summer and, according to the former Fyre employee, held a party for their company at her Upper East Side townhouse in December. A Uniform Commercial Code filing regarding her investment names her as an agent on a loan of as much as $4 million that lists equity for Fyre Media and another McFarland business as collateral.

Birnbaum's loan seems clearer but more complicated. As envisioned, the Fyre Festival was to be a luxe, three-day tropical vacation that included a music festival, villas, yachts, fancy food, celebrities, and a captive audience using electronic wristbands to pay for their needs. Birnbaum's loan was to be repaid with money Fyre received from festival purchases, according to a copy of the promissory note filed with his suit.

On April 17, ticket holders began receiving emails saying the festival was now cashless and they would have to preload money onto their "FyreBands." "We recommend adding at least $300-$500 per day," stated the April 17 email, a copy of which was reviewed by Bloomberg. It promised unused funds would be refunded, save for a $10 "refund handling fee." EHL alleges that Fyre collected at least $870,000 from festivalgoers for use via the wristbands and that EHL received $108,400 of the sum, instead of the roughly 40 percent specified under the terms of its loan.

Most festivalgoers didn't have a chance to spend all their funds. Instead of the gourmet meals and posh housing for which they paid from $1,000 to more than $100,000, attendees arrived on Great Exuma Island to find half-made sandwiches and glorified disaster relief tents. Many would-be revelers were stranded through the night on the unfinished, unlit site or crammed into an airport terminal to wait for a flight home. Several have sued Fyre, alleging it hasn't returned their unused funds.

Birnbaum's suit alleges that Fyre Media still owes EHL more than $3 million, and those woes multiplied because the startup failed to meet the terms of EHL's loan. According to the agreement, Fyre's interest charges now total $900,000, an effective annualized interest rate of 120 percent. And there's still the question of what happened to those unspent FyreBand funds.

Federal authorities have begun an investigation into possible mail, wire, and securities fraud, the *New York Times* reported on May 21. "There was too much ego, not enough money," says veteran festival promoter Hal Davidson. "And definitely no brains." —*Polly Mosendz, Kim Bhasin, and Shahien Nasiripour*

The bottom line The app maker behind the Fyre Festival borrowed last-minute money in an effort to avert disaster. It didn't work.

Ride Hailing

D.C. Is Building an Uber-Fighting Test Lab

▶ **The city overhauls the taxi system to help cabbies compete**

▶ **"There is a unique window ... to give them a chance"**

As part of an effort to keep local taxi services alive in the age of Uber, Washington, D.C., is doing away with one of its most recognizable features. By the end of August, D.C.'s taxi regulator says, the city's 7,500 cabs must replace their traditional dashboard meters with apps that run on smartphones or tablets. On May 17 the city announced that payments company **Square Inc.** will process transactions on the new apps.

Washington cabs must soon switch to app-based meters

Square is providing new payment systems at lower fee rates

COURTESY WASHINGTON, D.C., DEPARTMENT OF FOR-HIRE VEHICLES

As in other major cities, cheap rides hailed via apps are threatening D.C.'s established taxi industry. Unlike many of those cities, the capital is forcing its old guard to take steps to adapt. "Taxis are so resilient. They've been around for a long time, and their demise has been overblown," says Ernest Chrappah, the director of D.C.'s Department of For-Hire Vehicles, formerly the D.C. Taxicab Commission. "There is a unique window of opportunity to give them a chance to compete."

Chrappah says his department is working to blur the lines between taxis and ride-hailing companies in ways that will make cabs more flexible, convenient, and competitive. The next step is to design the apps that replace meters.

The department's plan is to let developers compete to make the best one. It's working with seven companies that will develop apps in time for the Aug. 31 transition. The department is certifying the apps for use by licensed taxi drivers and remains open to pitches from other developers.

All the certified apps must be able to operate as meters for street hails, provide digital receipts showing the route taken, and give riders the option to rate drivers. Cabbies will also be able to discount their fares when business is light. It's basically the opposite of the surge pricing employed by **Uber Technologies Inc.**: Drivers won't have the ability to increase their fares.

The contours of the apps' other services are less clear. The ideas being discussed include carpooling features and a delivery option connecting drivers with local merchants looking to transport meals or groceries. A developer could build an Uber clone that lets passengers request rides through the app, not just on the street.

Square will handle the payments, in a deal that reflects the company's increasing focus on becoming the payment platform for a range of other companies' apps, websites, and retail checkout devices. Several years ago, Square tested payment processing in a small group of New York City cabs but didn't try to replace the meters.

No money is changing hands between Square and the city. The company agreed to satisfy Chrappah's requirement that drivers give up no more than 2.65 percent of their fares in transaction fees, according to the department. That's lower than the 2.75 percent commission Square usually takes and significantly less than the rate drivers are paying to use the mechanical meters, which ranges from 3.5 percent to 5 percent, Chrappah says. A spokesman for Square says it doesn't comment on individual rates.

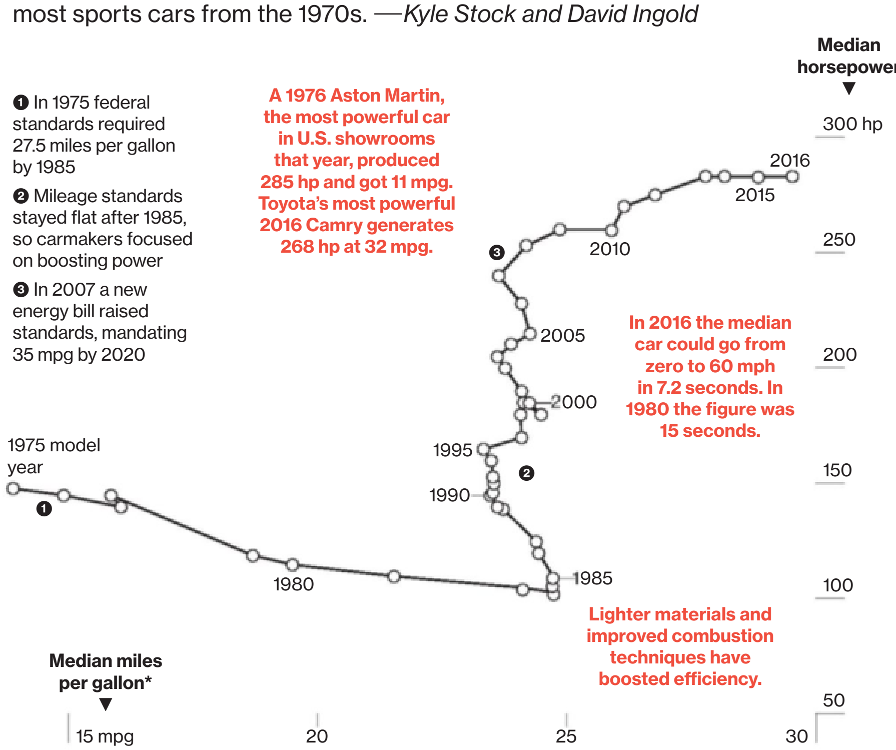
D.C.'s taxi drivers have generally opposed changes in the past. Of all the proposals from Chrappah's department, the promise of lower fees has helped sell the end of the old meters. The Washington, D.C. Taxi Operators Association, a driver group affiliated with the Teamsters, has criticized everything including the city's approach to Uber and its rules specifying how their cars must be painted. But TOA Chairman Goitom Abselab, a longtime cab driver, says it's past time to get rid of the existing taxi payment processors. They aren't transparent about their costs, he says, and tend to overcharge drivers.

At the same time, Abselab is skeptical about the more ambitious elements of Chrappah's vision. He says it's hard to imagine homegrown ride-hailing apps competing with Uber's entrenched market position and seemingly endless resources, and he isn't particularly interested in moonlighting as a deliveryman. One advantage of driving a cab is that you can stay in your car, rather than worry about where to leave it while you run into a store or an apartment building. "Delivery, food, laundry–for me, those things don't look to be very profitable," Abselab says. "I've lived here for a very long time, and believe me, parking is a problem."
—Joshua Brustein

The bottom line D.C. cut a deal with Square to make its cab hardware cheaper. The next challenge: an app that can compete with Uber.

Autos My Camry Can Beat Your Aston Martin

While federal mileage mandates have driven improvements in engine efficiency, automakers have also added so much horsepower to U.S. cars over the past few decades that today's average sedan can match most sports cars from the 1970s. *—Kyle Stock and David Ingold*



*UNADJUSTED LABORATORY FUEL ECONOMY FIGURES, WEIGHTED 55 PERCENT CITY AND 45 PERCENT HIGHWAY; DATA: OFFICE OF TRANSPORTATION AND AIR QUALITY, EPA

Startups

Cessna Flights For the Masses

▶ **Blackbird's app offers a much cheaper form of plane sharing**

▶ **"It's competing with very badly managed infrastructure"**

It's relatively inexpensive and easy, if not always comfortable, to fly to most big U.S. cities. But try to fly from, say, Burlington, Vt., to Portland, Maine: The best option might take you through New York, cost $800, and burn the better part of a day. The regional carriers that used to serve routes like these have been shuttered in the era of a few mega-airlines focused on their national hubs, so the only option for most travelers is a five-hour drive.

A startup in San Francisco is trying to redraw the map by tapping into a system that's largely invisible to everyday travelers: the country's 3,000 general aviation airports and 10,000 charter aircraft. This fleet of Federal Aviation Administration-regulated Cessna, Beechcraft, and Pilatus Aircraft Ltd. planes sits parked most of the day, waiting for last-minute charters from companies or wealthy individuals. "I thought it would be an amazing thing to bring this type of air travel to everybody," says Rudd Davis, whose year-old startup, **Blackbird Air Inc.**, is trying to connect more planes with passengers through its Uber-style on-demand app, at much lower prices than the $5,000 a traditional charter might cost.

Davis thought of the idea while ▶

◀ working toward his pilot's license at an airstrip in Palo Alto, having sold a data analysis company to Groupon Inc. in 2014. Unlike private-flight booking services like **Surf Air** and **Wheels Up**, Blackbird doesn't require regular membership dues and doesn't have any aircraft of its own. Davis is relying on charter carriers to fly the routes. That's a serious advantage for the business model, says Richard Aboulafia, an analyst at researcher Teal Group Corp. "People who go into this business go horribly wrong by overspending on assets," he says.

So far, Blackbird offers a handful of flights in California, including from Palo Alto to Lake Tahoe. Round-trip fares on that 45-minute flight got as low as $199 for flights booked in advance last winter, Davis says; the drive can take six hours, or eight in traffic. Blackbird's app also includes a familiar-looking pool option that cuts prices for fliers willing to share a ride at an agreed-upon date and time.

"It's not competing with United. It's competing with very badly managed infrastructure," says Françoise Brougher, a former senior executive at Square Inc., who invested in Blackbird after using the service to ferry her teenagers to Tahoe.

Many people, of course, worry about safety aboard small planes. Severe weather at times shut the Tahoe airport last winter, and Davis had to divert some flights to Reno, Nev., and send a car to get passengers the rest of the way, adding an hour to the journey. Cargo can also be limited, and Blackbird adds baggage fees of about $10 for every 10 pounds above 15 pounds, à la cut-rate airlines.

For a recent flight on a Swiss-made Pilatus PC-12 from Palo Alto to Truckee Tahoe Airport, passengers included a couple who work at Google Inc., a medical device consultant, and an elderly woman who had family with her at both airports. Compared with the ingrained rituals of air travel, the informality was jarring. Passengers parked within steps of the plane and mingled in a waiting room a bit like a dentist's office until a young, black-shirted greeter ushered them outside. "Hi, I'm Brian," the pilot said, helping the passengers up a three-rung stairway into the cabin, which resembled a nicely appointed SUV.

Chris Brown, president of the aircraft's operator, **Centurion Flight Services Inc.**, says his fleet is in the air 30 percent more since teaming with Blackbird, and he's looking to purchase two more Pilatus planes. Aaron Singer, a seaplane operator in Sausalito, Calif., says he's begun shopping for another De Havilland Beaver because of high early demand for a 75-minute route to Lake Tahoe he'll start flying in June.

Blackbird has raised about $2.5 million from investors and plans to expand beyond California later this year, Davis says. His head of technology, Jamie Loberman, is picking the most promising routes by overlaying maps of the U.S. with data that include traffic delays, vacation rentals, and commercial airfares. The result looks something like the U.S. airline map back in the early days of deregulation, when Air Vermont and Golden Gate Airlines were still among 300 regional carriers flying 1,200 routes. "There was demand for this back in the '70s," Davis says. "It's not like that demand has gone away." —*Peter Robison*

The bottom line Blackbird's online marketplace offers seats on small planes for much less than typical charter prices.

Security

To Fix Your Terrible Passwords, Kill Them

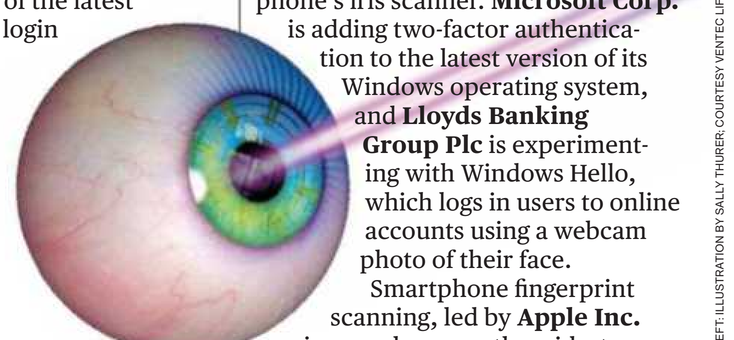
▶ **Biometric security isn't perfect, but it's a lot better than "123456"**

▶ **"In the future we'll look back at this time and laugh"**

No matter the size of the latest mass data breach, login convenience still trumps security for most people. According to password-management company **Keeper Security Inc.**, the world's most popular password remains "123456." For years now, consumer technology companies have been trying, if not exactly urgently, to limit the damage hackers can do by cracking conventional passwords, offering two-factor authentication for your Gmail, fingerprint ID for your iPhone, iris scanning for your buddy's Samsung Galaxy S8. (Two out of three ain't bad.)

1
billion

Approximate number of phones with fingerprint scanning sensors that will ship this year



The epidemic of ransomware that disabled corporate and government systems around the world on May 12 didn't start with passwords stolen in phishing scams, but security experts say it should still serve as an impetus to strengthen the longtime weak point in people's cybersecurity. "Our vision is to kill passwords completely," says Dylan Casey, vice president for product management at **Yahoo! Inc.** "In the future we'll look back on this time and laugh that we were required to create a 10-character code with upper- and lowercase letters, a number, and special character to sign in, much in the same way that today's teenagers must laugh at the concept of buying an album on a compact disc."

To edge closer to that future, Yahoo has begun letting email users unlock their accounts solely through a push notification sent to their smartphones, no password required. Other companies' ideas mostly follow the smartphone-as-skeleton-key trend or expand the use of biometrics as unique identifiers in lieu of an old-school alphanumeric code. Starting in mid-May, Galaxy S8 owners in the U.K. have been able to authorize mobile payments using the phone's iris scanner. **Microsoft Corp.** is adding two-factor authentication to the latest version of its Windows operating system, and **Lloyds Banking Group Plc** is experimenting with Windows Hello, which logs in users to online accounts using a webcam photo of their face.

Smartphone fingerprint scanning, led by **Apple Inc.** in 2013, has seen the widest adoption so far. Almost 1 billion

FROM LEFT: ILLUSTRATION BY SALLY THURER; COURTESY VENTEC LIFE SYSTEMS (4) phones equipped with the scanning sensors will ship around the world this year, and Deloitte's research arm estimates that the typical sensor is used about 30 times a day. Apple has since added fingerprint scanners to its MacBook lineup. Microsoft offers fingerprint authentication via smartphone to the 800 million daily users of Outlook, Xbox, and other cloud services and has a similar system for desktops and laptops planned for the fall. "You'll be able to take your phone, walk up to your Windows 10 PC, and just use your thumbprint to log in," says Alex Simons, who's in charge of products at Microsoft's ID division.

Now that voice-activated devices such as **Amazon.com Inc.**'s Echo and **Google Inc.**'s Home can order dinner and a movie, voiceprints are getting more attention in the business world, too. **Barclays Plc** has begun letting retail clients verify their identity over the phone using vocal records, a service it's tested with wealthy customers since 2014. Simon Separghan, who heads the bank's contact centers in the U.K., India, and the Philippines, says its mobile app will allow for voiceprint verification soon.

These kinds of security measures aren't perfect. In March, users found they could fool the Galaxy S8's facial-recognition feature simply by holding up a photo of the right person's face. In a statement, **Samsung Electronics Co.** said users have other ways to unlock their phones and that facial recognition couldn't be used to access the S8's payment systems. Microsoft says its systems use near-infrared sensors that can't be beaten this way.

For now, banks testing the new technologies are keeping the systems opt-in, rather than insisting that nervous customers abandon their PIN codes and other passwords. Michela Menting, digital security research director at ABI Research, says it'll be tough to get the last holdouts to stop using 123456 "until we have embedded devices in ourselves that can act as that password." —*Nate Lanxon*

The bottom line Easily guessed passwords will be tough to wipe out, but tools like fingerprint ID and facial recognition are becoming more common.

Edited by Jeff Muskus
Bloomberg.com

Innovation

Portable Life Support

Form and function
The 18-pound Vocsn—its name is an acronym—combines a ventilator, an oxygen concentrator, cough assistance, suction, and a nebulizer to treat conditions such as muscular degeneration, spinal cord injury, and underdeveloped lungs.

Innovator Doug DeVries
Age 63
Chief executive officer of Ventec Life Systems, a 35-employee startup in Bothell, Wash.

1.

Program A clinician programs the toaster-size Vocsn using a touchscreen interface to select the therapies needed for a given patient.

Origin DeVries, a mechanical engineer, devoted his career to ventilators after his father, an amyotrophic lateral sclerosis patient, declined ventilation to extend his life. After launching a portable ventilator with a predecessor company, DeVries founded Ventec in 2013.

Funding Ventec has raised $28 million from private investors to develop Vocsn.

Customers DeVries is pitching hospitals, long-term-care facilities, and equipment providers on the Vocsn. He says the combined device is cheaper than separate ones but declined to name a price.

Delivery Vocsn received U.S. Food and Drug Administration clearance in April and is shipping in June.

2.

Breathe With the device aboard a wheelchair or stroller, the user can leave the home or hospital unencumbered by separate devices or oxygen bottles.

Next Steps
DeVries says Ventec is working on getting clearance for Vocsn in other countries and on selling to first responders and military clients. "The ability to have all of these pieces of equipment readily at hand with a small footprint really has the potential to enhance the quality of life of ventilator-assisted patients," says Howard Panitch, a pediatric pulmonologist in Philadelphia who treats children on ventilators. —*Michael Belfiore*

Bloomberg Businessweek May 29 — June 4, 2017

A Shock From Cheap Gas

▶ **Along a giant electric grid, supply is abundant—and power producers are hurting**

▶ **"It suddenly becomes a buyer's market"**

There's a glut of natural gas from a gigantic shale basin that straddles the U.S. Northeast, mid-Atlantic, and Midwest, and it's helped spark a massive boom in power plant construction. Dozens have been built in the past two years alone. The problem for their owners: There isn't nearly enough electricity demand to support all the new capacity.

Wholesale electricity prices in the region have plunged. **PJM Interconnection LLC**, which manages a huge power grid that runs from northern Illinois to New Jersey, oversees a market through which electric utilities and other resellers can buy power from plants plugged into the system. Its benchmark wholesale price was an average $28.79 per megawatt-hour last year, less than half the price in 2008, when the shale rush took hold.

That means some power producers are scrambling to offload their plants.

Swiss banks are helping to track down tax dodgers 41

"Everything in fossil fuels is for sale," says Ted Brandt, chief executive officer of Marathon Capital LLC, a mergers-and-acquisitions adviser in Chicago. "People are bleeding."

Drawing from abundant, cheap, and nearby natural gas in the shale formation, known as the Marcellus, the plants are adding more than 20 gigawatts of electric capacity—enough on most days to power at least two cities the size of New York. Investors including private equity firms were willing to finance new plants, despite lower power prices, on the assumption that cheap gas would give those facilities that can tap it most efficiently an advantage. Also contributing to the glut is a slowdown in closures of coal-fired plants, a result of the Trump administration's friendly attitude toward the coal industry. Some big investors, including **Blackstone Group LP**, have been buying coal facilities at discounts, betting that a few hot or cold days each year will yield enough power demand and revenue to justify keeping the plants operating.

> **"Everything in fossil fuels is for sale. People are bleeding."**
> *—Ted Brandt, Marathon Capital*

Past episodes of extreme weather also helped motivate companies to build more plants. In the winter of 2014 a polar vortex caused frigid temperatures that increased demand and caused equipment failures that sidelined some plants. This resulted in a huge, if temporary, spike in electricity rates for consumers. To prevent another such shutdown, PJM created financial incentives for power producers to improve reliability of existing plants and add capacity.

Finally, recent advances in energy efficiency are reducing demand for electricity. Widespread adoption of everything from LED lightbulbs to Energy Star-certified refrigerators and appliances prompted PJM to slash its growth forecasts for peak loads to just 0.2 percent a year over the next decade, from a forecast of 1 percent in 2014. Add wind and solar, which are providing ever more energy to the grid, and the need for new power plants looks even shakier.

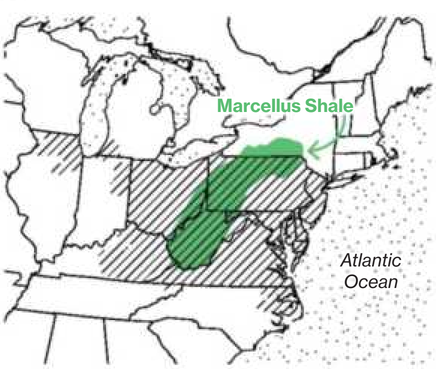
Calpine Corp., which owns 17 plants in the PJM grid, is exploring a sale. The Houston-based company has attracted interest from private equity firms, Bloomberg reported in May. **FirstEnergy Corp.** and **American Electric Power Co.** marked down the value of their plants by a total of more than $11 billion in 2016. They say they're getting out of production to focus on buying and distributing electricity. Power producer **Dynegy Inc.**, whose stock price has fallen sharply over the past year, is now widely viewed as a takeover target. "It's a gas-driven apocalypse in the power market," says Toby Shea, an analyst at Moody's Investors Service.

As valuations slip, some see a buying opportunity. Blackstone and **ArcLight Capital Partners LLC** bought four Midwest plants from American Electric for $2.2 billion in September. That implies an average sale price of $417 a kilowatt, less than half of the $1,000 a kilowatt it costs to build a gas plant. Prices for plants might soon plunge further, depending on how much consumers and businesses crank up their air conditioners during the coming months. "It suddenly becomes a buyer's market if the summer disappoints," says Paul Pace, who heads KeyCorp's energy lending team.

Given lackluster demand for energy, it's surprising that power plant valuations haven't fallen more, says Ravina Advani, a New York-based managing director at BNP Paribas SA. One reason: Developers continue to attract new investors, including some from Japan and South Korea. Still, would-be buyers are likely to find they have plenty of options, according to Dean Murphy, principal at the Brattle Group in Cambridge, Mass. "It's like the housing market that is oversupplied, and it takes longer to move your house," he says. It's just a matter of time, Murphy says, before prices break lower. *—Naureen S. Malik and Brian Eckhouse*

Hot Spot

▨ Territory served by the PJM grid



The bottom line The Marcellus Shale formation has added lots of supply to a major power grid, but demand is growing slowly.

ILLUSTRATION BY CAROLINE DAVID; DATA: PJM, ENERGY INFORMATION ADMINISTRATION

Advisers

Targeting the Nest Eggs Of U.K. Expats

▶ **Former employees say the SEC is probing DeVere Group**

▶ **"You cannot be anything but squeaky clean, or it will show"**

Wherever there are British expatriates with money, a **DeVere Group** office isn't far away. The company opened a U.S. outpost in 2012, hiring mainly young British men to call U.K. citizens living in the U.S. to make a pitch based on a wrinkle in British tax law. Some workers with retirement savings back home could transfer them overseas and avoid British taxes they'd have to pay when they withdrew the money. DeVere could help them move the money.

Now the financial advisory firm, which says it has attracted $12 billion in assets, with more than $500 million in the U.S., is under investigation by the U.S. Securities and Exchange Commission, according to five ex-employees told of the probe by management before they left. About half the salespeople in the New York office quit or were fired in recent weeks, they say, and the firm has closed its Miami branch. Among the irregularities, ▶

◀ according to former employees: The firm for years charged upfront commissions on some investments, even though its SEC registration didn't allow such fees. Three of the former employees, all of whom asked for anonymity out of fear of retaliation, say some salespeople had cocaine and other drugs delivered to fuel their high-pressure cold calling. The ex-employees say the SEC probe concerns compliance issues.

George Prior, a spokesman for DeVere, dismissed questions about the probe and the allegations of former employees, saying he wouldn't discuss "unsubstantiated rumors or speculation." He wrote in an email that the company is conducting a "strategic review" and that "high-quality, results-driven service for our clients is always at the forefront of the firm's focus." Judy Burns, a spokeswoman for the SEC, declined to comment.

Nigel Green, a British stockbroker, started DeVere in Hong Kong about 15 years ago. He previously had worked at offshore brokerage Britex International, which ran into trouble when a high-yield fund it had been selling stopped paying investors, according to reports in the *Financial Times*. DeVere bought Britex in 2002, *International Money Marketing* reported. It expanded to the Middle East and Europe and then to Asia and Africa, according to promotional videos on YouTube. "When I went abroad, I was really shocked, it was a massive opportunity," Green said in a video posted in 2016. Prior, the spokesman for Green, declined to make him available for an interview.

In DeVere's U.S. business, former employees say they spent most of their time cold-calling and sending messages on LinkedIn. There were lots of fees to be made. In addition to an annual management fee, DeVere would charge a fee on the pension transfer that could be as high as 7 percent, spread over several years, three former employees say. Clients who transferred pensions would have to decide how to invest the money, giving DeVere salespeople another chance to earn fees. Among the investments DeVere sold in the U.S. were structured notes from banks including **Goldman Sachs Group Inc.** and **Morgan Stanley**, according to the former employees. These investments are a way to bet on the stock market. One Goldman note offered an 11 percent return if three indexes all went up by a designated date. DeVere received a 4 percent upfront commission, the former employees say.

Because DeVere registered with the SEC as an investment adviser, not a brokerage, its employees aren't allowed to collect commissions. DeVere didn't respond to questions about commissions. Andrew Williams, a Goldman Sachs spokesman, says it terminated distribution relationships with DeVere last year, declining to say why. A Morgan Stanley spokesman declined to comment. In 2014, Benjamin Alderson, then head of DeVere's New York office, told website International Adviser about SEC regulations: "You cannot be anything but squeaky clean, or it will show."

The firm had about 50 U.S. salespeople at its peak, and the top tier made more than $500,000 a year, former employees say. Three of the former employees say they sometimes drank booze out of paper cups when bosses weren't watching. Younger guys were sent downstairs to buy drugs from deliverymen. Most of the misbehavior stopped around 2015, the former employees say. People who worked at DeVere more recently say they didn't see anything untoward.

DeVere has a history of run-ins with regulators. In 2008 a Singapore subsidiary was fined for using unlicensed advisers and peddling insurance products it wasn't licensed to sell, according to the city-state's regulator. The firm closed the office that year. In Hong Kong a former DeVere subsidiary was fined HK$3.1 million ($398,000) last year for breaches including using unlicensed advisers and failing to hand over information to a local regulator. DeVere is on a list of firms published by Japan's financial regulator that aren't authorized to solicit customers for investments. Its U.K. subsidiary stopped providing some pension advice this year amid a regulatory review. DeVere has blamed some problems on scammers using its name.

An SEC investigation may not be the biggest threat to offshore advisers such as DeVere. In March the U.K. government imposed a 25 percent tax on some pensions transferred overseas. The U.K. Financial Conduct Authority in January warned on its website about the risks of pension transfers, such as unscrupulous advisers.

DeVere said in a May 13 news release that its strategic review will involve a corporate restructuring. It sold its Bahamas operation and has been busy

Quoted

"Respect for the rule of law leads us to the conclusion that this date cannot be postponed."

U.S. Secretary of Labor **Alexander Acosta** in a *Wall Street Journal* op-ed, saying that part of the fiduciary rule will go into effect on June 9. The rule requires brokers and financial advisers providing retirement advice to put their clients' interests ahead of their firm's or their own.

Shares of U.S. brokerages dropped after Acosta's op-ed ran

The U.S. Labor Department may still roll back the rule, which has been criticized by the Trump administration, after seeking public comment

this year setting up more businesses: It got an investment banking license from Mauritius, opened a private bank on St. Lucia, and started a "global e-money app" that it says will rival traditional banks. —*Zeke Faux, Benjamin Robertson, and Matt Robinson*

The bottom line DeVere Group, which specializes in advising Britons living abroad, has a history of run-ins with regulators.

Wrongdoing

Data Mining to Find Tax Cheaters

▶ **That Swiss bank account may be closed—but it's not forgotten**

▶ **"A whole bunch of people left when they went after UBS"**

Driven by fear of prison and scandal, tens of thousands of Americans who hid money offshore have taken an amnesty deal offered by the U.S. Internal Revenue Service since 2009. They had to bring the money home, pay the taxes plus penalties, and tell authorities how bankers helped them cheat. In return, they weren't prosecuted. Some resisted, however. They moved their money from Switzerland to other tax havens such as Singapore and Hong Kong, daring the U.S. government to find them.

Now this high-stakes game of catch-me-if-you-can is heating up, thanks to an avalanche of data handed over by the 80 Swiss banks that made deals with the U.S. to avoid prosecution. As with the Americans, they've had to show how the cheating worked, although in deference to Swiss privacy laws they weren't required to name clients or provide account numbers. Prosecutors have been poring over the information and focusing on "leavers"—the clients who pulled their hidden money and stashed it elsewhere. They're also looking at companies and middlemen who helped them, say prosecutors and tax lawyers.

Mark Matthews, a lawyer at Caplin & Drysdale, says more of his clients are getting grand jury subpoenas for account records, adding that he thinks it's because of the trove handed over by the banks. "It's obvious that the Department of Justice is mining the data," he says. Prosecutors won't say if they've been able to charge anyone as a result of the data. "There are those who are still attempting to remain in the shadows, and it's our job to try to find them," says Justice Department tax prosecutor Nanette Davis.

Although the accounts remain anonymous unless the client gave permission, the banks have reported how much money flowed in and out of each one from 2008 to 2014, as well as their opening and closing dates and maximum values. Those clues may add up to something when combined with other information. A team of prosecutors and IRS agents—whose number Davis would only describe as "substantial"—is trying to identify the leavers by pairing the bank data with other evidence collected by law enforcement. Banks, however, could lump the money flows into monthly summaries for each account, potentially making it harder to match them exactly to a single transfer authorities already know about.

The team can also request information from Switzerland through a joint tax treaty. "We're making every effort to use all of our data points to do that sort of reverse engineering," says Davis, adding that the U.S. has identified the owners of a "significant" number of accounts.

The 80 Swiss banks that provided the records paid $1.37 billion in fines for helping Americans evade taxes. **BSI**, **Union Bancaire Privée UBP**, and **Crédit Agricole** paid some of the biggest penalties under the disclosure program: $211 million, $188.7 million, and $99.2 million, respectively. In all, the banks held about $50 billion in U.S. assets in 35,096 accounts from 2008 to 2013, according to data compiled by Bloomberg. Refusing to cooperate was even more expensive: **Credit Suisse Group AG**'s main unit, which didn't provide data, pleaded guilty in 2014 and paid $2.6 billion.

The bank data bolster information from the 56,000 individuals since 2008 who joined the amnesty initiative known as the Offshore Voluntary Disclosure Program. The program has collected about $10 billion in taxes and penalties. Banks hiding assets could also reduce their fines if they showed they persuaded clients to enter the program. Investigators have a "tsunami of leads" from those disclosures, says Robert Panoff, a tax attorney in Miami. "It's names, dates, places, lawyers, accountants, fund operators. It's all there. If people haven't been detected yet, it's just because the government doesn't have enough people to do the work, for the most part."

Americans began taking money out of Switzerland in 2009 after **UBS Group AG** paid $780 million to avoid prosecution, says Panoff, who prefers the term "account migrators" to "leavers." The disclosure program got under way when UBS agreed to hand over data on about 4,700 accounts. "A whole bunch of people left when they went after UBS," says Panoff. "Some went to Israeli banks, some to the Far East, some to the Caribbean. It's like hitting a puddle of mercury. The little beads go everywhere."

Another tax attorney, Lucy Lee of Akin Gump Strauss Hauer & Feld LLP, says a group of prosecutors and IRS agents is focusing on taxpayers who moved their money to Hong Kong, Singapore, and South Korea. "The leaver list is not something that should be underestimated or disregarded," she says. "It is a real threat to financial institutions—and the advisers and lawyers who might have assisted the leavers and took in account holders who came from institutions that were being investigated." But for now, only Davis and her investigators know who's likely to pay for the leavers' flight from the U.S. tax system. —*David Voreacos and Christian Berthelsen*

The bottom line U.S. authorities have information on Swiss bank accounts that may have been used by tax cheats, and they're following the clues.

Edited by Pat Regnier
Bloomberg.com

How do you maximize the profits of a drug that treats a very rare disease?

✓ Charge a lot
✓ Find more sick people
✓ Never let them go

By Ben Elgin, Doni Bloomfield, and Caroline Chen

Kerry Owens, a doctor in Oklahoma City who specializes in kidney disorders, was stunned by the call to her mobile phone in September 2015. She and a team of specialists were treating a new mother from nearby Enid, whose health had begun to deteriorate after giving birth. The doctors ran countless tests but couldn't pinpoint what was wrong. Briefly they worried it might be an extremely rare and potentially fatal blood disorder called atypical hemolytic-uremic syndrome, or aHUS, which afflicts about 1 in 500,000 people each year. They put the patient on a drug called Soliris, which had recently been approved to treat the condition. But her health continued to decline, so they stopped the Soliris infusions.

Now a sales rep was on the other end of Owens's phone from Alexion Pharmaceuticals Inc., the New Haven-based maker of Soliris—one of the world's most expensive drugs, typically priced from $500,000 to $700,000 a year.

The rep was calling to argue with the treatment plan. She pressured Owens to continue Soliris treatments, ticking off detailed information about the mother's organs that the doctor hadn't shared with the drugmaker. "How did you know that?" Owens remembers thinking. She was monitoring the patient's condition with seven hematologists and wasn't swayed by the Alexion rep. "I was really taken aback by how bold and brash she was," Owens says. "I've never had an experience like that—before or since."

Alexion is a powerhouse in the market for orphan drugs, a fast-growing pocket of the pharmaceutical industry that focuses on rare diseases. In the U.S., an orphan drug is defined as one that treats a disease affecting fewer than 200,000 people in the country. Orphan drugs accounted for a disproportionate share, 41 percent, of all medications brought to market in 2014, according to a study by Johns Hopkins University. Globally, sales of orphan drugs are expected almost to double, to $209 billion, by 2022, based on numbers gathered by Evaluate Ltd., a life-sciences consulting company.

These drugs have helped millions of people. Patients with aHUS, for instance, faced years of kidney dialysis treatments and sometimes succumbed to deadly blood clots before Soliris came to market. "It's the best drug I've seen for changing the outcome of a disease since I graduated in 1985," says Gianluigi Ardissino, a doctor in Milan who's treated more than 70 patients with Soliris.

But orphan drugs have also caused a seismic shift in treatment costs. The average U.S. patient on an orphan drug last year relied on a $136,000 therapy, a figure that's climbed 38 percent since 2010. A fraction of a teaspoon of Soliris, administered in a single 35-minute treatment, costs more than $18,000, and patients might need 26 treatments a year for the rest of their lives. With this single drug accounting for almost all its revenue, Alexion has created enormous wealth out of an estimated 11,000 customers. It generated $3 billion in sales in 2016, and its $24 billion market valuation puts it on par with household names such as HP Inc. and Yum! Brands Inc.

Having to rely for profits on a small number of customers who are each potentially worth millions of dollars causes side effects of its own. For years, the sales culture at Alexion was so pressure-packed that aggressive phone calls to doctors were among its milder transgressions. Ethical lines were routinely crossed, troubling many of its workers, according to interviews with more than 20 current and former employees and more than 2,000 pages of internal documents.

Then last November, Alexion announced it was conducting an internal probe into its sales practices. It eventually concluded that management had failed to set the appropriate "tone at the top," according to a news release. Within months the company's chairman and co-founder, Leonard Bell, and its chief executive officer, chief financial officer, and top compliance officer left. In March, Alexion hired as CEO Ludwig Hantson, an industry veteran, who revamped the compliance team and appointed a head of culture "to redefine the culture in the organization with a big emphasis on integrity, trust and compliance," according to a written statement sent to Bloomberg. On May 23, the company announced the departures of the chief commercial officer, head of research, chief human resources officer, and the new CFO.

"The bear story on Alexion was, how do you even make a business in this?"

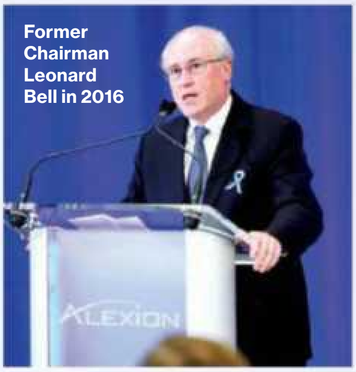
Hantson declined to be interviewed for this story or to answer specific questions, so it's not clear what exactly prompted the reorganization. But Alexion's past appears to be catching up to it, particularly overseas, where the company gets about 60 percent of its revenue—and where it behaved the most egregiously, former insiders say. On May 8, Brazilian police raided its offices in São Paulo as part of an investigation into its business there.

Public outrage over the soaring prices for life-changing medications has been reverberating around the globe for years. But far less attention is paid to the *Glengarry Glen Ross* frenzy at companies such as Alexion, whose drug costs more than most new homes and, in some parts of the world, must be delivered by armed guards.

Before the early 1980s, pharmaceutical companies largely ignored the known universe of about 7,000 orphan diseases. It simply didn't make much business sense to address devastating but rare ailments such as Huntington's disease and muscular dystrophy when such widespread, chronic conditions as arthritis, heart disease, and diabetes had a steady supply of patients, as well as insurance companies, ready to foot the bill.

To address neglected research areas, Congress in 1983 passed the Orphan Drug Act, which gave drugmakers federal grants, tax incentives, and seven years of marketing exclusivity for new rare-disease treatments (vs. three to five years of exclusivity for a more common new drug). In the ensuing 34 years, more than 600 orphan drugs have been approved in the U.S., compared with 10 in the decade before the law was passed.

But government-protected monopolies, combined with desperate patients, led to today's prices. Genzyme Corp. started the trend in 1991 by charging $150,000 for a year's supply of a drug for treating Gaucher disease, an ailment that weakens bones and internal organs. In 2016, Biogen Inc. began charging $750,000 for the first year of treatment with a drug called Spinraza, which targets a deadly muscle disease. "Many of these manufacturers have perceived it as essentially a blank check to price the drug where they think it's reasonable," says Rena Conti, associate professor of health policy and economics at the University of Chicago.



Former Chairman Leonard Bell in 2016

Despite the pricing controversies, it's not politically popular to tinker with the Orphan Drug Act. The law has been highly effective in funding and focusing top scientific minds on long-neglected diseases. And everyone expects the drugs to cost more than those for common maladies, because companies have to recoup research and development investment and generate profits from a smaller customer base. This leaves government health programs, groaning under the high cost of drugs, to figure out how to bargain or to limit the availability of these drugs to the neediest patients.

In many ways, Bell is a perfect example of how orphan drug incentives should work. When he started Alexion in 1992, he wasn't in a great position to take a major risk. A 33-year-old cardiologist at the time, he had three children ages 1 to 7 and a tenure-track position at Yale. Bell had become fascinated with a part of the immune response known as the complement cascade, which helps the blood stream get rid of damaged cells and bacteria. Sometimes this protective immune response can cause harm, such as when a body rejects a transplanted organ. If he could figure out how to limit the complement cascade in certain situations, Bell reasoned, he could solve a variety of medical problems.

Funding was tough to find, and Bell struggled to stay afloat. "Like most things in biotech, within six months of leaving Yale, everything had failed miserably," he told Bloomberg in 2015. (Bell, who retired in May amid the management turnover, didn't reply to messages seeking comment for this article.)

Alexion next teamed up with another company to alter organs in pigs so they could be transplanted into humans. Although the effort proved unsuccessful, it helped Alexion raise funds from private investors and government grants to continue probing the relationship between the immune system and blood cells.

Bell took the company public in 1996. Even though it was years from introducing any products, investors were willing to embrace the risk for the prospect of large rewards if Alexion could unlock the complement system, recalls Barry Luke, the company's former vice president for finance and administration.

In 2002, Alexion had a breakthrough. A British researcher showed that one of its therapies actually helped patients suffering from the extremely rare blood disorder called paroxysmal nocturnal hemoglobinuria, or PNH, in which a patient's complement system attacks red blood cells. About 35 percent of patients die within five years of a diagnosis. By the time Soliris was approved by U.S. regulators to treat PNH in 2007, it had taken 15 years and $850 million to bring the drug to market. In 2011, Soliris was approved to treat aHUS as well.

In 2007, Wall Street analysts eagerly awaited a price tag for Soliris. Most expected it would cost more than $100,000. But Alexion factored in other things, such as the savings Soliris offered by cutting down trips to the hospital and blood transfusions. When the company set its initial price of $389,000 per year on a conference call, one analyst from Credit Suisse Group AG was so dumbfounded that when his turn to ask a question came around he said, "Sorry, I'm speechless right now. On that number, can you repeat that again?"

Soliris was a savior for such patients as Michele King. When she was 21, King, a Canadian, had been overcome by fatigue on a 1988 hitchhiking trip across New Zealand. After two years of tests and doctors' visits, she was diagnosed with PNH. She began transfusions to replenish her red blood cells and took steroids to slow her immune system's attacks on her body. The treatments helped a little, but her energy would quickly fade, and the steroids left her irritable and with the swollen facial features known as "moon face." She struggled to work administrative jobs to pay the bills. "I used to have to go home and sleep at noon because I was so tired," she says.

In 2005, King got into a drug trial for Soliris, which doesn't cure PNH but can hold the disease at bay. "From the first dose, it completely changed my health," says King, who's been on it ever since. Her energy returned, her moon face disappeared, and she took up horseback riding. "I call it a miracle drug for me."

The company immediately went into overdrive on its sales efforts. "Back in 2007, the bear story on Alexion was, how do you even make a business in this? Aren't there just a few hundred people in the world living with PNH?" said Alexion's former CEO, David Hallal, in an interview with Bloomberg in 2015. (Hallal, who resigned in December, didn't respond to messages seeking comment for this story.) "We didn't sleep for four, five years."

For new arrivals at the company, the sales culture was intense. Managers drilled into them the need to question doctors, many of whom had never seen patients with these rare diseases, and to "transform no to yes," recalls a sales manager who left in 2016. If doctors didn't think patients were sick enough to warrant a drug with this price tag, the salespeople were instructed to warn the doctor that his patient could die.

The company closely tracked key details, such as the number of tests ordered by physicians in their core markets. And sales staff passed around intricate spreadsheets, with thousands of rows each, on potential patients, including details such as birthdates and information about symptoms, doctor, and hospital. In some cases, patients were identified by their initials.

A team of nurses sat alongside the sales staff. Pharmaceutical companies often employ trained medical personnel to help them manage complicated treatment regimens. But as licensed practitioners, in-house nurses are supposed to hold their patients' interests ahead of their employers' profits. To avoid conflicts, most drug companies keep a firewall between their nurses and their salespeople. At Alexion, the nurses reported directly to sales, and the pressure to lock in and keep customers was often heaped on them because they had the most access.

Several former employees described how, during weekly Friday sales meetings, managers gathered the sales staff and nurses to talk about their customers. If somebody had stopped taking Soliris, the managers would turn to the nurse assigned to that patient: What steps did you take to keep the patient on the drug? Have you told the patient he could get a

PREVIOUS SPREAD: GETTY IMAGES (2); THIS SPREAD: ARNOLD GOLD/NEW HAVEN REGISTER potentially fatal blood clot if he stops? Did you steer the patient to a different doctor who might resume treatment? "It was your feet to the fire, sweat pouring down your back," says one former longtime company nurse, who requested anonymity because she feared retaliation from the company.

Stacey, a 43-year-old stay-at-home mom in Vancouver, Wash. (she asked that her last name not be used to protect her privacy), was diagnosed with PNH in 2004 and began getting blood transfusions. So when Soliris became available, she was eager to try it. But her blood results showed little improvement. When she told her Alexion nurse that she and her doctor were going to stop treatment, she began receiving calls from the nurse urging her against it.

"I felt like they were scaring me, saying, 'Oh my gosh, you really shouldn't stop. You could get a clot and die,'" Stacey recalls. "I said, 'It's not working for me. I know there's a bottom line here—a dollar line.'"

With two very uncommon diseases, Alexion has long faced a question that vexes most orphan drug companies: How do you find those extremely rare patients and steer doctors to your drug? (One public-relations weapon in the early arsenal of orphan drugmakers: pitching their obscure diseases to the TV medical drama *House*.) To find those "needles in a haystack," as Alexion's Bell has described such patients, sales reps spend the majority of their time talking to doctors, getting them to look for symptoms and encouraging them to test for the rare diseases. Alexion set out to persuade doctors to test more frequently for PNH and aHUS—and to find a way to glimpse these test results, which traditionally have been shared only among the patient, the doctor ordering the test, and the lab.

Reps were instructed to urge doctors to send the tests to preferred "partner labs," according to several former employees and internal documents. Unbeknown to patients and many of the doctors, several of these preferred labs have agreements with Alexion to provide it with a copy of the test results. These are "blinded" to remove the patient's name, so they don't run afoul of medical privacy laws. But in some cases the lab provides everything else: a patient's age, gender, and ZIP code, the hospital and doctor ordering the test, and a summary of the results. For Alexion sales reps, this gave a map to the doorsteps of otherwise hard-to-find patients.

When a result for PNH or aHUS came in to Alexion, the diagnostics team—about a half-dozen employees—passed the detailed information along to the sales staff, which descended on the doctor listed in the result. "It was like Normandy," says a former account rep who requested anonymity because he doesn't want to harm his career. Drug companies pressured labs for years for access to the testing data, but the labs pushed back, says Adam Tanner, a writer in residence at Harvard's Institute for Quantitative Social Science and author of the book *Our Bodies, Our Data*. Around 2010, he says, the labs' behavior changed. Seeking a way to fatten thinning profit margins and under the rationale of helping drug companies with research, labs began to sell blinded test results to data aggregators and drug companies.

For Alexion, this arrangement started with a lab in Bangor, Maine, called Dahl-Chase, which helped develop the test to detect PNH. It expanded to other regional labs, including Machaon Diagnostics Inc. in Oakland, Calif., as well as national labs such as Laboratory Corp. of America Holdings, known as LabCorp, and Quest Diagnostics Inc. Even Mayo Medical Laboratories, a division of the not-for-profit Mayo Clinic, provides test information to Alexion.

In April, in response to questions from Bloomberg, Kim Diamond, Alexion's spokeswoman, sent a written statement that read in part, "These lab partnerships are critical since PNH and aHUS are life-threatening, ultra-rare diseases with low awareness…among the medical community." But on May 16, a week after Bloomberg sent further questions about the practice, Diamond said the company was temporarily halting such data gathering as it reviews its lab relationships. She declined to discuss the reason.

Executives at Dahl-Chase and Machaon didn't return multiple phone calls and emails seeking comment. Quest Diagnostics and Mayo said in written statements that their data-sharing contracts are confidential, but that they adhere to privacy laws, while LabCorp wouldn't confirm or deny whether it shared testing data with Alexion.

Around the world, a network of patient advocacy organizations offers much-needed support and helps expedite drug approvals. It also provides the company another tool to zero in on potential customers. In 2015, Alexion funded more than 75 of these groups, according to a listing on its website.

In the U.S., the National Organization for Rare Disorders, which emerged in 1983 during the lobbying effort to enact the Orphan Drug Act, remains one of the most powerful advocates for patients with rare diseases. Through grants from Alexion, NORD hosts several aHUS and PNH meetings each year around the country, where patients and their families meet, offer one another support, and hear from medical experts. "People felt very isolated," says Maria Hardin, NORD's former vice president for patient services who hosted some of the Alexion-funded meetings for PNH patients. "Bringing [the community] together was very beneficial."

Alexion's grants pay for travel, lodging, and meals. Typically the patients and families arrive at the hotel in the evening and gather for dinner with the host from NORD. The next day they attend an information session, usually with a doctor (also paid by Alexion) who gives a talk and answers questions. Alexion and NORD negotiated who could be at this second day, says Hardin and a former Alexion employee. Alexion wanted sales reps to be at the meeting, but NORD resisted. Instead, NORD agreed that Alexion's nurses could be there. "I did not like that decision, but I did not have control over that," Hardin says.

According to two former nurses who attended these meetings, they were instructed to gather sign-in sheets with names and contact information. A few days after the meetings, they would reach out to attendees who weren't taking Soliris to begin a dialogue in the hope of starting them on it. NORD's spokeswoman, Jennifer Huron, says her organization protects patients' privacy and isn't aware of Alexion nurses gathering contact details.

Overseas, Alexion has developed even tighter relationships with patient advocacy organizations. The company's involvement with such groups in Brazil presents a particularly dark picture of the perverse incentives propelling orphan drug sales.

To be reimbursed in Brazil, drugmakers are supposed to negotiate with the government on price. To avoid this step, Alexion dragged its feet on registering Soliris there for years, say five former managers and executives. Under Brazil's constitution, which declares health a "right of all persons and the duty of the State," citizens can sue the government to get access to drugs that haven't yet gained approval by regulators. If the citizen wins, the government pays for the drug without the usual price negotiations.

Most patients don't have the resources to pursue such a lawsuit, which is known as "judicialization," so Alexion started and funded a patient group called the Association of Patients with PNH. The group's primary lawyers, who spearheaded the judicialization suits on behalf of patients, initially came from a law firm owned by the sister of Alexion's local manager, according to a December 2014 confidential analysis conducted by an outside law firm that Alexion had hired to review its business practices in Brazil.

In 2012 the company shifted funding to a bigger group called AFAG. Although AFAG works with other drug companies, Alexion contributed 1.672 million Brazilian reais (about $500,000) to the charity in 2014 and 2015. That was about 30 percent of AFAG's budget, says the group's president, Maria Cecilia Oliveira. For 2016 the donation increased to 2.675 million reais. These contributions afforded special access. Every week, an Alexion manager went to AFAG's office to go through patient files, according to internal documents. The manager told AFAG which cases to pursue and took all the latest patient information back to Alexion, according to a former manager. Few doctors, patients, or government officials realized the extent of Alexion's influence within AFAG, three former company managers say.

"I felt like they were scaring me, saying, 'Oh my gosh, you really shouldn't stop. You could get a clot and die'"

Alexion's outside law firm deemed its Brazilian operations to be "unethical," according to the 2014 findings. But they've been quite lucrative. By the end of 2016 the company projected it would have more than 600 Brazilians on Soliris, which would produce revenue of more than $200 million, according to internal documents. Brazil's health system doesn't easily absorb that kind of expense. Soliris—a drug that treats 0.0003 percent of the country's population—accounted for 30 percent of Brazil's judicialization budget in 2013 and 2014.

Now, Brazil's national police are alleging that some of the lawsuits funded by Alexion through its donations to AFAG were fraudulent and used inaccurate diagnoses to generate patients, according to a request for a search warrant, which Bloomberg reviewed. In one case, armed guards regularly delivered far more Soliris than was needed to a woman who was diagnosed—incorrectly, it later turned out—with aHUS. After years of the excessive shipments, she'd stockpiled about 2.2 million reais of the drug in her refrigerator. Growing suspicious, she reported the situation to authorities, according to the search warrant request. Brazil's police also raided the offices of AFAG on May 8. Oliveira confirmed the search of the group's offices in a phone interview and said AFAG is cooperating and has done nothing wrong. Alexion's Diamond says the company has operated "in accordance with local laws" and that it "has not been charged with any criminal or civil misconduct at this time." In a discussion with investors on May 16, CEO Hantson said Alexion was striving to improve how it works with patient groups in Brazil and elsewhere.

Alexion's grants to overseas groups have also caught the attention of U.S. regulators. For the past two years the Securities and Exchange Commission has been investigating grants made by Alexion in Brazil, Colombia, Japan, Russia, and Turkey, with a focus on potential violations of the Foreign Corrupt Practices Act.

Despite the company's problems, Alexion understandably enjoys a fervently loyal fan base. Stacey, the stay-at-home mom from Washington state who faced pressure from an Alexion nurse after stopping Soliris, tried the drug again several years later. For reasons she can't explain, it worked much better that time. The drug "is life for me," she says. "You just can't put money on that."

Of course, you can, and you probably have to. From Canada's drug price review board (it's been warring with Alexion over prices for years) and New Zealand's pharmaceutical agency (in 2013 it declined Alexion's funding application for Soliris because of cost) to President Trump via Twitter (March 7: "I am working on a new system where there will be competition in the Drug Industry. Pricing for the American people will come way down!"), every country is trying to figure out what's reasonable. Trump hasn't provided details on his new system, but in the meantime the biggest looming challenge to orphan drug companies in the U.S. is the GOP plan to repeal Obamacare. The bill that passed the House in May could allow insurers to bring back some lifetime limits, meaning some patients would have to pay out of pocket once they reached their maximum drug reimbursement. That could put more pressure on companies to lower prices.

Investors aren't sure what to think about the investigations into Alexion's business practices or a potential overhaul by the new CEO. Barclays Plc wrote in an April research report: "The investigation into Soliris sales practices and recent executive turnover have wreaked havoc on investor sentiment." Shares are down 18 percent since Alexion announced the 2016 internal probe, while biotech overall is up 2 percent.

Hantson is examining some of the company's most aggressive practices. After receiving detailed questions from Bloomberg, he announced several changes, including that the company's nurses will now report to the medical affairs staff instead of its sales team. Analysts who follow the company, such as Geoffrey Porges of Leerink Partners LLC, wonder whether an orphan drug company with a half-million-dollar product and 11,000 patients can clean up its act while keeping investors happy. "Everyone's fear is that if you lose that culture," Porges says, "you lose the revenue momentum." B —*With Mario Sergio Lima*

COURTESY ALEXION

'For £750,000 Per Year, I'll Call Anyone Sir'

CLASS. MONEY. POWER. BOILS. IN THE LONDON LEGAL SYSTEM, CLERKS PLAY A PECULIAR– AND VERY WELL-PAID–ROLE

BY SIMON AKAM

PHOTOGRAPHS BY NICK BALLON

Alex Taylor of Fountain Court Chambers

At Fountain Court Chambers in central London, the senior clerk is called Alex Taylor. A trim, bald 54-year-old who favors Italian suiting, Taylor isn't actually named Alex. Traditionally in English law, should a newly hired clerk have the same Christian name as an existing member of the staff, he's given a new one, allegedly to avoid confusion on the telephone. During his career, Taylor has been through no fewer than three names. His birth certificate reads "Mark." When he first got to Fountain Court in 1979, the presence of another Mark saw him renamed John. Taylor remained a John through moves to two other chambers. Upon returning to Fountain Court, in 2008, he became Alex. At home his wife still calls him Mark.

Alex/John/Mark Taylor belongs to one of the last surviving professions of Dickensian London. Clerks have coexisted with chimney sweeps and gene splicers. It's a trade that one can enter as a teenager, with no formal qualifications, and that's astonishingly well-paid. A senior clerk can earn a half-million pounds per year, or more than $650,000, and some who are especially entrenched make far more.

Clerks—pronounced "clarks"—have no equivalent in the U.S. legal system, and have nothing in common with the Ivy League-trained Supreme Court aides of the same spelling. They exist because in England and Wales, to simplify a bit, the role of lawyer is divided in two: There are solicitors, who provide legal advice from their offices, and there are barristers, who argue in court. Barristers get the majority of their business via solicitors, and clerks act as the crucial middlemen between the tribes—they work for and sell the services of their barristers, steering inquiring solicitors to the right man or woman.

Clerks are by their own cheerful admission "wheeler-dealers," what Americans might call hustlers. They take a certain pride in managing the careers of their bosses, the barristers—a breed that often combines academic brilliance with emotional fragility. Many barristers regard clerks as their pimps. Some, particularly at the junior end of the profession, live in terror of clerks. The power dynamic is baroque and deeply English, with a naked class divide seen in few other places on the planet. Barristers employ clerks, but a bad relationship can strangle their supply of cases. In his 1861 novel *Orley Farm*, Anthony Trollope described a barrister's clerk as a man who "looked down from a considerable altitude on some men who from their professional rank might have been considered as his superiors."

Fountain Court is among the most prestigious groups in London practicing commercial law, the branch that deals with business disputes. One day last summer, Taylor gave a tour of the premises, just north of the River Thames. The waiting room had been recently remodeled, with upholstered sofas, low tables, and asymmetrically hung pictures that called to mind an upmarket hotel. Taylor explained that the barristers had tried to walk an aesthetic line between modernity and the heritage that clients expect of people who are sometimes still required to wear a horsehair wig to court. Barristers are self-employed; chambers are a traditional way for them to band together to share expenses, though not profits. The highest-ranking members, barristers who've achieved the rank of Queen's Counsel, are nicknamed silks, after the plush material used to make their robes. But even the silks cannot practice without the services of clerks, who operate from a designated room in each chambers, matching the ability and availability of barristers to solicitors in need.

In the Fountain Court clerks room, Taylor sat at the head of a long table, flanked by subordinates wearing telephone headsets. Clerking has historically been a dynastic profession monopolized by white working-class families from the East End of London; Taylor's son is a clerk. Predominantly, clerks hail from Hertfordshire, Kent, and above all Essex, a county that's ubiquitously compared to New Jersey in the U.S. Many clerks rooms in London remain male-dominated, but several women work for Taylor, including two team leaders.

Each morning, a platoon of Taylor's junior clerks sets forth into London pushing special German-manufactured two-wheeled trolleys, equipped with chunky tires for navigating the city's streets and stairs. They're laden with hundreds of pounds of legal documents that must be delivered to Fountain Court barristers at various courtrooms, from the nearby Royal Courts of Justice to the Supreme Court, more than a mile away. Hard physical labor doesn't really correspond to the more senior work of clerking, which is phone- and email-based, and trolley-pushing is often pointed to as a reason for the relative dearth of female clerks higher up the career ladder. One junior Fountain Court clerk, Amber Field, 19, described how on one occasion, when she took hold of a trolley's handlebars and tried to muscle it into a rolling position, it didn't budge—she lifted herself up instead, like a gymnast on the parallel bars.

But the idea that time "on the trolleys" is necessary persists. British commercial courtrooms have been slow to adopt technology; barristers at Fountain Court and elsewhere remain adamant that they can only advocate properly with stacks of paper on hand, rather than off a screen. Some clerks argue that the trolleys help juniors absorb skills, learn the city's legal sites, and meet important people. But additionally, the trolley work serves as an unglamorous rite of passage, guarding the gilded summit of clerking from interlopers. Trolleys keep a closed shop closed, well into the 21st century. In the era of Brexit, as Britons turn inward, few professions better embody their abiding interest in keeping things as they are.

London's barrister population is getting more diverse, but it's still disproportionately made up of men who attended the best private secondary schools, and then Oxford and Cambridge, before joining one of four legal associations, known as Inns of Court—a cosseted progression known as moving "quad to quad to quad." In short, barristers tend to be posh. Being a successful clerk, therefore, allows working-class men and, increasingly, women to exert power over their social superiors. It's an enduring example of a classic British phenomenon: professional interaction across a chasmic class divide.

Fountain Court's Maisie Taylor (no relation to Alex) performs a clerking rite of passage: Trolley-hauling

One of the most peculiar aspects of the clerk-barrister relationship is that clerks handle money negotiations with clients. Barristers argue that avoiding fee discussions keeps their own interactions with clients clean and uncomplicated, but as a consequence, they're sometimes unaware of how much they actually charge. The practice also insulates and coddles them. Clerks become enablers of all sorts of curious, and in some cases self-destructive, behavior.

At Fountain Court, I spent an afternoon

with Paul Gott, one of the chambers' star barristers. He stood surrounded by packing cases—he was in the process of moving his office from an annex across the street, where it had become a small tourist attraction. Visitors would stop outside to stare through a window at Gott's extraordinary collection of objects: antique barristers' wig tins, an original wax-cylinder Dictaphone, a deactivated Kalashnikov assault rifle and hand grenades, stamps, and an assortment of vintage medical instruments of alarming purpose.

Like many top barristers, Gott had effectively won the English educational system: He has a double-first-class degree (top marks in preliminary as well as final exams) from Cambridge. As he spoke about his work—Gott specializes in securing injunctions against striking workers—he cut open a packing case with a metal device that he identified as a fleam, an obsolete surgical implement used for bloodletting. Outside of work, Gott divides his time between two homes: one in a Martello tower—a kind of defensive fort built to fend off Napoleon—and another in a converted military landing craft moored on the Thames that he calls the "Houseboat Potemkin." The *Chambers and Partners* legal directory describes Gott as "phenomenally intelligent," but his eccentric professional demeanor is only possible because he has a hardheaded Alex Taylor to intercede between him and the world, wrangling with clients and handling payments. Taylor creates the space for Gott's personality even as he's employed by him.

A more unsavory side of this coddling relationship is apparent elsewhere. At a chambers called 4 Stone Buildings, a clerk called Chris O'Brien, 28, told me he was once asked to dress a boil on a barrister's back. Among clerks, tales of buying gifts for their barristers' mistresses are legion. But they maintain a level of sympathy for their employers, whose work is competitive and often profoundly isolating. Clerks speak of how their masters, no matter how successful, live in perpetual fear that their current case will be their last. *Counsel*, the English bar's monthly journal, recently ran a major spread on mental health. John Jones, a prominent silk at Doughty Street Chambers who'd represented Julian Assange, died last year when he jumped in front of a train.

John Flood, a legal sociologist who in 1983 published the only book-length study of barristers' clerks, subtitled *The Law's Middlemen*, uses an anthropological lens to explain the relationship. He suggests that barristers, as the de facto priests of English law—with special clothes and beautiful workplaces—require a separate tribe to keep the temple flames alight and press money from their congregation. Clerks keep barristers' hands clean; in so doing they accrue power, and they're paid accordingly.

I asked more than a dozen clerks and barristers, as well as a professional recruiter, what the field pays. Junior clerks, traditionally recruited straight after leaving school at 16 and potentially with no formal academic qualifications, start at £15,000 to £22,000 ($19,500 to $28,600); after 10 years they can make £85,000. Pay for senior clerks ranges from £120,000 to £500,000, and a distinct subset can earn £750,000. The Institute of Barristers' Clerks disputed these figures, saying the lows were too low and the highs too high. But there's no doubt that the best clerks are well-rewarded. David Grief, 63, a senior clerk at the esteemed Essex Court Chambers, spoke to me enthusiastically about his personal light airplane, a TB20 Trinidad.

Money is tightest in criminal law. One chambers, 3 Temple Gardens, lies 200 yards from Fountain Court but might as well inhabit a different dimension. Access is via a plunging staircase lined with green tiles similar to those in a Victorian prison. The clerks room, in the basement, is stacked with battered files detailing promising murders, rapes, and frauds. The senior clerk is Gary Brown, 53, who once played professional soccer. Even the barristers appear harried and ashen in comparison with their better-fed commercial-law counterparts.

The mean income of a criminal barrister working with legal-aid clients is £90,000, meaning even a successful criminal barrister likely makes less than a top commercial clerk. At Fountain Court, once described as a place so prestigious that "you could get silk just by sitting on the toilet," I watched Taylor casually negotiate a fee above £20,000; at 3 Temple Gardens, the clerks wrangled deals for a few hundred pounds. The best-paid criminal clerks make perhaps £250,000 per year—and yet there's an excitement and pressure to a criminal clerks room that's absent in the commercial field.

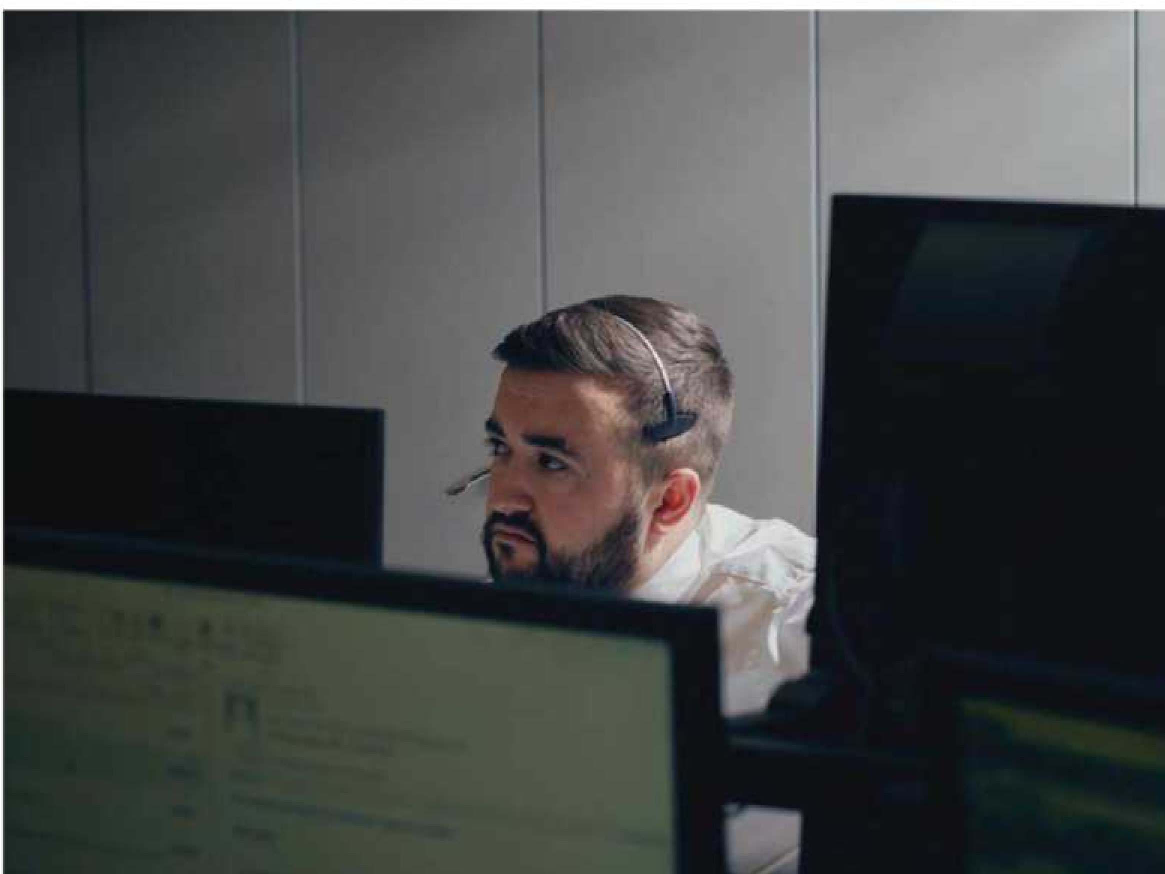
Clerks at work (clockwise from top left): Ryan Tunkel (4 Stone Buildings), Taylor, Richard Evans (Fountain Court), Sam Edwards (3 Temple Gardens)

One day I sat next to Brown's deputy, Glenn Matthews, 41, as he worked out the running order for the courts the next day. For several sultry hours, Matthews juggled the availability of his barristers with the new cases coming in from solicitors and more that moved off a wait list. Some barristers only work as defense counsel, some only prosecute, and some alternate roles, depending on the case; Matthews balanced all this and also made elaborate plans to match barristers who'd already be in a certain provincial town with other cases nearby, to save on travel. It was complex, skilled work done with panache.

Many in the criminal field are motivated by a belief that they're a crucial part of the British judicial machinery, and their work closely corresponds with the public's imagination of what it is to work in the law. *Silk*, the preeminent British legal TV show of the past few years, focuses on a criminal chambers. It features a lupine senior clerk, Billy Lamb, who bullies, cajoles, bribes, and often appears to have the most fun.

As a chancery chambers, dealing with wills, trusts, banking, and other matters, 4 Stone Buildings is an establishment from the old school, with a facade still pockmarked by World War I bombs. Guests stride down a corridor with deep red wallpaper to a waiting room equipped with a fireplace and shelved with aged lawbooks. The best of the silks' rooms face out across a low dry moat to the gardens of Lincoln's Inn—one of the four Inns of Court, along with Gray's Inn, Inner Temple, and Middle Temple, all less than a mile apart.

There are 34 barristers at 4 Stone, including Jonathan Crow, whose office features a stuffed crow on the mantelpiece. The clerks room is



downstairs and furnished significantly less smartly, with desks set behind a shop-like wooden counter. When I visited, the clerks were exclusively white and male, and five of the six were from Essex. At the helm was David Goddard, 64, in charge since 1983. One legal handbook notes that his nickname is "God," for his grip on the chambers.

I sat for two days in God's room, observing clerks' interactions with barristers across the wooden transom that were redolent of the upstairs-downstairs dynamic of *Downton Abbey*. The barristers spoke with "received pronunciation"—the polished accent traditionally spoken by the social elite and which, unlike lower-class accents, doesn't vary by region; the clerks, fluent Essex—a nasal accent, with elements of cockney. One vital function clerks play is finessing a "cab rank" rule, set by the Bar Standards Board, that states a barrister must take the first case that comes, regardless of their interest. Clerks can invent or manipulate commitments to allow their barristers to turn down work that doesn't appeal. (I didn't witness this at 4 Stone.)

Before the U.K. decimalized its currency in 1971, clerks received "shillings on the guinea" for each case fee. Under the new money system, the senior clerks' take was standardized at 10 percent of their chambers' gross revenue. Sometimes, but not always, they paid their junior staff and expenses out of this tithe. Chambers at the time were typically small, four to six barristers strong, but in the 1980s, they grew. As they added barristers and collected more money, each chambers maintained just one chief clerk, whose income soared. The system was opaque: The self-employed barristers didn't know what their peers within their own chambers were paid, and in a precomputer age, with all transactions recorded in a byzantine paper system, barristers sometimes didn't know what their clerks earned, either. Jason Housden, a longtime clerk who now works at Matrix Chambers, told me that, when he started out in the 1980s at another office, his senior clerk routinely earned as much as the top barristers and on occasion was the best-paid man in the building.

One anecdote from around the same time, possibly apocryphal, is widely shared. At a chambers that had expanded and was bringing in more money, three silks decided their chief clerk's compensation, at 10 percent, had gotten out of hand. They summoned him for a meeting and told him so. In a tactical response that highlights all the class baggage of the clerk-barrister relationship, as well as the acute British phobia of discussing money, the clerk surprised the barristers by agreeing with them. "I'm not going to take a penny more from you," he concluded. The barristers, gobsmacked and paralyzed by manners, never raised the pay issue again, and the clerk remained on at 10 percent until retirement.

Since the 1980s, fee structures have often been renegotiated when a senior clerk retires. Purely commission-based arrangements are now rare—combinations of salary and incentive are the rule, though some holdouts remain. Goddard told me last summer that he receives 3 percent of the entire take of the barristers at 4 Stone; later he said this was inaccurate, and that his pay was determined by a "complicated formula." (Pupil barristers, as trainees are known, start there at £65,000 per year, and the top silks each make several million pounds.)

The huge sums that clerks earn, at least relative to their formal qualifications, both sit at odds with the feudal nature of their employment and underpin it. In some chambers, clerks still refer to even junior barristers as "sir" or "miss." Housden remembers discussing this issue early in his career with a senior clerk. He asked the man whether he found calling people half his age "sir" demeaning. The reply was straightforward: "For three-quarters of a million pounds per year, I'll call anyone sir."

ONE WOMAN WORKING AT A CHAMBERS THAT THREATENED CLERKS' POWER WAS SPAT AT. ANOTHER FOUND RAT POISON IN HER DESK

Most chambers have become less formal, even as the class distinctions between barrister and clerk are in many ways intact. At 4 Stone, Goddard refers to the heads of chambers, John Brisby and George Bompas, as "Brizz" and "Bumps." The traditional generic term used by clerks for a barrister is "guvnor," though this appears to be fading. The intimacy of the long-term clerk-barrister relationship is nuanced. Goddard once walked into the room of a senior member of chambers who was proving particularly truculent. Goddard asked, "Why are you being such a c---?"

The barrister's eyes lit up. "I love it when you talk to me like that," he replied.

The origins of clerking, like much of English law, run to the medieval period. In the 14th century, a lawyer would employ an individual known as a "manciple" to look after his house, in return for "a bed and a reasonable dinner," the legal historian Samuel Thorne once wrote. Clerks as we might recognize them today existed by the 1666 Great Fire of London and were firmly established by the Victorian era. Efforts to modernize the clerking system have flickered in recent decades, with some success and a lot of rancor.

Brown of 3 Temple Gardens; in criminal law, money is tight, but the work can be electric

Around 1989 a former peace activist named Christine Kings attended a dinner party in East London where a group of barristers were complaining about their clerks, who they said terrorized them, ran their lives, and also earned much more than they did. The barristers had an idea: to set up a new sort of practice unfettered by ancient quirks of the bar, including the power of those uppity middlemen. They asked Kings, who had no legal background, to join them, taking on many of the duties typically performed by a senior clerk, but for much reduced pay.

Doughty Street Chambers, as they named their new association, controversially set up its operations outside the footprint of the four Inns of Court. As an interloper, Kings wasn't popular with clerks. When she was a few months into the job, standing at the top of Chancery Lane, one tried to spit in her face. As others began to take on similar roles at various chambers—ex-military men at first, who met with little success, and then women—Kings organized informal gatherings to promote solidarity. One attendee said she'd found rat poison in her desk drawer.

Kings became the first professional chief executive officer of a barristers' chambers in London. At a mass meeting of some 300 barristers and other personnel in the early 1990s, she spoke about her new role and the ways it broke from traditional clerking. When someone asked what she was paid, she replied that the Bar Council suggested £44,000. The barristers gaped—it was a fraction of what they paid their chief clerks to run their establishments. Since then, several chambers have experimented with professional heads from nonclerking

backgrounds, under titles ranging from CEO to director, with varying responsibilities. At Fountain Court, an administrator deals with logistics, while the core part of clerking—the routing of incoming cases to barristers and fee negotiations—remains in traditional hands. (Kings, 59, now works at Outer Temple Chambers.)

Doughty Street Chambers has thrived. It's best known as the professional home of the accomplished human-rights lawyer Amal Clooney. Another outfit that eschews the more suffocating traditions of the English bar is Matrix Chambers, which sits in a former police station at the northern fringe of Gray's Inn. Matrix emerged in 2000 when a group of mostly human-rights barristers, including Cherie Blair, the wife of then-Prime Minister Tony Blair, splintered off from seven other chambers. Together, they aimed for a funky, fresh aesthetic, installing a DayGlo-illuminated reception desk inherited from an ad agency and refusing to pose for the traditional portraits of staff standing in front of lawbooks. Those who resented such modernizations referred to Matrix as Ratmix.

Seventeen years after its founding, Matrix is an established part of the London legal landscape, with a particularly strong reputation in public, media, and employment law. (Matrix has represented Bloomberg LP, the owner of *Bloomberg Businessweek*.) Matrix doesn't use the term "clerk." Instead, there are three teams, called "practice managers," that each deal with solicitors in different areas of the law. At the top is a chief executive, Lindsay Scott, a former solicitor who takes on many of the strategic duties of a senior clerk.

On a Friday morning, I watched as Hugh Southey, one of Matrix's silks and a descendant of the Romantic poet Robert Southey, gave a presentation to the practice management team on "terrorism prevention and investigation measures." The British government introduced these controversial legal maneuvers in 2011 to manage potential terrorists who can't be charged or deported. Most chambers pay limited attention to the legal education of their clerks, who as a consequence sell a product they don't understand. Matrix's crew, with more women and nonwhite faces than most clerking staffs, are routinely given opportunities to learn.

Some in London legal circles regard Matrix's reforms as semantic, noting the staff is thick with men from classic clerking backgrounds. Housden, Matrix's practice director, started work as a teenage clerk, and one of his colleagues has been a clerk for 25 years. As different as Matrix or other reformers might want to be, they're in the same marketplace as more orthodox chambers, and they play by a common set of rules and expectations that goes back centuries. One prevailing understanding of last year's Brexit vote is that it signaled a desire to be more British, less beholden to outsiders' notions of progress. Essex, the spiritual home of the clerk, had two of the five districts that voted the most overwhelmingly to leave the European Union.

As I spent time with London's clerks, I had the impression of a group of people who'd learned some of the language of modernity, but weren't themselves fully of the modern world—their boozy pub lunches attested to that. Some of the staff at Matrix have newfangled titles, it's true. But as Taylor might observe, all that's really changed is the name. B

How Faceboo

The platform is an accelerant for extremist thought.

ok Could Stop

Can it also be a deterrent?

By Jeremy Kahn

Last summer, Johannes Baldauf, an anti-hate-speech activist from Berlin, got a request for help from an unexpected place: Facebook Inc. When it came to stemming the spread of extremist messaging, Baldauf was accustomed to seeing the giant social network as part of the problem. Now it was asking him and other activists to act as a kinder, gentler, online version of Quentin Tarantino's Nazi-hunting *Inglourious Basterds* squad. Their mission was to come up with a social media campaign that might make Germans less susceptible to the wave of fake news and right-wing propaganda scapegoating Europe's growing population of immigrants and refugees.

Baldauf, 36, and his team at the nonprofit Amadeu Antonio Foundation specialize in an esoteric internet art known as "counternarrative." The basic idea is to exploit the same online tools extremists use but in a way that undermines their hateful messages. During a daylong brainstorming session, the group came up with a meme that subtly mocks people who blame minorities for the mundane frustrations of daily life, such as packed subway cars.

They released images of everyday setbacks—a bad hair day, a cracked iPhone—accompanied by the phrase *Kein Grund, Rassist zu werden* ("No Reason to Be Racist"). Before long, internet users started contributing their own photos of scenarios that might, absurdly, spark bigotry. The hashtag began trending on Facebook, Instagram, and Twitter. Baldauf says it was "sort of fun." It was also a good demonstration of how Facebook thinks social media can combat the vitriol it's so often accused of spreading.

Counternarrative is a little-known but important element of Facebook's plan to address online extremism. The issue has taken on new urgency since the election of Donald Trump and the rise of right-wing, anti-immigrant parties in Western Europe and Asia. In Germany, where Facebook has 29 million members, lawmakers recently introduced legislation requiring internet companies to remove content flagged as hate speech within 24 hours. The proposed fine is €50 million ($56 million) for the companies and as high as €5 million for executives charged with failing to act quickly. This is occurring as Facebook's relationship with European regulators grows increasingly frosty: On May 18 the EU's antitrust chief fined the company €110 million for making misleading statements about a 2014 acquisition.

Despite spending millions of dollars and hiring armies of contractors around the world, social media companies often can't delete hateful posts fast enough. Extremists set up accounts as quickly as the old ones are shut down, and it's easy for bad stuff to slip through. "We review over 100 million pieces of content every month," Facebook Chief Executive Officer Mark Zuckerberg wrote on his page on Feb. 16. "Even if our reviewers get 99% of the calls right, that's still millions of errors over time." The chance for something to slip through is particularly high with live video posts. In April a man in Thailand allegedly broadcast his child's murder, and another man, in Cleveland, uploaded a video of himself killing someone; both videos remained accessible for hours. In response, Facebook announced it would hire 3,000 more people to monitor content. Even that may not be enough.

That's why the company hopes activists such as Baldauf employing innovative techniques might help attack extremism and hatred at its source. Last year, Sheryl Sandberg, Facebook's chief operating officer, traveled to Berlin to announce something called the Online Civil Courage Initiative, or OCCI. The effort, initially backed with €1 million, distributes small grants and advertising credits to anti-extremist organizations, with the goal of helping activists produce counternarrative and antihate campaigns.

A million euros might seem like chump change for Facebook, but it's meaningful to the practitioners of counternarrative, who often operate on a shoestring. In a 2016 pilot, one Facebook-based campaign with a budget of just $3,750 reached more than 670,000 people. (Facebook says it's contributed additional money to OCCI since Sandberg's announcement but won't say how much.) There's "so much horrific stuff out there," says Baldauf, who used to help police hate speech on StudiVZ, a social network once popular in Germany. "Social media can also be a tool for education."

Facebook's investment in counternarrative fits squarely into an agenda unveiled by Zuckerberg in his February post. The 33-year-old co-founder says he wants Facebook to change the nature of communities—not just online but also in the real world. He wants these communities to be safer, more inclusive, more caring, better informed, and more civically engaged. It's exactly the sort of social engineering Facebook has tried to distance itself from in the past. Counternarrative offers one of the first chances to see how Zuckerberg's new vision might play out.

While Facebook had dabbled in ways to encourage counternarrative over the past decade, it began a more systematic push in February 2015, shortly after a White House summit on stifling violent extremism. At the event, President Obama pressured representatives of Silicon Valley to do more to combat terrorism. Heeding the call, Facebook started holding student competitions and days-long hackathons to develop digital tools to push back against online hate. Early efforts had limited results, because the projects that emerged tended to die as soon as the semester ended or the hackathon finished.

"We should think about it like SELLING COCA-COLA. But people are always trying to REINVENT THE WHEEL"

Then, in the summer of 2015, Facebook found itself in the center of a maelstrom in Germany. The number of online hate incidents was soaring as hundreds of thousands of refugees arrived there, fleeing civil wars in Syria and Afghanistan. In some cases, online hate led directly to real-world violence. That August a loose association of neo-Nazis, right-wing soccer hooligans, and members of the anti-Islamic movement Pegida used Facebook to incite demonstrations against a refugee shelter in Heidenau, near Dresden. Three nights of violent clashes injured more than 30 police officers.

As a result, German Justice Minister Heiko Maas began threatening to fine Facebook for facilitating hate speech, and Chancellor Angela Merkel confronted Zuckerberg over his company's record on the matter during a luncheon at the United Nations. "We need to do better," he told her, in comments inadvertently picked up by a live microphone. A few months later he told a crowd at a town hall-style event in Berlin that "we hear the message loud and clear" and "hate speech has no place on Facebook and in our community."

The company wanted to be seen as proactive, according to people familiar with its executives' thinking at the time, so Sandberg announced OCCI. The plan was to figure out what techniques might be most effective and then help thousands of activists use that knowledge to produce more—and better—counternarrative campaigns. The project was global, but there was no doubt why Sandberg had chosen to announce the program in Berlin.

To figure out which counternarratives work best, it helps to know what exactly to oppose. So Facebook tapped the International Centre for the Study of Radicalisation and Political Violence at King's College London to reverse-engineer extremists' digital propaganda and recruitment efforts. Peter Neumann, who runs the center, says the biggest challenge is figuring out the link between the popularity of content, as measured by shares or likes, and actual changes in behavior. In most cases, hate speech has no impact on people who see it. But for a minority, exposure to Islamic State content, for example, can lead to growing admiration for the terrorist group. An even smaller subset might be motivated to travel to Syria or carry out an attack.

Neumann says this works the same way any viral social media campaign hawking a consumer product does and that counterterrorists can learn from the ad industry. "We should think about it like selling Coca-Cola," he says. "But people are always trying to reinvent the wheel because it has to do with terrorism."

Social media can accomplish only so much. Take one famous campaign that predated Facebook's counternarrative efforts: #bringbackourgirls. The hashtag—often handwritten on signs and held up in selfies—was used more than 1 million times in the three weeks after the Nigerian terrorist group Boko Haram kidnapped 276 schoolgirls from the village of Chibok in April 2014. Luminaries such as Michelle Obama and actress Salma Hayek helped propel the meme, and the campaign inspired demonstrations in the Nigerian capital city of Abuja, London, and Los Angeles. By some metrics used to judge online marketing, it was a

PHOTOGRAPH BY FABIAN BRENNECKE FOR BLOOMBERG BUSINESSWEEK phenomenal success. What's less clear is whether there was any link between the campaign and the Nigerian government eventually negotiating the release of about 100 of the girls. The hashtag certainly hasn't slowed or weakened Boko Haram.

This is why Baldauf remains skeptical of memes even as he works to create them. More effective, he says, is a much more direct, but more difficult, technique: using Facebook and other social media to identify and engage with young people who are in danger of falling under the influence of right-wing groups. In addition to promoting viral campaigns such as "No Reason to Be Racist," Baldauf and his colleagues scour social media for signs that internet users might be drifting toward right-wing extremism. Then they try to engage them before extremist groups get a chance to do the same. Often this is more about providing emotional support or a feeling of belonging than engaging in an ideological debate. "This is not sexy," Baldauf says. "This is boring stuff, sitting in front of a computer all day searching for people."

Facebook funds another group, the London-based Institute for Strategic Dialogue, to help run OCCI. It conducted one of the most promising experiments on using social media to reach people at risk of joining violent groups. ISD researchers employed popular Facebook advertising tools to identify 154 people at risk of joining Islamic State or white nationalist groups. The tools allow marketers to target individuals by affinity groups, device type, age, gender, and other factors. ISD used it to find members associated with hate groups and then refined the list by looking at account photos and the nature and tone of the posts. Just being a member of an extreme political or religious group wasn't enough. The researchers wanted to find people advocating violence or liking the posts of those who did.

Using a Facebook tool (since discontinued) that allowed users to pay to contact nonfriends, the researchers then sent those members messages from former extremists who'd been trained in deradicalization techniques. More than a third of the emails led to what the researchers classified as "sustained engagement," with the targets trading at least five notes with the former extremists. Some asked for help leaving extremist groups or were curious why the former extremists had broken with radicalism.

The program highlighted the way content removal can backfire. A quarter of the people identified as likely targets had

What a Counternarrative Looks Like

"No Reason to Be Racist" subtly mocks people who blame minorities for the mundane frustrations of daily life, such as packed subway cars or cracked iPhone screens.

Extreme Dialogue, a documentary series, follows individuals reintegrating into society after abandoning radical ideologies or coping with the aftermath of violence.

The cartoon *Average Mohamed* encourages young Muslims to question extremist views, such as the idea that Islam mandates women be subservient to men.

ExitUSA, a program run by the nonprofit Life After Hate, produced this video (*There Is Life After Hate*) aimed at U.S. white supremacists experiencing doubts about their beliefs.

their accounts removed by Facebook for posting extremist content during the course of the program. Ross Frenett, who worked at ISD at the time, worries that Facebook doesn't think strategically enough about when and how to step in. If a British teen who reposts a jihadi video gets his account taken away, for example, it doesn't hurt Islamic State. Instead, he says, it ruins the opportunity to reach the teen with countermessaging and potentially prevent his being recruited by the terror group.

Sasha Havlicek, the institute's CEO, says counternarrative campaigns such as "No Reason to Be Racist" are designed to reinforce values such as tolerance and make communities "resilient" to extremist propaganda. She points out that public-health campaigns aimed at the general population have changed behavior—reducing rates of smoking and unsafe sex, for instance. She thinks the same will hold true for curbing racism and lessening the allure of Islamic extremism, provided those messages are delivered by people whom the intended audience thinks are credible. In a 2016 ISD study, counternarrative videos on Facebook, Google, and Twitter produced both positive and negative responses among users. Havlicek acknowledges that the evidence is tentative at best that exposure to these videos changed viewers' attitudes or made them more resistant to extremist messages. That's why she wants to conduct further research.

Other internet giants are experimenting with similar techniques. In 2015, Google Jigsaw, a division of Alphabet Inc. dedicated to using technology to eradicate online extremism, ran a pilot called the Redirect Method in which it altered results for search queries that people leaning toward joining Islamic State might use, such as "What is jihad?" People searching for these phrases were then shown ads for counternarrative videos. The click-thru rate was 75 percent better than for the average search ad, Google says.

Facebook does something similar when it serves up suicide prevention messages to users whose online activity suggests they may be contemplating killing themselves. The company could push counternarrative content—or direct individual intervention—to those whose behavior suggests they are enchanted by white nationalism or falling under the influence of Islamic State. But Facebook has been reluctant to go too far down this road. One problem, it says, is that unlike with suicide prevention, there's no standard counterextremism content that would help in every case.

There are bigger philosophical questions, too. "What's the trade-off between filtering and censorship? Freedom of experience and decency?" Yann LeCun, Facebook's director for artificial intelligence research, asked reporters during a roundtable at the company's Menlo Park, Calif., headquarters late last year. "The technology either exists or can be developed. But then the question is, how does it make sense to deploy it? And this isn't my department." Zuckerberg, whose department it certainly is, seems disinclined to get directly involved in serving counternarrative to users, despite his latest pledge to deploy Facebook to better societies. "Research shows that some of the most obvious ideas, like showing people an article from the opposite perspective, actually deepen polarization," he wrote in his February post.

Counternarrative efforts also face hostility from right-wing groups, who charge that Facebook is unleashing the thought police. When Sandberg unveiled OCCI, for example, Canadian television commentator Ezra Levant, a sort of Rush Limbaugh of the North, lambasted it as "an official censorship program that explicitly targets right-wing content."

"What's the TRADE-OFF between FILTERING and CENSORSHIP? Freedom of EXPERIENCE and DECENCY?"

On Jan. 18 about 200 journalists, lobbyists, and parliamentary staff members gathered in a large committee room on the fourth floor of Berlin's historic Reichstag. They were there for a debate on Facebook, hate speech, and fake news, organized by Merkel's Christian Democratic Union. On the panel, Eva-Maria Kirschsieper, Facebook's top lobbyist in Germany, faced off against hostile lawmakers, academics, and a TV broadcaster who'd successfully sued the company for being too slow to remove offensive comments.

Kirschsieper, flustered and seemingly on the defensive, insisted that Facebook was serious about combating hate speech and fake news and emphasized that the issues were "highly complex," with no easy fixes. The politicians were having none of it. Social media had devolved into a zone where "insults, denunciations, and libel are commonplace," charged Volker Kauder, Merkel's top parliamentary lieutenant. If part of the goal of OCCI was to combat not only hate speech but also rising anti-Facebook sentiment in Europe, it was failing.

Richard Allan, Facebook's top European lobbyist, says the company hasn't been comfortable emphasizing its counternarrative campaigns because they're experimental. "We need to try something out, and if it is effective, we should scale it," he says. But in the meantime, "we don't want to oversell what it is we're doing."

There have been some small, encouraging victories. In 2015, Baldauf's team made contact via Facebook with a student in Dresden who seemed captivated with neo-Nazism. The student wasn't interested in talking, and the conversation was brief. Months later, in January 2016, a scandal erupted in Germany about a series of sexual assaults allegedly committed by immigrants in Cologne during New Year's Eve celebrations. The story proved false, and soon after it was debunked, the student got back in touch with Baldauf's team and said he wanted to talk.

This time the dialogue lasted much longer, and the student eventually came to see how he'd been misled by right-wing propaganda. "Sometimes all it takes," Baldauf says, "is talking to someone with a different point of view."

—With Stefan Nicola, Elliott Snyder, Birgit Jennen, Rainer Buergin, and Sarah Frier

HBO'S MADOFF MOVIE / SELLING SPORTS HISTORY / GET CONTROL OF YOUR CLOSET / HERBS FOR ATHLETES

ETC

Lifestyles of the Rich and Not-Quite Internet Famous

For just $25,000 a month, you, too, can have your own social media team. By Max Chafkin
Illustrations by Aart-Jan Venema

Marketing

Tom Bilyeu has a vision. It's of a world in which Tom Bilyeu's wisdom is available to you, aspiring business leader bereft of foresight, at any time, on any platform, in any medium, always and forever. "My product is educational content that changes your life," says Bilyeu, 41, whose social media feeds are a never-ending stream of positivity. "Blast through 'good enough' and become capable of the extraordinary," one Instagram post reads, the text running below a soft-focus photo of Bilyeu staring off into the distance. Another says, "Human potential is nearly limitless."

For seven years, Bilyeu was, as he puts it, "the protein bar guy," the co-founder and president of Quest Nutrition LLC, a Los Angeles-based manufacturer of low-carb snacks that reached a $1 billion valuation in 2015. Last fall he left Quest and founded Impact Theory, an entertainment company that he says will be a 21st century equivalent of Walt Disney Co., making its money on long-running franchises. It's a lofty goal. For now, Impact Theory's main property is a YouTube talk show Bilyeu hosts from his living room, which averages about 45,000 viewers per episode.

Traditionally, people in his position might try to shop their idea to distributors. But Bilyeu opted for a different route after reading a blog post in November about a new service from VaynerMedia LLC, a New York-based media and marketing agency known for making viral videos for Budweiser and Toyota Motor Corp. Vayner normally works with corporate brands, but last fall it began offering its services to wealthy individuals, mostly businesspeople hungry for exposure, through VaynerTalent. Bilyeu signed up.

Today, Bilyeu still looks the part of a nutrition executive—athletic build, intense demeanor. Two to three times a week, Mason Tompkins, a 19-year-old videographer who works for Vayner, follows Bilyeu from meeting to meeting videotaping him. Then, with the help of Vayner's 750-person staff, which includes producers, social media experts, designers, and copywriters, Tompkins edits the footage into a five-minute reality show broadcast on YouTube and Facebook that runs separate from Bilyeu's talk show. Later, Vayner reedits it into smaller tidbits to run as clips or stills on other sites, which is how Bilyeu winds up with those gauzy Instagram posts. A Vayner brand director runs his social media feeds, posting almost everything that appears, though Bilyeu approves each quote.

"The whole goal entirely is to build my personal brand"

The cost of all this content: $25,000 per month, an investment Gary Vaynerchuk, the company's namesake and chief executive officer, insists is worth it. "It's about building attention at scale, which leads to opportunities," says Vaynerchuk, a YouTube star who parlayed his fame as the host of an irreverent wine-tasting show in the mid-2000s into a career as an advertising executive. He says the offering is designed so clients spend no time creating their own content. Bilyeu chooses to personally respond to followers' comments and questions, which he says is essential to maintaining the idea that his social media is an authentic extension of himself. As he says, "The whole goal entirely is to build my personal brand."

Besides Bilyeu, VaynerTalent has signed up executives from General Electric Co. and Microsoft Corp., plus a half-dozen entrepreneurial types. "I get that having somebody follow you around everywhere with a camera is weird," Vaynerchuk says. He also gets that paying an ad agency more than a quarter million dollars a year to manage your social media feed cuts against the promise of a personalized platform such as Snapchat or Instagram. But he argues that every ambitious businessperson—not to mention actor, musician, and athlete—will eventually be doing something similar. "It's a new form of PR and communications," he says.

Vaynerchuk has dissenters. "If you're serious about making an impact in the world, power down your smartphone," wrote Cal Newport, a Georgetown University computer science professor, in a *New York Times* op-ed in November. In the piece, published under the headline "Career Tip: Quit Social Media," Newport noted that he'd done well for himself despite ignoring Facebook, Twitter, and LinkedIn. "Good things will find you," he wrote.

The argument is appealing, especially at a time when new media consume more and more of our lives, but turning off social networks isn't realistic for most people. A 2016 study by CareerBuilder LLC and Harris Poll found that about 60 percent of employers use the networks to research candidates, up from 52 percent the year before. And as millennials age and are promoted into management, that percentage is likely to climb. Without social media, says career consultant Miriam Salpeter, "you have to know someone. And even if you have a great contact, they're going to look at whether you have a

LinkedIn profile." If a hiring manager can't find you, that's an obvious red flag.

Most regular people will never hire a social media consultant, of course; the beauty of Facebook and Twitter is that you don't need one to reap the benefits of exposure, provided you have intelligent and/or funny things to say. But for the super rich and busy, it's becoming more normal. As *Bloomberg Businessweek* reported earlier this year, Mark Zuckerberg's personal Facebook page is maintained by more than a dozen employees, including professional photographers, writers, and community managers who monitor his page for inappropriate comments and spam.

Salpeter offers a scaled-down version of what VaynerTalent promises: For about $2,000 a month, she'll rewrite your LinkedIn profile and help you become a regular on Facebook and Twitter, where she encourages clients to comment on articles as a way to burnish their credentials as thought leaders. Vaynerchuk designed his service to mimic his own personal social media entourage. Like Zuckerberg, he's long employed a dozen or so producers—"Team Gary," as it's known inside his company—who create a daily reality show, *DailyVee*, and a weekly interview show, *#AskGaryVee*. He has more than half a million YouTube subscribers, 2 million Instagram followers, and 1.5 million Twitter followers. Vaynerchuk says at least half the people who buy his package "will make back their investment in their advance on a book deal or on their speaking fees. It sounds like a lot of money, but it's a deal."

The promise of a dedicated social media team isn't just that it will make you look better on popular apps, but that it will help you figure out which platforms matter and spot new opportunities early. "Alexa and Amazon are a high priority right now," says Lindsay Blum, a vice president at VaynerMedia who runs the talent division, referring to the virtual assistant on Amazon.com Inc.'s Echo device. Any app developer who follows Amazon's guidelines can create a "skill," as the company calls it, for the Echo, and Bilyeu has an idea for one: His fans will enable the function, ask Alexa questions, and hear his prerecorded answers. "I want somebody to walk up to Alexa and treat her like she has multiple personalities," Bilyeu says. "And I'm one of those personalities."

Sipping a Diet Coke in Vayner's L.A. headquarters while Tompkins films, Bilyeu says he'll eventually record answers to fans' most-asked questions. For now he'll propose that Amazon recycle sound bites from the dozens of hours of footage Vayner has accumulated. "It's an experiment. It could be a total flop," he says. "But chatbots are going to be a big deal." Bilyeu's assumption is that one of his devotees in Oakland or Omaha will ask what he thinks about chatbots and hear the same answer, in his voice. If everything goes according to plan, the skill should hit devices this summer, making Bilyeu's presence that much more ubiquitous. So far, with Vayner's help, he's accrued about 120,000 followers across his various platforms, after more or less starting at zero because he'd been posting from Quest corporate accounts that he gave up when he left the company. Even so, he's a ways from his goal. "If you hit 3 million followers, you're a force," he says.

Should anyone get impatient, Vaynerchuk need only point to the opportunities his own social media presence has brought him. They include, in addition to his company, a seven-figure, 10-book deal with HarperCollins Publishers and the reality TV show *Planet of the Apps*, co-hosted by Vaynerchuk, Gwyneth Paltrow, Jessica Alba, and Will.i.am, which is slated to premiere on Apple TV this year. None of his customers has seen results like that yet, but, Vaynerchuk says, a client recently landed a consulting gig after a CEO saw one of the videos Vayner created for her. "I'm empathetic to why people think this is vain or narcissistic or self-promotional," he says. "But my whole life is doing things that people make fun of—and only look better later." Ⓑ

PHOTOGRAPH BY ANGIE SMITH FOR BLOOMBERG BUSINESSWEEK. ILLUSTRATIONS BY AART-JAN VENEMA

ONE LOVE

A supplement gains a cult following among extreme athletes. By Gordy Megroz

In 2008, while running a film production company in Prague, amateur triathlete Joel Einhorn was training on his bike when he crashed, resulting in a traumatic brain injury and a broken collarbone that required surgery. He couldn't sleep for two days, nor could he close his eyes without spinning. Two weeks after the incident, Einhorn was at an Indian restaurant and got to talking with a doctor who practiced Ayurvedic medicine. Soon Einhorn was taking seven daily herbal remedies, including botanicals such as ashwagandha and amalaki, which he'd mix into tea or water or take as tablets. His head cleared quickly, he says, and after three months he was swimming, running, and biking again. "I wondered, Is it these herbs?" says Einhorn, now 41. "I found that they were good for stamina, endurance, anti-inflammation, and recovery."

Einhorn started making his own concoctions, stirring the herbs with brewed green tea and honey. He'd pour them into a water bottle and go on six-hour bike rides. "It tasted awful," he says. "But there was no doubt that it was allowing me to maintain a higher level of performance." In 2013 he moved to San Francisco to build a business around his mixture, which he'd fine-tuned with the help of a second Ayurvedic doctor, into a black paste consisting of honey, ghee, sesame oil, sugar cane, and 30 herbs. Einhorn named the formula Hanah One, a tribute to Maui's Hana Highway, the most beautiful place he'd ever seen.

COMPETING PRODUCTS ARE CONSIDERED HARD TO DIGEST

Over the next four years, he sold only 5,000 11-ounce jars through his website at $55 each (that's $275,000). But in November 2016, with about $1 million from investors including Stephen Badger, chairman of Mars Inc., the maker of Mars bars, Einhorn started offering Hanah One in a 1.1-oz. serving ($49 for 12), packaged in a recycled cardboard-and-foil tube that's easy to rip open with your teeth and squeeze into your mouth while biking or running. After mountaineer Jimmy Chin and snowboarder Travis Rice endorsed the product on social media, it gained a cult following. Since November, Einhorn's company, Hanah Life, has sold $50,000 of product per month, about 80 percent of which is bought by consumers who treat it like a daily "superfood," putting it into coffee, tea, or smoothies.

In the U.S., sports gels and bars are a $1 billion annual business. Athletes eat gels, which are mostly sugar and have the consistency of frosting, for a quick energy fix. The knock on them is that they can cause gastrointestinal distress; it's tough to digest 100 calories from sugar, says Barbara Lewin, a sports dietitian who works with Olympic athletes and members of NFL, NHL, and NBA teams. Hanah Life says athletes fueling up with the supplement haven't experienced the same issues. Still, Lewin is skeptical of its efficacy, in part because the herbal proportions aren't labeled. "It's about the synergy of the compounds used in the right amounts," she says, adding that the 40 calories per serving isn't enough to energize a sportsman for long. "And it contains fiber, which isn't [usually] in sports gels. If you doubled the serving, you'd be ingesting too much fiber. That would cause gut distress, too."

There's also concern that some Ayurvedic compounds contain toxic metals such as lead and mercury. But Einhorn says this isn't the case with Hanah One, noting the company tests ingredients in India when they're harvested and again in the U.S. to make sure they don't contain those metals. The dairy for the ghee, he adds, comes from rare Vechur cows, whose milk is prized in Ayurvedic practices for its medicinal quality. Sourcing these ingredients, however, can be difficult, which is why Einhorn plans to scale slowly. For now, the product can be purchased only on Hanah Life's site. The company is churning out 10,000 jars a month. "Eventually," Einhorn says, "we can make 300,000." Ⓑ

PHOTOGRAPH BY CAROLINE TOMPKINS FOR BLOOMBERG BUSINESSWEEK. PHOTO ILLUSTRATION BY 731.

ZEN AND THE ART OF CLOSET MAINTENANCE

Get organized for $300. By Carrie Battan

Online shopping is great—so convenient!—until your closet turns into an impenetrable tangle of shirts, pants, sweaters, and more that you never wear. Calling in a professional organizer can cost about $1,600 for a four-hour session in cities such as New York, which might be affordable had you not spent all your money on clothes.

Fitz, a website started in January, aims to "democratize a service that previously existed for people who are celebrities," says Alexandra Wilkis Wilson, a co-founder of luxury flash-sale site Gilt, who started her new company with J. Michael Cline, founder of movie ticket site Fandango, after being introduced by a mutual friend. For a flat $300 fee, clients get a three-hour consultation with a vetted stylist, say, a magazine editor, design school alum, or salesperson at a top department store. Unlike services such as TaskRabbit, which let you choose your contractor, Fitz assigns you one.

The service begins with a wardrobe edit, in which your closet is emptied and each article considered individually, a method popularized by Marie Kondo's best-seller *The Life-Changing Magic of Tidying Up*. (Some Fitz stylists are certified in Kondo's official KonMari method.) Worn-out garments are tossed; ill-fitting items are tailored and laundered by Fitz-approved specialists; and otherwise unwanted pieces are consigned on luxury resale site Linda's Stuff. "We take care of all the logistics," says Fitz's fashion director, Brooke Jaffe.

Then, because everyone needs a great pair of black pants, the consultants will analyze your wardrobe to identify gaps and help fill them using Fitz's 400-plus retail partners, including Asos.com, J.Crew, Macy's, and Bloomingdale's. (Fitz gets a cut of sales through affiliate links.) Since the site's debut, 80 percent of clients have purchased items from a partner, and later this year, Fitz plans to launch an app that will let hoarders book appointments and shop, too, thus ensuring they'll have to reserve another session before long. Ⓑ

PHOTOGRAPHS BY COLE WILSON FOR BLOOMBERG BUSINESSWEEK

Major League Memorabilia

An unrivaled collection is up for sale. By Janet Paskin

Est. value: $500,000

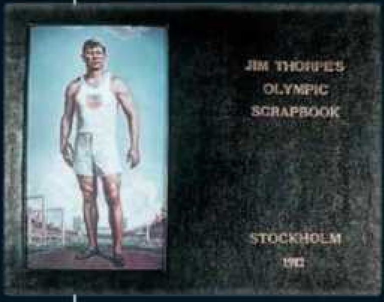
Ray Chapman 1920 "death ball" "Ray Chapman is the only baseball player who died from an injury sustained in a Major League game. He was hit in the head before they wore batting helmets. Charlie Jamieson, an outfielder, picked up the ball and kept it for years. Then he gave it to Bob Curley, a sportswriter from New York. I called him once a year for seven years. The eighth year, he said, 'My vision isn't so good anymore. You should have this ball.'"

Seventy-four years ago, Joel Platt says, Babe Ruth came to him in a dream. "Don't give up," Ruth told Platt, then 4 years old and recovering from injuries suffered in a gasoline explosion. "You can be a baseball player or open a museum to sports legends." Platt turned out to be a decent shortstop and an even better collector. Over decades, some of history's best athletes and their families gave him mementos—in many instances, before there was a market for such items. Platt also bought from other collectors, eventually amassing more than 1 million pieces, some of which are on display at the Sports Immortals Museum in Boca Raton, Fla. Now 78, he wants to unload the collection. With the accompanying branding and marketing opportunities, it could be worth as much as $250 million, says Michael Heffner, president of auction house Lelands.com. Platt's goal is to sell to a person or an institution that can do what he didn't have the space to do: display the entirety of his life's work. Here, Platt describes a few of his prized possessions and explains how he acquired them.

Jack Dempsey 1927 fight-worn gloves "We thought Jack Dempsey's gloves were used in the Georges Carpentier fight in 1921. We found out it was a different company that made the gloves for that fight. These were from the Gene Tunney rematch. We got lucky, because Tunney's gloves were in the Smithsonian, and we photo-matched them. Back then, the fighters had to agree on the brand of gloves."

Est. value: $500,000

Cassius Clay 1960 Olympic jacket "I'd met [Muhammad] Ali many times, at the gym, at training camp. He would call me, 'My man, the museum man.' His Olympic items came from Cassius Clay Sr. I was on a business trip to Pittsburgh—I was in real estate—but when he said to come to Louisville, I drove through a snowstorm to meet him."



Jim Thorpe 1912 Summer Olympics album (no estimated value) "I found his third wife, Patsy, in Hesperia, Calif. She showed me his high school jerseys; the album, which was from the games in Stockholm where he won two gold medals and included congratulatory letters from President [William Howard] Taft and the king of Sweden; and trophies. She said, 'Keep in touch,' and in the next five years, I took three trips to see her. Then one day, I got a telegram: Am confined to bed, want you to have Jim's things."

Wood that Cy Young was chopping the day he died in 1955 and autographed Hall of Fame postcard "After Young retired, he lived on a farm in Ohio. When he died, his neighbor acquired his things. This neighbor had taken a picture of him that day, and he said, this is the last piece of wood he was chopping. He also gave me Young's walking cane and one of his bats."

Est. value: $5,000

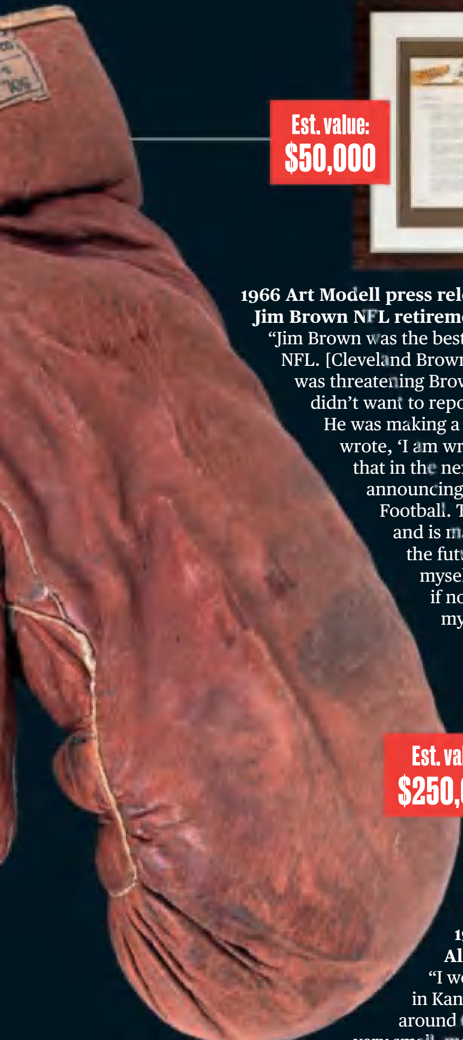
MODEL: EDERLE; PHOTOGRAPHS BY EDWARD LINSMIER FOR BLOOMBERG BUSINESSWEEK. ALL OTHERS: COURTESY SPORTS IMMORTALS MUSEUM


Est. value: $50,000


Est. value: $225,000

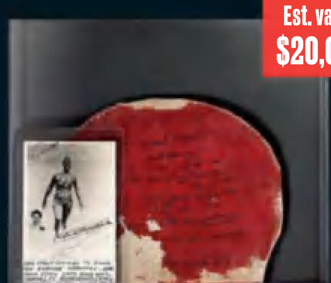
1966 Art Modell press release and Jim Brown NFL retirement letter "Jim Brown was the best running back in the NFL. [Cleveland Browns owner] Modell was threatening Brown, because Brown didn't want to report to training camp. He was making a movie. Brown wrote, 'I am writing to inform you that in the next few days I will be announcing my retirement from Football. This decision is final and is made only because of the future that I desire for myself, my family, and if not to sound corney my race.' "

George Mikan 1940s Minneapolis Lakers game-worn uniform "George Mikan was the first big man of basketball, the original center. I spent a day with him in Minneapolis, and when I said, 'I'd like one of your mementos,' he goes to his utility room, brings out a garbage bag, and says, 'Here are my uniforms, take what you want.' Today, game-used items have become so valuable, it's difficult even to ask for them."

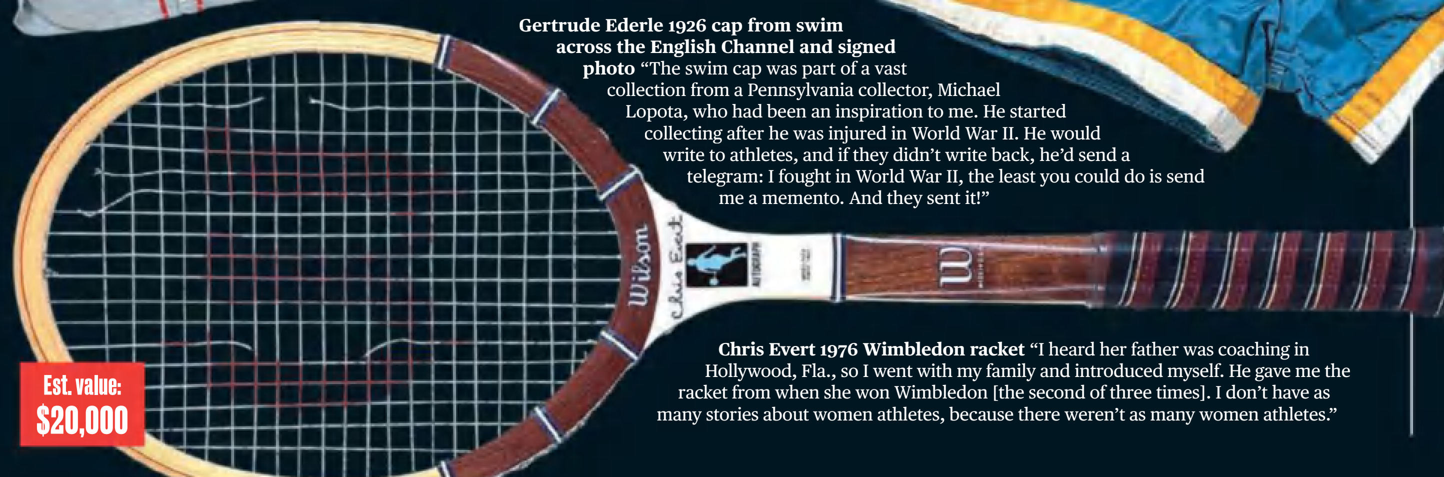

Est. value: $250,000

Satchel Paige 1940s Negro Leagues All Stars uniform "I went to visit Satchel Paige in Kansas City. He was a big man, around 6'2", and his wife, Lahoma, was very small, maybe 4'9", and they were waiting on the porch as I pulled up. They told me all the stories of the greats and of his experiences in the Negro Leagues. It's not only the items I remember. It's meeting these sports heroes."


Est. value: $500,000


Est. value: $20,000

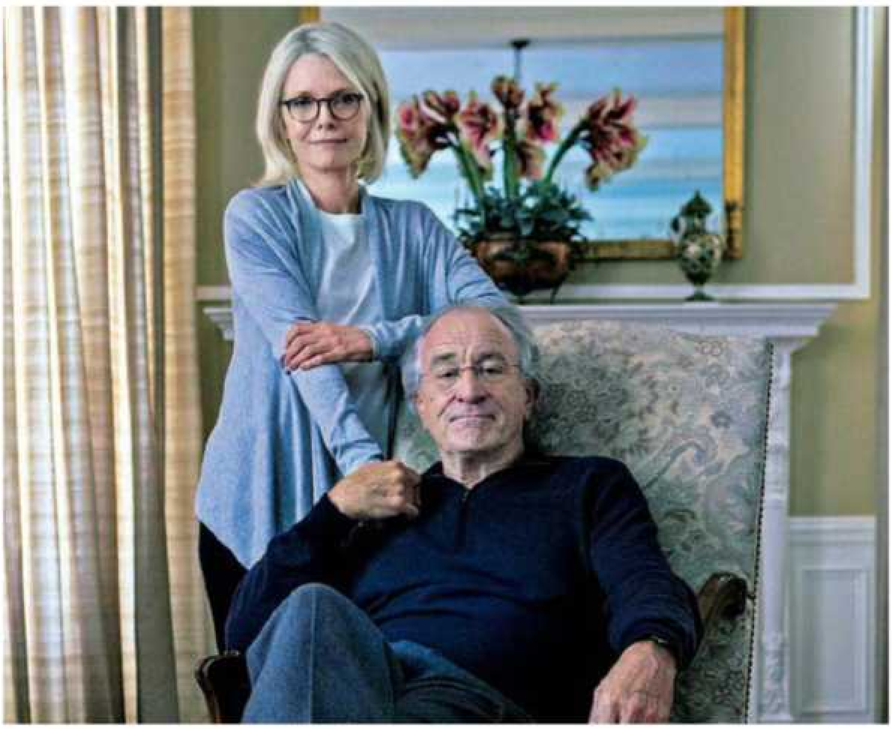
Gertrude Ederle 1926 cap from swim across the English Channel and signed photo "The swim cap was part of a vast collection from a Pennsylvania collector, Michael Lopota, who had been an inspiration to me. He started collecting after he was injured in World War II. He would write to athletes, and if they didn't write back, he'd send a telegram: I fought in World War II, the least you could do is send me a memento. And they sent it!"


Est. value: $20,000

Chris Evert 1976 Wimbledon racket "I heard her father was coaching in Hollywood, Fla., so I went with my family and introduced myself. He gave me the racket from when she won Wimbledon [the second of three times]. I don't have as many stories about women athletes, because there weren't as many women athletes."

THE SINS OF THE FATHER

Bernie Madoff's fraud ruined his wife and sons. HBO's The Wizard of Lies *wants us to have sympathy for them. By Katherine Burton*



In a scene near the end of HBO Films' docudrama *The Wizard of Lies*, Andrew, the youngest son of fraudster Bernie Madoff, speaks to a writing class at Princeton in 2013. A student asks him why he hasn't tried harder to clear his name and convince the world that he knew nothing of the $65 billion Ponzi scheme that led his father to be sentenced to 150 years in jail in 2009. "I don't know if I'm that sympathetic a character," Andrew says. "At the end of the day, I lived a life of great wealth and privilege," one that was subsidized by his father's prey. "It's hard to tell our story," he continues, referring to himself, his brother, Mark, and their mother, Ruth. "There are just three of us, and there were thousands of victims."

The exchange gets to the crux of the movie, directed by Barry Levinson and starring Robert De Niro as the fraudster: Is the toll that Madoff's crime took on his wife and sons enough to make us feel bad for them? For decades, Ruth, Mark, and Andrew were lied to by a domineering man whose business acumen they revered. Then, after Madoff's arrest, their finances were decimated. Ruth, who'd known Madoff since she was 13 and he was a 15-year-old lifeguard in the borough of Queens, lost the love of her life. And though the government never charged the sons or Ruth with a crime—the film makes clear the family knew nothing about the scam—the world assumed they were in on it. They were ostracized by former colleagues, neighbors, and the public. Ruth's longtime hairdresser denied her a dye job.

LIED TO—THEN LEFT WITH DECIMATED FINANCES

Some of the most disturbing moments in the film involve Madoff's emotionally abusive relationship with Mark (Alessandro Nivola) and Andrew (Nathan Darrow). Several times the sons, who worked for their father's legitimate brokerage unit, ask him about the inner workings of the money management arm. De Niro leans into these moments, lashing out at the boys, screaming that they're too stupid to understand, until they slink off, defeated.

Ruth (Michelle Pfeiffer) laments in one scene that she's done nothing with her life except be Madoff's wife. She's incapable of understanding why she's seen as Bonnie to his Clyde. Her sons refuse to speak to her when she continues to visit Madoff in the North Carolina prison where he's serving his term. Only at the end of the movie, after the scrutiny and accusations have driven Mark to hang himself in his New York apartment in 2010, does she finally decide she can no longer stand by her husband. Today, Ruth lives in Old Greenwich, Conn., on $2.5 million the government let her keep.

Viewers might want *The Wizard of Lies* to elucidate how Madoff kept his crimes secret for decades and betrayed so many people. Yet he remains inscrutable. Diana Henriques, who wrote the book the movie is based on, plays herself; she interviews Madoff in prison, asking him those questions, yet she never gets good answers. The victims, Madoff says, were greedy and should have known better. People were looking for a villain to blame for the financial crisis. In the final frame, Madoff is incredulous that an unnamed journalist has compared him to serial killer Ted Bundy. He asks her, "Do you think I'm a sociopath?"

Levinson is smart to focus on the dynamics of the family, given how widely the effects of the fraud on those thousands of victims have been reported. You'd have to be a monster not to recognize the agony inherent in Mark's suicide and in Andrew's death from cancer in 2014. Ultimately, however, the movie disappoints for the reason Andrew articulated to the Princeton class. Even with the heartbreak, the Madoffs don't quite make for sympathetic characters. Their riches, privilege, and apparent obliviousness to Bernie's epic deceit prove too much to get past. Their story really is too hard to tell. Ⓑ

CRAIG BLANKENHORN/HBO

What I Wear to Work

MAXWELL RYAN

51, founder and chief executive officer, Apartment Therapy Media, New York

What do you do?
Apartment Therapy is a lifestyle and décor website, so I used to blog a lot about interior design. But now, as the company's grown, I'm in meetings with people all day long. I have to reserve two hours for emails.

How would you describe your style?
I'm not exactly casual, but I dress comfortably. I'm never in a T-shirt or hoodie, Mark Zuckerberg-style.

Tell me about your polo.
It doesn't look like a sporty tennis or Ralph Lauren polo. If you're trying to be casual *and* serious, darker helps.

You have an analog watch.
I have an Apple Watch, too, but I like that this is a piece of jewelry.

That's nice detailing on your belt.
I saw it on a guy and asked him where he got it. I like that it's not the type of belt you'd wear with a suit. It's more cowboy.

Cool shoes.
I believe they're French army boots that have been adapted for civilians. They're really comfortable. They're almost like Chuck Taylors. You can run around town in them.

What about your jeans?
There's some polyester in them for stretch. I bike to work, so it's nice to have pants that move with you.

Interview by Jason Chen

PHOTOGRAPH BY B. O'BRIEN FOR BLOOMBERG BUSINESSWEEK

How Did I Get Here?

MARK HOPLAMAZIAN

President and chief executive officer, Hyatt Hotels Corp.

With his dad, Harry, and his mom, Victoria, 1965

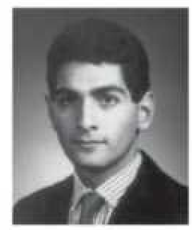
“I came from an entrepreneurial background. My dad, my uncles, and my brothers all owned businesses—landscaping, nurseries, rental cars, auto repair. My father passed away when I was in eighth grade.”

Education

Episcopal Academy, Newtown Square, Pa., class of 1981
Harvard, class of 1985
University of Chicago Graduate School of Business, class of 1989

“If you wanted to do engineering, you did a dual degree between MIT and Harvard, and the logistics were torturous. So I switched to economics.”

1985



Work Experience

1985–87 Financial analyst, First Boston Corp.
1988 Summer associate, Boston Consulting Group
1989–96 Associate, Pritzker & Pritzker
1996–2006 Vice president, president, the Pritzker Organization
2006–Present President, CEO, Hyatt Hotels

“I hadn’t experienced back-to-back 100-hour weeks. The work pace was pretty extreme.”

“It was a family office for the Pritzkers. I was involved in every activity: recapitalizing, management changes, new investments.”

Attending a Packers game with his family, 2012

With Duncan Niederauer (center), then CEO of the New York Stock Exchange, and Thomas Pritzker, 2010

“When you’re working for a family, there’s a sense of responsibility, because it’s not a faceless group of investors. It’s the people sitting next to you. Also, families have values—it’s not just about maximizing the return. It’s a more generational than transactional thought process.”

At the Grand Hyatt New York, 2016

“The Pritzker Organization was 10 people. Hyatt was around 80,000. I embraced my ignorance and learned as much as I could as quickly as I could.”

“We’ve got 708 properties in 56 countries and 110,000 colleagues at 13 brands.”

Life Lessons

1. “When you come across something you’re not familiar with, say, ‘I don’t know that *yet*.’” **2.** “Explore widely. As T.S. Eliot said, ‘We shall not cease from exploration/And the end of all our exploring/Will be to arrive where we started/And know the place for the first time.’” **3.** “You have to answer the question, ‘Why does this enterprise exist?’ It’s much bigger than making money.”

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