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July 24, 2017


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▲ Better, stronger, gooier than before

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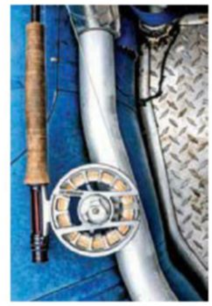
# FEATURES



# PURSUITS







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# ■ IN BRIEF

## Europe

● The U.K.'s advertising regulator issued guidelines cracking down on gender stereotypes in commercials.

● Hoping to head off emissions concerns, Daimler voluntarily recalled more than 3 million diesel-engine Mercedes-Benz vehicles in Europe. The fix—a software patch—will cost about $255 million.


Reckitt Benckiser will sell its portfolio of food brands, including Frank's RedHot and French's mustard, to McCormick & Co. for $4.2 billion.

● Concerned about Russia's election-hacking ability, Estonia moved to secure its balloting system, the only one in the world run entirely online. ▷ 40

● The head of France's armed forces, General Pierre de Villiers, resigned on July 19 after lashing out over planned budget cuts.

## Asia

● "More watching, less sleep."

Netflix CEO Reed Hastings, summing up the company's blockbuster quarter, during which international subscribers topped domestic customers for the first time.

● Israeli Prime Minister Benjamin Netanyahu refused to remove metal detectors at the holy site of Jerusalem's Temple Mount, installed two days after a gunman killed two Israeli police officers there on July 14. The increased security sparked outrage from Muslim worshippers.

● China partially blocked WhatsApp, the last of Facebook's communication products still accessible in the country.

● South Korea will boost its minimum wage

**16.4%**

to about $6.67 per hour, beginning in the new year. The move follows an 8.1 percent hike in 2016.

● Pakistan's Supreme Court opened graft hearings against Prime Minister Nawaz Sharif and his three children, which could result in his removal from office. He has denied all allegations.

● iPhone manufacturers Compal Electronics, Foxconn Technology, Pegatron, and Wistron joined Apple in

filing suit against Qualcomm over chip-licensing fees. Separately, Qualcomm sued Apple in Germany for patent infringement.



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# Americas

● Walt Disney stated that it fired Steve Whitmire, the voice of Kermit the Frog for 27 years, last fall over "unacceptable business conduct." Whitmire disputes the characterization, calling the decision a "betrayal."

● Ecuador broke ranks with OPEC, saying it can no longer afford to restrict its oil output.

In June, overall compliance within the 14-nation agreement slipped to 78 percent.

Wildfires in British Columbia led to the evacuation of at least 40,000 Canadians. The blaze forced some of North America's largest timber companies to idle lumber mills in the area, causing prices to surge.

● Foreign buyers and recent immigrants snapped up

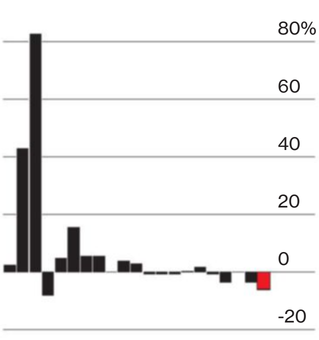
**$153b**

in U.S. homes and apartments in the year ended in March, a 50 percent increase from the prior year.

● The Trump administration tapped former Utah Governor Jon Huntsman as ambassador to Russia. Huntsman, who served as ambassador to China under President Obama, unsuccessfully sought the Republican presidential nomination in 2012.

● With its motorcycle sales skidding 6.7 percent in the most recent quarter, Harley-Davidson lowered unit sales estimates and drew up plans to lay off 183 factory workers.

Year-over-year change in sales




● Activist investor Nelson Peltz launched a proxy fight for a board seat at Procter & Gamble. His Trian Fund Management has amassed

**$3.3b**

or about 1.5 percent, of the company's shares.

# Africa

● Health authorities in Liberia shut down more than 50 companies for selling tainted water.

● A new tax on small businesses sparked protests in Ethiopia.

Tax revenue equals just 15 percent of the country's GDP, compared to the OECD average of 34 percent.

# How About a Bit More Room For Competition?

# ● The tech giants may be contributing to the U.S. economy's most persistent ailments. Should they be broken up?

● By Paula Dwyer

As a former tour manager for Bob Dylan and The Band, Jonathan Taplin isn't your typical academic. Lately, though, he's been busy writing somber tomes about market shares, monopolies, and online platforms. His conclusion: Amazon.com, Facebook, and Google have become too big and too powerful and, if not stopped, may need to be broken up.

Crazy? Maybe not. Taplin, 70, author of *Move Fast and Break Things: How Facebook, Google, and Amazon Cornered Culture and Undermined Democracy*, knows digital media, having run the Annenberg Innovation Lab at the University of Southern California. Ten years before YouTube, he founded one of the first video-on-demand streaming services. He also knows media M&A as a former Merrill Lynch investment banker in the 1980s. He says Google is as close to a monopoly as the Bell telephone system was in 1956.

He has a point, judging by market-research figures. Alphabet Inc.'s Google gets about 77 percent of U.S. search advertising revenue. Google and Facebook Inc. together control about 56 percent of the mobile ad market. Amazon takes about 70 percent of all e-book sales and 30 percent of all U.S. e-commerce. Taplin pegs Facebook's share of mobile social media traffic, including the company's WhatsApp, Messenger, and Instagram units, at 75 percent.

Economists have noticed these monopoly-size numbers and drawn even bigger conclusions: They see market concentration as the culprit behind some of the U.S. economy's most persistent ailments—the decline of workers' share of national income, the rise of inequality, the decrease in business startups, the dearth of job creation, and the fall in research and development spending.

Can Big Tech really be behind all that? Economists are starting to provide the evidence. David Autor, the MIT economics professor who famously showed the pernicious effects of free-trade deals on Midwestern communities, is one. A recent paper he co-wrote argues that prestigious technology brands, using the internet's global reach, are able to push out rivals and become winner-take-all "superstar" companies. They're highly profitable, and their lucky employees generally earn higher salaries to boot.

They don't engage in the predatory behavior of yore, such as selling goods below the cost of production to steal market share and cripple competitors. After all, the services that Facebook and Google offer are free (if you don't consider giving up your personal data and privacy rights to be a cost). However, academics have documented how these companies employ far fewer people than the largest companies of decades past while taking a disproportionate share of national profits. As they grow and occupy a bigger part of the economy, median wages stagnate and labor's share of gross domestic product declines. Labor's shrinking share of output is widely implicated in the broader economic growth slowdown.

Still others have shown that, as markets become more concentrated and established companies more powerful, the ability of startups to succeed declines. Since half of all new jobs spring from successful startups, this dampens job creation.

It's no wonder the superstar companies are getting supernormal returns on capital, further adding to income inequality, writes Peter Orszag in Bloomberg View. He and Jason Furman, chairman of President Barack Obama's Council of Economic Advisers, point out that higher returns on capital haven't resulted in increases in business investment—yet another manifestation of monopoly power.

Some members of the Chicago School, the wellspring of modern antitrust theory, agree. In the 1970s and '80s, a group of University of Chicago scholars upended antitrust law by arguing that the benefits of economic efficiency created by mergers outweighed any concerns over company size. The test was one of consumer welfare: Does a merger give the combined company the power to raise consumer prices, and are barriers to entry so high that new players can't easily jump in? U.S. antitrust enforcers were swayed. From 1970 to 1999, the U.S. brought an average of 15.7 monopoly cases a year. That number has since fallen—to fewer than three a year from 2000 to 2014.

Luigi Zingales, director of the university's Stigler Center, likes to remind people that the reason Google and Facebook were able to succeed is that the U.S. in 1998, under Bill Clinton, sued Microsoft Corp. for tying its web browser to its Windows operating system to undermine rival Netscape. A trial court decision that Microsoft should be broken up was overturned on appeal (though not the court's finding of monopoly), and ultimately the case was settled by the George W. Bush administration. But it slowed Microsoft's ability to dominate the internet. Zingales says today's monopolies are yesterday's startups, and a healthy system needs to make room for newcomers.

Market concentration has many parents. One of them is surely the so-called network effect, a key antitrust argument in the Microsoft case. That doctrine says the more people use a platform—say, the iPhone or Facebook—the more useful and dominant it becomes. The iPhone, for example, is popular in large part because of the voluminous offerings in Apple Inc.'s App Store, and the app store is popular because developers want to write programs for popular smartphones. Network effects can create what Warren Buffett calls "competitive moats."

Problem is, the Chicago School's focus on the impact on consumers—at least as it's applied in the U.S.—won't help antitrust enforcers to drain those moats. For example, because what Facebook offers is free, regulators weren't concerned that its $22 billion acquisition of WhatsApp in 2014 might result in higher consumer prices. In fact, because WhatsApp is in a different industry, it didn't even increase Facebook's market share in social media.

The tech superstars insist they compete fiercely with each other and have lowered prices in many cases. They argue that their dominance is transitory because barriers to entry for would-be rivals are low. Google often says competition is "one click away." And since consumers prefer their platforms over others', why punish success? But when a cool innovation pops up, the superstars either acquire it or clone it. According to data compiled by Bloomberg, Alphabet, Amazon, Apple, Facebook, and Microsoft made 436 acquisitions worth $131 billion over ▶

◀ the last decade. Antitrust cops made nary a peep.

Snap Inc.'s experience with Facebook is instructive. Since Snap rebuffed Facebook's $3 billion offer in 2013, Facebook has knocked off one Snapchat innovation after another. That includes Snapchat Stories, which lets users upload images and video for viewing by friends for 24 hours before self-destructing. Facebook added the feature—even calling it Stories—to its Instagram, WhatsApp, and Messenger services, and most recently to the regular Facebook product. Snap's shares now trade at around $15, below the $17 initial offering price in March. By offering advertisers the same features but with 100 times the audience, "Facebook basically killed Snapchat," Taplin says.

Antitrust regulators have taken notice of all this, though much more so in Europe and Asia than in the U.S. The European Union's $2.7 billion fine in late June against Google for favoring its shopping-comparison service over rivals' is cheering Taplin and others who monitor the superstars. They ruefully note that the U.S. chose not to bring charges against Google in 2013 for the same conduct punished by the EU.

Instead of applying conventional antitrust theory, such as the effect of a merger on consumer prices, enforcers may need to consider alternative tools. One is to equate antitrust with privacy, not a traditional concern of the competition police. Germany's Federal Cartel Office, for example, is examining charges that Facebook bullies users into agreeing to terms and conditions that allow the company to gather data on their web-surfing activities in ways they might not understand. Users who don't agree are locked out of Facebook's 2 billion-strong social media network.

Another avenue is to examine control over big data. Google collects web-surfing and online-purchasing data from more than a billion people. It uses that to send personalized ads, video recommendations, and search results. The monopoly control of consumer data by Facebook and Google on such a scale has raised antitrust questions in South Korea and Japan.

Taplin suggests that authorities look to 1956, when the U.S. forced Bell Labs to license its patents to all comers. The result was a deluge of innovation (semiconductors, solar cells, lasers, cell phones, computer languages, and satellites) commercialized by new companies (Fairchild Semiconductor International, Motorola, Intel, and Texas Instruments) and the formation of Silicon Valley. Why not require the tech superstars to do the same? Who knows what forces that might unleash. Ⓑ
—*With David McLaughlin and Aoife White*

# ■ VIEW

To read Noah Smith on Americans' mental fog and Joe Nocera's plan to fix hellish air travel, go to Bloombergview.com



## South Africa Needs a New Direction

● Unless something changes, it's on the fast track to economic disaster

The International Monetary Fund has pointed out that "South Africa's vulnerabilities have become more pronounced." That's one way of putting it. A potentially prosperous and dynamic economy is on the fast track to ruin. Altering its course will take real political reform.

Unemployment has risen 5 percentage points since 2008, to 28 percent. The population is expanding faster than its economy, which lately has grown at less than half the rate of sub-Saharan Africa as a whole. Inequality in the country is among the highest in the world.

These are the fruits of failed economic policy. Yet far from grasping the need for change, President Jacob Zuma at a recent conclave of the ruling African National Congress championed ideas for entrenching his dominance and enriching supporters. He's trying to engineer the succession of ex-wife Nkosazana Dlamini-Zuma as head of the party. And he's pushing his program for, in the ANC's catchphrase, "radical economic transformation"—a toxic brew of radical populist policies.

Zuma wants, among other things, to change the constitution to let the government expropriate land without compensation for the benefit of the black majority. He wants to force beleaguered mining companies to transfer more shares, and the proceeds from a levy on revenue, to black investors. His allies want to change the mandate of South Africa's respected central bank to have it focus on what Busisiwe Mkhwebane, South Africa's public protector, has called "the socioeconomic well-being of the citizens" rather than on stable prices. That maneuver is a traditional precursor to subordinating the central bank to political control—and Zimbabwe shows where that can lead.

Measures of this kind, damaging in themselves, will scare off foreign investors and stoke disorder and corruption. Zuma cannot be unaware of the risk. He's unlikely to have forgotten the recent downgrade of the country's debt, following his firing of a respected finance minister in March. With investors' confidence sinking, his zeal for more economic setbacks seems undimmed.

Public dissatisfaction with the economy and anger over Zuma's many scandals have already taken a toll on the ANC's fortunes. Hardly a day passes without some revelation about the president's cronyism or a twist in his effort to squelch charges of personal corruption.

To restore the ANC's credibility, party reformers need to defend the independence and integrity of South Africa's financial and judicial institutions. If they want to revitalize the economy, they need to expose floundering state enterprises to competition and address the corruption and inefficiency that have caused the country to sink in global business rankings. If they really want to empower black South Africans, they should focus less on creating sweet deals for shareholders and more on fixing a failing educational system and enabling first-time job seekers to join the workforce.

Calls for Zuma's resignation are mounting, but his party has balked at the need for change. Sadly for South Africans, their president is better at staying in power than using it for the country's benefit. Ⓑ

● Amazon.com reports second-quarter earnings on July 27 and may provide more details on its continuing forays into groceries and streaming video

● Citigroup holds its investor day on July 25

● Ford Motor's new CEO, Jim Hackett, releases earnings for the second quarter, his first leading the automaker






# The No. 1 Airline Gets Its Wings Clipped

● The blockade of Qatar Airways' home base is causing problems for the carrier

You'd think Qatar Airways, voted the world's best airline in a passenger survey last month, would have no trouble keeping its seats filled. Instead, it's had to cancel scores of flights after four neighboring countries barred it from their airspace; it's also being kicked out of an American Airlines Group Inc. code share agreement that eased access to the crucial U.S. market. On July 12, Qatar Air's brash chief executive officer, Akbar Al Baker, issued a rare public apology after his description of U.S. flight attendants as "grandmothers" was condemned by other airline executives and labor unions. The carrier has now been pressed into service to fly 4,000 dairy cows into the country on cargo planes to assure fresh milk supplies during the blockade.

It's a humbling turn for an airline that until recently seemed unstoppable. Over the past decade, Qatar Air more than tripled its annual traffic, to 32 million passengers, and bought hundreds of planes, with some $41 billion still on order, to fly travelers through its desert hub in Doha. It took stakes in three other airlines, including 20 percent of British Airways Plc's corporate parent, and is angling to buy 10 percent of American Airlines. Qatar Air has become a darling of high-end travelers, thanks to solicitous customer service and in-flight amenities such as suites that convert into private meeting rooms. It was named the world's best airline by ratings group Skytrax at this year's International Paris Air Show—the fourth time it's won the award since 2011.

Behind those successes is an extraordinarily deep-pocketed owner, the emirate of Qatar's $335 billion sovereign wealth fund. But as recent ▶

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Edited by
James E. Ellis

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◀ setbacks have highlighted, the relationship carries risks. Saudi Arabia, Bahrain, Egypt, and the United Arab Emirates banned Qatar Air planes from their airspace in early June after accusing the Qatari government of funding terrorism. President Trump endorsed the ban, which forced Qatar Air to cancel some 125 daily flights and reroute others throughout the region. That means higher fuel costs—a flight from Doha to Khartoum, Sudan, for example, now takes about six hours, almost double the preblockade time, with it being diverted hundreds of miles around Saudi Arabia. Qatar Air also is now barred from revenue-rich corporate destinations such as Dammam, near the headquarters of the Saudi national oil company. All told, the blockade could cost the airline 30 percent of its revenue, estimates consulting firm Frost & Sullivan.

Al Baker says even if profits are squeezed, Qatar Air can sustain losses for as long as necessary and will continue to expand. The airline plans to spend as much as $2.6 billion to take the 10 percent stake in American, to launch 24 additional routes by the end of 2018, and to open an airline in India with a fleet of 100 planes. "We need for our neighbors to know that this kind of bullying doesn't work," he said at a July 13 press conference.

Others aren't so sure. Corrine Png, who runs airline research group Crucial Perspective, reckons Qatar Air "should be able to ride it out if the blockade ends within one year." However, she says, the airline should scale back plans to expand fleet capacity 20 percent annually over the next two years. While some aircraft from canceled flights can be redeployed to newly opened destinations such as Prague and Kiev, such routes won't generate profits soon. Qatar Air, which reported $538.7 million in earnings for the fiscal year ended March 31, "could potentially swing into losses" unless it trims expansion now, Png says.

State ownership of Qatar Air also lies at the heart of a feud with American and other U.S. carriers, who've complained to regulators that the Qatari carrier receives subsidies that allow it to compete unfairly. (They've lodged similar complaints against Dubai-based Emirates airline and Abu Dhabi's Etihad Airways PJSC.) American, in what it described as "an extension of our stance against illegal subsidies," informed Qatar Air on June 29 that it will end the code share agreement allowing the carriers to sell tickets for each other.

Qatar Air's unsolicited American Airlines bid is an effort to strengthen its negotiating hand "by essentially buying the affiliation of the largest member of the lobbying group" that represents U.S. carriers in the subsidies dispute, says Diogenis Papiomytis, who heads the aerospace unit at Frost & Sullivan in Dubai. But the bid has drawn a strong rebuke from American, and the union that represents American pilots has called it an act of "financial aggression."

Despite Al Baker's rhetorical bluster, he's "a businessman at heart" and is likely to be pragmatic about keeping Qatar Air on course, says John Strickland, director of London-based JLS Consulting. The airline has recently leased some excess single-aisle planes to British Airways, and some analysts say Qatar Air might defer or cancel orders for costlier widebody jets. Qatar Air nixed orders for four Airbus A350 widebodies on July 6 but said the decision was prompted by supplier delays. It still has outstanding orders and options for 210 passenger planes from Boeing Co. and 145 from Airbus SE.

Qatar Air could try cutting fares to lure business away from rivals Emirates and Etihad, which also draw much of their business from passengers transiting through the Middle East to and from Asia. Emirates, the region's dominant carrier, has about twice as much traffic as Qatar Air, which in turn has about twice as much as Etihad. "Qatar could force Emirates into a price war," says Andrew Charlton of Swiss consulting firm Aviation Advocacy. Even if the blockade adds a bit to travel time on Qatar Air, he says, "it's amazing what cheap tickets can do." —*Carol Matlack and Deena Kamel Yousef*

● Al Baker

THE BOTTOM LINE Hemmed in by Middle East politics and restricted airspace, Qatar Airways may need to scale back its growth plans.



# Wal-Mart Cracks the Whip on Suppliers

● The retailer is rolling out new fines for those who deliver late—or early

Long known for squeezing its vast network of suppliers, Wal-Mart Stores Inc. is about to step up the pressure. The focus this time is delivery scheduling, and the giant retailer isn't messing around. Two days late? That'll earn you a fine. One day early? That's a fine, too. Right on time but goods aren't packed properly? You guessed it—fine.

The program, labeled On-Time, In-Full, seeks to add $1 billion to annual revenue by improving product availability at stores, according to slides from a presentation reviewed by Bloomberg, and it underscores the urgency Wal-Mart feels as it raises wages, cuts prices, and confronts rival Amazon.com Inc. "Wal-Mart has to find efficiencies wherever it can," says Laura Kennedy, an analyst at Kantar Retail. "They're trying to squeeze and squeeze and squeeze."

The initiative builds on progress Wal-Mart has made in reducing inventory and tidying its 4,700 U.S. stores after backrooms became so cluttered the company often kept surplus products in cargo trailers parked outside. Wal-Mart isn't the first big retailer to tighten the deadline for vendor deliveries. Target Corp. introduced a similar policy last year as part of a broader supply-chain overhaul. But Wal-Mart's vast logistics network of more than 150 U.S. distribution centers dwarfs that of any other merchant.

The rules take effect in August, when the retailer says it'll require full-truckload suppliers of fast-turning items–groceries, paper towels–to "deliver what we ordered 100 percent in full, on the must-arrive-by date 75 percent of the time." Each month, items that are late or missing during that period will incur a fine equal to 3 percent of their value. Early shipments get dinged, too, because they create overstocks.

By February, Wal-Mart wants these deliveries to be on-time and in-full (known as OTIF) 95 percent of the time. The target previously was 90 percent for hitting a wider four-day window. "Variability is the No. 1 killer of the supply chain," said Kendall Trainor, a Wal-Mart senior director of operations support and supplier collaboration, earlier this year.

Those variations can be extreme: OTIF scores for Wal-Mart's top 75 suppliers had been as low as 10 percent, according to Trainor's presentation. And none had reached the 95 percent long-term target. A company spokesman says the retailer hopes to not collect any fees and is "working closely with our vendors to help reach these targets."

While big suppliers should be able to invest in fancy inventory-management systems to comply with the rules, smaller businesses will feel more pain. Some don't even know what OTIF stands for, according to Colby Beland, vice president for sales and marketing at CaseStack, a logistics provider that bundles supplier shipments into full truckloads for delivery to retailers' warehouses.

That confusion has created a brisk business for consultants. "OTIF is the hottest subject out there right now," according to Joel Graham, a director of client services at consultant 8th & Walton, which has conducted OTIF seminars in New York; Portland, Ore.; Ontario, Canada; and other cities. "Everybody has come to the stark realization that OTIF is here and it's real and they better get ready for August," Beland says. —*Matthew Boyle*

**"They're trying to squeeze and squeeze and squeeze"**

THE BOTTOM LINE On-time deliveries to Wal-Mart's 150 U.S. distribution centers are key to keeping its operations humming. So it's tightening supplier targets to add $1 billion in annual revenue.



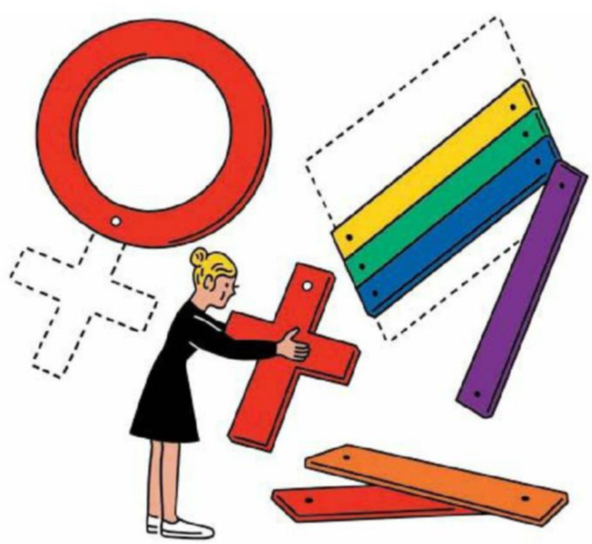
# Where Minority-Worker Networks Are Passé

● Deloitte is nixing employee affinity groups for women and minorities—fixtures at many large companies—and replacing them with inclusion councils that have white men. Behind the change: millennials

Megan Schumann doesn't seem like a woman who'd be cheerleading the end of the female advocacy group at auditing and consulting firm Deloitte LLP. The San Francisco-based consultant attended an all-girls high school at her own request and founded a women's business group when she went to Georgetown University. But 30-year-old Schumann, who's worked at Deloitte since graduating eight years ago, says it's time workplace affinity groups for women and minorities were replaced by so-called inclusion councils where white men hold important seats at the table.

"I am one of the more unlikely deserters from a women's initiative," she says. "But why go talk to a circle of people about something that feels like it's tied to only one facet of your identity?"

With diversity progress stalling in parts of corporate America, Deloitte is beginning to shift away from traditional approaches built around gender, ▶



FROM LEFT: CHRIS RATCLIFFE/BLOOMBERG; ILLUSTRATION BY TOMI UM

◀ race, or sexual orientation and instead working to get a broader buy-in, particularly from white males. After 24 years, WIN, the women's initiative at Deloitte, will end. Over the next 18 months the company will also phase out Globe, which supports gay employees, and groups focused solely on veterans or minority employees. In their place will be so-called inclusion councils that bring together a variety of viewpoints to work on diversity issues.

"We are turning it on its head for our people," says Deepa Purushothaman, who's led the WIN group since 2015 and is also the company's managing principal for inclusion. Deloitte will still focus on gender parity and underrepresented groups, she says, but not in the same way it has for the past quarter-century, in part because millennial employees—who make up 57 percent of Deloitte's workforce—don't like demographic pigeonholes.

"By having everyone in the room, you get more allies, advocates, and sponsors," Purushothaman says. "A lot of our leaders are still older white men, and they need to be part of the conversation and advocate for women. But they're not going to do that as much if they don't hear the stories and understand what that means."

Xerox Corp. is often credited with creating in the late 1960s the first employee resource group (ERG), based on race, after riots shook major U.S. cities. Since then, groups focused on gender, sexual orientation, disability, and veteran status have emerged. According to a 2014 report by the Society for Human Resource Management, which offers the most recent data from the organization, only 15 percent of large companies had ERGs for women or minorities. But they're fixtures at lots of high-profile companies, from Citigroup's Pride organization for LGBT employees to General Motors' GM African Ancestry Network to Apple's Women@Apple.

No company in recent memory has been as vocal as Deloitte about the need to turn the page, surprising some diversity advocates. "I have to say that is really unusual," says Jennifer Brown, a consultant who helps companies create employee programs focused on racial or gender identity. "I have not heard of a single company doing that."

Brown says older workers in Generation X and baby boomers are more comfortable with diversity approaches centered on individual groups of like employees. "We need these groups until such time as people of like identity don't need to close the door and seek a safe space," she says. "We're not there yet."

PwC LLP, a competitor of Deloitte, doesn't plan to change its system of ERGs focused on women and minorities. "Our affinity groups at PwC are focused on business outcomes and come together to sponsor events that provide cultural awareness, mentoring, and opportunities to network," Lisa Ong, diversity director at PwC, said in a statement. "We believe there is tremendous value in also having individual ERGs to provide more leadership opportunities to their members."

Deloitte says its diversity shift is leading to enhanced inclusion of a key constituency: men. Brent Bachus, a 21-year veteran who's now managing director for talent inclusion and engagement, says that before he was assigned to the inclusion effort a few years ago, he sometimes didn't see a direct connection between himself and the firm's women or minority business resource groups because he didn't fit any of the criteria for joining one. "I don't know that I necessarily felt like I knew what role I was being expected to play, or if I even had a role," he says. With the inclusion council, he adds, he and other managers are expected to have a direct role in creating an environment that will keep employees of all backgrounds from leaving the company and help attract new talent.

Isaac Dixon, associate vice president for human resources at Portland State University, says a shift away from ERGs is an idea he's been advocating for many years. He's found that such affinity groups often fail because the white executives who make decisions aren't directly involved in them. "The groups can actually insulate executive leadership from being involved," says Dixon, who contends that groups that mix viewpoints will foster the necessary commingling. "You have to get people with different backgrounds partnered up with more executive leadership."

Schumann, the Deloitte consultant from San Francisco, says she realized while running a program to help women employees find mentors that there were many other employees who felt they needed help and it was difficult to separate programs for them by a specific gender or race. "People who come from all sorts of different backgrounds really struggle with feeling 'othered' when they come into a corporate environment, if this is very different from the community of people they are used to being around," she says. Also, Schumann says, many people in her generation don't want to be defined by a demographic trait and prefer to organize around interests and shared values.

Purushothaman says Deloitte's shift may be difficult for some employees, particularly because race and gender are still hot political topics, but the company wants to move forward. "People would understand if we kept the structure as it was, given all the current conversations about women in corporate America and everything else," she says. "But for us, in order to really drive change, get everyone on board, and to really have a focus on the culture conversation that needs to happen, these things were necessary." —*Jeff Green*

THE BOTTOM LINE Diversity groups for specific genders or races have been around since the 1960s. Deloitte thinks it's time to move beyond them.

● According to a Deloitte survey

**80%**

of respondents said inclusion is an important factor in choosing an employer, while

**53%**

of millennial respondents said they would leave an organization for one with more favorable inclusion

# Second Act

# Dov Charney

PHOTOGRAPH BY NATHANAEL TURNER FOR BLOOMBERG BUSINESSWEEK

Dov Charney made modern business history by proving that an apparel company, American Apparel, could survive—at least for a while—manufacturing all its goods in the U.S. Since his ouster in 2014 from the business he founded, Charney has repeatedly vowed to start over with a company just like American Apparel, only better.

American Apparel's board used lawsuits and allegations of sexual misconduct with employees, plus claims he mismanaged the company, as cause to fire him. Charney tried to regain control by borrowing $20 million from a hedge fund to buy more stock. But that effort failed, and much of his net worth was wiped out when the company filed for bankruptcy in October 2015.

Since last year, Los Angeles Apparel has been producing bulk T-shirts, just as Charney's original gig did in its early days. He won't disclose revenue but says he expects the 350-employee upstart to surpass $20 million in annual sales in the next 12 months. He envisions a company that will someday reach $1 billion in annual revenue. (American Apparel topped out at $634 million in 2013.) "We're building, grooving, growing," Charney says.

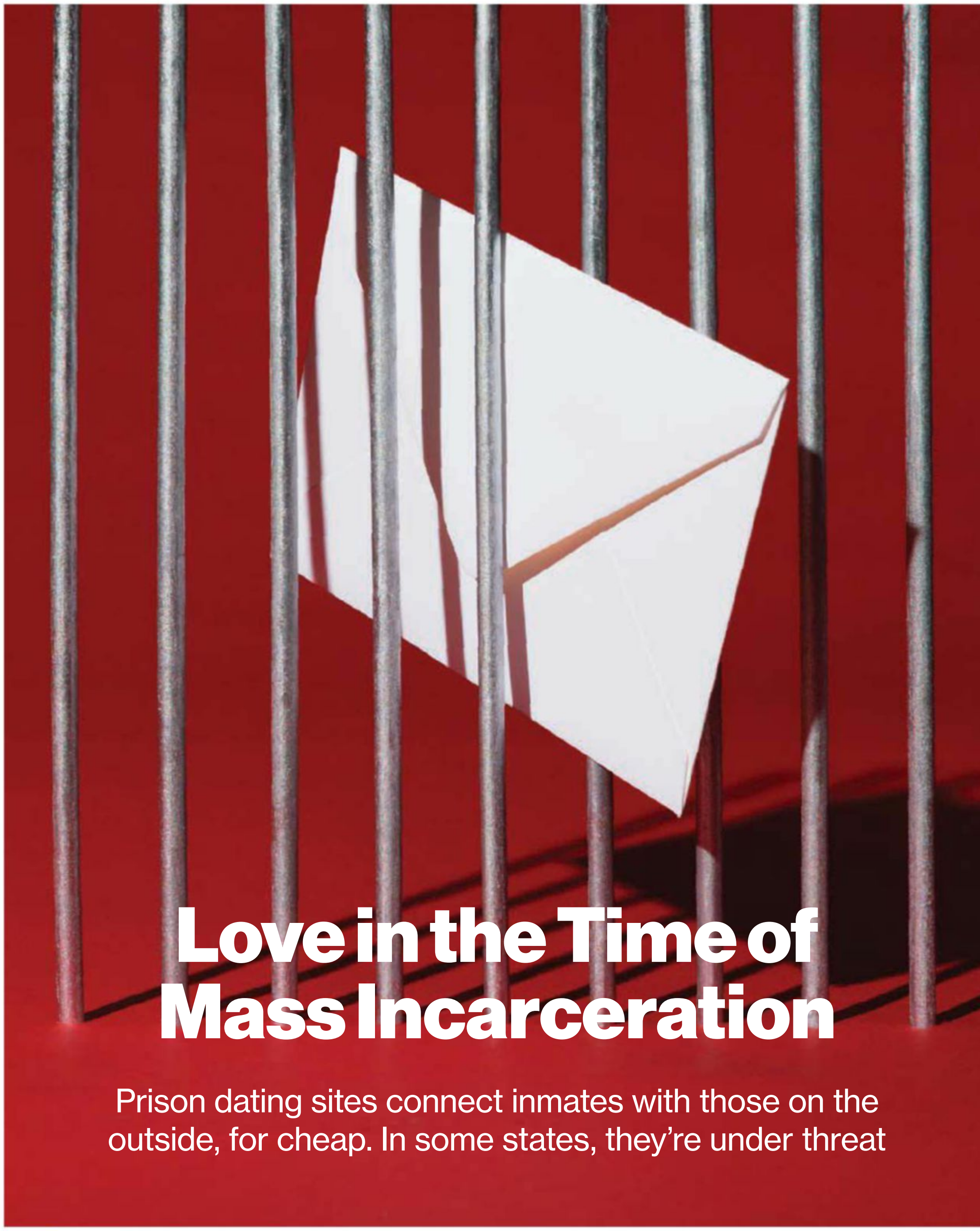
He's toying with a "Made in South Central" marketing pitch that echoes American Apparel's "Made in Downtown L.A." slogan. Whether he'll reprise the old sexually charged advertising remains to be seen.
—*Matthew Townsend*

## The details

| | | |
|---|---|---|
| Age ● 48 | Former job | New job |
| Industry ● Apparel | American Apparel Inc. | Los Angeles Apparel Inc. |
| Location ● Los Angeles | Founder and CEO | Founder and CEO |

LOOK AHEAD

- Google parent Alphabet releases earnings. Analysts, who've priced in its $2.7 billion fine from Europe, will be looking for growing ad categories
- Amazon.com holds its AWS Summit in Chicago
- Facebook's earnings will test its streak of about 50 percent year-over-year quarterly revenue growth



PHOTOGRAPH BY CAROLINE TOMPKINS FOR BLOOMBERG BUSINESSWEEK

# Love in the Time of Mass Incarceration

Prison dating sites connect inmates with those on the outside, for cheap. In some states, they're under threat

Timothy McManus says he was just looking to offer some legal research in 2012 when he wrote to Donna, a woman serving a 20-year sentence at a state prison in Georgia. McManus, who'd finished two decades in a Texas prison earlier that year, knew the power of hearing his name at mail call. Much of what got him through that time, he says, was his correspondence with more than 70 people through websites including writeaprisoner.com, meet-an-inmate.com, and paperdolls.com.

After a year and a half of corresponding with Donna, the relationship became romantic. "We certainly understand each other's lives," he says. "To be honest, since I've been out, it's not impossible, but difficult, to relate to women outside who don't understand. There's a connection with Donna."

Over the past decade, two seemingly disconnected worlds have ballooned in tandem: the U.S. prison system, now numbering 6.8 million adults, and the $3 billion online dating industry. The overlap is a growing constellation of sites with names such as loveaprisoner.com, inmate-connection.com, and inmatepassions.com that promote companionship between those living inside and those living outside prison walls. More recently, however, tens of thousands of inmates have seen their access to such sites restricted or banned altogether, as states and the federal government spar over criminal justice reform.

Officials in Indiana, Missouri, Montana, and Pennsylvania have restricted the access inmates have to pen-pal websites. Florida banned them altogether. "Prisoners are out of sight, out of mind," says Tom Churchill, a public health researcher at the University of Alberta. The sites, he says, are "a small step toward positive change. And we need change."

Compared with conventional dating sites, these are small-time, mostly subsistence businesses. They tend to build user bases slowly, relying mostly on word-of-mouth, and the interfaces remain simple and web-based, with no mobile apps or Tinder-style swiping. Inmates submit their profiles via snail mail, and the site operators type up or scan them to post online. In some cases inmates pay nominal fees to list themselves; for those on the outside, corresponding with them is usually free.

Because of the low- to no-fee model—the fees cover costs such as servers and web hosting—operators say the websites don't generate much money. Lee Young, the 72-year-old founder of gayprisoners.net, says his site is a "labor of love" and that he largely volunteers his time adding a handful of profiles each week, charging inmates $10 to list themselves or $25 to get special pages that can accommodate more photos and designs. "I pitch this as a pen-pal site, as a way to connect," says Young. "Just about every letter I get from an inmate has the word 'lonely' in it."

For better and worse, users say, the sites help strip away the mindless chitchat, bad movies, and restaurant-choosing anxiety that often come with early courtship. Premarital abstinence may be mandatory, and conflicts often have to be resolved in writing, or through plated glass. "You can't have makeup sex when you're dating an inmate," says Robert Hake, 46, a machinist. "We have to sit and talk everything through."

Hake sent his first letter through writeaprisoner.com in 2014. As a single father who'd just moved to Cleveland, he'd had little luck with more mainstream dating apps and liked the idea of a little distance while he and his son adjusted to their new home. In January 2016 he began a correspondence with an incarcerated woman in Oregon. They were married at her prison in April; she gets out in October.

"I can't wait to do normal things with her," Hake says. "Using a smartphone, going to the store, going out and eating together, like other couples do." Friends, family, and co-workers have come to accept his new wife, but it's been a struggle to find a landlord who wouldn't balk at her criminal history (in the end, they got a house) and to finalize the paperwork that will allow her to leave Oregon while on probation.

Beyond helping inmates endure their sentences by letting them know someone on the outside is thinking of them, prison dating sites may be able to help reduce recidivism, says the University of Alberta's Churchill. He's surveying 2,500 inmates and pen pals in the U.S., and he says he's seen enough already to determine "it can have a positive benefit for those inside and out."

The flip side, critics say, is that dating sites give criminals a chance to prey on the emotions and bank accounts of the naive. In Oklahoma, a convict was ordered to pay $125,000 in restitution to victims of a scam in which he solicited gay men and then tried to extort those who were closeted. David Roberts, a pen pal in Michigan, says his relationship with an inmate he found online in California ultimately resulted in heartbreak, a $14,000 credit card bill, and a defaulted furniture loan that marred his credit rating. "She financially crucified me," he says.

**"You can't have makeup sex when you're dating an inmate"**

Most of the inmate sites carry hefty disclaimers, urging users to avoid giving money or sensitive personal details. Churchill says only about 1 in 10 of the pen pals he's surveyed report feeling taken advantage of by a fellow correspondent, whereas 99 percent of inmates say communication with the outside world has had positive effects. Still, horror stories have given ammo to those who say convicts shouldn't get perks such as dating sites.

In some states the sites are being threatened by bills or corrections officials arguing that any expense related to inmate romance, including computer access, is too much. The restrictions in Indiana, Missouri, Montana, and Pennsylvania set limits on how much correspondence prisoners are allowed to send or receive through the sites. Most states, however, have yet to take such a hard line.

The more common problems with prison dating sites will sound more familiar to anyone who's tried nonprison dating sites, or just dating, period. The rush of new-love adrenaline wore off over time, says Savannah Smith, a former pen pal from San Diego. "You visit a maximum-security yard, and there's that whole element of danger to it," she says. "It becomes almost addicting, as awful as it sounds." Smith regularly wrote to three different men in and around California for much of the past four years, but eventually the jokes about living in a "gated community" grew old, and she stopped visiting.

Aaron Nathan, a single paralegal in Toronto, says he's written hundreds of letters to female inmates but gets few letters back once he makes clear that his Orthodox Judaism means any partner would have to convert. Still, he says he's a romantic and likes getting to know women with a wide range of personalities.

McManus says he was eagerly awaiting Donna's release, scheduled for July 2019, until he learned that due to the rules of her probation, she won't be allowed to associate with other ex-convicts, including him. The two are still in touch for the time being, and McManus says he'll continue to offer advice as a friend. "When I got out, it was a total shock. Like ▶

◀ *The Shawshank Redemption*," he says. "I didn't know how to use a cell phone, a laptop, a DVD player, or how to open up a CD case. I froze at the grocery store because there were so many choices, and I hadn't eaten a banana in 20 years."

The law's restrictions on his relationship with Donna will also help fuel McManus's advocacy for fellow ex-cons, who are often hamstrung by policies that don't account enough for their particular circumstances. "We'll take it one day at a time," he says. "That's all you can do." *—Mary Pilon*

THE BOTTOM LINE Inmate dating sites have shoestring budgets paid by prisoners' fees. Despite positive effects, occasional scams have helped feed state restrictions.

# Alibaba Tries To Get in the Game

● The company is working with every player to develop China's sports business

Alibaba Group Holding Ltd., China's e-commerce leader, has been attempting for a few years to multiply sales of sporting goods and related merchandise on its platforms, which totaled about 76 billion yuan ($11.3 billion) last year. (The U.S. market is more than 10 times that.) The problem is that, for its size, China doesn't have much of a sports industry. So a relatively tiny arm of the company is trying to make one.

Alisports, a 210-person subsidiary funded partly by Chinese telecom Sina Corp. and venture company Yunfeng Capital Co., is tapping its primary parent's troves of data on about 500 million shoppers to organize and broadcast sports competitions and aim products at local markets. It's teamed up with sporting goods companies, as well as national and local sports teams, schools, coaches, and courts, even managing some of the direct-sales businesses itself, a rare step for Alibaba.

"Those data and technology are already there," says Li "Rocky" Feng, Alisports' vice president for marketing. "We don't have to create it on our own."

At a macro level, the data tell Alisports that customers in colder northern China are the best targets for wrestling and archery gear, whereas the south tends more toward swimsuits and badminton rackets. So-called athleisure, such as yoga and jogging gear, often tops the overall sales charts.

Zoom in a little further, and the company's data strengths become more pronounced. When customers buy tennis rackets or basketballs through Alisports, the site sends them recommendations for local coaches and court times they can reserve online. "We have a better idea of what kind of course they need, what kind of price will be perfect for them," Feng says.

To boost youth participation and fan interest, Alisports is broadcasting amateur competitions on its parent companies' video services, Alibaba's Youku Tudou and Sina's Twitter-esque service, Weibo. The company says it has little data on high school and college athletics or related merchandise interests, but it's working on that. Youku Tudou has begun broadcasting every game between teams in the Chinese University Basketball Association, for example. That's more of a long-term play, Feng says: "We don't really think we can make a lot of economic return."

At the national level, Alisports is setting itself up as the go-to seller of tickets and a leading sports-news service. With that in mind, it's paid to become the title sponsor of World Rugby ($100 million) and the FIFA Club World Cup (an undisclosed amount). The company has also formed a partnership with the Ladies Professional Golf Association to host an annual tournament in China and with the International Boxing Association to sponsor competitions and internet broadcasts.

**"Data and technology are already there. We don't have to create it on our own"**

Not least, Alisports and other parts of the Alibaba empire are working to develop and customize the Olympic Channel, the International Olympic Committee's digital platform, as part of a deal with the IOC to bring programming to China year-round through 2028. Financial terms haven't been disclosed.

China's disproportionately small sports industry and amateur community reflect decades of limited government support and insufficient disposable incomes, says Zhouxiang Lu, a lecturer at Ireland's Maynooth University who studies Chinese sports policy and practice. The number of gyms and swimming pools in many cities has increased more than tenfold since 2000, but football, baseball, ice hockey, and motor sports remain underrepresented, because they require large investments in playing areas and aren't as profitable as comparable development projects, he says.

In June, Alibaba projected revenue growth of 45 percent to 49 percent for the year ending next March, so Alisports executives can afford to be sanguine about the near term. "We actually don't have any specific number to meet in terms of revenues," says Feng, the marketing VP. Dong "Martin" Wang, vice president for international affairs, says the company is planning more for 5 or 10 years from now. *—Joshua D. Bateman*

THE BOTTOM LINE Alibaba's tiny sports arm is spending hundreds of millions of dollars to nurture China's interest in sports and related merchandise.

# Innovation

## Needle Grinder

This photocopier-size device can sterilize and grind up medical waste, including syringes and sharps containers, to produce nontoxic garbage that doesn't require incineration or other special treatment.

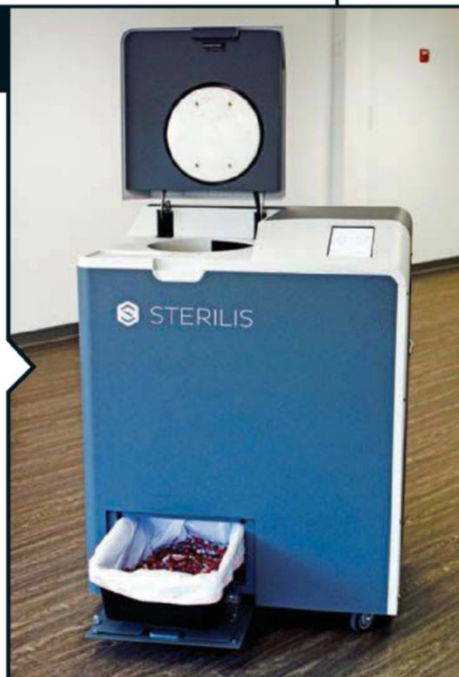
### Innovator

**Jeff Bell**

Age: 45; president, chief financial officer, and chairman of 30-employee Sterilis LLC in Boxborough, Mass.

### 1 Sterilize

Dump in as much as 15 pounds of waste, containers and all, and turn on the machine. It filters out the air, leaving the contaminants behind. Superheated steam released into the main chamber brings its temperature above 280F and creates 38 pounds per square inch of pressure, killing all pathogens within 30 minutes.




### 2 Toss

The grinder reduces the sterile waste to confetti-size shavings within another half-hour. The Sterilis machine deposits these in a bag that can fit in a regular garbage can and logs disposal records in a cloud account users can check online.

### Origin

Bell began working on the needle grinder after losing three grandparents to hospital-acquired infections.

### Customers

Among about 30 early adopters are hospitals, HIV treatment centers, community needle-drop facilities, prisons, airports, and nursing homes in the U.S. and Canada.

### Cost

Sterilis is charging $50,000 for the device, or leasing it for $1,000 a month.

### Funding

Sterilis has raised more than $12 million from investors including former Walgreens Chief Executive Officer Greg Wasson and former Morgan Stanley President Charles Johnston.

### Next Steps

Richard Della Puca, a United Nations adviser on medical policy, has endorsed the use of Sterilis's machine in combating the spread of diseases such as Ebola. And New Hampshire's Wentworth Surgery Center LLC says the device has cut its medical waste by 80 percent, saving $1,000 a month in disposal costs. Sterilis says it will soon begin shipping the needle grinder beyond North America, and it's looking into making a jumbo version for bigger clients. ——*Caroline Winter*

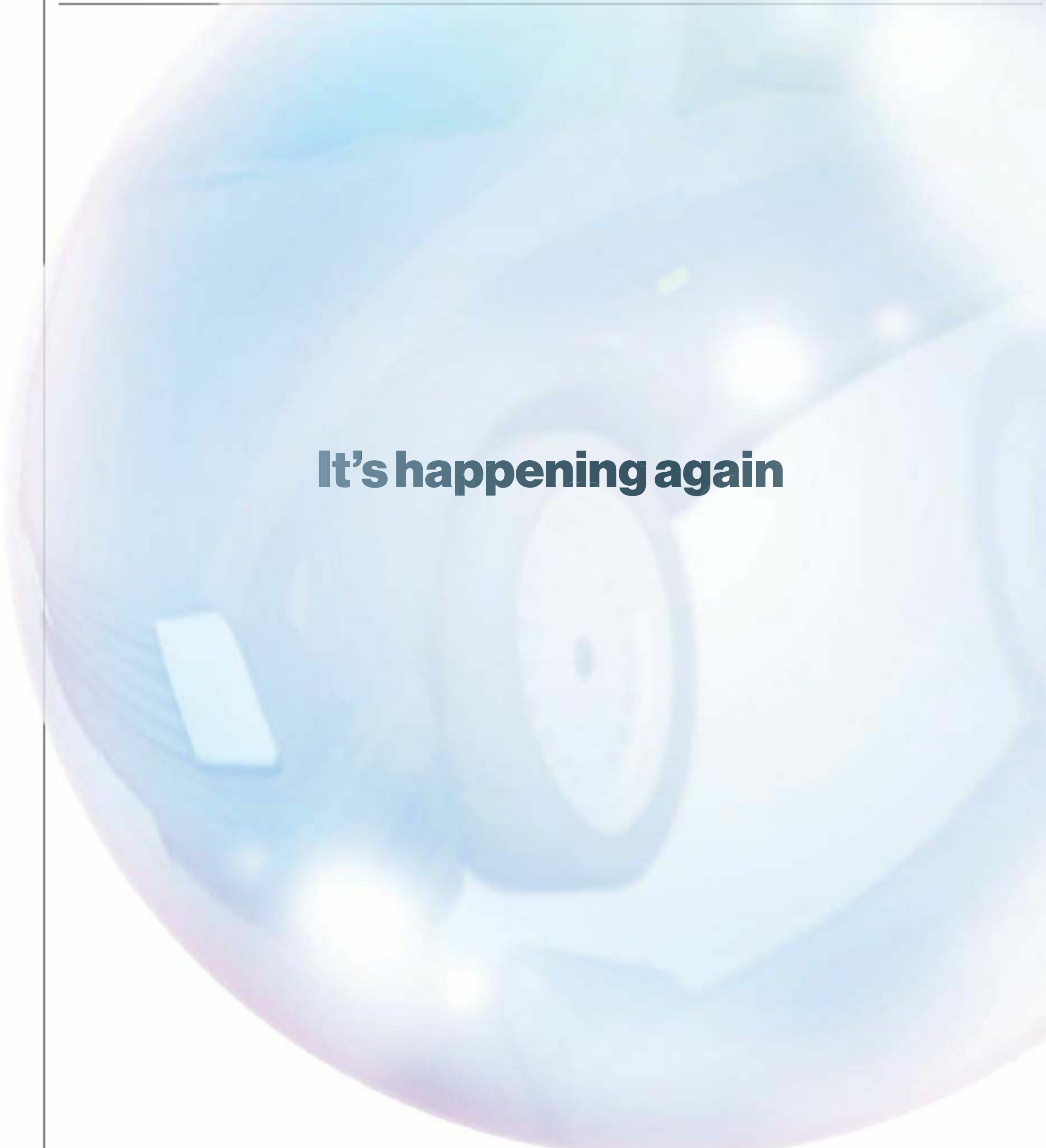
COURTESY STERILIS (2)

LOOK AHEAD

● Exxon Mobil, Chevron, and Mexican state oil company Pemex release earnings

● Real estate brokerage Redfin is expected to launch its IPO

● British American Tobacco and Reynolds American will officially merge, becoming the world's largest publicly traded tobacco company



# It's happening again

## Subprime lending is booming—this time for autos. Wall Street loves it

It's classic subprime financing: hasty loans, rapid defaults, and, at times, outright fraud. Only this isn't the U.S. housing market in 2007. It's the U.S. auto industry today.

Wall Street investors are embracing subprime car loans, which are made to consumers with poor credit or no credit history. As happened in the lead-up to the mortgage debacle, risks are spreading as the loans are bundled into securities and sold worldwide. And in many cases borrowers are the ultimate losers.

For investors, the allure of subprime car loans is clear: Securities composed of such debt can offer yields as high as 5 percent. It might not seem like much, but in a world of ultralow rates, that's still more than triple the yield for Treasuries with comparable three-year maturities. Since the Great Recession, the business has exploded. In 2009, ▶

ILLUSTRATION BY CAROLINE DAVID

◀ $2.5 billion in new subprime auto bonds were sold. In 2016 the figure was $26 billion, topping average precrisis levels, according to Wells Fargo & Co.

The question now is whether that premium is worth it. "Investors seem to be ignoring the underlying risks," says Peter Kaplan, a fund manager at Merganser Capital Management LLC. Bonds backed by auto loans are engineered so they can still pay investors even when some loans in the pool turn sour—for example, the pools might hold some extra collateral. Still, some cracks have emerged. Delinquencies on auto loans in general have picked up, with 3.8 percent of them more than 90 days late at the end of March, the highest level since early 2013. Credit losses on subprime auto loans packaged into bonds have also been rising. Because it's a much smaller market than home loans, auto finance "is not going to bring down the financial system like the mortgage crisis almost did, but it does signal more stress with the consumer," says Stephen Caprio, a credit strategist at UBS Group AG.

Details of a partnership between Fiat Chrysler Automobiles NV and Banco Santander SA, pieced together from court documents, regulatory filings, and interviews with industry insiders, lay bare some of the excesses of the boom. In the years after its 2009 bankruptcy, Chrysler looked for a dedicated lender to help customers finance their cars quickly. One reason it picked Santander was the Spanish lender's expertise in "automated decisioning"—using data and algorithms for credit approvals. At the time a Chrysler executive said the process helped Santander "take a little bit more risk and approve more deals because they mine the data."

Becoming Chrysler's preferred lender made sense for Santander. It was aggressively expanding in the U.S. subprime loan market, and Chrysler, the perennial third among the Big Three, relied more on buyers with lower credit scores than General Motors Co. or Ford Motor Co.

But Santander has run into trouble over its lending practices. In May it agreed to pay $26 million to settle allegations brought by Delaware and Massachusetts that it knowingly put people into loans they couldn't afford. Santander, whose partnership with Chrysler goes by the brand name Chrysler Capital Corp., neither admitted nor denied wrongdoing. The lender says it has cut ties with hundreds of dealerships that were pushing unsound loans, some of which defaulted as soon as the first payment.

Santander, which has been subpoenaed or questioned by a group of about 30 states regarding its auto loan underwriting and securitization activities, declined to comment on "active legal matters." Reid Bigland, Chrysler's U.S. sales chief, says Santander has been a "good partner."

In the Delaware and Massachusetts cases, the attorneys general alleged that Santander enabled a group of "fraud dealers." For example, state authorities said an internal Santander review in 2013 found that 10 out of 11 loan applications from a Massachusetts dealer contained inflated or unverifiable incomes. (The authorities didn't say whether this case involved a Chrysler dealer.) Santander kept originating the dealer's loans anyway, even as they continued to default "at a high rate," the authorities said.

Some dealerships even asked Santander to double-check customers' incomes because they didn't trust their own employees, something the lender didn't always do, the authorities said. At the time of the settlement, Santander said it was "totally committed to treating its customers fairly." The bank offloaded most of its loans, many of which had interest rates of more than 15 percent, to be resold to yield-hungry investors.

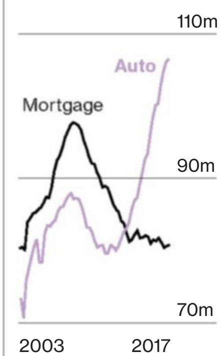
Santander faced increased competition from other lenders as demand for new cars—and loans to finance them—soared. Without a deposit base as a cheap source of funding, Santander's auto finance unit had a tough time competing with banks, which could offer low rates to the most creditworthy buyers. Private equity firms also poured in, vying for many of the same subprime borrowers. And Santander doesn't benefit from some manufacturer incentives, such as cash rebates, that typically go along with loans from automakers' wholly owned finance units, Bigland says. Santander hasn't reached the lofty goals set at the outset of the venture with Chrysler. In the most recent year of the program, Santander financed about 19 percent of the carmaker's sales, short of the 64 percent the companies targeted by that time.

Santander has avoided criticizing Chrysler, but the lender launched a special program to vet the carmaker's dealerships. Those dealers that don't raise suspicions of fraud are labeled "VIPs" and get access to special promotions or deals. "Chrysler continues to represent an opportunity for growth for us," Richard Morrin, chief operating officer of Santander's auto finance arm, said during an investor presentation in February. Still, "it can't be growth at any cost." Chrysler declined to comment on instances of fraud at its dealer network.

With U.S. auto sales falling after a record 2016, many lenders, including Santander, say they're tightening standards. Santander's practices continue to raise eyebrows, however. In May credit rating company Moody's Corp. noted that Santander verified incomes on only 8 percent of loans it bundled into $1 billion in bonds, based on data that auto debt issuers have recently started to disclose.

Yet when it comes to due diligence on borrowers, there's no industrywide standard. Unlike the mortgage market, stated-income loans—where the lender doesn't require proof of the borrower's income—are still perfectly legal in car buying. In June, Jeffrey Brown, Ally Financial Inc.'s chief executive officer, said at a conference that verifying income isn't the norm. Ally, he said, checked incomes on 65 percent of its subprime car loans. General Motors Financial's

● Number of U.S. loans by type




● Santander's U.S. auto finance arm verified borrowers' incomes on

**8%**

of loans it recently bundled into bonds

DATA: FEDERAL RESERVE BANK OF NEW YORK

AmeriCredit Corp. unit checked incomes on about the same percentage of its loans.

Jerry Robinson, a former employee in Santander's debt collection unit, has seen firsthand the trouble that can come with subprime loans. Robinson, who retired in August after six years with Santander, says one of his responsibilities was to get cars the lender had repossessed back into their owners' hands, by getting them back on track with payments.

Often, he found dealers had listed nonexistent features such as sunroofs or alloy wheels to inflate a car's collateral value and win credit approval. Although Robinson's job was to make sure dealers reimbursed Santander for any loan fraud, borrowers didn't see their debts reduced, he says. Instead the lengths of their loans were usually extended, increasing the interest they would ultimately pay. The same cars were often repossessed multiple times, says Robinson, now a Dallas-based member of the Committee for Better Banks, a worker and consumer advocacy coalition backed by a union seeking to organize bank employees. Santander spokeswoman Laurie Kight disputes Robinson's account and says it's part of a union campaign to discredit the lender. Santander is "unaware" of the type of conduct he describes, and money reimbursed to the bank by dealers for nonexistent features is used to reduce borrowers' loan balances, she says.

Robinson contends it was more profitable for Santander to keep cash-strapped borrowers in their cars—even if they couldn't afford them—rather than auction off the vehicles. "The business makes money putting people in the car," he says. —*Gabrielle Coppola, with Jamie Butters*

THE BOTTOM LINE Subprime auto financing has expanded quickly since 2009, and the strains are beginning to show in cases of fraud and rising delinquencies.

# The College Endowment Gap



● As rich universities get richer, historically black schools try to catch up

Morehouse College has strong academics, an idyllic leafy campus, and illustrious alumni, 15 percent of whom give back to the school, a rate comparable to Harvard's. But the historically black college in Atlanta lacks one thing that's increasingly important: a rich endowment fund.

At just over $130 million, the all-male college's fund ranks about 400th among U.S. schools. It's not an unusual problem for historically black colleges and universities, also known as HBCUs. None of the 90 higher education institutions with endowments of more than $1 billion is an HBCU. The wealthiest is Washington's Howard University, with $578 million as of June 30, 2016, ranking about 160. That's less than 2 percent the size of the fund at Harvard, the richest school overall, with $35.7 billion.

Independent wealth is especially important at a time when Donald Trump and his administration have given mixed messages on federal funding. Upon coming into office, Trump said he would "absolutely prioritize" funding for the institutions. When submitting a budget proposal, however, Trump implied in a signing statement that federal funding to HBCUs might be unconstitutional. A second statement backtracked the comment, and the administration's proposed funding for the schools is unchanged from last year's budget under President Obama, at about $492 million.

HBCUs were created for the most part after the Civil War to educate students who were barred from white institutions. In the 1960s, about 90 percent of black college students attended HBCUs, both public and private, but today the schools enroll just 21 percent of black undergraduates. "We began to compete openly for students, talent, and resources," said John Brown, then interim vice president for Morehouse's office of institutional advancement, in late June. (He's since left the position.) "As that competition opened up on all fronts, we have found ourselves in the position of playing catch-up, plain and simple, and that's where we are."

**"Wealth begets wealth"**

The wealthier a school's endowment, the more money it has both to attract students and to provide them with the funding and academic services to get them to graduation. Howard's endowment means it has just under $58,000 for each of its 10,000 students. By comparison, Nashville's Vanderbilt University has about $300,000 per student. ▶

◀ The problem isn't alumni who fail to give. Across the street from Morehouse at Spelman College, the historically black women's college with a graduation rate of more than 75 percent and a $348 million endowment, more than a third of alumnae donated to the institution in 2016. That's more than four times the national average of 8.1 percent, according to data compiled by the Council for Aid to Education, a group that tracks philanthropy to universities. Spelman collected $2.52 million in alumnae gifts in 2016. Smith College, the women's college in Northampton, Mass., had about the same proportion of alumnae donating. But that school, with a $1.6 billion endowment, received $36.3 million from former students in 2016.

Generally, black Americans tend to give a larger share of their discretionary income to charity than whites do. But "wealth begets wealth," says Marybeth Gasman, a professor at the University of Pennsylvania's school of education who researches endowments. "This is the same thing that happens with HBCUs." African Americans tend to have less built-up wealth than whites, even at similar levels of education. Besides alumni, schools can get donations from philanthropists, and there's a history of HBCUs being at a disadvantage there as well. "There's racism involved in acquiring funds," says Gasman. In the past, "funders did not trust African Americans to manage their money, so they didn't give." That's left the schools with a bigger gap to close.

At Hampton University, a 4,600-student school in southeast Virginia, longtime President William Harvey says he made increasing the endowment a major priority. "I run Hampton like a business with an education objective, but there aren't a lot of educators, especially in the world of HBCUs, that think like that," he says. His school's $253.8 million portfolio includes real estate investments and so-called alternative assets such as a stake in a fund run by private equity giant Carlyle Group. The investment came after a Hampton board member introduced Harvey to Carlyle co-founder David Rubenstein.

But Harvey's ability to tap leading investment managers isn't typical among HBCUs. At Rust College in Holly Springs, Miss., Don Manning-Miller, the school's vice president for finance, discovered that its $36 million in endowment assets just wasn't enough to mimic the approach he admired at schools such as Yale University, which has racked up impressive returns with investments including venture capital funds, hedge funds, and private equity. "We did a study to figure out what they were doing by way of asset allocation, but we found that part of the problem was that a lot of these funds require a level of endowment before they'll even consider you an investor," says Manning-Miller.

A major private equity fund such as Carlyle typically requires $5 million to $20 million as a minimum investment. Only half of the 65 HBCUs that Bloomberg surveyed had more than $20 million in endowment assets. Currently, Rust College has 10 percent of its endowment dedicated to private equity, but it's considering raising that to 15 percent in hopes of boosting returns.

Smaller asset bases also force some schools to avoid potentially lucrative strategies that may be illiquid or risky. "When you only have $100 in your bank account you're more likely to be conservative because you can't afford to lose it," says Gasman.

Morehouse recently doubled the staffing of its office of institutional advancement, which raises money for the school, and revamped its endowment portfolio under the leadership of a new investment manager. It's under pressure: Moody's Corp. downgraded Morehouse's credit rating to junk in August, citing the uncertainty of expanding the school's donor base and giving rates. "It's an uphill battle," said Brown last month. "But it's not a challenge that Morehouse or the HBCUs with which I'm familiar are willing to concede." —*Kate Smith*

THE BOTTOM LINE With relatively small asset bases, some HBCUs can't gain access to the kinds of investment strategies available to schools with multibillion-dollar endowments.

# When Nature Gets An Insurance Policy

● A coral reef off the Mexican coast will soon be underwritten by Swiss Re

In the waters off Mexico's Caribbean coast, an insurance giant is about to test a new line of business, one designed to outperform governments in preparing for climate change–and create a fresh source of revenue.

Swiss Re AG is preparing a policy for a stretch of the Mesoamerican Reef. It may be the first time an insurer has covered a natural structure. The actual policyholders will be the beachfront hotels protected by that reef. So far, maintaining the reef has fallen to the Mexican government, funded by tax dollars. Swiss Re says its plan will give hotel owners quick payouts after a storm, which they can use to repair both their beaches and any damage to the reef itself. It will also give hotel owners an incentive to protect the reef. "What we're developing here is theoretically game-changing," says Alex Kaplan, senior vice president for global partnerships at Swiss Re. "I'm really hoping that this creates a new market."

As climate change progresses, so does the risk from hurricanes, flooding, and other natural disasters. Repairing the damage caused by these events has strained government budgets. Between 2005 and 2014, for example, the U.S. spent at least $278 billion on disaster assistance. The U.S. Government Accountability Office counts climate

● Hurricane Wilma in 2005 caused

**$7.5b**

of damage in Mexico

▲ The Mesoamerican Reef helps lessen the impact of storms hitting beaches in Cancún

MATTEO COLOMBO/GETTY IMAGES

change as one of the most significant financial risks to the federal government.

Insurance groups have long urged governments to address climate change—the companies are, after all, at risk for big disaster payouts. But the Mexican example shows that risks can also be a business opportunity. About two-thirds of the cost of global disasters remains uninsured, according to Swiss Re's Kaplan. "The growth potential, I think, is large," he says. "Instead of taxpayers and citizens absorbing the cost of all kinds of natural disasters, including climate events, figure out a way to quantify it, and then push it out into the private market."

The setting for Swiss Re's experiment is the Mayan Riviera, where pristine beaches from Cancún to Tulum are increasingly exposed to extreme storms, threatening a multibillion-dollar tourism economy. The reef, the largest in the Western Hemisphere, runs south for some 700 miles from the tip of the Yucatán Peninsula. Its corals blunt the force of storms—and it's in need of continued repairs, such as reattaching broken-off corals or elevating the reef with man-made structures. The Nature Conservancy, a U.S. environmental group, estimates that for every meter of height the reef loses, the potential economic damage from a major hurricane triples.

After Hurricane Wilma struck in 2005, causing $7.5 billion of damage in Mexico, beachfront hotel owners began paying extra taxes to the state government to handle beach restoration and protect the reef. The owners are skeptical of the usefulness of those payments. "Where it's going is anybody's guess," says Miguel Angel Diego, who sits on the board of the association that represents hotels in the area.

The Nature Conservancy has proposed a different approach: The extra money paid by the hotel owners to the government could be converted into premium payments to Swiss Re to cover the reef. The policy would be what's called parametric insurance, in which a large hurricane would trigger near-immediate payouts. By having the money arrive quickly, reef repairs could begin sooner.

Fast action is crucial for repairing corals broken off during a hurricane, according to María del Carmen García Rivas, director for the national park that encompasses the reef. "If you cut any place of your body, and you have attention very quickly, you have more possibility for getting healthy. It's the same with the reef," she says. But she said the government can't provide funds quickly enough, which is why private insurance is appealing. Another benefit: Insurance gives hotel owners one more reason to help keep the reef healthy enough to continue blunting the force of storms. If they don't, "they're going to pay for it" with higher insurance costs, says Kaplan.

The approach planned in Mexico can be expanded to other countries, says Kathy Baughman McLeod, the Nature Conservancy's managing director for coastal risk and investment. She says at least 26 countries around the world are both protected by and economically dependent on coral reefs. The model could also be used for other publicly owned features that shield coastlines from storms, such as mangrove forests and coastal wetlands. The Nature Conservancy was one of the sponsors of a July conference of the International Insurance Society in London, which focused on the potential for insurers to augment governments in protecting against extreme weather.

"This is a new way that communities can protect their natural assets," says Baughman McLeod. First the project has to prove itself. "None of this works until this money gets spent in the right way and the reef is repaired and protected." —*Christopher Flavelle*

THE BOTTOM LINE Swiss Re wants to insure the reefs that shield coastlines, charging premiums to the people those natural structures protect.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● The IMF publishes the midyear update to its *World Economic Outlook* on July 24

● On July 26, the U.K. releases a preliminary estimate of GDP growth in the second quarter

● The Fed's rate-setting committee meets on July 26 but is expected to stand pat




# Now It's Revamp, Not Replace

The Trump administration's stated goals in renegotiating the three-nation Nafta trade pact are surprisingly modest

Donald Trump has gone squishy by stages on the North American Free Trade Agreement, which he once called "the worst trade deal maybe ever signed anywhere." In April, aides persuaded him not to abrogate the 23-year-old trade pact with Canada and Mexico. On July 17, moderates scored another victory: The Office of the U.S. Trade Representative released objectives for renegotiating Nafta that aim to tune it up, not gut it. "Overall this looks like a Nafta modernization. It's not like the whole of Nafta is up for grabs," says Antonio Ortiz-Mena, a senior adviser at Albright Stonebridge Group, a Washington diplomacy advisory firm, who previously headed the economic affairs section of the Mexican Embassy.

Even after Trump relented last spring on killing the three-way pact, some analysts expected he would direct U.S. Trade Representative Robert Lighthizer to take a hard, nationalistic line in talks on updating it. After all, in January the president had threatened a 20 percent tariff on Mexican goods to pay for the border wall. There are no such threats in the trade rep's letter to Congress spelling out the administration's objectives. The administration is OK with maintaining tariff-free, quota-free trade among the three countries.

True, there's some harsh language about Nafta in the 18-page document. "Since the deal came into force in 1994, trade deficits have exploded," it says. "For years, politicians promising to renegotiate the deal gave American workers hope that they would stop the bleeding. But none followed up." Trump, it says, is finally doing what others only promised.

But that campaign-style language is confined to the introduction. What follows are mostly mainstream ideas for furthering trade liberalization, such as speeding goods through customs and ensuring that health and safety regulations aren't manipulated to block imports.

In fact, many provisions the administration is seeking in a new Nafta were negotiated into the Trans-Pacific Partnership—ironic, since one of Trump's first acts was to pull the U.S. out of it. Among those provisions: unfettered cross-border data flows; regulatory harmonization; stronger labor and environmental standards; and a ban on currency manipulation (which Canada and Mexico don't do anyway). "He's taking Nafta and making it look more like the TPP but with fewer countries," says Todd Tucker, a fellow at the Roosevelt Institute, a think tank in New York.

Canada and Mexico responded positively, with Canadian Foreign Minister Chrystia Freeland saying her country welcomed the opportunity to modernize the treaty to "reflect new realities" and Mexico's economy ministry saying in a statement it "will contribute to defining with greater clarity the subjects to negotiate and the timing for the modernization process." Congress now has a chance to shape the administration's negotiating strategy before the talks, which will begin on Aug. 16.

Trump has frequently expressed annoyance ▶

ILLUSTRATION BY KURT WOERPEL

◀ that the U.S. runs deficits in merchandise trade with Canada and Mexico, viewing it as evidence that the countries aren't playing fair. That perspective surfaces in the trade rep's letter. The first objective listed in the document is: "Improve the U.S. trade balance and reduce the trade deficit with the NAFTA countries."

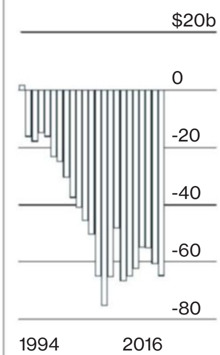
That anti-deficit language worries free-traders, who say it's not reasonable to expect balanced trade with each trade partner. To put it in individual terms, the average person runs a trade deficit with her auto mechanic but a trade surplus with her employer. Countries are the same: Mexico logs a trade surplus with the U.S. and a deficit with the rest of the world. Shrinking trade gaps with Canada and Mexico is "not something achievable through trade policy," says Chad Bown, a senior fellow at the Peterson Institute for International Economics in Washington and a staff member of the Council of Economic Advisers under President Obama. "You're inevitably setting yourself up for failure if that's your goal." The document, however, gives no indication that Trump is prepared to punish Canada or Mexico if bilateral deficits fail to narrow. "There is nothing that could be considered radical," says Eric Miller, president of Rideau Potomac Strategy Group, a Washington advisory and lobbying firm.

In a nod to a key priority of Commerce Secretary Wilbur Ross, the document seeks to ensure that goods don't qualify for zero tariffs unless they really do come from one of the three signatory countries. Ross has expressed concern that some products said to be made in Mexico are actually largely Chinese in content. Nafta's rules of origin refer generally to North American content, while the letter seeks more sourcing from "the United States and North America." The insertion of the United States into the phrase could be a way to placate nationalists in the administration.

Negotiators from all three countries are aiming to button up the treaty revisions before 2018 elections in Mexico and the U.S. That "may be achievable" because the countries already agreed to big chunks of the new agenda during the TPP talks, says Robert Holleyman, who was a deputy U.S. trade representative under Obama. On the other hand, he says, "this is something you could imagine being a multiyear exercise." *—Peter Coy, Andrew Mayeda, Josh Wingrove, and Eric Martin*

THE BOTTOM LINE Trump nixed the Trans-Pacific Partnership, but many of the Nafta modifications his administration is seeking are straight out of the 12-nation trade pact.

● U.S. goods trade balance with Mexico






# Leading a Double Life In Caracas

● The Chacao district hosts protests by day and parties by night

▲The scene at La Esquina

Mornings and afternoons, protesters pack the plazas and streets of Caracas's upscale Chacao district, erecting barricades and throwing stones. After the sun goes down, bars light up and the cocktails of choice aren't Molotovs.

For a privileged few Venezuelans, the epicenter of unrest is also the best place to escape the country's myriad woes. At La Esquina, one of Chacao's most popular haunts, the guests at a birthday celebration include a television host, a baseball agent, and a gaggle of business owners. Invitees take puffs from a hookah and knock back sangria and whiskey. "In the day, I'm in the march or the barricades," says Alexandra Lovera, a 24-year-old culinary student. "I come home, bathe and change, and text my friends, 'What's the plan?' It's like a routine."

From afar, Venezuela's capital appears to burn day and night. Protests against authoritarian President Nicolás Maduro have raged for more than 100 days, claiming scores of lives as the economy crumbles. By day, the poor pick through the trash outside Chacao's restaurants. After dark, an elite class emerges to fill its bars, strip clubs, and marble-floored shopping malls.

"This is the country of magical surrealism," says Edgar Grossmann, a transportation company owner, at the bar at La Esquina while the birthday party bubbles behind him. "The country's going to hell, but people keep going out—there's no alternative."

Sandwiched between the Guaire River and the lush green mountain that separates Caracas from the Caribbean, Chacao is the smallest of the capital's five districts. It's the wealthiest, as well, home to the headquarters of the country's most important banks and financial firms, a half-dozen shopping malls, and an exclusive golfing enclave called the Country Club. The neighborhood is also filled with low-rise apartments and gated residences.

Chacao has long been a bastion for opponents of the socialist government: Two of its former mayors contended with the late Hugo Chávez for the presidency. Of the four districts ruled by opposition mayors, Chacao is the closest to government ministries and the presidential Miraflores Palace, and therefore a preferred staging ground for protests.

After demonstrations, customers trickle into La Esquina wearing the white clothes and red-yellow-and-blue caps that are the opposition's uniform, says Juan Carlos Senior, who opened the restaurant in 2015 with a partner. "You protest in the morning," he says, "but that doesn't mean you stop living."

Because of rising crime, the district's raucous, into-the-dawn parties have largely given way to afternoon brunches. But on weekend nights, dark-tinted SUVs—some armored and protected by bodyguards—line the streets. Tomás Perez, a construction company owner interviewed at a lounge where disc jockeys spin house music, says he's been kidnapped twice, so he hits the town in a bulletproof Toyota 4Runner. "It's not standard," he says, "but it is the standard for those who want to go out."

Chacao also offers fine dining at fast-food prices—if you have U.S. dollars. Chef Carlos García says a 10-course meal at his establishment, Alto, costs the equivalent of $20. "Here, you get luxury," says García, whose restaurant is the only one in the country with a Michelin star.

Such pleasures are enjoyed mainly by those who have access to U.S. currency. More than a decade of stringent controls created a thriving black market for dollars, which trade for hundreds of times their official worth. Many citizens have greenbacks squirreled away from flusher times, and some multinational companies pay their employees in dollar bills. Others have plum contracts with the government that allow them access to dollars.

José Cabrera, a university student out at a rooftop bar, says that when he's not studying he participates in every demonstration he can. "Look, I march, I protest, I do my duty for my country," says the 22-year-old when his friends criticize him for partying. "But what are we going to do at night? Are we going to block a street? Are we going to march on Miraflores Palace? I'll be back out on the streets tomorrow at 7 a.m., even with a hangover." *—Andrew Rosati*

THE BOTTOM LINE Venezuela's old and new money can still find relief from political strife and a crumbling economy in the restaurants and nightclubs of the capital's toniest district.

# Pins and Needles in The Heart of the Alps

● Using advanced technology and exporting simpler work, Swiss textile makers can survive—and even thrive

Producing the intricate, lacy embroidery used in lingerie, evening dresses, and bridal gowns is the kind of detailed labor that's been increasingly farmed out to Asia. Emanuel Forster makes it in Switzerland.

Forster is co-chief executive officer of Forster Rohner AG, a 113-year-old company in the eastern city of St. Gallen that produces fabric that can cost thousands of dollars per yard—including material he says was used in the dress British socialite Pippa Middleton wore at her wedding in May. Forster Rohner is among dozens of Swiss textile producers that have managed to survive, and even thrive, despite wages that are among the world's highest and a currency that's risen 50 percent against the euro since 2008. "It's clear that we don't think the strong franc is great," says Forster, a great-grandson of the company's founder. "But our creative brainpower really comes from our site in Switzerland."

The key is combining the country's history of quality workmanship with its tradition of innovation: automating where it makes sense and doing only the most intricate pieces by hand—while exporting lower-value work to less expensive locales. And, at least for Forster Rohner, long-standing relationships with top designers keep the orders rolling in. The company employs 250 people in St. Gallen—where unemployment is just 2.5 percent—and has 640 workers in factories in China and Romania crafting material for lower-cost clothing.

Although their number has fallen in recent years, about 40 companies with 50-plus employees each still produce textiles or clothing in Switzerland. Akris makes dresses worn by Princess Charlene of Monaco; Zimmerli Textil AG creates lingerie that was featured in the movie *Fifty Shades of Grey*; Lantal ▶

● Estimated cost of the Swiss embroidery on Pippa Middleton's wedding gown

**$52k**

DATA: U.S. CENSUS BUREAU; MERIDITH KOHUT/BLOOMBERG

◀ manufactures seat covers and curtains for airplanes; and Schoeller Textil AG weaves advanced fabrics for sportswear and protective gear for firefighters and soldiers. "Specialization and the ability to draw on the right personnel allow companies to offset the high prices and high wages," says Cornelia Luchsinger, an economist at Zuercher Kantonalbank in Zurich.

Forster Rohner's workshop in St. Gallen echoes with the hammering sound of thousands of needles stitching embroidery destined for the likes of Dior, Valentino, and French lingerie maker Chantelle. The 11 machines all have hundreds of needles, and the biggest can embroider pieces as long as 15 meters (49 feet). Each is staffed by two people who program the desired patterns and step in to fix problems such as broken needles or thread.

In the next room, about a dozen women sit at tables prepping material for the machines and examining the finished products, delicately fixing any flaws, while a few specialists sew the most-detailed pieces by hand. A couple of doors down there's an archive of a half-million sketches and samples stacked floor to ceiling in boxes, folders, and books with yellowed pages, some dating to the 1800s. Drawings and cloth are laid out on a large table where designers study historic patterns. Upstairs, researchers develop products such as fabrics embedded with pressure sensors, tiny lights, or filaments for heating. "What makes us special is the design," Forster says.

Despite its A-list clients and advanced technology, Switzerland's textile sector remains troubled. In 2016 revenue from material dropped 9 percent, to 573 million francs ($594 million), while makers of finished clothing suffered a decline of 8 percent, to 335 million francs. Since 2000 the value of the sector's production has fallen by a third. Nonetheless, three-quarters of the members of Swiss Textiles, an industry group, said in March that business was good or satisfactory—the first positive balance in five years—as companies across the economy have cut costs, increased production abroad, and improved technology. "Will there still be a Swiss textile industry in the future?" Andreas Sallmann, owner of underwear producer ISA Sallmann AG, said in a speech to Swiss Textiles members this spring. "Yes. But it will be different." The strong franc will require a "focus on highly modern and highly technical" niche applications.

That would include the fabric for the dress Michelle Obama wore to her husband's 2009 inauguration as well as that donned by Middleton, the sister of the Duchess of Cambridge, at her wedding to financier James Matthews—Britain's high-society event of the year. Forster declined

▼ One of 11 machines in Forster Rohner's plant in St. Gallen, Switzerland

FROM RIGHT: MICHELE LIMINA/BLOOMBERG; BARTŁOMIEJ ZBOROWSKI/PAP to comment on the material's price, but U.K. newspapers have pegged it at £40,000 ($52,000). "It is encouraging to produce something unique in Switzerland that you can't find elsewhere," Forster says. "You can't have China without St. Gallen, and vice versa. It's a system in which each part has its own function. And the function of Switzerland is clear: driving innovation and design." —*Catherine Bosley and Corinne Gretler*

THE BOTTOM LINE Forster Rohner has survived by combining quality workmanship with innovation, automating most production while exporting lower-value work to less expensive locales.

# Christ, King, and Corporate Savior

● Poland's Law and Justice Party is pushing religion into the boardroom

A growing number of Polish businesses are entrusting their fate to the invisible hand—not the market's, but God's.

Father Tadeusz Rydzyk, a 72-year-old priest in the medieval city of Torun, hosts economic seminars for the chiefs of state-run companies. The Archbishop of Gdansk hand-picked the chaplain at Grupa Lotos SA, a government-controlled oil refiner and retailer. The state-run utility, Energa SA, and the national mint held church Masses at which "divine providence" and "Mother Mary" were appointed guardians of their business affairs.

Religion and politics have long mixed in Poland, where the most recent census put the share of the population that's Roman Catholic at more than 92 percent. Under Pope John Paul II, the first Polish pope, the church was credited with helping birth the Solidarity labor movement, which went on to topple the Communist regime in 1989. A cross hangs in the Parliament's main hall, and political leaders are reliably present at church ceremonies.

Any pretense of a separation between church and state has been abandoned under the right-wing Law and Justice Party, which came to power in late 2015 vowing to challenge the "liberal elite" and champion economic nationalism. President Andrzej Duda was at a Mass in November at which Jesus Christ was crowned king of Poland. On June 4, Duda and Prime Minister Beata Szydlo, along with other senior members of government, attended a Mass at which the country was declared to be under the official protection of the Virgin Mary, who's to guard against its moral decay. The Catholic Church is one of the "foundations of our identity, our way of life and of being Polish," said Law and Justice Party leader Jaroslaw Kaczynski at a ceremony two days before the Mass. And some people, he added, are "in great pains" over that.

The European Union, which on a net basis gives more money to Poland than to any other member, has lambasted the government for its efforts to extend its control to virtually all aspects of society. Last year, Poles took to the streets to protest, among other things, a near-total ban on abortions, including in instances of incest and rape.

"The church has become very much dependent on the ruling party financially, while for Law and Justice, the church is a precious source of voters," says Roman Backer, a political scientist at the Nicolaus Copernicus University in Torun. "Thanks to that interdependence, the party has secured sustained political support."


● Rydzyk

Kaczynski has said his party wouldn't have won the 2015 election without Radio Maryja, a station Rydzyk controls. A member of the Redemptorist order, a worldwide congregation dedicated to missionary work, Rydzyk also has founded a national television channel, a university, and a geothermal energy company. According to an article in the Polish weekly *Wprost* in February, businesses affiliated with not-for-profit organizations started by Rydzyk have amassed enough assets to put him among the 100 richest Poles, that is, if he owned the companies directly. Through his office, the priest declined a request to be interviewed.

In April, Rydzyk hosted an economic seminar in Torun, about 125 miles northwest of Warsaw, the capital, during which he held private talks with Szydlo, several of her ministers, and the bosses of the biggest state-controlled companies. Sponsors of the event included PKO Bank Polski SA, the country's largest lender, and PZU SA, the biggest insurer, both of which dispatched top brass to the event.

The Vatican has distanced itself from Rydzyk, saying in 2011 that he doesn't speak for Catholics in Poland. His growing influence over government affairs has sparked criticism at home. "Rydzyk is the most dangerous and the strongest element of this coalition," said Solidarity founder and former President Lech Walesa in an interview with the newspaper *Gazeta Wyborcza* published on July 8. "He's supporting them and adding fuel to emotions."

Environment Minister Jan Szyszko has publicly defended Rydzyk, calling him a "charismatic visionary who influences the results of elections." His sway over Poland, he wrote in an open letter incited by the *Wprost* magazine article, "is much bigger than his nominal rank of an ordinary priest." —*Marek Strzelecki and Dorota Bartyzel, with Wojciech Moskwa*

THE BOTTOM LINE Corporate executives in Poland are turning to Father Rydzyk, a Catholic priest with business ties, for advice on how to run their companies.

5

# POLITICS



LOOK AHEAD

● China's Communist Party elites will meet in the seaside resort of Beidaihe in early August for an annual meeting

● Senate committees hear testimony from Jared Kushner on July 24 and Paul Manafort and Donald Trump Jr. on July 26

● Venezuelans vote on July 30 to elect a special assembly to rewrite the constitution

● Mosul, July 2017

July 24, 2017

Edited by Matthew Philips

Businessweek.com

# After the Bombs Have Fallen

● With Islamic State on the brink of battlefield defeat, the U.S. and Europe confront the threat at home

After Iraqi forces reclaimed control of Mosul, the country's second-largest city, on July 10, Iraq Prime Minister Haider al-Abadi declared "total victory" over Islamic State. The American commander of the global coalition to defeat the group, U.S. Army Lieutenant General Stephen Townsend, said the loss of Mosul had dealt a "decisive blow" to the terrorist organization. With U.S.-backed Kurdish and Arab fighters preparing to capture Raqqa, the terrorists' stronghold in Syria, President Donald Trump predicted "the total destruction of ISIS."

Three years since the insurgent group declared the establishment of an "Islamic caliphate" straddling Iraq and Syria, it faces military defeat. Islamic State no longer possesses a base of operations from which to coordinate sophisticated attacks. The group's estimated annual revenue has plummeted, from almost $2 billion in 2014 to less than $870 million in 2016.

Yet as Islamic State evolves from a self-governing quasi-state to a networked global insurgency, "the threat of ISIS-inspired attacks may grow, including on Western targets such as the United States," according to a July 18 report, "Countering ISIS and Its Effects," by the U.S. Government Accountability Office. The more territory it loses, the more it will use online platforms to inspire followers to carry out violence in their home countries. "Their narrative isn't going away," says Joshua Geltzer, a former senior director for counterterrorism at the National Security Council. "On the messaging front, they will adapt or stay one step ahead."

**"Their narrative isn't going away. On the messaging front, they will adapt or stay one step ahead"**

At its peak, Islamic State commanded an army of 40,000 foreign fighters (including 6,000 from Europe) in Iraq and Syria. Much of that cadre was killed during the fight for Mosul, according to Martin Reardon, senior vice president for the Soufan Group, a private intelligence firm staffed by former senior U.S. and European intelligence officials. The ferocity of the fighting forced much of the civilian population to flee the city. The remaining Islamic State militants, who number in the thousands, "are not just going to say the war is over and then have kids and settle down on the farm," says Reardon. He expects hardened fighters to slip back into Iraq's vast and dispossessed Sunni heartland, where they will find climes genial enough to maintain their online media operations, rebuild, and reemerge at the right moment.

The military campaign has damaged the group's ability to generate propaganda. An analysis by the West Point Combating Terrorism Center found that the number of Islamic State-produced "visual media products"–videos, illustrated reports, and photos embedded in Twitter posts–declined by 75 percent from August 2015 to September 2016. Technology companies have also begun to police their platforms more aggressively, in part because of pressure from European regulators to combat hate speech. Facebook Inc., for instance, now has 150 employees working full-time on identifying and removing terrorist content in more than 30 languages. It also has partnered with Google Inc., Twitter Inc., and other companies to create a database of "digital fingerprints" that can identify accounts linked to terrorists.

The problem is they're often chasing ghosts. Islamic State operatives are adept at creating social media accounts that remain dormant, and undetectable, until the moment they're activated. Jihadists forced off Twitter and Facebook turn increasingly to encrypted platforms such as Telegram and WhatsApp. While that may reduce the size of their audience, it makes them more difficult for intelligence agencies to track. Large-scale operations to remove terrorist postings have yielded limited results. Last year, Operation Glowing Symphony, conducted by the National Security Agency and U.S. Cyber Command, managed to wipe out troves of Islamic State videos and social media handles–only to have most of the content reappear within days. "There are no silver bullets," says Brian Fishman, Facebook's head of counterterrorism policy. "Even as we're developing new capabilities to keep our platform safe, terrorist groups are watching and taking countermeasures. We're up against an adversary that's smart, dedicated, and focused."

During the Obama administration, the U.S. sought to increase the influence of credible, mainstream voices in Muslim societies–through initiatives such as the Sawab Center, an Abu Dhabi-based hub that produces social media content that challenges the Islamic State narrative. But plans to expand that model to other countries, such as Malaysia, have stalled, U.S. officials say. During his visit to Riyadh in May, Trump hailed the creation of the Saudi-run Global Center for Combating Extremist Ideology, which administration officials hope will become the linchpin of counterterrorist messaging in the Arab world.

Whether the Saudis use the center to target Islamic State or the kingdom's geopolitical rivals, Iran and Qatar, remains to be seen. Sami Nader, head of the Beirut-based Levant Institute for Strategic Affairs, says Trump's efforts to push governments in the region to take the lead in fighting terrorist propaganda was "a step in the right direction. But it was more geared toward fighting terrorism in general instead of dealing with the post-Islamic State situation."

Terrorism experts say countermessaging also needs to be integrated with programs that address the process of radicalization, which still takes place largely offline–in gyms, schools, prisons, and mosques. The Strong Cities Network, a consortium of mayors and community leaders from 200 cities around the world, illustrates the role of local institutions in developingaq's counterradicalization policies. The Trump administration, however, has taken a dim view of community-based efforts, which went by the label "countering violent extremism" (CVE) under the Obama administration. The White House's 2018 budget would eliminate the Department of Homeland Security's $50 million budget for CVE programs. In its July 18 report, the Government Accountability Office concluded that "the federal government does not have a cohesive strategy or process for assessing the countering violent extremism effort."

The U.S.-led military campaign against Islamic State may be nearing a climax, but defeating the terrorists' ideology will require a wider set of policy tools. "We've focused far too much on the military piece and not enough on finding a holistic solution to why people seek out this ideology," says Farah Pandith, an adjunct senior fellow at the Council on Foreign Relations. "We're solving the problem of today and not thinking enough about what it's going to look like tomorrow."

In a recent published interview, the head of strategic operational planning for the U.S. National Counterterrorism Center, U.S. Marine Corps Lieutenant General Michael Nagata, echoed that assessment. "Terrorism in its various forms is not just 'here to stay,'" he said, "but is going to continually adapt and seek growth in ways that we probably cannot completely anticipate or predict." —*Romesh Ratnesar, with Cam Simpson and Donna Abu-Nasr*

THE BOTTOM LINE The military operation against Islamic State may be coming to a close, but the battle against the terrorist group's ideology will have to be waged for years.

# Obamacare's Problems Still Need Solving

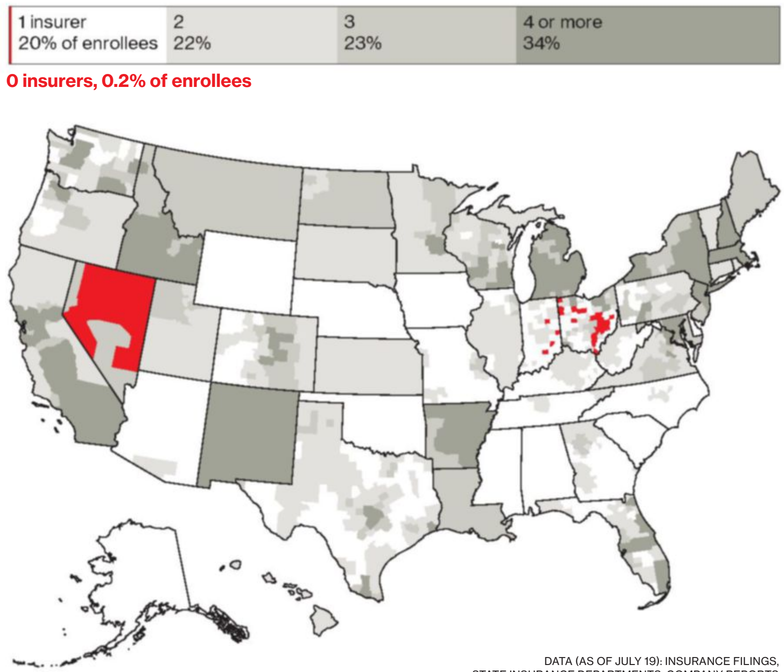
● After the GOP fails to replace the ACA, can Congress fix what's wrong?

With Republican efforts to repeal Obamacare all but dead for the foreseeable future, attention has returned to the state of the Affordable Care Act, which is in limbo. While Republicans like to say the law is collapsing, the reality is far more complicated. Four years after it began offering coverage, Obamacare provides insurance to about 12 million people through private policies purchased on exchanges. Although the system is working as intended in many parts of the country, some insurance marketplaces are beset by serious problems, with insurers raising premiums or pulling out altogether.

About 80 percent of Obamacare enrollees will have at least two insurers to choose from in 2018,

Number of Marketplace Insurers for 2018

Most enrollees have access to three or more insurance companies, yet some parts of the country will have only one




DATA (AS OF JULY 19): INSURANCE FILINGS, STATE INSURANCE DEPARTMENTS, COMPANY REPORTS

the same proportion as this year, according to a Bloomberg News analysis. There are 38 counties, home to a combined 25,000 customers, where no insurance companies plan to offer coverage on the Obamacare exchanges. These counties are mostly rural, with low population density. For instance, while large swaths of Nevada will be without Obamacare insurers, the areas account for just 9 percent of the state's Obamacare sign-ups.

President Donald Trump has repeatedly threatened to let the health law fail as a way of building political leverage. "I'm not going to own it," he said at the White House on July 18, the day after Senate Majority Leader Mitch McConnell was forced to admit he didn't have the votes to pass his repeal-and-replace bill. "We'll let Obamacare fail, and then the Democrats are going to come to us."

Whether that proves to be a correct political calculation remains to be seen. Trump and McConnell are still pressing for a repeal vote, though the odds are against them. The president has the tools to undermine the ACA, including the power to withhold crucial monthly payments to insurers to reduce out-of-pocket costs to low-income customers. His administration has raised doubts about whether it will enforce a tax penalty meant to make people buy insurance, part of the mandate written into the law to bring younger, healthier people into insurance pools to lower costs. It's also unclear if the Department of Health and Human Services will promote Obamacare when 2018 sign-ups start in November. ▶

PREVIOUS SPREAD: IBL/REX/SHUTTERSTOCK; DATA: RENEWABLE FUELS ASSOCIATION

◀ While exits by big insurers such as Aetna, Anthem, and Humana are reducing choices in some markets, smaller insurers are swooping in. Centene has said it's expanding in nine states; Oscar Insurance is growing in five. In Maryland, Cigna won't be returning to the ACA marketplace next year. But Evergreen Health is reentering the state's marketplace, so everyone will have at least three companies to pick from.

As Democrats and Republicans in Congress finally talk about potential bipartisan solutions, insurance companies are submitting plans to raise premiums in 2018. BlueCross BlueShield of Tennessee wants a 21 percent hike next year. The company, a primary insurer in the home state of GOP Senator Lamar Alexander, head of a key Senate health committee, says pretty much all that cost hike is the result of uncertainty in Washington. Remove the question marks and the rate hike is near zero, the company says. —*Zachary Tracer and Hannah Recht*

THE BOTTOM LINE With the GOP effort to repeal and replace Obamacare all but dead, the health-care law is left in limbo as premiums rise and choice diminishes in many markets.

# Latin America Drains Its Political Swamp

● A spate of anticorruption prosecutions targets top leaders



President Donald Trump got elected in part on the promise to clean up Washington and end what he described as a culture of political corruption and self-dealing. Or, as he put it, "drain the swamp." Trump has quickly found himself accused of using the presidency to profit off the swamp—swelling the coffers of his family business, thwarting standard norms of presidential ethics, and installing his daughter and son-in-law in the White House.

While D.C. festers, thousands of miles to the south, a Latin American anticorruption movement is reaching society's highest echelons, as decades of graft and corruption are suddenly being dealt with. On July 12, Luiz Inácio Lula da Silva, Brazil's former president and populist hero, was sentenced to almost 10 years in prison for taking kickbacks. A day later, a former Peruvian head of state went to prison in a money laundering probe. Brazil's current president, Michel Temer, faces corruption charges. Argentina's congress is discussing tougher antigraft measures as its former president, Cristina Fernández de Kirchner, faces trial on fraud and money laundering charges.

During much of the 2000s, a commodity-fueled economic boom brought billions of dollars of investment to Latin America, helping to pull millions of people out of poverty but also giving members of the ruling class access to the spoils. When the bubble burst and living standards collapsed, so did elected leaders' approval ratings. The graft and corruption the boom years had hidden became much more difficult to ignore. "When things were going good, there was little concern with corruption," says Michael Shifter, president of Inter-American Dialogue, a Washington-based think tank. "A rising middle class, shifting attitudes, new laws, and social media all certainly played a role in pushing for more justice."

So has a new generation of better-trained investigators. New laws have allowed prosecutors to use plea bargains to extract information that's led to further probes and arrests. "There's hope in justice," Cesar Rodrigues, a 31-year-old Brasilia business administrator, said after Lula was sentenced. "The politicians thought they were above the law."

By bringing more diverse sources of news to a better-educated citizenry, the internet has contributed to the increase in prosecutions and the rising protests, says Luis Moreno-Ocampo, an Argentina-born New York lawyer who's a former president of Transparency International, an anticorruption advocacy group. "There's more demand, and there's more ability to get information," he says. "South America is showing that democracy is working."

In Argentina, Brazil, Guatemala, Panama, and Peru, current or former heads of state have been investigated, sued, or jailed. Brazil's Lula is by far the biggest figure to be sentenced thus far, charged for his role while president in the three-year Carwash probe, which centered on kickbacks involving contracts at Petrobras, the state-run oil company. Once the nation's most popular politician, he was also the favorite in opinion polls for the 2018 presidential election. His sentencing comes almost a year

**Leaders in trouble**

**Charged**

● Fernández de Kirchner

**Sentenced**

● Lula da Silva

**Detained**

● Humala

**Imprisoned**

● Martinelli

CLOCKWISE FROM RIGHT: COURTESY BP; GETTY IMAGES (4) after the Brazilian senate impeached his successor, Dilma Rousseff, on charges that she manipulated federal budget data to conceal the country's worsening economic condition.

In Peru, former President Ollanta Humala, whose term ended in July 2016, surrendered at a Lima courthouse on July 13 for 18 months of preventive detention after a judge found it likely that he and his wife had laundered money. In another case, an arrest warrant was issued in February for his predecessor, Alejandro Toledo, on bribe allegations.

In Argentina, Fernández de Kirchner faces trial on fraud and money laundering charges 18 months after her eight years as president ended. Argentina's former economy minister and the ex-head of the central bank also face charges. Fernández de Kirchner says the trial is politically motivated retribution by the opposition party now in power. Panama ex-President Ricardo Martinelli has been in a U.S. jail since June awaiting extradition on charges that he tapped phones and monitored other conversations with a surveillance system financed with public funds.

There are also swarms of lower-level politicos, businesspeople, and billionaires caught up in investigations around the region. The cases, incomplete and idiosyncratic as they are, show a common concern for the rule of law, says José Ugaz, chairman of Transparency International. "Corruption reached the highest level of the private sector and the political class in each country, and the justice system isn't holding back," he says. "We'll have to see the final results, but at this stage, the fact they are investigating and taking measures is a very encouraging sign."

The anticorruption efforts aren't limited to politicians. Argentina's senate is debating a law that would make entire companies rather than individuals responsible in cases of corruption. The law would let prosecutors cast a wider net and could make it easier for top executives to face charges.

In Brazil, where corruption is often highly visible, lawmakers may take an aggressive path by allowing an unprecedented effort to prosecute a sitting chief executive. President Temer was charged in June with corruption after allegations he received 500,000 reais ($151,000) from a meatpacking company. Whether he's put on trial depends on congress, where he still holds significant sway—and where many legislators also face corruption charges. Lawmakers will decide in early August whether he's to be tried before the nation's top court.

Such a prosecution would be a watershed—not just for Brazil but also for a continent where the rule of law has had a tenuous grip. Whatever the outcome, Latin America is set firmly on a path to better governance, Ugaz says. "This is the tip of the iceberg," he says. "It's just starting." *—Raymond Colitt, Charlie Devereux, and John Quigley*

THE BOTTOM LINE An anticorruption movement in Latin America is reaching into society's top echelons, targeting several current or former heads of state.

## Sanctions | Russia & Iran

House Republicans are objecting to a Russia and Iran sanctions bill because of concerns from the energy industry that it could block U.S. companies from lucrative foreign oil and gas projects.

S.722
Passed the Senate in June, 98-2

Along with tightening sanctions on Iran for its ballistic missile program, the bill seeks to make it harder for U.S. companies to do business with Russia. It would also constrain President Donald Trump from easing penalties on Russia that were imposed after its military incursions in Ukraine.

### The Opposition

U.S. companies are banned from investing in projects in Russia. This bill would include any project involving any sanctioned Russian enterprise, no matter its location. U.S. companies and their lobbyists say that would prevent them from being involved with projects that had even a tiny Russian investment.

- Royal Dutch Shell
- Chevron
- Exxon Mobil
- BP
- General Electric

$100b

Estimated cost to U.S. oil and gas companies over 10 years, according to the National Foreign Trade Council

### The Upshot

The bill could undercut U.S. foreign policy goals, such as reducing Europe's reliance on Russian natural gas. A project nearing completion in Azerbaijan would send 16 billion cubic meters a year of non-Russian gas to Bulgaria, Greece, Italy, and Turkey. Since BP is the U.S. operator and Russia's Lukoil owns a 10 percent share, the project would be subject to the sanctions, putting it in jeopardy.

### What's Next

Lobbyists are circulating suggested tweaks as House Republicans say they're looking for ways to change the energy provision rather than strip it out.

+ FOCUS



# Security

## Why We Need Cyberwar Rules of Engagement Now

Bloomberg View columnist Leonid Bershidsky says the U.S. and Russia should define what constitutes attacks—and the appropriate responses—before things spiral out of control

Today, Russia and the U.S. are engaged in creeping cyberwarfare against each other, and they may well be working to disable or undermine each other's critical infrastructure. The conflict is potentially deadly and, unlike military interactions between the two adversaries, not subject to even the most rudimentary rules or mutual arrangements. That needs to be fixed, and although a multilateral process under the auspices of the United Nations or the G-20 would be preferable, a bilateral working group, of the kind proposed by Russian President Vladimir Putin during his recent meeting with U.S. counterpart Donald Trump, could be a useful start.

The greatest tension in cyberspace today is between the U.S. and Russia; the two can lead the way in defusing it. They have experience doing so on nuclear disarmament after taking the world to the brink of catastrophe. An agreement could serve as a blueprint for a multilateral convention or other bilateral deals—say, with China, which has been known to take an interest in U.S. networks.

Countries need to agree on basic notions, such as what constitutes an attack or an illegal intervention, as opposed to a mere nuisance, and what retaliatory moves are legitimate or excessive. An informal but highly authoritative attempt to lay out the issues has already been made.

Earlier this year, NATO's Cooperative Cyber Defense Center of Excellence presented the second edition of the so-called *Tallinn Manual*, a detailed exploration of current international law as it applies to cyberwarfare. The authors, 19 academics and international law practitioners led by Michael Schmitt of the U.S. Naval War College, had started compiling the manual in 2009 in response to massive Russian cyberattacks on Estonia and then on Georgia during the brief Russo-Georgian ▶

July 24, 2017

Edited by
Dimitra Kessenides
and David Rocks

◀ conflict. They identified 154 existing rules, but the manual isn't an official document—it reflects only the authors' understanding of the law.

Within the framework laid out in the *Tallinn Manual*, the interference U.S. intelligence services ascribe to Russia in the 2016 presidential election wouldn't qualify as illegal intervention. The activity—spying, "criticism, public diplomacy, propaganda, retribution, mere maliciousness"—wasn't meant to coerce Americans, who still chose their president freely.

Stealing Democratic Party functionaries' emails, however, would be illegal because it violated their right to privacy. The U.S. would be justified in retaliating—or, in the manual's legal language, taking "countermeasures." The scope of such measures, however, would be limited: Any actions that violate fundamental human rights wouldn't be allowed. The *Tallinn Manual*'s authors couldn't agree on whether violating privacy would be permissible as a countermeasure.

To retaliate for the election interference, President Barack Obama, the *Washington Post* reported, ordered U.S. intelligence services to place "implants" in Russian networks "important to the adversary and that would cause them pain and discomfort if they were disrupted." Activating the implants probably wouldn't wash under the *Tallinn Manual*, because it would be a disproportional response.

We often use "cyberattack" indiscriminately to describe any kind of intrusion. The *Tallinn Manual* uses the word "attack" only for cyber operations "reasonably expected to cause injury or death to persons or damage or destruction to objects." Shutting down a power grid, taking over a city's traffic light system, or cutting off mobile communications to an area would qualify as an attack because of real-world consequences. It would also be an illegal attack, because it would target civilians, something prohibited by the existing rules of war.

Putin has denied interfering with the U.S. election "on a state level," as he told international media at an economic forum in St. Petersburg in June, suggesting that patriotic Russian hackers could have taken action to influence the campaign. Under the *Tallinn Manual*, that's not a good defense: Russia would be obliged to stop the "patriots" from committing illegal acts from Russian territory or to catch and punish them.

Today, Russia and the U.S. can go at each other in cyberspace without regard for some law professors' view of the rules. But if their representatives sat down and agreed on which of these rules would apply, the exchanges between the two cyberpowers and the domestic public debate in both countries would become clearer and more focused. Both governments and the public would have a better idea of legitimate actions and counteractions, and words such as "attack" and "act of war" wouldn't be thrown around as carelessly as they are now.

There will be political resistance to such talks in the U.S., with both Republican and Democratic voices pointing out that Putin can't be trusted. It'll be easier for Trump not to start the talks than to face accusations of being too soft on the Russians. But if nuclear agreements were possible with Soviet leaders, a cyber one with Putin shouldn't be shunned, either.

Of course, international conventions and treaties are often broken. Syria is a signatory to the Chemical Weapons Convention, but the government of Bashar al-Assad is widely believed to have used the weapons in the country's ongoing civil conflict. While the global community can sanction Assad and force him to destroy his chemical stockpiles, Russia and the U.S., as members of the United Nations Security Council, face almost no punishment for breaching an international convention. As for bilateral agreements, the two nations constantly accuse each other of breaking them.

Yet the rules are useful even if they can be broken with relative impunity. Leaders, even authoritarian ones such as Putin, like to be seen as acting in good faith. With clear rules and agreed-upon arbitration mechanisms—such as an international body to handle the attribution of cybermischief—deniability is harder to come by, and the optics of rule-breaking are potentially more damaging than when no rules exist. After the 2014 shooting down of Malaysia Airlines Flight 17 over eastern Ukraine, Russia cooperated with the Dutch Safety Board's investigation, because it wanted to be seen as a good-faith actor. That it refused to accept the investigation's damaging conclusions looks terrible for Moscow and helps European nations keep a united front on Russia sanctions.

Dialogue about the rules of engagement is essential before conflicts spiral out of control, critical infrastructure is disrupted, and people die. Humanity has plenty of experience defining hostile actions and their consequences, and extending the definitions to cyberspace isn't impossible.
—*Leonid Bershidsky*

## The Tallinn Manual

The 154 rules of engagement in *Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations* include:

● **Rule 20 Countermeasures**
A State may be entitled to take countermeasures, whether cyber in nature or not, in response to a breach of an international legal obligation that it is owed by another State.

● **Rule 66 Intervention by States**
A State may not intervene, including by cyber means, in the internal or external affairs of another State.

● **Rule 69 Definition of use of force**
A cyber operation constitutes a use of force when its scale and effects are comparable to non-cyber operations rising to the level of a use of force.

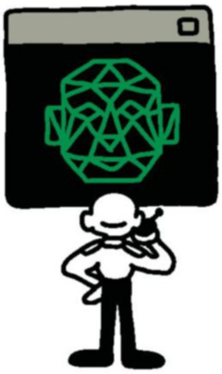
● **Rule 90 Mercenaries**
Mercenaries involved in cyber operations do not enjoy combatant immunity or prisoner of war status.

● **Rule 151 Cyber operations in neutral territory**
The exercise of belligerent rights by cyber means in neutral territory is prohibited.

THE BOTTOM LINE The biggest cause for worry in the potentially deadly U.S.-Russian cyberwar playing out today is the absence of any clearly defined international rules.

ILLUSTRATION BY OSCAR BOLTON GREEN

# Saving Face



Are tech companies winning the fight over legislating biometric privacy?



Privacy advocates cheered when Illinois passed its Biometric Information Privacy Act (BIPA) in 2008 regulating commercial use of finger, iris, and facial scans. With companies such as Facebook Inc. and Google Inc. developing facial tagging technology, it was clear that laws would be needed to ensure companies didn't collect and use biometric data in ways that compromised an individual's right to privacy.

Although the Illinois law was seen as a possible model for other states, aggressive lobbying by companies most interested in gathering biometrics has reshaped or killed similar efforts across the country. Only two other states have enacted biometric privacy laws—Texas, in 2009, and Washington, in May. Bills introduced in eight other states didn't pass.

The Washington law might be the best example of industry pushback on attempts to regulate biometric data. The measure, which takes effect on July 23, is a watered-down version of BIPA, at best, says Alvaro Bedoya, executive director of Georgetown Law's Center on Privacy & Technology. It places fewer limits on the use of biometric data than BIPA while narrowing consumer consent requirements.

A law like Washington's "hurts everyone," says Pam Dixon, executive director of the World Privacy Forum in San Diego, and is "useless." Jeff Morris, the state representative who sponsored the Washington bill, says balancing consumer privacy with the rights of companies that develop new technologies—crucial, given the number of tech companies in the state—was a challenge. "It took three years to get there," he says.

Meanwhile, companies such as Apple Inc. are making greater use of biometrics. The company is working on a way for iPhone users to unlock devices using their face. Amazon Web Services Inc. has an image-matching software that recognizes objects, faces, and themes. It makes a database of billions of images available to customers, mostly security companies and marketers. —*Kartikay Mehrotra*

## Biometrics Regulation: The State (by State) of Play

### ✔ Illinois

The law requires companies to get users' permission to collect and store iris, fingerprint, voice, or facial scans. More than 30 lawsuits citing the statute have been filed in Illinois courts, including a trio of cases against Facebook that are testing the scope of the law and shaping proposed legislation across the country.

### ✔ Texas

Passed in 2009, the state's biometric identifiers statute restricts legal action to the state's attorney general; individuals can't sue. The AG's office hasn't filed any lawsuits stemming from the law.

### ✔ Washington

The statute creates privacy exemptions for certain photos and restricts the right to legal action to the state's attorney general; individuals can't sue. Companies can use fingerprints, eye scans, or facial photos, which aren't protected.

### ▲ California

Lawmakers in Sacramento proposed a biometric information privacy bill in 2015. The proposal would have required businesses that collect personal data to protect it from misuse. The measure passed the state assembly; it never made it to a senate vote.

### ▲ Connecticut

A bill requiring written notice from consumers whose biometric information would be collected was approved by the state's house of representatives in 2016 but never made it to the senate. A similar measure proposed earlier this year didn't get out of committee.

### ● Montana

A BIPA-like bill proposed strict rules for consent but didn't make it out of committee. Industry groups said companies wouldn't meet the consent requirement. "About five seconds before the hearing started, a lobbyist told me they were going to kill the bill, and they did," says sponsor Nate McConnell.

### ● Arizona, Missouri

Bills were proposed this year to protect students' rights to privacy. They didn't make it out of committee.

### ● Alaska, New Hampshire, New York

All three states put forth proposals—Alaska's and New Hampshire's were modeled after BIPA—that failed to make it out of committee. New York tried and failed twice.

# How to Fight Quantum Cybercrooks

A Swiss company says it can counter a growing threat. China loves the idea

Quantum computing offers processing power so vast it may soon make today's supercomputers look as crude as 1980s PCs. There's a downside—the technology might also render the most secure encryption systems obsolete, cracking codes in a matter of minutes rather than months or years. Gregoire Ribordy says he has a solution. And it's selling fast in China.

For the past 15 years, the former University of Geneva physics professor has been developing something called quantum key distribution—a system that uses the technology to encrypt data so securely that Ribordy says it can't be deciphered even by an advanced quantum computer. "The cybersecurity community must recognize the risks of quantum computing," says Ribordy, a former researcher with Nikon Corp. in Tokyo. "Our challenge is to help governments and businesses be ready."

For its first decade or so, his company, ID Quantique SA, bumped along slowly, selling its equipment primarily to academics researching the technology. Then in December, ID Quantique signed a joint-venture agreement with China Quantum Technologies, based in Hangzhou. Sales of its quantum key equipment have surged as Chinese banks, government agencies, and state-owned giants such as China Railway Corp. embrace the technology. Ribordy, who says he's sold fewer than 100 servers to U.S. customers, predicts the growing activity in China will spur interest elsewhere. "If China's doing it," he says, "maybe it's a good idea to look at why."

While conventional computers interpret data in "ones" and "zeros," a quantum machine can store information in multiple states—as one, zero, both, or something in between. That allows a quantum system to multitask in ways today's binary equipment cannot. A normal computer looking for a name in a phone book cataloged by numbers, for instance, would search one number at a time. A quantum computer could scan all of them simultaneously; where an old machine might sip data through a straw, a quantum system takes in the flow of the Mississippi. And quantum key distribution automatically detects anyone intruding on a transmission, scrambling the key to keep the information safe.

Although the U.S. has long been the leader in quantum key distribution, China has pulled ahead in some areas, says John Costello, a senior analyst at business intelligence company Flashpoint. Chinese researchers in May claimed they'd developed a quantum computer that eclipses those from U.S.-backed ventures; in June another Chinese group said it had successfully used a quantum-enabled satellite to securely transmit data. "The level of investment China is putting into quantum has created a massive market," says Costello, who's testified before the U.S. Congress on the topic. He describes ID Quantique as a "significant" player in China.

Ribordy's partner, known as QTEC, says it has built the world's first commercial network secured by quantum technology, between Shanghai and Hangzhou. The company says it's invested about 1 billion yuan ($148 million) in quantum computing, it employs roughly 300 researchers, and it's applied for almost 30 patents. In addition to the venture with ID Quantique, QTEC has a joint research lab with Beijing's Tsinghua University, a top school with close ties to the Chinese leadership.

As a Swiss company, ID Quantique doesn't have to adhere to U.S. export controls designed to keep rival powers from obtaining sensitive technology. Ribordy says it took less than a month to get an export permit from Switzerland. Revenue last year was under 100 million Swiss francs ($104 million), he says. But in China, the company's fastest-growing market, sales are on track to triple in 2017 and 2018. "Every country has to improve its defense against attacks," Ribordy says. "China is doing it, and I think other countries should be doing it, too."

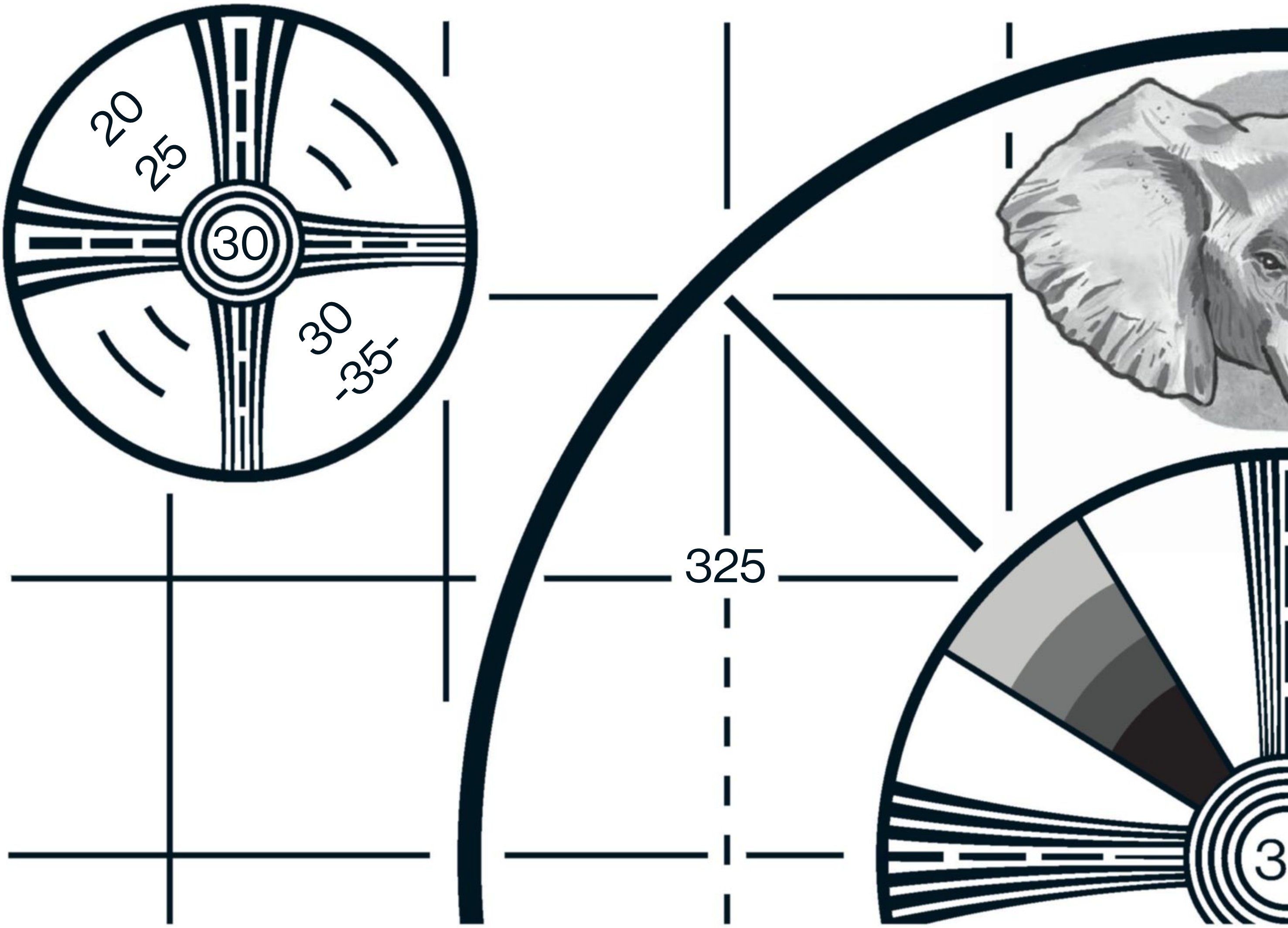
Quantum key distribution has its drawbacks. A pair of ID Quantique's servers sells for about $100,000, and there's a limit to how far the machines can be from one another: Quantum computers communicate by firing photons over fiber-optic lines, which become unreliable at distances beyond a few hundred miles. All those factors led the U.K.'s National Cyber Security Centre last November to "urge caution against transitioning too soon" to quantum key cryptography.

Nonetheless, the agency predicts the cost of quantum key distribution will drop rapidly, and many researchers say it's almost inevitable that quantum computing itself will spur sales of more secure encryption technologies. The imminent arrival of far more powerful computers means companies will have to be ready with similar protective firepower, says Richard Murray, who leads the quantum technologies team at Innovate U.K., a government agency that helps foster new technologies. "The reason there is a market for this now," he says, "is to prepare for the threat of a quantum hack in the future." —*Hugo Miller, with Edwin Chan*

THE BOTTOM LINE Quantum computing could render today's encryption obsolete. A Swiss company, ID Quantique, says its technology can keep data safe, and China is a top customer.



ILLUSTRATIONS BY OSCAR BOLTON GREEN




# THE REVOLUTION W

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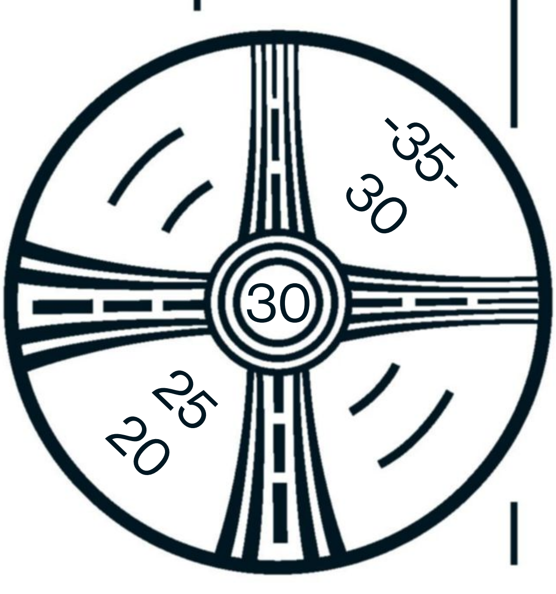


AT SINCLAIR,
MANAGEMENT IS
A BIG-TIME IDEA:
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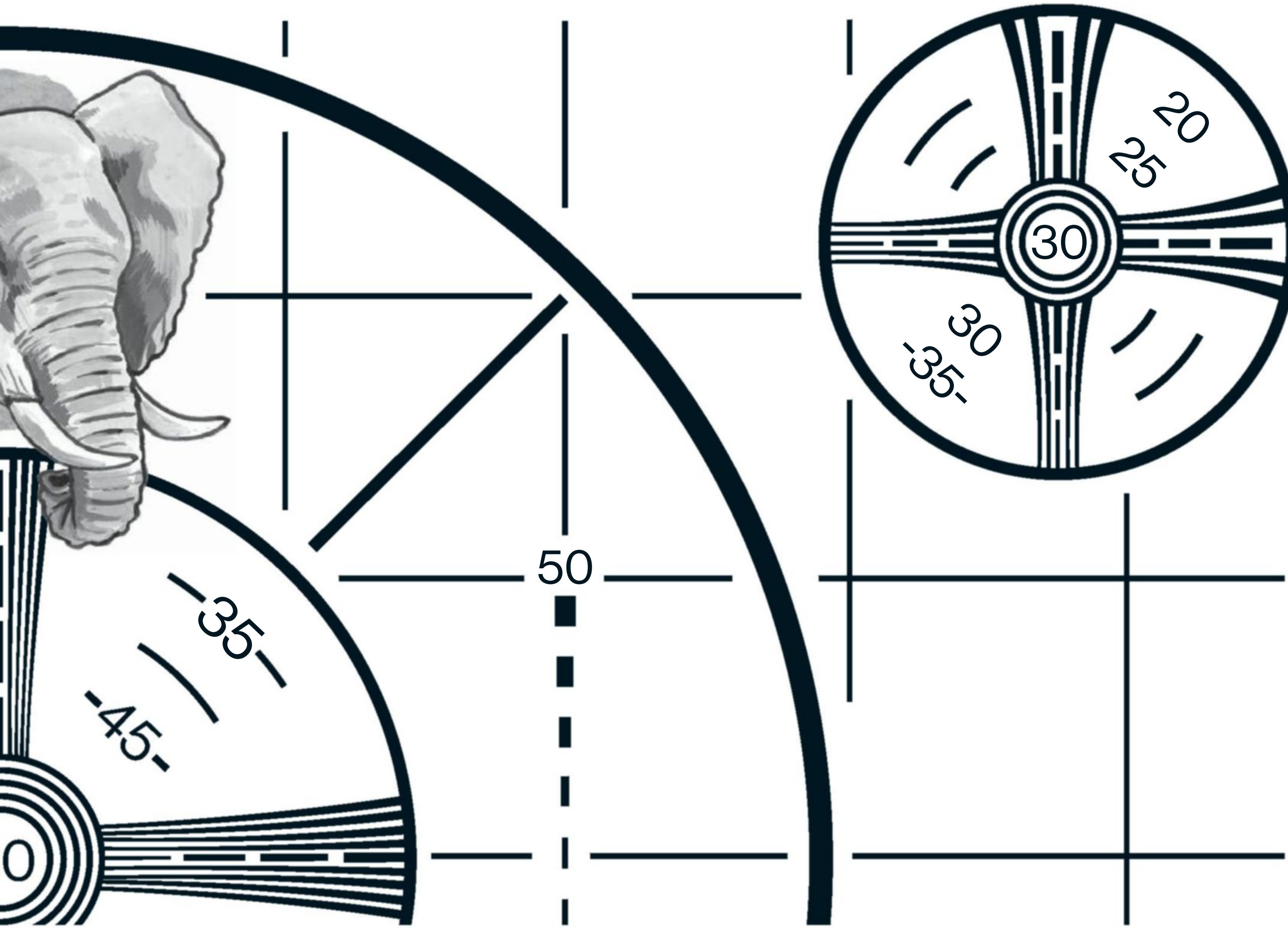
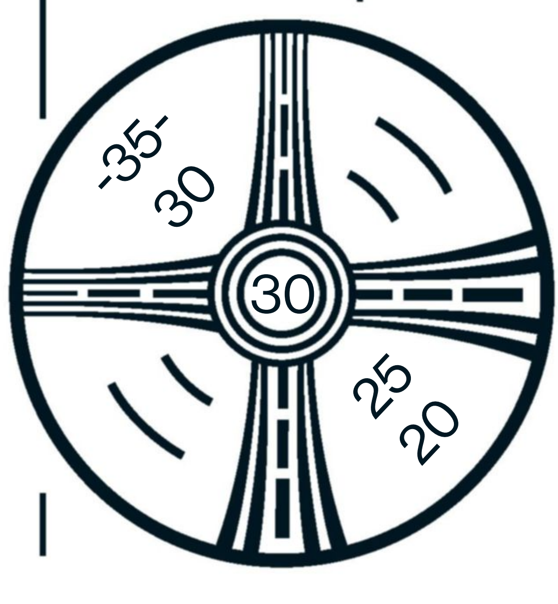



# WILL BE TELEVISED

## PRODUCTION VALUES)

SMALL-TIME
S HOLDING BACK
BECOMING THE
OF LOCAL TV
GILLETTE



In the menagerie of television talking heads who have come to prominence advocating for Donald Trump, Boris Epshteyn is hardly the most memorable. He lacks Sean Spicer's flair for the absurd, Kellyanne Conway's gift at turning a phrase ("alternative facts"), Corey Lewandowski's smoldering menace, Jeffrey Lord's Zen inertia, or Sebastian Gorka's staunch facial hair. Nobody has parodied Epshteyn on *Saturday Night Live*. Yet he's perhaps the best surrogate to study if you want to understand where the Trump/TV industrial complex goes next.

Epshteyn, 34, was born in Russia and raised in New Jersey. On TV he exudes the ineffable air of a Trump insider, bolstered by family connection (he went to college with the president's son Eric) and untroubled by an unorthodox résumé, involving law school and business ties to Russia. He talks with a thickly accented swagger that's perfect for the current mode of televised political debate, which is one part pro wrestling match, one part spy novel. If you encountered Epshteyn at the Trump National Golf Club bar in Bedminster, N.J., you might expect him to hard-sell you on a real estate investment in the Urals or, failing that, a delicatessen in Newark.

Epshteyn briefly worked in the White House—the job ended not long after *Politico* reported that he'd gotten into a "yelling match" with a booker at Fox News—but since April he's been employed as the chief political analyst for the Sinclair Broadcast Group. Located in Hunt Valley, Md., little-known Sinclair is the nation's largest owner of broadcast TV stations. It has 173 of them, mostly in small markets (Sioux City, Iowa; Fresno, Calif.; Little Rock), but with several in larger metropolitan areas as well (Pittsburgh, Salt Lake City, Washington). Whatever a particular station's network affiliation—ABC, CBS, CW, Fox, or NBC—Sinclair viewers get a steady dose of conservative political commentary. Lately, Executive Chairman David Smith has begun assembling a kind of junior varsity squad of commentators and making unspecific murmurings about competing head-to-head with the senior lettermen and women at Fox News. To left-leaning viewers only just becoming aware of the company's reach, Sinclair is positioned to flip a switch and turn those 173 stations' newscasts—currently delivering bulletins on weather, school closings, and local affairs—into a cohesive network that pushes a Fox News-esque worldview of outrage and conflict into individual cities, counties, and towns.

Epshteyn shows how the arrangement might work. Three times a week he records brief video commentaries that are sent to Sinclair's 65 or so newsrooms around the country. Station managers are required to weave them into their otherwise locally produced news shows—part of a larger daily slate of clips known internally as "must-runs." In recent segments, Epshteyn has praised the Trump administration's trade policies, encouraged states to cooperate with his Presidential Advisory Commission on Election Integrity, critiqued Democrats' lack of a "coherent and authentic" message, and knocked other news outlets for their insufficiently admiring coverage of Trump.

The segments look like something you might see on Fox News—but only if you stripped away Fox's high-end graphics, state-of-the-art studios, tailored wardrobes, perfect dental hygiene, and polished scripts. Epshteyn's low-budget shtick, often delivered in front of a graphic image of the White House overladen with the stars and stripes, hasn't wowed critics. One, David Zurawik, wrote in the *Baltimore Sun* that Epshteyn's "commentary has come as close to classic propaganda as anything I have seen in broadcast television in the last 30 years." But since Trump's surprise victory last fall, liberal and progressive viewers have learned that in the current political-media climate, seemingly slipshod productions can suddenly hit it big.

Sinclair is likely to get larger yet. In May the company announced it was buying Tribune Media Co. for $3.9 billion. Among other assets, Sinclair would add 42 TV stations—including major ones in New York, Los Angeles, and Chicago—if the deal is approved by regulators. The expansion wouldn't have been possible if Trump's pick to lead the Federal Communications Commission, Ajit Pai, hadn't voted a few weeks earlier to ease a major restriction on local media ownership.

While future-of-media gurus have long predicted the death of broadcast TV, roughly 20 million U.S. households don't subscribe to a cable, satellite, or streaming TV package and still rely on local stations for news and entertainment. Many more viewers, whether they know it or not, also consume Sinclair

"DAVID SMITH IS THE MOST POWERFUL PERSON IN AMERICAN MEDIA YOU'VE NEVER HEARD OF"

Smith in 1999



PREVIOUS SPREAD: ELEPHANT ILLUSTRATION BY CARI VANDER YACHT; THIS PAGE: AMY DAVIS/WITH PERMISSION FROM THE BALTIMORE SUN


Epshteyn is Sinclair's chief political analyst; Traffic Jam Jimmy's McDonald's run racked up 1.6 million YouTube views

programming via their cable or satellite providers, which pay Sinclair to retransmit their content. The more the company grows, the more leverage it holds over networks, syndicators, advertisers—and politicians, who continue to lean heavily on local TV to get their message out. Last year, Sinclair generated $256 million of net income on $2.7 billion of revenue. (It also has $4 billion in debt.) But the recent growth has sharpened a conflict at the heart of the company, pitting Smith's desire to build a national media powerhouse on par with the likes of Comcast Corp. and Walt Disney Co. against his tendency to penny-pinch and cut corners.

Critics of the Tribune deal, including Free Press, a Washington advocacy group, have accused Sinclair of trading sycophancy for favorable regulation. "It's a scandal," Craig Aaron, president and chief executive officer of Free Press, said in a May statement. "Sure looks like a quid pro quo: friendly coverage and full employment for ex-Trump mouthpieces in exchange for a green light to get as big as Sinclair wants."

Sinclair's CEO, Christopher Ripley, says the company has received no regulatory favoritism. Smith, who hardly ever gives interviews, declined to comment, but 19 current and former Sinclair employees spoke to *Bloomberg Businessweek*, many requesting anonymity out of concern about retribution. "Sinclair has managed to maintain a relatively low profile compared to other big network owners and consolidators in the media industry," says former FCC Chairman Michael Copps. "David Smith is the most powerful person in American media you've never heard of."

Smith, 66, grew up in the Baltimore area, the second-oldest of four brothers. Early in his career, during the 1970s, he founded Comark Communications, a manufacturer of TV transmitters, and was an active partner, according to an investigation by the *Los Angeles Times*, in Cine Processors, a bulk reproducer of pornographic films. In 1971 his father, Julian Sinclair Smith, an electrical engineer, launched WBFF, a small Baltimore station with no network affiliation, eventually adding two more independent broadcasters. In the early 1980s, with Julian in declining health, David joined the family business. He became its president and CEO in 1988. By the end of the '90s, Smith had enlarged Sinclair's portfolio to 59 stations. In 1995 he took the company public, wooing investors with an unadulterated management philosophy. "My father was too much of a visionary to care about profits," Smith told *Forbes*. "What I wanted was purely to make money."

As Sinclair expanded, it earned a reputation for austerity. According to one former employee at WBFF, Sinclair's flagship station in Baltimore, for years workers needed to insert two distinct keys simultaneously—in a manner reminiscent of nuclear launch protocols—to gain access to the supply closet. "Frugality runs through this company's DNA," says Ripley, who succeeded Smith as CEO in January. He hastens to add that "we've invested heavily in the stations that we've bought."

Over time, Sinclair kept running into an FCC rule that prohibits any single company from owning more than one station in a given market. Smith helped pioneer a workaround. In the early '90s, Carolyn Smith, the family matriarch, became the majority owner of a company called Glencairn Ltd. When Smith needed to acquire or divest a station with geographic overlap, Glencairn would buy it, then sign a "local marketing agreement," effectively turning control of the station back to Sinclair. Rivals complained that the arrangement was anticompetitive. In 2001 the FCC ruled that Sinclair had exercised illegal control over Glencairn and fined each company $40,000. But Sinclair continued to set up so-called sidecar stations, through which it owns or controls two or sometimes three outlets in one market. (Last year, Sinclair paid the FCC $9.4 million to settle claims, without admitting liability, that it improperly negotiated with distributors on behalf of same-market stations.)

For years, Sinclair shied from creating original programming. That changed in 2002, when it launched a news operation in Hunt Valley. Executives said "News Central" would create national reports that would be sent to its stations, saving money on duplicative newsgathering efforts. Sinclair executives also saw an opportunity to make local news more provocative. "Fox News Channel has demonstrated that people want a different level of truth," Smith told *Adweek*. "And if you can do it nationally, why not locally? If we're successful in creating meaningful, relevant controversy, we'll be doing a community service."

Controversies blossomed. In 2004 the *Washington Post* reported that 62 Sinclair stations planned to air—in prime time, just before the presidential election—a partisan documentary attacking Democratic nominee John Kerry. Protesters boycotted Sinclair's advertisers and the company's shares plummeted, forcing it to air a truncated version.

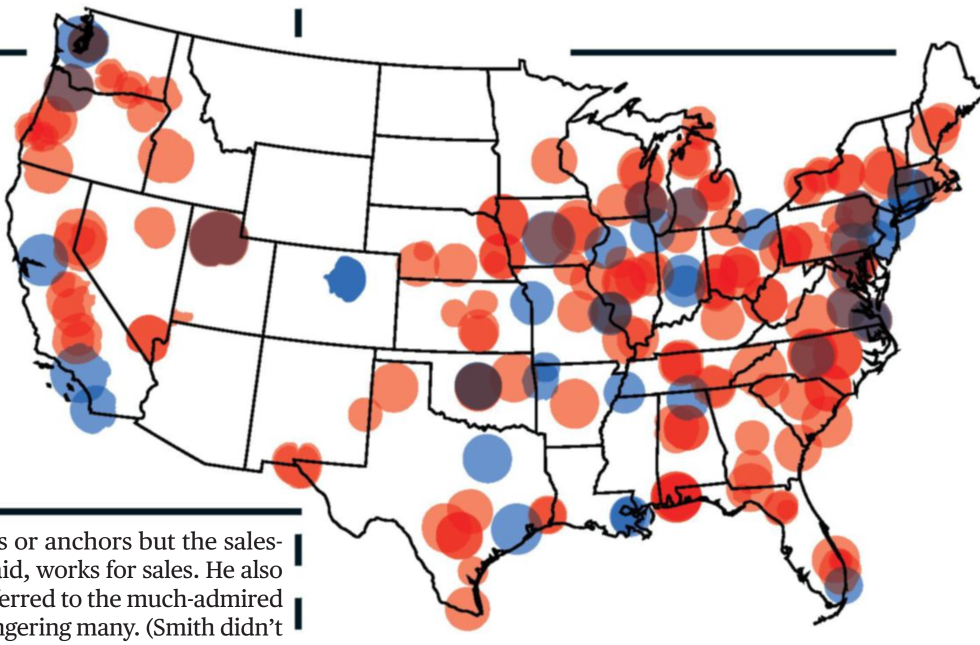
Eventually, Sinclair shut down News Central. But the company continued to create must-runs and centralized political analysis. Among its regular stable of contributors was the commentator Armstrong Williams, who during George W. Bush's second term provided a series of sunny dispatches on the administration. Problem: Williams was getting paid by the government to promote its education policies, a fact that Sinclair failed to properly disclose to its viewers. The FCC fined it $36,000.

Avoidable missteps and shortsighted management have continued to derail Sinclair's ambitions to be something more than the sum of its parts. Consider its 2013 acquisition of KOMO, the ABC affiliate in Seattle, as part of a $373 million deal for 20 stations. Sinclair was used to operating in smaller markets, making KOMO a new kind of challenge—a big station with an aggressive, accomplished newsroom. Smith flew to Seattle to greet the staff. The meeting immediately went south, according to three people present, when Smith told employees that the most important ▶

YOU TUBE (2)

## SINCLAIR'S RANGE

With its acquisition of Tribune Media, Sinclair would move into major new TV markets—including New York, Los Angeles, San Francisco, Chicago, Houston, and Dallas.




DATA: FCC, COMPANY REPORTS

◀ individuals weren't the reporters or anchors but the salespeople. Everybody at Sinclair, he said, works for sales. He also criticized station leadership and referred to the much-admired general manager as a "little lady," angering many. (Smith didn't respond to a request for comment via a company spokesperson.)

As a kind of peace offering, Sinclair gave the staff a regionally appropriate gift: a set of high-end Keurig coffee makers. The gesture was appreciated, until Sinclair executives informed the KOMO team that they were drinking too much joe. KOMO ignored the warnings, and the machines were removed. Separately, reporters were issued sponsored jackets to wear on the air: blue windbreakers with the prominent logo of L.L. Bean, the Maine-based outfitter, whose family ownership group includes a significant Trump donor. Liberal Seattle viewers complained, and some reporters objected to the commercialization of their wardrobes; if they were going to sell out, they might as well have gone with more local outerwear from REI or Eddie Bauer. "It's like going to Paris and ordering California wine," says a jacket recipient who asked not to be named.

More significantly, KOMO's journalists were frustrated by Sinclair's politically conservative must-runs, as well as its meddling in news coverage. One early flashpoint concerned Hempfest, an annual gathering of pot legalization supporters. According to one person privy to editorial discussions, Sinclair's corporate news team heard that the Seattle police were handing out bags of Doritos with notes explaining local marijuana laws and ordered up a story excoriating the department for wasting taxpayer money. What made the task a misuse of time and resources, says this person, is that there was no authentic local indignation in granola-eating Seattle. (Ripley says the political analysis fed to the stations is "not nearly a preponderance of what we do" and is "clearly labeled as commentary.")

In some ways, Sinclair seemed to be holding itself back. In 2014 it launched the American Sports Network, which would syndicate games from midtier college conferences such as the Colonial Athletic Association and the Patriot League. But some broadcasts weren't in high definition, and play-by-play announcers often wouldn't travel to call the games in person, instead narrating awkwardly from remote studios. ASN initially succeeded at connecting to pockets of underserved fans, particularly around college hockey. But with little brand recognition and no consistent place on TV where fans could find the games, the network struggled to attract regular viewers. Those it did find vented on Twitter about ASN's lighting, sound, graphics, camerawork, halftime shows, and other production values they had come to expect in sports broadcasting. Earlier this year, Sinclair laid off the bulk of ASN's staff and announced it would rebrand the network as Stadium.

Sinclair regularly hypes its larger ambitions when announcing deals, only to act more cautiously later. In 2014 the company jumped into the Washington, D.C., market with a $985 million acquisition of seven stations, including ABC's WJLA and NewsChannel 8, which is distributed via cable and satellite. During a call with analysts, Smith promoted NewsChannel 8 as key to Sinclair's ambitions to take on CNN, MSNBC, and Fox News. "We're going to build a local/national news audience that's going to compete directly with every other cable news channel," he said. After completing the deal, Smith met with WJLA and NewsChannel 8 employees at their offices in Rosslyn, Va. At one point, according to two people who were at the meeting, he gave the assembled staff a blunt message: "Resistance is futile."

The station soon got the usual Sinclair makeover, from standardized on-air graphics to a no-frills employee benefits package. But as the transition progressed, the grand plans for a national news network seemed to take a back seat to more pressing ideas about how to squeeze profit out of local news. The *Washington Post* soon reported that WJLA's morning news show had begun running segments highlighting the splendor of Myrtle Beach, S.C., as part of a broader tourism promotion deal airing across Sinclair stations.

The apparent blurring of news and advertising was no anomaly. Sinclair newscasts tend to be rife with paid consideration. One morning in 2015, Candace Dold, a reporter for Sinclair's Fox affiliate in Baltimore, tossed a live segment to the station's roving reporter, Jimmy Uhrin, aka "Traffic Jam Jimmy"—who was seemingly caught unprepared as he passed through a McDonald's drive-through and tried to order a fish sandwich. "I didn't know we were coming live, I'm sorry," said Jimmy. "Anyways, don't tell the boss I did this." The clip went viral as an amusing blooper, racking up more than 1.6 million views on YouTube. According to a former employee, however, the whole thing was staged as part of an advertising deal with McDonald's Corp.—something that was never disclosed to viewers. (Traffic Jam Jimmy declined to comment.) In an email to the *Baltimore Sun* in 2015, the station's general manager denied that the segment had been paid for by McDonald's.

Playing fast and loose with advertising is a matter not just of ethics, but of broadcast regulations. Around January 2016, Sinclair stations across the U.S. began inserting must-runs celebrating the Huntsman Cancer Institute, a research and treatment facility in Salt Lake City, into their regular programming. They were supposed to disclose that the spots were paid promotions, not genuine news. But the ads aired for months on many stations without any such notice, in repeated violation of federal guidelines. Eventually, someone tipped off the FCC. Ripley says the company has since instituted safeguards to prevent anything similar from happening again. "We eliminated the possibility of human error and put the right disclosures in," he says.

At Sinclair's summer 2016 corporate retreat, an "irate" Smith lit into a gathering of about 100 news directors and executives at a Baltimore hotel, according to several people present. The Huntsman screw-up, he said, could cost Sinclair millions in fines. Worse, it further complicated his already fraught relationship with the FCC. He needed the commission's blessing to make Sinclair even larger, which would have been a tough sell had Hillary Clinton won the presidency.

At the start of the 2016 presidential campaign, Sinclair churned out negative must-runs about Clinton and flattering pieces about Republican candidate Ben Carson. Like the Smiths, Carson has deep ties to Baltimore, and his campaign adviser was Armstrong Williams, Sinclair's longtime commentator. Williams says Smith's support for any particular candidate doesn't depend on personal friendship or even party affiliation—he's willing to work with any politician who understands the value of local TV and the burden of overregulation. "He deals with people who have an impact on his business. It wears no labels," says Williams. "What he cares about are people who are friendly to the marketplace."

After Carson dropped out, Sinclair aligned with Trump. In December, according to a report in *Politico*, Trump's son-in-law, Jared Kushner, revealed to a private gathering of bankers that the campaign had brokered a deal to give Sinclair's reporters additional access to Trump on the condition that interviews would run without interceding commentary. Sinclair executives responded at the time that a similar offer was made to Clinton, who declined the overture.

After Trump won, the FCC voted in April to restore an arcane rule that paved the way for Sinclair to buy Tribune. (The deal is still under government review.) Sinclair's expansion looks breezy compared with another media merger: AT&T Inc.'s pending bid for Time Warner Inc., the parent company of CNN. In July, according to the *New York Times*, White House officials were privately discussing how they could use the deal to tame CNN's critical coverage of the president.

Trump remains a protected figure on Sinclair airwaves. Even as the company has occasionally furnished its stations with ads made to look like journalism, it's adopted Trump's tactic of hammering its competitors for producing "fake news." In March, Scott Livingston, Sinclair's vice president of news, starred in a must-run warning viewers of the pernicious trend. "Unfortunately, some members of the national media are using their platforms to push their own personal bias and agenda to control exactly what people think," he said. On July 18, Livingston sent out a heated email to station news directors (first reported by *Politico*) criticizing recent coverage of Sinclair and bemoaning that "so many once trusted news organizations continue to push false narratives with an agenda to destroy our reputation and discredit the great journalism across our company."

Williams says the commentary from pro-Trump pundits such as Epshteyn helps balance the liberal bias of employees at the big-city stations Sinclair has acquired. "When people hear about hiring Boris, they don't understand," he says. "Smith inherits liberal newsrooms, liberal executives."

Apart from politics, Sinclair is pushing the FCC to approve a set of broadcasting standards called Next Gen TV. By combining over-the-air transmission with broadband internet delivery, boosters say, Next Gen would allow broadcasters to deliver TV with better sound and picture, while also freeing up bandwidth to deliver additional services (such as advanced emergency alerts) and more programming. The goal, says Ripley, is for Sinclair stations to deliver a wireless bundle of 25 to 30 channels that consumers can watch on their mobile devices without racking up cellular charges—or on their living room TVs without having to pay for a cable or satellite subscription. In recent years the company has assembled assets that could serve as the foundation of this service. Sinclair now owns the Tennis Channel; Ring of Honor (pro wrestling); Comet TV (sci-fi); Circa (millennial-centric news); and Stadium. It's set to get WGN America, a nationally distributed entertainment channel, in the Tribune deal.

Almost four years after Smith first mentioned the idea publicly, Sinclair has yet to launch its national news network. Ripley says that for now, his executives have determined that national news is an overcrowded field. The plan, he says, is to stick with local news and to branch out into other forms of unscripted programming—such as talk shows, court shows, and game shows. It's a strategy that will likely put Sinclair on a collision course with such tech giants as Google, Comcast, AT&T, and Amazon.com, which are likewise jockeying for dominance among the growing number of video consumers who don't want to pay for a cable or satellite TV package—and which, unlike Sinclair, show no hesitation about spending lavishly on whatever it takes to win.

Meanwhile, the Tribune stations Sinclair is set to absorb are preparing to enter a new corporate culture. In May, the mischievous morning anchors at the Chicago flagship WGN thought it might be entertaining to grill their new bosses. Live on air, they dialed the number for Ripley. "I'm sure he has a good sense of humor," said anchor Larry Potash. "All those corporate guys do." Just in case, they pretended to be other WGN anchors. The call went to Ripley's voicemail. "Hey Chris, this is Steve Sanders—from the midday show," said Potash. "Just wanted to see what our viewers can expect. Is anything going to change? Is the holiday party going to be a bit better this year?" The anchors chuckled.

Robert Feder, a media critic in the city, says that behind the hijinks, WGN employees are worried. "This is a very ethnically diverse, Democratic, union-friendly, progressive city in a blue state," he says. "It's going to be like the occupation of France during World War II. There's going to be an underground movement at WGN to try and salvage their freedom." B

# Globalism Is A



# Just Ask Carlos Ghosn

Ghosn poses with managers and workers at a Mitsubishi plant in Thailand

# live and Well

**By Monte Reel, Kae Inoue, John Lippert, Jie Ma, and Ania Nussbaum**
**Photographs by Sim Chi Yin**

**The quintessential postnational, transborder, free-trading CEO in the age of Trump**

**Carlos Ghosn enters the building** in the executive style, which is to say, through the roof.

The helicopter has traced an imprecise line above the Chao Phraya River, buzzing over Bangkok's ancient temples and clotted highways before zeroing in on the Peninsula Bangkok hotel, where the bright green helipad seems to swim in the wavy heat. He hops out and is led down to the Paribatra Lounge, a 37th-floor oasis reserved exclusively for aerial check-ins. The décor is *retro aeronautique*, and the welcome drinks are cold, but to linger here would be to stray from the itinerary, so Ghosn (rhymes with "bone") moves on. He's whisked down to his room, where he'll grab a quick lunch and slip on a fresh suit and tie. Then he'll wend his way to a ground-floor conference room and the first item on the afternoon's agenda: a Q&A session with several hundred Thai business school graduates.

The itinerary that shapes his day is densely plotted and color-coded, and if Ghosn seems a little too beholden to its demands, consider the alternative: cascading disorder. If he were to run a few minutes late on any of the agenda items mapped out on this afternoon's sheet, the entire scaffolding of the day might collapse, causing the week to buckle, ultimately threatening the month. As chairman and chief executive officer of a global alliance of auto companies—including Groupe Renault, Nissan Motor Co., and Mitsubishi Motors Corp., all three of which he also leads as chairman or chairman/CEO—his travel schedule begins to fill up six months to a year in advance. A typical month for him consists of a week in France, a week in Japan, and the remaining two weeks split among the U.S., Morocco, Russia, India, or any of the other countries where his companies have factories or executive offices. It's tempting to imagine a future in which Ghosn's itinerary is considered a valuable artifact: a window into what globalization was really like in 2017, when it was spreading further than ever and, at the same time, getting slammed by waves of populist discontent.

Ghosn, 63, was born in Brazil, raised in Lebanon, and educated in France. He proudly calls himself a citizen of the world. But in the era of Brexit and Donald Trump, it can seem a stubborn pride, willfully anachronistic. "If you believe you are a citizen of the world, you are a citizen of nowhere," Theresa May, Britain's prime minister, said last year. It was one of countless political uppercuts thrown at "Davos Man," the not-so-endearing label for those transborder, postnational elites who annually migrate to the World Economic Forum in Switzerland. Ghosn represents the species in its purest form. In the Wikipedia entry for the summit, his photo appears near the top, right beneath a photo of the conference founder. He insists he doesn't take any of the backlash personally, but ▶

◀ it's hard to believe that some of it isn't meant that way.

If the politics of the past year have left any sort of mark on him, it's imperceptible as he strides onto the stage for the Q&A. These are his people—students of business, not politics—and most of the questions they lob his way are as familiar as old friends: What drives you to take over struggling companies, and how do you always seem to turn them around? How were you able to become the first foreigner to run a major Japanese company? What's your secret for winning the trust and loyalty of employees throughout so many diverse cultures?

"I keep my eyes on the scorecard," Ghosn tells them. Production, profit, growth—the bottom line. Diversions constantly arise, but he's learned to manage the distractions, which he says assume different forms in different parts of the world. "In Japan," he says, "people have a tendency to preserve other people. But if you start to look at people, and not your scorecard, you're going to be in trouble. If you start to say, 'He's not very good, but, hey, he's such a good person, and he's nice, and he's a stand-up guy,' then you're compromising."

It doesn't take long for an indirect challenge to rise from the crowd: Can't a modern executive do more than protect his bottom line? A Thai business consultant asks him to consider the example of driverless cars and the potential they have to ease congestion. Nissan is a leader in the field; it's already selling its Serena model, with driver assistance, in Japan. But maybe, the man suggests, companies such as Ghosn's should first introduce them to Bangkok and other underdeveloped cities, where rapid globalization has brought increased mobility but also haphazard urbanization and murderous traffic. Conventional business wisdom says companies should first test them in places with advanced infrastructures, but why shouldn't Ghosn focus on the places where they'd do the most good? "Change the entire society," the man urges Ghosn. "Disrupt!"

The unstated implications—that the globalized world needs a radical disruption and that a car executive is in a position to do it—are notions that Ghosn rejects outright. Instead of apologizing, his instinct is to rise up and defend globalization, as well as his role in it.

"At the end of the day, we are a carmaker," he tells the man. "We should not forget that. We can contribute to a better society, but if you want to make a better society, you should not be a carmaker. You should be something else: a politician."

Politics. That's something to work through, he says, and to transcend. A man in his position, Ghosn says, changes the world by creating opportunities through globalization, which he describes as an ultimately benevolent law of nature, and fighting it makes about as much sense as declaring a war on gravity. But as the income gap between executives and workers has widened, and import competition has chipped away at manufacturing jobs in developed countries, globalization's downsides have become increasingly apparent. Ghosn doesn't dismiss those effects as make-believe, and he says the backlash might eventually result in corrections that bring about a more human brand of globalization. That said, he's convinced



Ghosn with Indonesian President Joko Widodo at the opening of a Mitsubishi plant in Jakarta

# "If you want to make a better society, y

that none of the criticisms can negate a larger truth: No force in history has done more economic or societal good than the world-encircling flow of goods, money, and culture. Brexit, the election of Trump, and the rise of antitrade populism are all very small bumps on a very long road.

Davos Man plans to outlast them all.

**The web is littered with** separated-at-birth memes comparing Ghosn to Mr. Bean, the hapless Everyman played by British comic Rowan Atkinson. There's a vague facial resemblance, but it's hard to think of a less accurate comparison once you see Ghosn in person. There's nothing hapless or slapstick about him; in fact, it's his physical confidence, the sense that he could be thrust into almost any situation and avoid looking foolish, that comes across. Ghosn looks the same when he quizzes spot welders in a factory as when he talks policy with Vladimir Putin. He's susceptible to impatience, irritation, and sometimes anger, but he almost never seems intimidated by his surroundings. When you ask Ghosn about his situational ease, he acknowledges it. "If I was a rookie, in my first year as CEO, I would not behave the same way I do after 16 or 17 years," he says. He quickly finds an example: "When I met Prime Minister May, I had the impression 'I know this office by heart.' Because I was there before to see David Cameron, Gordon Brown—there are five prime ministers in the U.K. I met in the same office. So somehow, when you come back after the third, fourth time, I don't think you are in a situation where you feel, you know..."

"Awkward," it seems, isn't in his vocabulary. And when you look back on the arc of his life, it can appear as if he was predestined to be a culturally agile globalist. Ghosn's family was from Lebanon, but his grandfather, at just 13, hopped on a boat, endured three months at sea, and made his way to Rio de Janeiro. Speaking only Arabic, he wandered deep into the Amazon basin, where he picked up Portuguese and hacked out a life for himself in the Guaporé Valley, a largely unsettled region full of spider monkeys and uncontacted tribes. Eventually he settled in Porto Velho, at the time a splintery jungle outpost where pink dolphins jumped in the river and rubber-tappers swilled *cachaça*. He established a pioneering air travel service, and years later, Ghosn's father, Jorge, took it over. When it was time for Jorge to marry, he traveled to Lebanon to bring back a bride: a Nigerian-born Lebanese girl who was a self-described Francophile. She gave birth to Carlos in Porto Velho in 1954. At age 2 he drank some dirty river water, got sick, and on doctors' orders moved with his mother and sister back to Lebanon. He grew up in Beirut, then the most cosmopolitan city in the Middle East, and at 17 moved to Paris to study engineering.

Somewhere along the line, a foundational philosophy emerged: Identity is additive, not substitutive. If a person is born Brazilian and later absorbs the French culture, he says, it contributes something to his identity; it doesn't make him less Brazilian. As Ghosn worked his way up through global companies—first at Michelin, then Renault, and finally leading the Renault-Nissan Alliance—he applied this personal philosophy to the corporate world.

Last year, Mitsubishi Motors was in free fall. Caught falsifying the mileage estimates for several of its vehicles, the company was forced to offer hundreds of millions of dollars in rebates while its sales tanked. When Mitsubishi CEO Osamu Masuko suggested to Ghosn that his company might join Nissan and Renault, Ghosn jumped at the chance, snapping up a controlling share of Mitsubishi for the alliance.

This is Ghosn's celebrated specialty: resuscitating companies from near death. He first did it in the mid-1990s at Renault, where he slashed costs, pulled the company back into profitability, and got saddled with a nickname—Le Cost Killer—that annoys him to this day. A couple of years later, when Nissan teetered on the brink of bankruptcy, Ghosn repeated the trick. Among other things, he cut 21,000 jobs, or 1 in 7. His reputation as a pitiless ax man hardened, but Ghosn contended that the purpose of the bloodletting was to allow vitality and growth. Since then, Nissan's production has more than doubled, and it now employs 4,000 more people than it did before those initial cuts.

In late April, Ghosn paid his first visit as chairman to a Mitsubishi factory, a new one on the weedy edges of Jakarta. His visit was cause for celebration, and truckloads of flowers, ribbons, balloons, and bunting proved it. Inside the main assembly plant, hundreds of chairs, all wrapped in ceremonial white fabric, faced a brightly polished stage. A man with a damp rag wiped the already clean steps that Ghosn would soon grace with the soles of his shoes. In the back of the room, translators in three separate booths (Indonesian, English, Japanese) tested their microphones, making sure the headsets given to the crowd worked. Dozens of portable air conditioners fought a losing battle against the heat.

According to the invitations, the dress code for the factory inauguration was "suit or batik," the latter being a colorful, aggressively patterned shirt or dress that's native to Indonesia. Those who'd opted for suits seemed consumed by regret; by the time Ghosn arrived, they were mopping their brows and fanning themselves.

Ghosn wore a batik. Entering the room in lockstep with the president of Indonesia, he was untucked, open-collared, and, by all appearances, perspiration-free. A lot of men—foreigners especially—would have struggled to pull off the batik. U.S. Vice President Mike Pence had flown to Jakarta the week before, and he'd also met with the president—in a suit. Yet here was Ghosn, exchanging salaam aleikums with a tight circle of VVIPs, wearing the batik as if he had a closet full of them back home.

When Mitsubishi was folded into the alliance last year, Ghosn insisted the press conference in Japan be moved from Nissan headquarters to rented space nearby, to avoid the perception that he'd simply swallowed up a wounded competitor. In Indonesia he again tried to assure workers that the Mitsubishi brand wouldn't be watered down by joining forces with Renault and Nissan. The companies will combine purchasing operations, share basic platforms, and do some cross-brand manufacturing. But Mitsubishi's core identity—the design elements consumers recognize and the employees who constitute its soul—will remain distinct and intact, he says.

"Maintaining the identity of each brand is very easy. This has never been a worry for me," Ghosn explains the ▶



**ou should not be a carmaker"**

◀ following day to a group of Mitsubishi managers. "It was one of the most frequent questions I received when we started the alliance. 'Oh, it's the same platform, the same technologies, so the Renault car is going to look like a Nissan car.' Fast-forward 17 years: Renault cars are very different from Nissan."

The concept couldn't be clearer to him, but there are plenty of people who fundamentally disagree. The idea that identity–personal, corporate, or national–is existentially threatened by the very globalization he embraces has flowered into a full-fledged political credo, one that has challenged almost everything his life and career are built upon.

**Ghosn was in New York** when the French presidential election was decided in May. He's newly remarried. His wife, Carole, is also of Lebanese descent, but for years she's called New York home. The Friday before the election, the two bounced around art galleries in Chelsea, lingering for tea in the studio of Japanese photographer Hiroshi Sugimoto, making offers for pieces he wasn't quite ready to sell. For Ghosn, it was a respite, a chance to think about something other than politics. For months, everywhere he'd gone, he'd been besieged by questions about the French vote, which he'd deflected: "We'll just have to wait and see."

Even if Marine Le Pen, the candidate of the far-right National Front party, hadn't tried to turn the election into a referendum against globalization, the vote still would have been vitally important to Ghosn. The French government owns a 19.7 percent stake in Renault. The new president would, in effect, become a business partner of Ghosn's.

Le Pen was clearly a concern. When she railed against "globalists working toward the dilution of France in a giant global magma," she was talking about the Carlos Ghosns of the world. At a business forum during the campaign, Ghosn didn't take sides, but his position was clear. "When people talk about the development of protectionism," he said, "for carmakers it's a disaster, because the whole supply chain has been built on open borders."

Since last year, when those protectionists actually began winning big elections, his approach to them has been more pragmatic than confrontational. After Brexit, Ghosn suggested Nissan might have to shutter its plant in Sunderland, England.

Ghosn and his wife, Carole, at an art gallery in New York

A few months later he met privately with May, who convinced him she'd work to protect his company's interests. The details of her assurances haven't been publicly disclosed, but days after that meeting, Nissan announced that it planned to build its new Qashqai and X-Trail SUVs in Sunderland.

Then there's Trump. Nissan builds more cars in Mexico than any other automaker, and about a quarter of the vehicles the company sells in the U.S. are made south of the border. But Ghosn has consistently predicted he'll be able to find common ground with Trump, whom he hasn't met. Even though the U.S. market continues to sag overall, he insists Nissan needs more capacity in America anyway. "'America First, jobs in the U.S.'–OK, we're fine with that," Ghosn said.

Be that as it may, the morning after Emmanuel Macron coasted to victory, Ghosn was in a particularly expansive mood. "I think everyone is very optimistic," he said at Nissan's offices on Lexington Avenue.

Macron is no doubt friendlier to his brand of globalization than Le Pen, but he's not likely to embrace Ghosn as an unambiguous ally. The two men have history. For the past couple of years, Ghosn has tried to get the French government to release its shares of Renault to allow the alliance to take more control of the company. But in 2015 the French government, led by Macron as economy minister, actually increased its shareholdings to secure more voting rights and to thwart Ghosn's plans. Macron didn't tell Ghosn about that power play until hours before it became public. The government suggested the acquisition of the shares was temporary, but it still hasn't let them go. The obvious friction between Ghosn and Macron intensified last year when the politician labeled Ghosn's Renault compensation–€7.1 million ($8.2 million)–"excessive" and threatened to introduce legislation to limit executive pay. (Ghosn's Renault pay is separate from what he earns at other companies; at Nissan, for example, he was paid $10.6 million last year.) Months after Macron made his legislative threat, France changed its laws to make sure shareholders have a say when determining the compensation of CEOs.

Macron's success didn't spell the end of European antiglobalization, of course; the public's distaste for the Davos Man didn't simply evaporate after Le Pen was humbled. The night of his victory, Macron celebrated at La Rotonde in Montparnasse, a bistro associated with Picasso, Hemingway, Cocteau, Matisse, and other artistic celebrities. Macron caught flak after the party from those who considered it a venue for the beau monde, not for a man of the people.

That kind of outrage doesn't seem to faze Ghosn, whose own parties beg comparisons to far more flagrant historical parallels. Last fall, to celebrate their marriage, he and Carole rented out the Grand Trianon at Versailles and threw a party inspired by Sofia Coppola's 2006 film, *Marie Antoinette*. The palace was filled with costumed actors and actresses with powdered wigs and rouged cheeks. Ghosn isn't running for office, and if the tone struck anyone as a little too let-them-eat-cake, to him it didn't symbolize any inherent unfairness in the globalized economy. If globalization is embraced in an upfront and honest way, he says, it's as fair a system as

## "'America First, jobs in the U.S.'—OK, w

there is, even if jobs sometimes have to move from one place to another to preserve the long-term, overall momentum of economic growth.

"I can totally understand the frustration of the blue-collar people, saying, 'What the hell's going on? How can our government let this happen?'" he says. "I can understand that, but this is also the responsibility of the companies to anticipate, prevent, and prepare. Not to all of a sudden say, 'I'm sorry, there's a change. I'm going to shut down the plant, and I am going to move outside.'"

He's back to the scorecard again: In his alliance, he says, all plant managers know where they rank in terms of productivity, from No. 1 to No. 60. And if they've been given an honest shot to improve yet still languish at the bottom, how can anyone claim it's unfair if the plant shuts down?

"It's easy to live with it, as long as you are anticipating," Ghosn says.

**In Thailand, Ghosn takes a** seat at the head of a long table and leads a closed-door meeting with about 40 of Nissan's senior executives from Asia.

"Our total revenue in Southeast Asia?" he asks. "How much is that?"

Someone at the table says 25 billion yen ($223 million), a figure Ghosn knows is wrong. "No, more than that," he says, impatient for the right number. "Sales. Sales."

The corrected figure—400 billion yen—doesn't put him at ease. Nissan has been selling eight models in Thailand and generating a 2 percent operating margin. Mitsubishi, which has been billed as the weaker partner in the alliance, actually performed better by some measures in the region: Its margin was 10 percent. What's more, Nissan has been spending 20 percent more than Mitsubishi to build pickups in Thailand.

Several times in the meeting, Ghosn punctuates his frustration with a fist on the table. "Frankly, it's very difficult to explain why we have such a pitiful performance," he says.

Despite countless such lectures, Nissan fell short of the profit and market-share goals it set in the five-year plan that ended on March 31. With operating profit margins of 6.3 percent and 6.4 percent, respectively, Nissan and Renault edged closer to Toyota's 7.1 percent. But Mitsubishi, at 2.8 percent, lowers the alliance's average.

The company certainly isn't the only carmaker struggling to find the proper balance between profit and growth. General Motors Co. has responded to its own lagging international numbers by reining in its global operations, largely abandoning Europe, and cutting loose investments in India, Russia, and other emerging markets. The assumed benefits of ever-growing economies of scale, GM's actions suggest, may not be all they're cracked up to be.

Ghosn is sticking to his guns. At the executive meeting in Thailand, he outlines his plan to turn around Nissan's regional numbers, emphasizing that the scale and experience Mitsubishi brings to the alliance could be a key to Nissan's success. Building on that, they could go after Toyota with a new, Renault-inspired electric car that would sell for around $8,000 in China.

During the first five months of 2017, Ghosn's alliance edged up to No. 3 in the world by boosting sales 9 percent, to 3.8 million cars and trucks worldwide, says Felipe Munoz, a Jato Dynamics analyst in London. That's 394,000 fewer than industry leader Volkswagen AG and only 38,000 fewer than archrival Toyota. These numbers exclude Russia's AvtoVaz and China's Dongfeng Trucks, joint ventures that are also part of the alliance, and they also exclude figures from small Asian, African, and Latin American countries, where sales reports take longer.

**Ghosn hasn't forgotten that back** in 1999, Bob Lutz, who later became GM's vice chairman, said Renault would be better off taking the money it paid for Nissan, loading it into a container ship, and sinking it to the bottom of the ocean. But by 2005, Lutz backtracked, admitting that he'd failed to account for Ghosn's "personality, drive, firm will, and daring."

"Obviously it's a huge satisfaction," Ghosn says, throwing his arms out wide. "This is a collection of the broken arms of the industry, and then all of a sudden these guys are at the top."

But will Ghosn, the celebrated turnaround artist, stick around if the only direction he can go is down? Earlier this year he relinquished his title as CEO of Nissan, but he remains the company's chairman and, of course, he's still the chairman and CEO of the alliance. The title change stirred recurring speculation about his eventual retirement, but people within the alliance insist there's no rush to find a successor. "To Ghosn and to me," says Hiroto Saikawa, a 40-year Nissan veteran who replaced him as the company's CEO, "we have made these achievements so far, and we do want to hand it over to the next generation in a careful way." Trevor Mann, chief operating officer of Mitsubishi, says whoever takes over next will likely follow Ghosn's lead, mirroring the values he's established in the alliance. But he quickly adds, "I don't think Ghosn is planning to go."

Ghosn seems more amused than preoccupied by questions of succession. He's said he works about 65 hours each week, and that figure might jump another 12 hours or so if you count the time he spends in his corporate jet. He says he can't really picture himself idling in retirement. That's why he predicts he might be a boardroom fixture as long as Ferdinand Piëch, who was chairman of Volkswagen until after his 78th birthday. "I am not just shutting the door and going fishing or something," Ghosn says.

When asked to identify a hobby, he picks reading—specifically, reading about the Roman Empire. "I'm passionate about it," he says. That period is relevant to life in the 21st century, he says, and provides instructive examples for, say, a modern business executive. He doesn't go as far as to cast himself as a modern-day Julius Caesar, but when he pictures the future of his alliance, he talks about a business empire built on a foundation of inclusion, able to sustain its power through expansion, adding more and more companies to the fold, harnessing the world's natural tendency toward consolidation and growth.

"Look at history," he says, "all the big empires of the world. Take the Roman Empire, take the Greeks, the Ottoman Empire."

All of them came to an end, but they all shared another common thread that's more interesting to him at the moment: The inevitable pull of globalization was the force that gave them power, and they rode it for as long as they could. He'll do the same for the alliance, he suggests.

"As long as it is necessary," he says. "As long as it is necessary." B

—*With Masatsugu Horie, Katya Kazakina, and Jenn Zhao*

e're fine with that"

MISHA FRIEDMAN/BLOOMBERG

# THE MAD CHEESE


**Dairy Management Inc. is making the food we buy gooier, meltier, and stretchier. Will it be enough to save an industry in crisis?**

***By Clint Rainey***
***Photograph by Jess Bonham***

# SCIENTISTS

In a usual year, Taco Bell juggles about 4,000 new menu ideas. A dozen, maybe, will ever see the light of day. Trimming all this fat is the job of the chief food innovation officer, Liz Matthews, and a 40-person team of chefs, food scientists, nutritionists, microbiologists, chemists, and even one entomologist (he does food safety). Observers have unironically called this crew fast-food “disruptors.” In the past five years, Matthews’s team has trotted out such blockbuster menu items as the Doritos Locos Taco (in Nacho Cheese, Fiery, and Cool Ranch varieties), a breakfast taco with a waffle for a shell, and a *chalupa* with fried chicken in place of its usual flatbread. Until a year and a half ago, however, one simple idea had foiled them: a fried tortilla full of oozing, molten cheese.

“Having this fabulous taco with melty cheese in every single bite was something we started dreaming about 10 years ago,” Matthews says. After a decade-long journey of dairy and failure and resolve, that dream eventually became the Quesalupa, a taco served in a cheese-stuffed fried shell whose 2016 arrival was heralded by a Super Bowl ad featuring a cackling George Takei. Costing somewhere from $15 million to $20 million, it was Taco Bell’s most expensive ad campaign ever. And it paid off: The company sold out its run of 75 million Quesalupas during the product’s four-month limited release. Chief Executive Officer Brian Niccol called the launch, which featured its own Snapchat filter, “one for the record books.” Perhaps inevitably, the company began testing a Doritos Quesalupa Crunch in March.

Such is the influence cheese wields over the American consumer. Americans eat 35 pounds of cheese per year on average—a record amount, more than double the quantity consumed in 1975. And yet that demand doesn’t come close to meeting U.S. supply: The cheese glut is so massive (1.3 billion pounds in cold storage as of May 31) that on two separate occasions, in August and October of last year, the federal government announced it would bail out dairy farmers by purchasing $20 million worth of surplus for distribution to food pantries. Add to that a global drop in demand for dairy, plus technology that’s making cows more prolific, and you have the lowest milk prices since the Great Recession ended in 2009. Farmers poured out almost 50 million gallons of unsold milk last year—actually poured it out, into holes in the ground—according to U.S. Department of Agriculture data. In an August 2016 letter, the National Milk Producers Federation begged the USDA for a $150 million bailout.

That Taco Bell is developing its cheesiest products ever in the midst of an historic dairy oversupply is no accident. There exists a little-known, government-sponsored marketing group called Dairy Management Inc. (DMI), whose job it is to squeeze as much milk, cheese, butter, and yogurt as it can into food sold both at home and abroad. Until recently, the “Got Milk?” campaign was its highest-impact success story. But for the past eight years, the group has been the hidden hand guiding most of fast food’s dairy hits—a kind of Illuminati of cheese—including and especially the Quesalupa. In 2012 it embedded food scientist Lisa McClintock with the Taco Bell product development team. She worked with the senior manager for product development, Steve Gomez, to develop a cheese filling that would stretch like taffy when heated, figured out how to mass-produce it, and helped invent some proprietary machinery along the way.

**“HERE’S A LITTLE SECR**

The finished product is mega-cheesy: With an entire ounce in the shell, the Quesalupa has about five times the cheese load of a basic Crunchy Taco. To produce the shells alone, Taco Bell had to buy 4.7 million pounds of cheese.

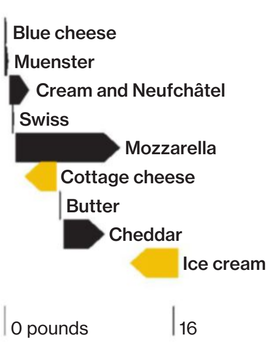
**“Here’s a little secret,” says DMI President Barbara O’Brien.** “If you use more cheese, you sell more pizza.” DMI proved this decades ago: In 1995 the then-brand-new marketing group worked with Pizza Hut on its Stuffed Crust pizza, which had cheese sticks baked into the edges. The gimmick was introduced with a cheeses-presented-elegantly ad starring a pizza-loving real estate baron named Donald Trump, and by yearend it had increased Pizza Hut’s sales by $300 million, a 7 percent improvement on the previous year’s. DMI has since estimated that if every U.S. pizza maker added one extra ounce of cheese per pie, the industry would sell an additional 250 million pounds of cheese annually.

The National Dairy Promotion Board created DMI in the mid-1990s to act as an umbrella company for state and local programs promoting the dairy industry. DMI is classified as a commodity checkoff program, a type of booster group for agricultural products funded by their producers. In addition to dairy, there are checkoffs for avocados, beef, cotton, softwood lumber, and an additional 20 or so commodities. The USDA’s Agricultural Marketing Service loosely oversees these programs; they’re authorized by Congress but ultimately answerable to the producers they serve. U.S. dairy farmers pay a compulsory checkoff fee of 15¢ on every 100 pounds of dairy they sell. It adds up: Over the years, DMI has collected hundreds of millions of dollars to promote and conduct research for dairy products.

DMI’s original business plan was almost entirely

## Milking It

**Per capita changes in the amount of dairy products available to consumers, 1970 to 2014**




PREVIOUS SPREAD: SET DESIGNER: ALIKI KIRMITSI direct-to-consumer advertising. But when consumers started eating out more in the late 1990s, the group shifted to working with companies that took products to the marketplace—particularly restaurant chains such as Pizza Hut and, eventually, Taco Bell. The DMI arrangement is unusual in fast food's highly competitive, proprietary world. Taco Bell isn't the only company benefiting from its expertise. The checkoff also puts DMI's agents inside Burger King, Domino's, McDonald's, Pizza Hut, and Wendy's, where they're privy to each restaurant chain's most closely guarded trade secrets.

Stuffed Crust was on the minds of everyone at Taco Bell as they welcomed McClintock, who was immediately assigned to the languishing Quesalupa project. "What Taco Bell usually needs is one person who's entirely dedicated to a product," she says—and sometimes, it seems, just one component of one product. "So that's what I was for—there to handle cheese."

It's worth pausing to note how serious a paradigm change Taco Bell credits DMI with causing: The company's innovation team once regarded cheese and sour cream as mere garnishes. Now, dairy is often the focal point. Cheese use at the chain has increased 22 percent since the beginning of the DMI partnership. "Beef and cheese are the most important ingredients to our consumers," Matthews says. "But really, cheese." For proof, consult a menu. Eight items currently have the word "cheese" or "cheesy" in their name, vs. three with "steak" or "beef." Breakfast items get a fancy cheddar shred; tacos get a three-cheese blend. Most of the chain's 7,000 U.S. locations also carry nacho cheese sauce and a spicy *queso* dip—the first in the company's 55-year history—introduced to great fanfare last November.

No other cheese at Taco Bell, however, had to perform like the Quesalupa cheese. It had to be what CEO Niccol terms "an experience," a full five-sense extravaganza of melt and stretch. Before McClintock arrived, Gomez and his team had tested a glorified quesadilla folded in half, but consumers rejected it. "It didn't live up to the promise of a truly cheese-stuffed shell," Gomez recalls. Once they tried sealing off the sides, though, "it was like 'Holy crap, we can sell this.' "

How to mass-produce the shells became McClintock's problem. She applied her doctorate in chemistry to the cheese filling, comparing various varieties' chemical compositions, specifically the interplay between molecules of a protein called casein found in the space around milk fat. Think of casein as dairy glue that, at the right temperature and pH, gives cheese its pull by binding water and fat in a smooth matrix.

"If you tried using something like cheddar, you'd get too much oiling off," McClintock says. "It's a fattier cheese—it's not going to hold up well in terms of cheese pull." She also quickly nixed mozzarella. "Great stretch, but you expect something bold from Taco Bell," she says. "Pepper jack gave us the extra kick from the jalapeños." Crucially, it's also a high-moisture cheese, which means fewer casein connections and therefore a more reliable melt. She toyed with the idea of inserting a cheese "puck" into the tortilla pocket to see if that melted more uniformly, but grated cheese proved the most even. McClintock and Gomez recall intense competitions in the lab where they'd fry up a bunch of Quesalupas and tear them apart to see who could get the longest cheese pull. Winners sometimes stretched theirs a full arm span.

The final products were pre-assembled in factories using the Press, a proprietary machine Bloomberg wasn't allowed to see. Its basic function is to pressure-crimp the edges of two tortillas without squishing the cheesy center. "When I say it out loud, it sounds so simple," Matthews says, "but I can tell you, it took a huge team of engineers." McClintock spent four months traveling among supply facilities for Tyson Foods Inc., Taco Bell's tortilla vendor, introducing workers to the machinery, which had to be operated manually and was difficult to wrangle. "These 250-pound workers basically had to jump up and down while pulling on it to get enough pressure," she remembers. After observing it, Niccol told *Fast Company*, "It looks like that Lucille Ball skit." Since Taco Bell needed 75 million of these things for the January rollout, Tyson had no choice but to bring in a special team whose job was to yank the Press by hand 75 million times.

**DMI argues that its prowess has helped** slow Americans' declining desire for dairy, even as milk and cheese consumption has moved in opposite directions. Demand for milk has gone from 35 pounds per person in 1975 to 15 pounds today, the reverse of the trajectory cheese has followed. But championing dairy also means DMI has promoted lots of saturated fat and cholesterol, which has created its share of controversy. "Americans rely on the USDA ▶

ET. IF YOU USE MORE CHEESE, YOU SELL MORE PIZZA"




DATA: USDA

◀ for dietary guidance," says Parke Wilde, a food economist at Tufts University who studies the checkoffs. "All these fast-food restaurant-chain partnerships must be pretty embarrassing for the people at the agency working to promote healthy eating." Still, DMI's benefit to the dairy industry is clear: A cost-benefit analysis done by Texas A&M University economists in 2012 shows that every dollar a dairy producer invested in DMI returned \$2.14 for milk, \$4.26 for cheese, and \$9.63 for butter industrywide.

Americans may buy less dairy from the grocery store than they used to, but they still like to eat it. After McDonald's switched from using margarine in its restaurants to real butter in September 2015—a change DMI lobbied for—the company said Egg McMuffin sales for the quarter increased by double digits. "It wasn't easier, it wasn't cheaper, but it was the right thing to do with our food," says McDonald's executive chef, Dan Coudreaut, of the changeover. "As our guests' tastes evolve, McDonald's is obviously going to evolve as well. If we don't, then we become a dinosaur."

To help McDonald's execute the shift, DMI's food scientists developed procedures for storing and softening it (one of margarine's primary advantages is its spreadability straight from the fridge), then helped the company locate suppliers for its 14,000 high-volume restaurants.



One of those suppliers was Grassland Dairy Products Inc. in Greenwood, Wis., the largest family-owned butter manufacturer in the U.S., which operated its factory seven days a week to churn out 2.4 million pounds of butter to satisfy McDonald's prelaunch butter needs. In April, Grassland announced that its exports to Canada, worth millions, had evaporated because of protectionist pricing guidelines and quotas the Canadian government instituted, causing the conglomerate to suspend milk contracts with 58 dairy farms. Grassland President Trevor Wuethrich said in a statement to Bloomberg that the company has seen an overall increase in demand despite the quotas, which it attributes to "changes made by McDonald's" as well as consumers "seeking simple and natural products," something else DMI takes partial credit for.

**"BEEF AND CHEESE ARE THE MOST IMPORTANT INGREDIENT**

Wisconsin Governor Scott Walker wrote a letter of complaint to President Trump in April over the Canadian policy. During a visit to Kenosha later that month, Trump publicly blasted Canadian milk subsidies as "a disaster" and "very, very unfair," and predicted they're "not going to be happening for long."

Canada aside, DMI is betting hard that the industry's future will be abroad. In 2009 the group commissioned Bain & Co. to study globalization's impact on the industry. The report was optimistic about exports overall but urged producers to "take action now." It predicted milk demand would grow by 7 billion pounds over the next four years as consumer interest explodes in Asia, Latin America, northern Africa, and the Middle East. Bain concluded that U.S. dairy producers were "well-positioned" to fill that gap.

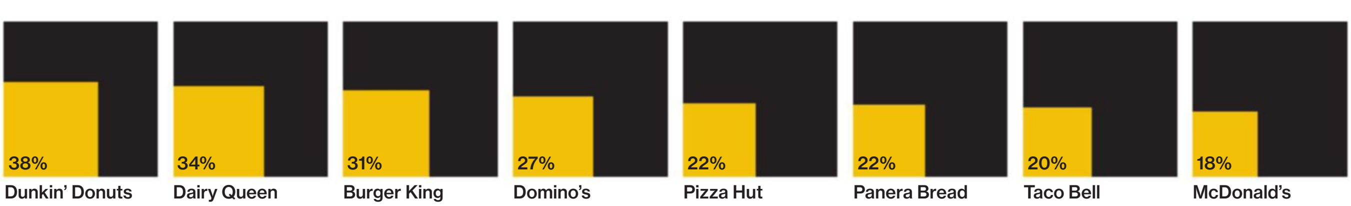
DMI is a pro at getting cheese into foods that never had any, but many dairy farmers are nostalgic for the days when milk was boxed in cartons and served in every kid's lunch rather than ultrafiltered for use in cheese manufacturing. Harry Kaiser, an economist at Cornell University who for years oversaw DMI's annual report, argues that farmers' disillusionment stems from changing consumer habits. When the checkoff got its start 20-plus years ago, "milk really was just a commodity," he says. The current consumer emphasis on quality and simplicity would seem to create an opportunity for small-time producers with a story to tell. DMI, however, is not a small-time business, which has made certain farmers averse to checkoffs. "They're saying, 'Well, look, I sell organic milk,' or 'I make really great cheese, and it's not a commodity now, it's a brand,' " Kaiser says.

Other farmers complain that DMI was pitched as a self-help program for everybody, but it disproportionately benefits Big Dairy. According to DMI, half the industry's 43,000 farmers have 500 cows or fewer, but that's not who gets tapped to fulfill major food-service contracts (e.g. Grassland).

Farmers such as Skip Hardie, a dairy farmer in upstate New York who's on DMI's board, argue the benefits filter down. "You have to keep in mind that the raw product to make that cheese or butter or yogurt is milk," he says. "So if McDonald's all of a sudden switches to butter, a lot of dairy farmers in the United States are going to sell more milk. Any time you create new demand for a dairy product, it's removing milk from the

## Say Cheese

**Percentage of menu items with some form of the word in their names, by restaurant***




*totals don't include beverages or desserts

DATA: COMPANY WEBSITES

market that would have had to find a home someplace else."

Others, such as Brenda and Joe Cochran, beg to differ. The Cochrans raise 130 cows on 283 acres in north-central Pennsylvania, and in 2003 sued the USDA and the National Dairy Promotion Board, DMI's parent group, arguing that by paying into the checkoff, they were being forced to subsidize speech—"Got Milk?"—they didn't agree with. "To us, it doesn't matter if it's a small Amish farm with Jersey cows on a pasture system or a big multigenerational family farm, we feel the farmer is still being misrepresented by what the checkoff is communicating," Brenda says. "We produce our milk in a certain way, then it gets commingled with other production paradigms, and then somehow it's generically abracadabra'd into a standard product offered to consumers. That's not truth."

A Pennsylvania district court sided with the USDA, but its decision was reversed on appeal by the 3rd U.S. Circuit Court of Appeals. The Cochrans' legal victory was short-lived: The following year the Supreme Court took a case brought by the Livestock Marketing Association against USDA and the beef checkoff, alleging that "Beef: It's What's for Dinner" elided the difference between, say, a chuck steak and a grass-fed porterhouse.

Checkoff critics had high hopes. Legal scholar Laurence Tribe was the ranchers' attorney, and Justices Antonin Scalia and Ruth Bader Ginsburg both seemed annoyed by the government's protected-speech defense. ("What is the government speech?" Ginsburg asked. "If you went to the surgeon general, probably that message would be 'Eat meat moderately.' ") But the court ruled against the ranchers, rejecting Tribe's argument—identical to the Cochrans'—that the government was forcing them to "engage in speech they don't agree with." Armed with legal precedent, checkoff groups have invoked protected speech as the basis of every defense they've mounted since.

Congress is feeling pressure from agricultural groups to limit checkoffs, largely because of the American Egg Board's two-year effort to kneecap eggless-mayonnaise maker Hampton Creek Inc., which came to light in 2015. (Hampton Creek effectively kneecapped itself later by having contractors buy its Just Mayo spread in bulk from stores, creating artificial demand. A trickle of board resignations culminated in mid-July, when the entire directorship, except for the CEO, resigned.) In March, Republican Senator Mike Lee of Utah and Democratic Senator Cory Booker of New Jersey, simultaneously with Republican Representative David Brat of northeast Virginia, introduced the Opportunities for Fairness in Farming Act, which is designed to "bring much needed reforms to federal checkoff programs" by "cracking down on conflicts of interest and anticompetitive practices, and bringing additional oversight and transparency," Booker said in a press release.

O'Brien of DMI defends her group by pointing out that its acting order was never to address the needs of individual farmers—rather, it's built on the philosophy that "all boats will rise." McDonald's Coudreaut says the stakes are much bigger than individual farmers. "I think about the 27 million people eating in McDonald's every day and how they're being exposed to real butter now," he says. "I don't want to bad-mouth margarine, but when I grew up, Mom brought out butter at Christmas and Easter. Now people are exposed to real butter when they eat the food at our restaurants, and I think that's pretty cool."

At Taco Bell, McClintock's next challenge is automating the manual assembly for the Quesalupa 2.0, which is under development and is rumored to come in two new flavors, Volcano and Bacon Club. If she succeeds, it could open up a whole other level of scale. Of course, the 2.0 version of the Press is also shrouded in mystery, but McClintock does mention "figuring out how to get robots to pick up cheese and put it on tortillas" and things moving "at very, very high speeds." Maybe it will be enough firepower to truly mass-produce Quesalupas. Get them in the frozen aisle of Walmart and Kroger, DMI would argue, and now you're moving miles of cheese. Ⓑ

(From left) *McClintock, Matthews, and Gomez*

S TO OUR CONSUMERS. BUT REALLY, CHEESE"

PHOTOGRAPH BY YE RIN MOK FOR BLOOMBERG BUSINESSWEEK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# The Future of Fishing

With its H3, Orvis has created a fly rod that makes anglers better just by using it. Will that be enough to revitalize the ancient sport?

*By Kyle Stock*

*Photographs by Randy Harris*


Orvis employees who helped develop the H3 test their rod on Vermont's Battenkill River

Bloomberg Businessweek

July 24, 2017

Edited by Emma Rosenblum


The H3 has a distinctive white wrap that will make it instantly recognizable to informed anglers

The lovely thing about fly-fishing is that the fishing itself is enough; catching is a bonus. Casting a fly line, like driving a golf ball, is such a tricky thing to do—such a complex physical equation—that there's plenty of pleasure in the motions alone, getting the fly to where a fish might be.

On a cloudy May afternoon on Vermont's Battenkill River, I'm not catching a thing, and neither are the Orvis employees hosting me on their home waters. In the chilly spring weather, the fish are sluggish and tucked up against the shoreline where they can ambush an unsuspecting minnow with little effort. Our big, fuzzy hooks continually slap into the water inches away from the bank, to no avail.

But the casting is spectacular. From across the river, under overhanging trees, over logjams, the rod I'm using whips through the air and plops the fly into its intended pocket time and again. The four guys bobbing along next to me and in the adjacent boat are doing the same—casting with uncanny accuracy, smoothly stripping the line back, and smiling. They've worked on a five-year project to ensure these lines fly straight.

Earlier this month, Orvis Co. unveiled what it claims is the finest fly-fishing rod ever made—dubbed the Helios 3, or H3—in the biggest product launch in the company's 161-year history. My comrades that day, Shawn Combs, Jesse Haller, Sam Orvis, and Tom Rosenbauer, are part of the team that helped build it. The goal of the rod is to help even an amateur angler become instantly better, the way shaped skis in the 1990s made it substantially easier for a generation to descend mountains with grace. By making it simpler to pick up the sport, Orvis is hoping the rod will hook a whole new crowd of people on fly-fishing, a somewhat fussy and meditative hobby with an aging, largely white male audience that hasn't seen a major boost since Brad Pitt led the cast of *A River Runs Through It* in 1992. If all goes as planned, the $850 piece of hardware will shoot the company well beyond its current $350 million in annual revenue.

Most contemporary fly rods are made in essentially the same way. Sheets of carbon fiber treated with a sticky resin are rolled around a metal tube, then wrapped in cellophane tape and baked in an industrial oven, hanging vertically like a sausage. Later comes the cooling, sanding, and painting.

What makes a rod great are the materials used and how exactly they're fitted together. Most critical is the angle at which the layers of carbon fiber crosshatch, how finely the wand tapers to a point, and how snugly each lengthy section, or blank, fits inside another. Getting any of those wrong makes for a rod that's too heavy or too bendy ("slow" in fly-fishing terms), or one that vibrates like a spring when it's flexed and unloosed.

Traditionally, rodmakers have relied on trial and error and years of experience to get the recipe right. Orvis, for example, used to build a prototype, put it against a whiteboard, bend it, and trace the outline with a marker. If the team didn't like the curve, it started over.

In 2011 the company hired a young engineer, Combs, to lead research and development on its fly rods. A native of Kentucky who was 34 at the time, Combs is a gearhead with strong opinions about everything from fishing rods to skis. Most important, he's an unabashed trout bum and a mechanical engineer who most recently had been devising ways to fuel nuclear submarines at a U.S. Navy lab in New York.

Under Combs, Orvis started leaning more heavily on science. Instead of the whiteboard test, the R&D team added weight to each section and measured resistance by the inch. It spent almost $500,000 on machines to cut carbon fiber more uniformly and to wrap, sand, and paint each section. It hired an outside lab to measure and chart the oscillations of the rod tip when it was plucked like a guitar string. And when executives gathered to test prototypes, they no longer

Finished rods are dried at the Orvis factory

A worker seals the eyelets that guide the line along the rod

hollered their feedback across the casting pond; they diligently recorded it in a purpose-built app.

Orvis also secured a thermoplastic resin that allows its rodmakers to cook the rods at a much higher temperature than before, thanks to an anonymous executive at a defense contractor with a weakness for fly-fishing. The company was able to buy a license to the resin because the outfitter wouldn't be using the goo to craft helicopter blades like the guy's other customers.

One could argue the finished product has more in common with a race car than the bamboo poles once seminal to the sport (Orvis still makes those, too). The entire process, from cutting the carbon to sliding it into a rod tube, takes eight days and 50 pairs of hands.

This process is pretty high-tech for a company that peddles goods for one of the oldest pastimes in the world, but Orvis has long sold itself as cutting-edge. When it came along in 1856, it positioned itself as a specialist, selling rods and gear out of Manchester, Vt. It was a niche outfitter, offering equipment and a small amount of outdoor clothing to those in the know. (In the 19th century, when it came to fly-fishing, those in the know still tended to be in the upper class.)

During the Depression, the Orvis family sold the business to a group of Philadelphia investors, who in turn sold it in 1965 to a man named Leigh Perkins, whose family still owns it. Eventually, the mail-order catalog saved customers the trip to Vermont, but competitors moved into the field. Orvis's biggest rivals in fishing, Sage Manufacturing Corp. and G. Loomis Inc., now a unit of Shimano Inc., were started in the early 1980s. Without having weighty origin stories, both brands pitched their products as scientific breakthroughs, more techy than tweedy.

The recreational fishing industry in general received a boost, according to Orvis retail staff, after *A River Runs Through It* made fly-fishing seem glamorous, all-American, and, frankly, much easier than it is. The audience peaked four years later, in 1996, when 4.5 million Americans waved fly rods over water, but many of those folks didn't stick around for long. In a 10-year period, that number dropped by one-third. "It's a really leaky bucket," says Rosenbauer, a 40-year employee who heads Orvis's marketing for rod and tackle. By 2006 only 3 million people in the U.S. fished with flies.

So Orvis sought to expand its range of potential customers. In 2009 it began offering free casting clinics at many of its retail stores, in addition to the paid lessons it's long sold. Some 12,000 first-time fly-casters came out that year, and 15,000 have signed up in each of the years since.

Simon Perkins, 34, Leigh's grandson and vice president for brand marketing, helped craft the strategy shift. Before moving into a job at corporate headquarters in 2011, he spent 11 years guiding fishermen in western Montana. He knew better than virtually anyone what fly-fishers wanted.

"Fifteen years ago it was a sport for the rich white male who could afford to take the once-in-a-lifetime trip to Montana or Alaska," Perkins says. "It was clubby, and we needed to break down the barriers to entry."

Perkins also realized that a great fly rod could act as a halo product, helping to sell by association the apparel and home goods that have come to make up most of the Orvis revenue stream. A space-age, 9-foot wisp of carbon is one of the few competitive advantages Orvis has over an outfit such as L.L.Bean Inc., which makes a vast array of products but less-respected rods.

In recent years the fishing community has grown. The government found 4.3 million fly-anglers in its latest count, and Orvis estimates that 8 million more Americans go out and cast a couple of times a year. (Of total anglers, the government estimates roughly one-quarter are women. Orvis hopes to attract a bigger number.) Last year the company sold 50 percent more fly rods than it did in 2011.

"The fly-fishing market is so small, we can't afford to leave out any demographic," Rosenbauer says. "It used to make sense to target older, affluent customers, but these days that's a dangerous path to take." ▶

Sam Orvis, a distant relation to the founding Orvis family, casts with an H3

The H3 will be Orvis's raison d'être, the product at the epicenter of its 100 retail stores and 5,000 other things—from dog beds to sundresses to guided vacations. Its current top-of-the-line rod, the Helios 2, is its second-best-selling product in volume of units, despite a $795 price tag. (The No. 1 item is a shirt.)

Whether the H3 is "the best," however, will be hotly contested at any fly shop in the world. Many anglers swear by Sage, which is known for making "fast" rods that can cast long distances. Last summer, G. Loomis broke the four-figure barrier when it unveiled its Asquith rod, with a suggested price tag of $1,000 to $1,700.

"These days, you have to try really hard to find a bad fly rod," says Evan Burck, marketing manager at Rajeff Sports, which makes a niche line of rods called Echo. "Rods are becoming more specialized for different types of fishing. Now you'll have a rod for a certain type of river or a particular type of fly."

Despite its efforts, Orvis says it holds only about 15 percent of the fly rod market. Plus, creating a space-age rod is a relatively anemic business proposition. Even at 4.3 million anglers, the market is puny. And the sport is surprisingly difficult, which can be a frustrating obstacle for aspiring fishermen.

The complexity comes in several stages: If you're die-hard, you can tie your own flies, painstakingly binding tufts of feathers and fur onto a hook to approximate the look of an insect, egg, or, in some cases, a small fish. When it comes to the act itself, it's the physics that makes it challenging and beautiful. Because the lure is so delicate, it's almost weightless, and the angler is required to cast the line itself—the opposite dynamic of spin-fishing.

But even the most ardent anglers, those who'll spend winter tying boxes full of new flies, don't need many rods and don't need to replace them often.

Orvis designed the H3 to accelerate the momentum that's been building since it started its free-casting lessons. For one thing, the H3 doesn't look much like a traditional fly rod. The apparatus that clamps on the reel is made from a flat metal, lacking the traditional, burled wood. Above the cork grip, the fancy filigree that would typically list the rod's details is replaced by a long white wrap that wouldn't look out of place on the handle of a tennis racket or ski pole. "Everybody who sees this rod from across a river is going to immediately be able to tell that's the new Orvis," Combs says.

Critically, each H3 is 20 percent stronger than the Helios 2, a rod widely regarded as one of the best ever when Orvis began selling it in 2012. As we walk through the factory, Combs clamps an H3 prototype onto the wall and triggers a "break test." We watch from a plexiglass barrier as a machine pulls the rod into a tortured "U"—the tip is almost touching the butt before the spine finally splinters graphite around the room.

The hope is that if the rod is truly as good as Orvis says, it will in itself be a growth catalyst, not unlike when larger tennis rackets were introduced in the 1970s. In that case, the change was binary; the sport was immediately easier for beginners and players at most levels, and those picking up tennis for the first time became far more likely to stick around.

The H3 is intended as sort of a magic wand, designed to make an unpracticed caster sling line like a rusty veteran and put an otherwise errant fly right where it needs to be. "At the end of the day, we want to own the best rod the world has ever seen," Perkins says. "That's what gets us fired up."

I learned to fly-fish in the late 1980s by catching—or at least trying to catch—slender Wyoming trout with a hefty fiberglass rod built for wrangling 30-pound salmon. Like many fishermen, I adjusted my style to the rod I had. Eventually, when I failed to quit the sport, my father sprang for a rod more suited to 12-inch fish. It was an entry-level model and overly pliant, lacking the stiff punch most contemporary rods use to sling line through the air. But it was graphite and sensitive, and I fished with it almost exclusively for the next 20 years.

If the H3 isn't unilaterally the best rod ever made, it will certainly be the top choice for quite a few anglers. Although Sage loyalists may be unconvinced, the H3 is pencil-light, swings smoothly, and can shoot long casts with ease.

On that foggy day on the Battenkill River, insects are scarce. Halfway through the float, Combs finally sees a trout methodically sipping bugs off the surface. "Try this one," Rosenbauer says, handing me a slight, new H3. Sam Orvis, a distant descendant of the original Orvis family, watches. As I whip out line back and forth in ever-increasing lengths, my arm motion slows, giving the loop time to unfurl.

At 45 feet, something odd starts happening. The rod is still slingshotting the line through the air more powerfully than its weight would suggest. Yet when I release line forward at last, the tip of the rod doesn't shiver with dissipating energy. It's alive in one instant and dead the next.

This, more than anything else, is what makes the H3 special. A rod that doesn't track completely straight as it flexes can skew the path of the fly slightly. And a rod that oscillates after it straightens tends to wiggle the line from side to side. Over 50 feet of line, these shifts can mean the difference between putting a fly in front of, or a foot away from, the only feeding fish five anglers have seen all day.

The line rolls straight in the air, the furry hook flutters down and floats naturally, the trout surges and bites, and the rod tip, sober as a dancer, rises up. B

# The Bugatti Buyer

Only 500 Chiron supercars—price tag: almost $3 million—will be made. Yet some collectors already have two. Who are these people? *By Hannah Elliott*

This summer, French Volkswagen subsidiary Bugatti Automobiles SAS will bring the $2.99 million Chiron, the fastest zero-to-60 car in the world, to America.

It's merely the second car the hyperluxury brand has made and sold since it was resurrected by VW in 1998 after almost 50 years of dormancy. And company brass think ultrarich Americans will be eager to shell out for it: So far, 30 percent of the customer base is in the U.S. But don't all reach for your pocketbooks at once. Only 500 Chirons will be made, and half of those are spoken for. According to Bugatti, in the year since the car made its debut, more than 100 were bought sight unseen. (Think about that: Almost $3 million for a car you haven't test-driven or even laid eyes on.)

A few of those buyers even purchased two. When a group of the first to order the car came to a test drive in Portugal, "some said, 'Oh, wow, I want to have this car for my collection, but now I've driven it, I want another one,'" says Bugatti spokeswoman Manuela Höhne. The collectors wanted one to keep in their pristine personal showrooms–and another to actually drive.

That's a whole new level of financial investment even beyond, say, those who acquire that other Volkswagen icon, the half-million-dollar Lamborghini Aventador S. The average Bugatti customer has 42 cars, Höhne says. (In their garages you might find other ultraspecialized supercars such as the $2.5 million Koenigsegg Agera R or the $1.2 million Hennessey Venom GT.) "These cars are always instantly judged by their performance credentials, price tag, and exclusivity, but these factors can get turned upside down as soon as a different manufacturer releases something that's bigger, faster, or rarer," says Jonathan Klinger, vice president for public relations at Hagerty Classic Car Insurance. "The future investment potential for the Chiron should be strong, provided it stays competitive with offerings from the other manufacturers."

Bugatti sells 37 percent of its autos in Europe and 26 percent in the Middle East, which leaves a paltry slice for the rest of the world. Chinese buyers aren't as interested in Bugattis, because they're drawn to more traditional icons of wealth such as Rolls-Royces. "Bugatti does have Chinese buyers, but they purchase the cars for their homes in Europe and the Middle East," Höhne says. About half the current Chiron owner list, she adds, is new to the brand. In prior years many potential consumers found the bulbous Veyron–the Chiron's predecessor, sold from 2005 to 2015–too bulky, Höhne says. Bugatti designed this one to appeal to newcomers.

I drove a two-tone navy and sky-blue version of the 1,500-horsepower supercar this month. In addition to providing the thrill of piloting a car that costs as much as a large home, I got a real rush from its immense speed: Even with a weight of more than 6,000 pounds, the car approaches rocket capacity. It can hit 120 mph in as short a distance as a highway on-ramp. Not that I would know.

The new features include a Bugatti badge on the front, hewn from solid sliver, which is "the only thing in the car allowed to be heavy," Höhne says. There's increased luggage room in the still-small trunk and more space for two garment bags inside the cabin. A new rounded-square steering wheel allows the driver to control all essential functions for driving, including starting the car, without removing her hands. (Dials on the center console still control tertiary comforts such as heated seats and air conditioning.)

Bugatti's signature horseshoe-shaped grille is unchanged, but the two rows of square headlights on either side are new. So is the stance of the car, now 40 millimeters (about 1½ inches) wider. The lights come newly integrated with vents that suck in and funnel fresh air over the brakes and engine at the rear. "Cool air in, hot air out," goes every engineer's mantra.

A new rear air brake deploys automatically; the back end is accented with a long, single-beam taillight that Bugatti cognoscenti call "the kiss goodbye light." It's so-named for the benefit of the masses who will likely see the Chiron only for a fleeting moment, from behind, as it speeds away. Ⓑ

PHOTOGRAPH: CESAR SOTO

MOVING TO:

# Munich

What you need to know when house-hunting in the low-key jewel of Bavaria. *By James Tarmy*

**THE CITY'S ALLURE**

Berlin might be cooler, and Frankfurt might have more buzz, but Munich, located about 45 minutes by car from the Alps, boasts a superior quality of living. Its manicured parks, quiet streets, discreet baroque palaces, and profusion of excellent restaurants make it one of the most desirable cities in Europe. And industry is growing: Microsoft, Siemens, and Google have all recently opened new offices there.

"Munich itself is very charming," says Leslie von Wangenheim, a resident who works in the marketing department of real estate brokerage Duken & v. Wangenheim AG. "There are no high towers. It's definitely not an ultra-urban-type environment."

The absence of high-density living in this city of 1.5 million means that prime housing stock is in short supply. "It's a very tight market," says Constantin von Preysing, director of the real estate agency Engel & Völkers München GmbH. "It's not like you have a wide variety of houses to choose from—especially in the city center, you have to jump on whatever comes on the market."

A January report by Deutsche Bank AG found that 45,000 homes were built from 2011 to 2016 that can house about 90,000 people; over the same period, the city's population rose by 200,000. "The vacancy rate tends to hover around the zero mark," the report said. "Munich, Germany's most expensive city, has seen property prices more than double in the current cycle, with further increases expected in the coming years."

**WHERE TO HOUSE-HUNT**

The three most desirable areas in the city center are **Bogenhausen**, a neighborhood east of the sprawling English Garden; **Herzogpark**, a narrow enclave nestled between the two; and **Nymphenburg**, a region in the west that surrounds Nymphenburg Palace, the former summer residence of Bavarian kings.

There are other popular spots: **Schwabing** in the city center is a neighborhood that includes the Ludwig-Maximilians University and is favored by younger, affluent buyers; the **Grünwald** is an extremely wealthy suburban neighborhood in the south populated by Munich's older, aristocratic class.

"The most famous area is probably Herzogpark," von Wangenheim says. "If you're looking to live where the beautiful people do, that's where you should go." She adds that the buildings there tend to be newer and offer more amenities. **Alt-Bogenhausen**, the fanciest part of the desirable Bogenhausen area, in contrast, "is where the beautiful Jugendstil [art nouveau] houses are," von Wangenheim says. Both neighborhoods are "a hop, skip, and a jump from the A8," the highway taking you from Munich to ski areas in Austria and northern Italy. "And that matters," she says, "because if you're in Munich, you're inevitably a skier."

**APARTMENTS, TOWN HOUSES, VILLAS**

In the city center, the majority of housing is apartments, though there are a few areas—notably Alt-Bogenhausen—where there are a small number of lovely town houses and standalone villas.

In Herzogpark, Nymphenburg, and Bogenhausen, "there's been a lot of development in the last five years, especially in terms of building high-level, classy apartments," von Wangenheim says. A building under construction in Bogenhausen called T19 has two-bedroom apartments starting at €1.6 million ($1.8 million); another under construction, Edition 14, with 24 units, ranges from €840,000 for a 55-square-meter (592-square-feet) apartment to €2.5 million for a 200-sq-m residence.

Many Munich apartments were built either in the gracious proportions of the late 19th or early 20th centuries, or with large floor plans popular in the relatively flush boom times of the 1960s, during West Germany's resurgence. Ceiling heights tend to soar above 10 feet, and windows are large. In prewar apartment buildings and villas, there's a preponderance of plaster ornament on ceilings and walls.

Farther out in the Grünwald, the properties are "much larger and much greener, with high walls" around their gardens, says von Wangenheim. "It's where old, fancy families used to live." Now, though, in a demographic shift, older people are finding their homes too large and are relocating to the city center. "Munich was never a city where people lived downtown," she says. "But that's changing."

**A STARTER HOME**

New construction in the city generally costs more than residences in prewar buildings, Engel & Völkers' von Preysing says. Prices in general start at about €8,500 a square meter and go to about €20,000. The low end of that would be for prewar buildings that might be in need of updates or renovation or simply lack the amenities of new construction. For about €440,000, "you'd get a first-floor apartment, not super-inner city, but still in a good or cool area," says von Preysing. "A nice flat."

For new construction in the city center, von Preysing says buyers should expect to pay from €15,000 to €20,000 a square meter, which means a spacious two-bedroom would cost €1.3 million to €2.2 million. Renting the same type of two-bedroom would be from €2,600 to €4,800 a month.

"Even at the top of Munich's market," von Preysing says, "it's nothing compared to London or New York." B


## Five homes to buy in Munich right now

This massive 1,003-sq-m so-called sky villa in the city center 1 has 14 rooms and five bathrooms, and it has extensive terraces and city views. Price: €22.5 million *wangenheim.de*

This 156-sq-m attached home set on a grassy parcel in Grünwald 2 has two bedrooms, two baths, and a spacious living room. Price: €1.3 million *engelvoelkers.com/muenchen*

Set in exclusive Herzogpark 3, this five-bedroom, three-bathroom half-villa was renovated in 2011. It sprawls over more than 293 sq m. Price: €4.8 million *wangenheim.de*

Southern light fills this historic 200-sq-m city center 1 apartment's four rooms and two bathrooms. Price: €2.9 million *wangenheim.de*

This villa under construction in convenient Alt-Bogenhausen 4 has seven rooms and three bathrooms spread across 428 sq m. Price: €7.9 million *wangenheim.de*

# Space Oddity

Luc Besson seeks to one-up the Hollywood studio system with *Valerian*, the most expensive independent feature ever made. *By Alex Bhattacharji*

A celestial montage unfurls in the opening sequence of Luc Besson's new science fiction opus, *Valerian and the City of a Thousand Planets*. As David Bowie's *Space Oddity* plays, an orbiting station grows larger and more unwieldy, with ships docking and adding incongruous wings to a sprawling satellite settlement. Eventually, the station swells to such Brobdingnagian proportions that it threatens to come crashing down and destroy the very thing that begat it, Earth.

You don't need special glasses to see this as a metaphor for the French filmmaker's long-gestating spectacular, which opens on July 21 after seven years of writing, 100 days of shooting, and 20 months in postproduction at some of the world's top special effects houses, Lucasfilm's Industrial Light & Magic and WETA Digital, best known for work on Peter Jackson's *Lord of the Rings*.

With a budget of $180 million—though it's technically only $150 million after French subsidies—*Valerian* isn't only the costliest project in Besson's three-decade-long directorial career, it's also the most expensive movie produced in Europe and the most expensive independent feature film made anywhere. Although Besson has used equity financing and foreign sales to minimize the financial exposure for EuropaCorp, his production company, which funded most of the project, he's still wagering its reputation and his own to test the heady notion that a Hollywood blockbuster can be an import, not export, product.



The odds of success would seem to be as long as those of the director's young protagonists in their improbable quest to save the universe. The *Valérian et Laureline* comic book source material is virtually unknown outside France. The film, which Besson rewrote top to bottom after seeing James Cameron's *Avatar* in 2009, was shot and is intended to be seen in 3D. And both of its stars are unproven: Dane DeHaan, who plays Valerian, has done mostly dark, brooding roles, and his most recent effort, *A Cure for Wellness*, bombed; Cara Delevingne, as his partner, Laureline, is a model whose biggest role before this was as the Enchantress in *Suicide Squad*, last summer's epic bust.

But the director of *La Femme Nikita*, *The Professional*, and *Lucy* and the writer-producer of *The Transporter* and *Taken* movie franchises has been obsessed with *Valérian et Laureline* since he first read the comics as a 10-year-old boy. Besson has gone deep into space before: *Valerian* arrives exactly two decades after his influential sci-fi opera *The Fifth Element*. "Twenty years ago, I was [considered] weird," he said at Comic-Con in 2016. "And 20 years later, the world has gotten as weird as me."

ILLUSTRATION BY PING ZHU

That weirdness—the outlandish costumes and kaleidoscopic visual effects—is in overdrive here. Spurred by the world-building he saw in *Avatar*, Besson shot the whole thing in 3D, with 80 VFX artists, and created more than 2,700 special effects shots. (*The Fifth Element* had about 200.) Almost all of them—including an idyllic beach planet populated by improbably lithe, fashionable aliens called Pearls and a red-light district in Alpha, the space station-turned metropolis where Valerian and Laureline have been sent to investigate—are dazzling.

Besson's overindulgences are less forgivable in his casting choices. Although DeHaan and Delevingne exude youth and the breezy nonchalance that comes with it, they are questionable choices at best for a film of this scale. Jazz great Herbie Hancock shows up as the duo's no-nonsense military leader. By the time Rihanna appears as a mighty-morphing pole dancer named Bubble, it starts to feel like a desperate bid for social media relevance.

The Hollywood studio system exists to weed out, or at least curb, this sort of directorial excess, which is why astronomically priced passion projects are rare and truly creative commercial films are rarer still. *Valerian* is both—an outlier in a season of superhero spinoffs, reboots, and ripoffs.

Yet it's a fatally flawed film. What trips it up isn't questionable casting or even stunted dialogue but the screenplay, which runs into an asteroid field of heavy-handed themes—galactic multilateralism and multiculturalism vs. human exceptionalism, and a not-so-muted *cri de coeur* about environmentalism and the rights of indigenous peoples.

It's easy to forget, but *The Fifth Element* was a bust when it made its debut in 1997. The movie eventually overcame its initially poor showing at the box office to earn $264 million (its budget was $90 million) and, thanks to a cult following, has become a sci-fi classic. It's possible *Valerian* will have a similar slow-burn effect. Certainly, its visual effects will warrant repeat viewings, and maybe Delevingne can fill the charismatic role that Milla Jovovich, another unproven actress at the time, did 20 years ago.

It's hard to root against a film that cynical Hollywood studio heads are so eager to see fail, but let's hope for Besson's sake that *Valerian* goes quietly. He's hinted at an urge to mine the surplus of source material to create a franchise. He'd be better served doing what the preservation-minded people of Earth do with the space city that was mushrooming out of control: Shoot it off into deep space and let it go. Ⓑ

# Kyma Sandals

Simple, handmade, affordable—Greek sandals to make your summer more stylish
*Photograph by Stephanie Gonot*

**THE CHARACTERISTICS**
Kyma was founded in 2014 by two brothers, Deno and Alex Mantas. Born in Texas, they relocated to the island of Patmos as children and followed their family into the footwear business. Each pair of their luxury sandals is handmade in Greece using the country's traditional approach. Alex, the brand's designer, travels to various locations—every model is named after a different island, from Antiparos to Santorini—for inspiration before creating a shoe. The upper straps are made with natural vegetable-tanned vachetta leather, and every Kyma sandal has a blue sole—in Greek, *kyma* means "wave."

**THE COMPETITION**
Most women's shoe brands carry their own version of a Greek sandal, from high-end labels such as Valentino (the $975 Rockstud gladiator) to mass offerings like Steve Madden (the $70 Regal). If you want a stylish pair that's actually made in Greece, there are now two main options: Kyma and the more established Ancient Greek Sandals, which was started in 2012. Ancient Greek Sandals sell from $125 to upwards of $600. Kyma costs less—from $229 for the black Ikaria to $179 for the Mykonos in blue and white (pictured above) to $169 for the simple three-strap Antiparos, among other models.

**THE CASE**
In a fashion landscape of up-the-leg gladiators, there's a chic simplicity to Kyma's designs. The upper leather looks and feels luxurious, and a rubber heel gives stability. The blue sole adds an interesting hint of color. Plus, Kyma's sandals are comfortable, which can't be said of every brand. After wearing the Mykonos during a hot New York City weekend, no Band-Aids were needed. And they're great for narrow feet, a rarity for strappy shoes—you won't slip out of them. Best of all: They look more expensive than they are. *Kyma sandals; kymasandals.com*

PROP STYLING: MARIE-YAN MORVAN

GAME CHANGER

# Dan Ivascyn

The money manager is beating his competition with a combination of talent, technology, and teamwork

*By John Gittelsohn*

**"IT'S NOT SOMETHING THAT** comes naturally to me," says Dan Ivascyn of his role as the public face of Pimco, the country's second-biggest bond manager. "I'm never going to get fully comfortable, because I'm more inwardly focused."

Ivascyn took over Pacific Investment Management Co. after Bill Gross, its mercurial co-founder, was ousted in a generational power struggle. Gross's exit led investors to pull more than $350 billion from Pimco's funds, leaving the company in crisis. In the three years since, Ivascyn has managed not only to steady the firm but also to resume delivering returns better than those of its biggest rivals.

As a child, Ivascyn listened to personal finance guru Bruce Williams's radio show every night before bed, a habit he acknowledges was "a little weird." He joined Pimco in 1998 after stints at Bear Stearns and Fidelity Investments and became an expert in structured products such as mortgage-backed securities, a skill that helped the firm prosper after the last decade's housing market crash.

Active money managers have been losing market share for years to low-fee passively run index funds. Rather than joining the fee race to the bottom, Ivascyn's strategy is to marry talent and technology. He seats risk managers next to portfolio managers, who team up with mathematical analysts to fine-tune positions for each client. It's working: Investors have been moving money back to the firm, especially to Ivascyn's Pimco Income mutual fund, which added $15.6 billion in assets this year through June and has outperformed 99 percent of similar funds five years running. "Ivascyn is likely impacting other portfolios [at Pimco] because of his role," says Todd Rosenbluth, director of ETF and mutual fund research for CFRA Research. "But the Income Fund is considerably outperforming its peers. And investors put money where it's working, so Income is dominating flows."

Ivascyn encourages his traders to take risks, but managers who stray from Pimco's investing guidelines are risking their jobs. "I'm trying to tilt the mindset," he says. "It's not always easy to do when strong people are running your funds." The ultimate goal is to institutionalize an investing process that's not dependent on a single star manager. Ivascyn doesn't intend to leave the firm, based in Newport Beach, Calif., anytime soon, but it's something he thinks about. "I'm staring out the window and it's sunny and the beach is there," he says. "If I were to head out in a few months, if that's the decision I made, we wouldn't miss a beat." B

b. 1969, Oxford, Mass.

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His grandfather, who immigrated from Ukraine, shortened the family name from Ivaszczyszyn

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Worked for Bear Stearns before business school, then was poached by Pimco

ILLUSTRATION BY SAM KERR