10 BREAKTHROUGH BRANDS

FORTUNE

AIRBNB FINDS ITS MISSION
HOW A REBRANDING TRANSFORMED THE COMPANY

DELL+EMC
INSIDE THE BIGGEST TECH MERGER EVER

THE TRADER VS. THE PROSECUTOR
A WALL STREETER SEEKS REVENGE AGAINST PREET BHARARA

AIRBNB
SNAPCHAT
WAZE
SPOTIFY
UBER
TESLA

PAGE 56

TRUMP & TILLERSON
CONFLICT AHEAD?

STOCK MARKET EUPHORIA IS BACK!
(BE AFRAID)

JANUARY 1, 2017
FORTUNE.COM

BRIAN CHESKY, AIRBNB CEO

NATHAN BLECHARCZYK, AIRBNB CTO

JOE GEBBIA, AIRBNB CPO

Connie Chen • Haihong Sun & Yuzhou Tang • Xujie Zhang • Sandy Liu • Liuyan Baker • Lijie Wen • Ying Liu • Eric & Debbie Jenson • Laura Counsell Rick & Kathy Stone • Tang Tang Tang • Christine Dai & Bob Cai • Judith Hsiao • Wazhma Jamiat & Leland Rubin • Tim Mullaney • Josie Li Mike Wilson • Anne Lu • Caleb Tsai • Hanna Dinh & Tom Huynh • Dave Boushehri • Michelle Liu & Loc Lam • Henry Liu & HsiaoPing Cheng • Ling Li & Marc V. Yvonne Mei & Chunya Chen • Jennifer Tang • Terrence & Nicole Mosely • Zhong Shi & Xiao Lin • Shirley Zheng • Xuping Lori Fan & Chuck Dong Crystal Tse & Ben Ou • Joseph Rodriguez • Andy Weng • Gianmarco Cacciamatta • Kevin Lin & Jessica Chu • Jeff & Chrissy Tsao • Michelle Li & Leon Lin Reshma Nanavati-Hajiyani • Huan Xie • Suzanna Lam & Tien Pham • Jesus Jose Alvidrez & Jennifer Lee • Esther Kwan • Peggy Liu • Rusty & Bridgett Hood Jia Yan • Jonathan Yu & Gina Pay • Yvonne & Hau Tran • Minh Nguyen & Tina Tran • Paul & Gabriela Hart • Felimar Bungay • Lily Min Zhu Orin Haworth • Terry Wengert • Vickie Chiang & ShuJen Han • Jaswinder & Guneet Dhillon • Chad Mangum • Jacky Tam & Pamela Yeung Deanna Marchionda • Pius Awa • Daniel & Jaquelynne Duarte • Yan & Craig Birkett • Di Lucia Lu • Lickhai Quach & Jeannette Chao • Jenny Huo Lindy Bell • William Wu • Yucheng Huang • Rose Xing • Jack Yang & Nathalie Ly • Helen Ruan & Andrew Kom • Kamaljit Kaur • Yanfang Li & Henry Luo Vicky Kim • Andrew Wellner • Kevin Zhang & Jessie Tan • Bei Xie • Oanh K. & Henry H. Vu • Nissim Kanizo • Walter Coulter • Xue Wei Gao Shawn & Teresa Patrick • Ivan Feng • Stacy Lu • Bill & Peggy Mitchell • Laurie Luo • Gaurav & Tripta Sood • Xiaoqi Ye • Xiaoli Wang • Michael Joseph Cabuhat Hai Nguyen • Donna Kreisler • Francis & Jing Lara Ho • Ramandeep Kaur Gill • Natali Mishali • Lisa Oktavia & Ricardo Widjajakusuma • Ke Liao Yaobang Wu • Bernadette & Moon Kim • Franklin Ly • Brian & Cheryl Kalyn • Taufauliafu Kefu • Arthur & Kathleen Eggman • Li Dong Ma Rich & Tracie Cunningham • Emily Ji & Chenchen Xue • Roger A. Silvera • RJ Cunningham • James & Ellen Chang • Jaime & Toni Samudio Sam Liu • Dan Feng Chen & Fei Li • Joanne Su • Hangdong Guo & Xuming Yang • Shawn & Jan Allen • Shannon Funston • Patricia Ortiz • Mandeep Gill Lesley Jen • Nianke Ma & Mingxia Shi • Lucy Guo • Jay Maymi • Brad Radke • Ahmed & Parveen Penangwala • Daniel & Linda Kravitz • Fritz Luan Min Tsuei • Tunisia Offray • Mo Elahi & Pam Xian • Dona Alcantara & Jojo Limbo • Allee Hu & Miguel Hsiao • Zeena Yasin & Harinder Taunque Zoe Bolster • Michael Palmeri • Guillermo & Rebecca Milord • Robert & Yiota Shamoun • Johnny Qu & Lilian Li • Jay & Veronica Gauthier Li (Anna) Li • Jackson Huang • Connie Chien • Hadi Kusumo • Gary Chen & April Deng • Christine Restaneo • Florence & Godwin Ohen Xiaoping Wendy Hu • Ting Chiu & Frank Chiang • Kash & Tina Rastan • Sally Shen • Jun Tang • Kunfa Zhang • Gangli Guo • Latha Maram Baozhi Yuan • Allison Zhang • Andrew Kom • Richard Martens • Robert Chan & Erica Chow • Zeny Villanueva & Anita Manaois • Kern Ting Danny Singson • Bryce Winkel • Mirabell Haley • Lisa Lee & Bruce Chen • Olivia & Tracy Sula-Wang • Steve Holliday • Eric Harbers • Tanzeem Ahmed David Barkholz • Heran Kim • Dawn Tran • Stephie Guo & AK Li • Arnel Vicente • Jimmy & Niki Ezzell • Connie H.Y. Jensen & Garrett I. Yoshina Gilbert & Carie Talana • Reshamdeep Mundy • Luis Pablo Contreras Cifuentes • John & Julie Woo • Yuliang Hu • Lily Chiu • Navid Yasharel Robert Whitlow III • Luis Hsu • Ana Moreno • Mai & Steven Lee • Alain & Therese Villanueva • Vicky & Jassi Dhaliwal • Philip & Jeng Boyles Opi Kahlon • Boyd & Sharalee Pederson • James Chang • Duyen Nguyen • Hien Nguyen • Matt & Rachelle Heward • Tavarus & Mimi Dove Jojo Zhou • Dwi Julyati & Suwardi Tee • Layne Curtis Jensen • James Schwartz • Ruth Peña & Jorge Valentin • Kranthi Meka • Arik & Lora Zorin Onkar Ladhar • Ren Xu • Trevor & Jennifer Jenson • Jason & Lianne White • Andy Dinh • Eric Jemielita & Rachel Bautista • Mark Grabill & Reanna Erixon • Qi Li Nick & Tarah Lancaster • Jaswinder Singh Dhillon • Liana Pham & Joseph Mai • Corey & Bethany Michaud • Lâm & Lena Giang • Andy Pham & An Nguyen Sonika Tumber • Alli & Zeb Ferguson • Gary L. Ziegler • Lisa Xu • Yan Wang • Nathan Ireton & Precious Martinez • Christine Bayaoa & Randolph Cantada Kejia Wang • Kara Chen • Joyce Hwang • Sunny Su & Laurent Lheritier • Winnie Huey Li Shiao • Ranjit Gill • Kathryn Wang & Daning Wu Jin Ze He • Jan Zhuang & JP Lou • Scotty Woodard • Kabal Singh & Harpreet Kaur Pannu • Holly & Chinh La • Kamaljit & Jagjit Rai • Ayu Bor Phillip Mazzella • Nini Efia Yang • Cheryl & Stephen Warren • Sooroojnee (Lisa) Edoo • Andy & Linh Nguyen • Harpreet Bhullar • Valerie Sao Christopher & Ashley Lee • Sally Wu • Michael & Mai-Pho Dao • Jacky Chen • John A. Ortiz & Carmen Ramirez • Mei Li • Paul James Sayon • James Li Elaine Wang • Teresa Tang-Wong & Jack Wong • Jerry & Iliss Brown • Jonathan Barr • Xiyin Xu & Yunlu Jin • Jianhua Yao & Li Zhang • Paul & Miriam Ireton Kimberly Quinn • Judy Wu • Kathleen & Greg Bell • C.J. & Amanda Omoth • Yariv Azoulay • Rob & Miyuki Welsh • Kasandra Van Merlin & Jimmy Hue Colleen & Randy Trautman • Li Li • Drs. Eric Yin & Li Tian • Halina Ho • Navdeep Padda • Amritpal Singh Lada • Carl & LaVeta Logan Kai On Fung & Judy Xue • Aubrey & Marie Martinez • Kaye Terso • Tiffany Nguyen • Christie Tran • Sherry Yang • Monica Perez • Jerry Shen Pingping Medley • Jocy & DeLon Christensen • Anita Vijay • Lifang Chou • Barry Wong • Nathan Novosel & John Eric Lingat • Ricardo Villaescusa Rosas John & Rudith Cordero • Antonetta Bere Adebayo • Penney Ooi & Benjamin Eeo • Sushma Kanwar & Ramesh Kumar • Navdeep Sandhu Pamela Parran • Urik Hovsepian • Kenny Ellen Miranda • Yang Cai & Ye Lin • Marlon Carpio • Melinda Blue-Taylor & Comfort Taylor • Jim & Barb Mardock Kristy S. Yi • Cuong Phan • Ricky Tamber • Racquel Lopez • Karen Bootland Todoruk • Joyce Tamayo • Paul & Edelyn Alger • Irene Zheng & Andy Zhang Casey & Anthony Klein • Lang Luu • Evelyn Garcia • Nathan Shorack • Dalai Jin • Yafu Chen & Chunmei Yang • Lina Shuai & Steve Zhu Ivy & Carl Veneracion • Connie Rossi • Landon & Illiana Ford • Josue & Mary Gonzalez • Frank & Jane Yang • Tiffany Cao • Eduardo Ceballos • Yenny Wijaya Vikram Kirikera & Mallika LM • Willie Lin & Carol Wang • Grace Zhu • Nica Chen • Chris & Marlow Felton • Mark & Eva Milner • Robert Stone & Michelle Lau Thu & Mai Nguyen • Gurpreet Sidhu • Tiffany Ke & Qingming Lin • Crystal Guillen • Amit Sondhi • Peter Alexander • Van Yang • Rebecca B. Asare Johnnie & Deborah Brown • Jian Zhang • Ya Meng • Jerry Yogei • Wendy Zhang • Natalie & Ryan Plant • Kevin Joly • Lito & Sophia Tagsip Bert & Nancy Bruneau • Rahim & Laila Esmail • Gary Strawn • Sherlin Chen • Amarjit & Karamjit Bedi • Xiu Jin Li • Sophia Su & Albert Wang Theodore Cooper • Craig Nochumson • Alec Chan • Jeff Kapiniak • Ellen Pecenka • Orathai Cindy Curtis & Montana Shane • Christine Bowe XueFeng Gao & Jason Bao • Daniel & Debbie Melander • Zahira Torres & Miguel Lopez • Kristi Sorensen • Marie Cielo Gonzalez & Xavier Mendez Yoon Choi • Lapson Luu • Gregg & Shari Bien • Min Hua Bi • Kimberly Grandinetti • Anh Tuan Le & Thu Pham • Manju Timsina • Francis Thazhamon Margarita Mendeleva • Fidel Anthony & Marion Castro • Tyson & Leah Moore • Marc & Carol Guerra • Youngin Lee • Hong Su • Tso Hui Ting Lawrence Tran • Jack & Marie Feldman • Yu Xu • Anna Zarate Hauser • R. Scott Means • Kiran Johal & Deepak Rai • Karan Sharma Diana Yang • Adam & Michaela Davis • Eliseo Maldonado Vazquez • Rashpinder Mander • Qijun Chen • Thomas Bui • Nina Harris & Frank Figueroa Grace Shih • Steve & Ann Miller • Michael Mendoza • Amandeep & Ramdeep Rai • Rocky & Miranda Shi • Christina & David Guevara Eason Liu • William Lugonja • Yin Kean • Welmer Neri • Tony Cooley • Oliver Almalel • Ryan & Hilary Bennett • Erik & Azadeh Allen • Kathy Gu Ling Ni & Yiheng Liu • Cameron Gayed • Saida Samat & Dariusz Walczak • Trish & Richard Hammond • Mohit Walia • Eddelaine Lim Damon Hawkins • Jaret & Melissa Sledz • John Kim & Vickie Truong • Ro Ross • David Lin & Elizabeth Tseng • Sheryl & Cal Berry • Tyson & Nicole Parks John Yang • Liz & Rudy Zetazate • Tom & Paula Trevort • Bryan DeCaul & Alexcia Jackson • Frantz & Bertha Ciceron • Chloe Xu & Kevin Chen Surinder Rathee • Paola Alva • Thai Dinh & Phuong Nguyen • Sean & Cindy Pham • Mark Yu • Rudy Cala Rodriguez • Linh Tran & Karin Kruger Adam Mazaheri • Feng Xu • Melody Hou • Qingli Jiang • Jason Wiseman • Xuan & Hoa Nguyen • Cecilia Chou • Boonmee & Samgo Srisawan Earl Rodriguez & Sharrie Igualdo • Kendal & Kristina McCray • Duy & Tiffany Lai • Bradley Hamada • Cindy Tran • Carlo & Carmela Antenor Steve & Beth Felsen • Adam Mueller • Penny Cho • Victoria Espinoza • Vishal & Harjit Parihar • Amy Ngo • Doug & Nicole Manuel Neil Chang • Manmeet Singh & Noorie Soni • Frank Cooke • JC Gonzalez • Jie John Liu • Tim Tran • Loveleen K. Gill • Jeff & Michelle Brookshire Tracy Zhang • Arlyn & Jhon Bernardo • Gurmeet Singh Kailey • Hong Lin & Wenyue Hsu • Ken Qian & Sunny Huang • Marvin & Dee DelValle Parampreet Singh • Bhurwinder Singh • Quang Khuu & Victoria Marron • Ijeoma Obioha • Xiaoyan Zhang • Yan Xie • Jesus Morales Romero Lina Kuang-Chan • Karen & Chris Chin • Peter Orozco • Younjoo Chi • Andrea & Anthony Sullivan • Ben & Tiffany Spangl • Brian & Mary Loiseau Carlos Anaya • Blossom Dickenson-Levy • Nimfa & Tom Padilla • Jan Tang • Jasbir Singh Saran • Juan Nunez • Jack & Karine Akopikyan • Chiaoyu Sung Sharon Deng • Paul Yang • Siriluk Sripunya • Doug Jaster • Ted & Yim Yee • Linda Mitchell • Zhenzhen Lin • James Zhang & Theresa Li

A Mission to Make A Difference

Congratulations to these WFG associates who have helped thousands of families begin the journey toward a better financial future.

Take steps now to

OWN
YOUR
FUTURE

worldfinancialgroup.com

A Transamerica Company

World Financial Group, Inc. (U.S.) and World Financial Group of Canada Inc. (Canada) are financial services marketing companies whose affiliates offer a broad array of financial products and services. Headquarters: 11315 Johns Creek Parkway, Johns Creek, GA 30097-1517. Phone: 770.453.9300.

WFG10012/11.16

Dell recommends Windows 10 Pro.

WE LOVE YOUR WORK

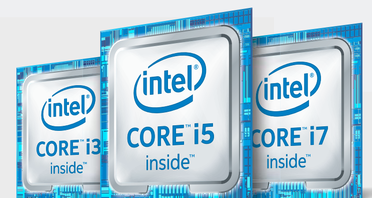
SMALL BUSINESS GAME CHANGER

BEN HINDMAN
Small Business
Owner, Splash

Latitude 13 7000 Series

The Latitude 13 7000 Series laptop with an Intel® Core™ processor delivers the powerful performance and incredible battery life that allow Ben Hindman to stay ahead of his busy schedule. **That's why Laptop Mag named it CES 2016 Top Pick.**

Learn more at **Dell.com/SmallBusiness** or consult with a small business expert at **877-414-3355.**



Intel Inside®. Powerful Productivity Outside.

Intel, the Intel Logo, Intel Inside, Intel Core, and Core Inside are trademarks of Intel Corporation in the U.S. and/or other countries. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Copyright 2016 Dell Inc. All rights reserved. 202836

CONTENTS

JANUARY 1, 2017

VOLUME 175 /// NUMBER 1

▲ ON THE COVER: PHOTOGRAPH BY **JOE PUGLIESE**

FEATURES

BREAKTHROUGH BRANDS

How Airbnb Found a Mission—and a Brand

By **LEIGH GALLAGHER**

This excerpt from *The Airbnb Story* reveals how the company searched for its soul—with sometimes painful results—and deepened its connection to customers.

PAGE NO. 56

BREAKTHROUGH BRANDS

10 Sizzling Young Superstars

What does it take for a brand to truly break through in today's crowded market? The 10 listed here are new and white-hot and now claim space among the giants.

64

The Ugly Unethical Underside of Silicon Valley

By **ERIN GRIFFITH**

Silicon Valley's startup scene celebrates iconoclasts and romanticizes rule breakers. But as scandals pile up, it's time to ask whether tech entrepreneurs are taking "fake it till you make it" too far.

72

The Gamblers Behind Tech's Biggest Deal

By **MICHAL LEV-RAM**

How a decades-long relationship between a computer mogul and a boutique investing firm paved the way for the high-risk, high-priced Dell-EMC merger.

PAGE NO. 82

Payback Time

By **BETHANY MCLEAN**

Hedge fund manager David Ganek lost his business after being caught up—but not charged—in an insider-trading investigation. With his lawsuit against U.S. Attorney Preet Bharara, he's seeking a measure of redemption—and revenge.

90

90

GANEK: ANDREW HETHERINGTON

CONTENTS

VOLUME 175 /// NUMBER 1

DEPARTMENTS

FOREWORD

6 ▸ A Path Through the Gridlock
Whatever happens in D.C., a new model of business leadership has world-changing potential. **By ALAN MURRAY**

FORTUNE + *TIME* GLOBAL FORUM

9 ▸ The Business of Humanity
Corporate and nonprofit leaders gathered with Pope Francis to forge a new social compact. **By CLIFTON LEAF**

BRIEFING

13 ▸ Infrastructure, the Trump Way
He wants to invest $1 trillion in roads, bridges, and buildings. The question is, Who will pay for them? **By RYAN BRADLEY**

16 ▸ Coke's CEO Is Leaving, but Its Problems Remain
With CEO Muhtar Kent's departure, the playbook he used may be on the way out too. **By JENNIFER REINGOLD**

20 ▸ Trump and Tillerson: Conflict Ahead?
It's only a matter of time before differences between the President-elect and the Exxon Mobil CEO affect U.S. policy. **By JEFFREY BALL**

28

FOCUS

TECH

26 ▸ Soft Landings in Mattresses
What do two startups reveal about the pros—and cons—of venture funding? **By LAURA ENTIS**

28 ▸ Virtual Reality's Money Quest
Companies like Audi and IMAX are experimenting with how to cash in on VR. But so far, the public's excitement is muted. **By JONATHAN VANIAN**

30 ▸ Business in the Cloud
Shorter employee attention spans are driving companies to rethink corporate training. **By HEATHER CLANCY**

VENTURE

32 ▸ The Kindle Effect
The $1 billion ebook industry is spawning a whole new ecosystem of businesses that serve the burgeoning world of digital self-publishing. **By JENNIFER ALSEVER**

34 ▸ American Voices
Cesar Conde, chairman of Telemundo, is serving up fresh programming for a fast-growing Hispanic-American audience. **By TOM HUDDLESTON JR.**

INVEST

36 ▸ Mastering the Journey
Susan Michel's children will help decide what happens to her financial advisory business after she retires. If they want control of the firm, though, they'll have to earn it. **By RYAN DEROUSSEAU**

40 ▸ Stock Market Sentiment
Charles Schwab strategist Liz Ann Sonders sees a welcome revival of optimism among investors. But will that euphoria turn a rally into a bubble? **Interview by MATT HEIMER**

FORUM

51 ▸ Disrupted
Too often, public shareholders are left holding the bag for money-losing startups. A solution? Link founder and VC windfalls to company profits. **By DAN LYONS**

52 ▸ A Boom With a View
President Trump may be good for Silicon Valley. Cue the cringe. **By ERIN GRIFFITH**

BACK PAGE

LAST BYTE

100 ▸ Hackers Are Getting Bolder
No network is safe: The number and size of attacks have been growing. **Text by BRIAN O'KEEFE; graphic by NICOLAS RAPP**

40

CORRECTIONS

In "50 Best Workplaces for Diversity" (Dec. 15), we stated that Foot Locker's revenue was $7.4 million. The correct figure is $7.4 billion. "The Magic in the Warehouse" (Dec. 15) incorrectly identified Simeon Gutman's employer. He is an analyst at Morgan Stanley. "Facing the Darkness" (Dec. 15) incorrectly identified John Gartner as a professor at Johns Hopkins University; he is no longer affiliated with the institution. *Fortune* regrets the errors.

Fortune (ISSN 0015-8259) is published monthly, with extra issues in March, June, September, and December, by Time Inc. Principal office: 225 Liberty St., New York, N.Y., 10281-1008. U.S. Subscriptions: $22.00 for one year. Member, Alliance for Audited Media. POSTMASTER: Send all UAA to CFS (See DMM 507.1.5.2); Non-Postal and Military Facilities: Send address corrections to *Fortune*, P.O. Box 62120, Tampa, Fla. 33662-2120. Canada Post Publications Mail Agreement No. 40110178. Periodicals postage paid at New York, N.Y., and at additional mailing offices. Return undeliverable Canada addresses to: Postal Stn A, P.O. Box 4321, Toronto, ON, M5W 3G8. GST #8883816 21RT0001. Customer Service and Subscriptions: For 24/7 service, please use our website: www.fortune.com/customerservice. You can also call 1-800-621-8000 or write to *Fortune* at P.O. Box 62120, Tampa, Fla. 33662-2120. © 2017 Time Inc. All rights reserved. *Fortune* is a registered mark of Time Inc. PRINTED IN THE U.S.A. Subscribers: If the postal services alert us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address within two years. Your bank may provide updates to the card information we have on file. You may opt-out of this service at any time. Mailing List: We make a portion of our mailing list available to reputable firms.

@channel

WHERE WORK HAPPENS

YOLO

WFH

=SUM ($E10,G10,K15)

slack

Slack is where work happens, for millions of people around the world, every day.

A PATH THROUGH THE GRIDLOCK

Pope Francis greets *Time* editor-in-chief Nancy Gibbs and *Fortune's* Alan Murray in December.

IT'S REMARKABLE how quickly business attitudes toward Donald Trump have shifted since the election. When we surveyed CEOs of *Fortune* 500 companies in the spring, only 42% supported him, while 58% supported Hillary Clinton. Today they're lining up to visit Trump Tower, the New York seat of the government-in-waiting.

That's partly the normal turn that happens after American elections. Since the founding of the republic, we have devoutly honored the peaceful transition of presidential power. Business leaders have been particularly attentive, knowing a new leader's ability to affect their fortunes. But something more is happening this time. This President-elect appears to have the first opportunity in a decade to break through Washington gridlock and get stuff done. And some of that stuff could be a boon to business.

Top of that list is a corporate tax deal that will allow big companies like Microsoft, Apple, General Electric, Pfizer, IBM, and others to repatriate (at a lower tax rate) some of the $2.5 trillion in cash they have stashed overseas—a deal that would juice their bottom lines. That's the good news. The bad news is that a hoard of repatriated cash won't change the fundamental forces that have gutted the nation's middle class.

Nor will renegotiated trade deals. Those 800 jobs at the Carrier air-conditioning plant that Trump saved almost certainly will be gone a decade from now—lost to automation, not trade. But while the rapid march of technology is fuel for continuing social discontent, it is also our ticket to a more prosperous future. And that is something Trump has got to understand—and convey to the American people—for a true renaissance in the economy to happen.

What can business do to ensure that this technological rebirth is a blessing for most, if not all, of the world's citizens? That's one of the questions we wrestled with at the *Fortune* + *Time* Global Forum in Rome last month. In a world where divisive politics are derailing governments, the Rome forum was dedicated to the idea that business can play a bigger role in solving social problems. The nearly 100 CEOs who gathered there are committed to the notion that their pursuit of profit can be harnessed to solve many of the world's most pressing challenges. They jointly agreed to a series of steps that would make addressing them a core part of their business strategies.

You can read more about this extraordinary gathering, and our meeting with His Holiness Pope Francis, on page 9. For me, the event was an optimistic ending to 2016. Whatever happens in Washington in 2017, we are moving toward a new model of business leadership that has the potential to change the world.

Enjoy the New Year!

ALAN MURRAY
Chief Content Officer, Time Inc.
Editor-in-Chief, *Fortune*
@alansmurray

© L'OSSERVATORE ROMANO

SOCIAL SECURITY
STOCKS
PENSION
ANNUITIES
401(K)
MUTUAL FUNDS
BONDS

CERTAIN.

Retirement Income Planning

Retirement planning isn't just about saving. It's about making sure those savings can be turned into the income you'll need to live the life you've always envisioned. At Fidelity, we'll help you create:

- A guaranteed* income stream protected from changes in the market
- Investment growth potential to help with rising costs
- A balanced plan that's flexible enough to change when needed

To learn more, go to Fidelity.com/diversifiedplan or call a Fidelity Representative at 866.467.1625 to talk about your retirement income needs today.

Keep in mind that investing involves risk. The value of your investment will fluctuate over time, and you may gain or lose money.
***Guarantees are subject to the claims-paying ability of the issuing insurance company.**
Fidelity Brokerage Services LLC, Member NYSE, SIPC. © 2016 FMR LLC. All rights reserved.
775226.1.0

Revitalizing downtown takes the same ingenuity as moving a bass guitar across town.

When Portland was ready for a new light rail system, they went to the people to crowdsource ideas. Ideas like adding more space for bikes, wheelchairs and guitars. Siemens not only builds custom trains designed for a city's unique needs, it keeps them running on time, efficiently and reliably—supporting commuters, neighborhoods and new businesses in Portland and around the country.

usa.siemens.com/ingenuityforlife

CGCB-A10130-00-7600 ©Siemens, 2016. All Rights Reserved.

His Holiness Pope Francis welcomes Global Forum delegates at the Vatican's Clementine Hall.

© L'OSSERVATORE ROMANO

THE BUSINESS OF HUMANITY

Many of the world's most prominent corporate and nonprofit leaders gathered with Pope Francis for this year's *Fortune* + *Time* Global Forum. Their aim? Forging a new social compact. **BY CLIFTON LEAF**

BILLIONS OF PEOPLE in the world are shut out. They have no membership in the financial institutions of life that allow those in richer nations to save, invest, borrow, build, and trade freely. Tens of millions of people, a huge share of them children, have been left stateless by war and poverty; many more live lives of subsistence in remote or rural regions of the world. As transformative as the Internet, mobile payment systems, and microlending have been in bringing many of the "unbanked" into the global economy and in lifting standards of living, too many people still have little or no access to the systems that have brought prosperity to the developed world.

On Dec. 2, nearly 150 of the globe's most prominent leaders in business, the nonprofit sector, labor, media, and strategic problem solving gathered in a Rome hotel and promised to change that. And more remarkable, they put those promises to paper.

Among those assembled were the CEOs of companies employing nearly 5 million people around the world (including Barclays, Dow Chemical, Flex, IBM, Levi Strauss, Monsanto, Novartis, Royal Dutch Shell, Siemens, United Technologies, Walgreens Boots Alliance, WPP, and dozens of others). Joining them were the heads of major consultancies (Accenture, BCG, Deloitte, Insigniam, McKinsey, and Teneo) and some of the biggest and most creative ▷▷

charitable organizations on the planet (BRAC, Environmental Defense Fund, Ford Foundation, International Rescue Committee, Last Mile Health, Mo Ibrahim Foundation, Partners in Health, The Rockefeller Foundation, and Save the Children International).

All had gathered for the *Fortune* + *Time* Global Forum. And they vowed to work with one another to ensure that the one-fifth of the world's citizens who lack a legal (officially recognized) identity—and who are therefore shut out of the financial grid—are brought in to the system. They promised to increase access to inexpensive and secure mobile banking platforms and to develop new forms of insurance for small businesses to reduce risk and build local wealth. They promised to sharply increase the amount of investment capital going to people and places that now get little of it. And they pledged to develop and report on "material metrics" that track the social and environmental returns on their corporate investments.

That all these commitments were made over the course of a day is remarkable in itself. But they didn't stop there. Breaking into eight working groups, teams of CEOs and labor leaders, management gurus, and NGO directors promised to make 22 distinct commitments in all. (To read the full report, visit fortune.com/forum-solutions.)

They pledged to do a better job of protecting the planet, reduce their own companies' energy use and environmental footprints, and accelerate efforts to fight climate change. In proposals that were, at times, surprising in their specificity, they agreed to support meaningful carbon pricing (by way of taxes, caps, or other economic mechanisms), help smallholder farmers, reduce food waste by half, and set ambitious water-management goals.

They promised to help rebuild the global workforce to better match the knowledge economy being born around it—retraining millions who have been left behind by the forces transforming business so that they might thrive in what IBM CEO Ginni Rometty calls "new collar" jobs—a realm that is feverishly evolving as the old hierarchies of blue collar and white collar, technical and professional fade into irrelevancy. The gathered leaders promised to redouble efforts to bring primary education to all children—making a particular effort to send young girls, the children of migrants, and the rural poor to school. And they recommitted to embracing inclusion in their own ranks.

In the area of public health, the pledges were, if anything, more ambitious still—with business and nonprofit leaders vowing, among other things, to work together to train 750,000 community health workers in sub-Saharan Africa and other regions of endemic poverty. In addition to providing basic "frontline" health care to a million children, this corps would focus on combatting persistent health threats, such as malnutrition and vaccine-preventable diseases. "Seven out of 10 of the world's poor live in rural areas," says Novartis CEO Joe Jimenez, outlining the massive challenge. "It's important that we do our part to help build sustainable local health care systems." To that aim, Novartis is offering to the cause help in financing, logistics, technology, and communications—necessary for developing clinics and hospitals.

How all this came to be is one of the defining stories of our time: Many have lost faith in business as a force for good. While the two sweeping trends of the past half-century—globalization and digitization—have brought huge economic gains and enriched many, they have also pushed the

▲ **Raj Panjabi, CEO of Last Mile Health.** The physician helped train hundreds of community health workers in his native Liberia—a public health strategy, he says, that offers enormous bang for the buck.

▲ **The Rockefeller Foundation's Judith Rodin and Novartis CEO Joe Jimenez.** "Seven out of 10 of the world's poor live in rural areas," says Jimenez, who chaired the forum's global health working group.

▲ **Ngozi Okonjo-Iweala, board chair of Gavi, the Vaccine Alliance.** The former Nigerian Finance Minister and World Bank official told forum delegates that we need to think about "the losses and the losers" of globalization.

THIS SPREAD: DAVE YODER—FORTUNE + TIME GLOBAL FORUM

"haves" further away from the "have-nots."

The *Fortune* + *Time* Global Forum was an effort to reverse that polar force—reinforcing the message that the interests of business are *not* ultimately at odds with the interests of the world it serves. The forum was an opportunity for companies themselves to show they could do good—working in concert—and do well by doing it.

It was a message, indeed, that found a welcome from Pope Francis, who blessed each of the forum's attendees personally at the Vatican on Dec. 3. "I would like to offer a particular word of thanks for all that you are doing to promote the centrality and dignity of the human person within our institutions and economic models," His Holiness told the delegates in the Clementine Hall of the Apostolic Palace. "I encourage you to continue the work you have begun at this forum, and to seek ever more creative ways to transform our institutions and economic structures so that they may be able to respond to the needs of our day and be in service of the human person, especially those marginalized and discarded."

Then the Holy Father offered what may be the most important challenge to the corporate titans gathered:

"I pray too that you may involve in your efforts those whom you seek to help; give them a voice, listen to their stories, learn from their experiences and understand their needs. See in them a brother and a sister, a son and a daughter, a mother and a father. Amid the challenges of our day, see the human face of those you earnestly seek to help."

Whether or not the global business community can do that, of course, is a story we will continue to cover. ■

▲ ***Fortune*'s Nina Easton (left) with Save the Children International's Helle Thorning-Schmidt and International Rescue Committee's David Miliband.** "Our biggest problem in the humanitarian sector," says Miliband, "is not the answers we don't know. It's the programs that we know work but don't get taken to scale because the donor base is so fragmented."

▲ ***Fortune*'s Alan Murray (left) with Dov Seidman, founder and CEO of LRN.** "I think we are living in a 'no-distance world,' where people are morally awakened and activated," says Seidman. "We're able to feel the plights and challenges and anger and anguish and actions of people far away, viscerally and directly."

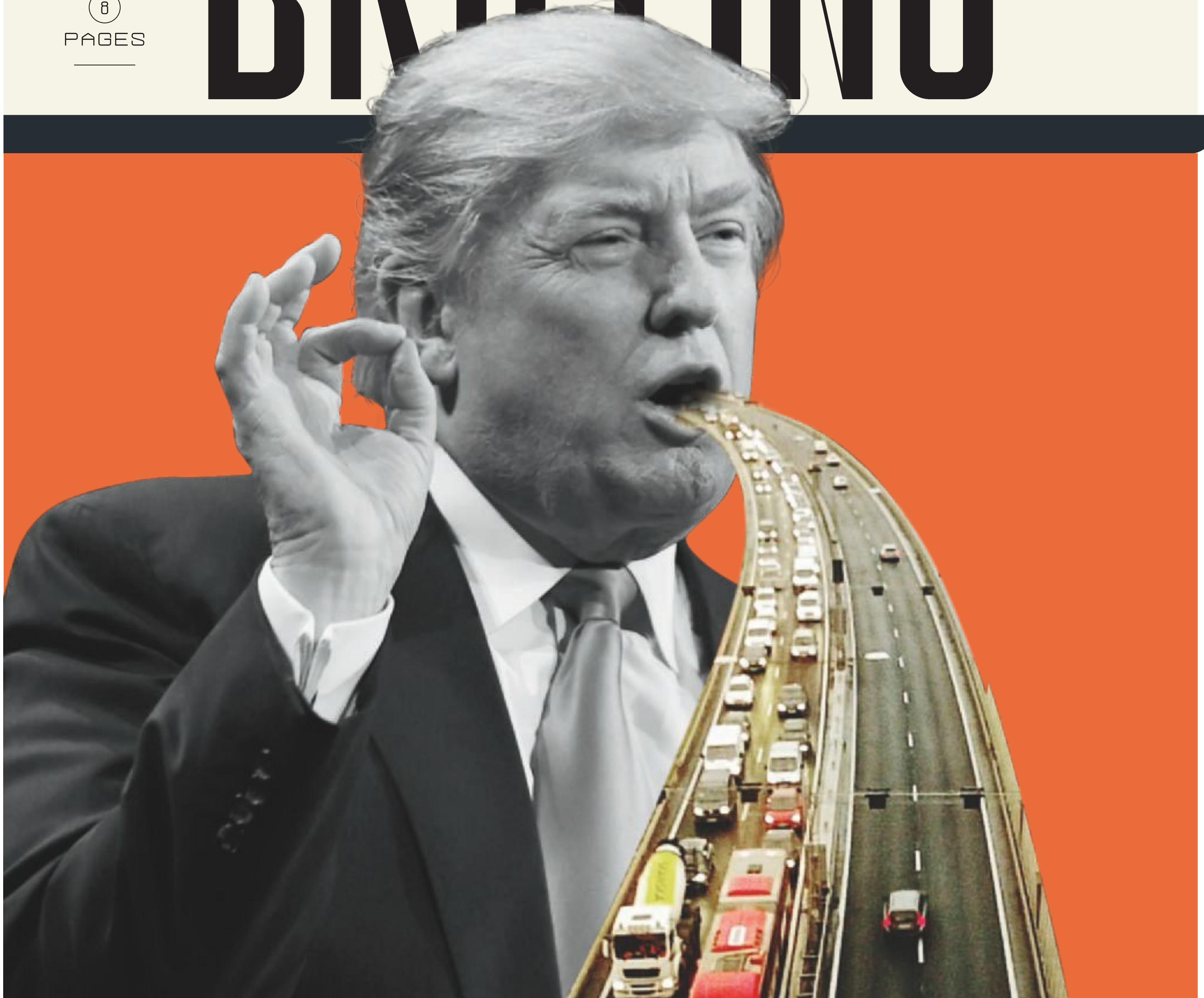
The healthcare business is built on trust. So is ours.

Since its origins over 350 years ago, MUFG has grown to become one of the world's largest financial groups with 140,000 employees in 50 countries and $2.6 trillion in assets. We've been able to achieve this by working every day to earn the trust of our clients.Today MUFG is a thought leader and trusted advisor providing comprehensive and tailored financial solutions for business partners across many industries, including healthcare, a sector with enormous potential.

Your trust,
your future,
our commitment

Mitsubishi UFJ Financial Group
A member of MUFG, a global financial group
www.mufg.jp/english

©2016 Mitsubishi UFJ Financial Group



TRUMP: TIMOTHY A. CLARY—AFP/GETTY IMAGES; ROAD: EYEEM—GETTY IMAGES

Infrastructure, the Trump Way

The President-elect wants to invest $1 trillion in roads, bridges, and buildings. The question is, Who will pay for them? BY RYAN BRADLEY

POLITICS

CALIFORNIA STATE Route 73 is a strange road. It's tolled, for starters—rare in the state that invented the freeway—and it doesn't see much in the way of traffic slow downs, even though it runs near some of the most heavily used highways in America. Its route lies entirely within Orange County, a Republican-voting island in a sea of blue for some 80 years, until it flipped on ▷▷

▷▷ Nov. 8. And it was built with private investment, a tactic President-elect Donald Trump says he plans to use to build many more roads in coming years.

Claiming to know what Trump has in store post-Inauguration, or even post-breakfast, is a mug's game. But it's safe to say he likes infrastructure. He talked about it all the time on the campaign trail, promising a $1 trillion investing blitz. And again mere hours after declaring victory: "We're going to rebuild our infrastructure, which will become, by the way, second to none."

But just what he means by infrastructure is unclear. The word itself wasn't used much at all until the 1980s, and is imprecise. When Trump talks infrastructure he often doesn't simply list bridges and tunnels, but also schools and hospitals. In other words: real estate.

The Trump administration's current public infrastructure plan is perhaps best viewed through that lens. A campaign position paper describes it as a pivot from "bureaucracies" toward "transactions." Private companies will not simply bankroll and build our infrastructure, but own it, incentivized by massive tax credits, worth 82% of the down payments. With $167 billion in private investment, the $1 trillion plan does not hit taxpayers, the authors claim, because the tax credits would be offset by new revenue from the economic stimulus created.

The plan has a tidy, circular sort of logic to it. Still, it's seen its fair share of criticism. The 82% tax credit, for example, means that savvy investors can suddenly own and collect tolls on a very expensive road after putting up relatively little in real dollars. Ronald Klain, who oversaw President Obama's infrastructure act, has called it "a massive corporate welfare plan for contractors." There's also a wariness of private sector creep and incentivizing profit seeking from places where logic holds profit should not be sought. Doctors in a privatized hospital might perform unnecessary surgeries to improve the bottom line, so how might contractors installing pipes for water, say, try to come out ahead? A road or a bridge can always add a toll, but for plenty of basic infrastructure, the path to profit is far more opaque.

FOR THE FIRST SIX YEARS, REVENUE FROM TOLLS ON ROUTE 73 MET OR EXCEEDED PROJECTIONS. THEN THEY STOPPED.

Even a road can be tricky. Take Route 73, for instance. Plans for the road were drawn up in the 1970s, shelved during the oil crisis, and revived in 1986 after the formation of an agency not dissimilar to the sort of infrastructure bank Trump has floated—tasked with seeking private finances for construction. The nearly 18-mile highway opened in 1996 as one of the most costly toll roads in the nation for drivers, with a per mile price of around 30¢. For the first six years, toll revenue met or exceeded projections. Then they stopped, and have been falling short for the last decade.

Part of the problem with Route 73 is that it's got stiff competition; several nearby highways with similar routes are free, albeit filled with traffic. People are also driving less. Car ownership is down nationwide, and it's likely to stay that way. But the even more fundamental problem has to do with the nature of infrastructure, which is extremely long term almost by definition, vs. private investment, which is not. Projections on when Route 73 will have paid for itself and can go un-tolled have been pushed back again and again, now well past 2040. Infrastructure that pays for itself? That could be a mug's game too. ■

TAXES

WHAT TO WATCH FOR IN TRUMP'S TAX PLAN

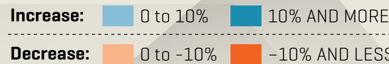
IN THE 30 YEARS since Washington last streamlined the tax code, it has become an ungainly mess. Now, as Donald Trump prepares to take office facing a friendly Congress, business interests of all stripes are gaining confidence that the overhaul they've spent years pushing will finally become a reality. But it won't be easy. Here, a few of the known unknowns.

1 **Can Dems weigh in?** Republicans can freeze Democrats out of the process entirely by employing a budget rule called reconciliation, which would allow a reform package to clear the Senate with a simple majority. But that gambit could also restrict the overhaul's scope and permanence.

2 **How fast it moves.** History suggests that Presidents are at their most productive in their first half-year in office. If the White House can't forge a compromise by the fall, momentum for an overhaul could fade.

3 **What happens to repatriated cash.** Trump has proposed taxing the roughly $2.5 trillion corporations have stashed overseas at 10%—potentially to help fund infrastructure. The congressional GOP appears keener to put those funds toward offsetting lower corporate tax rates overall. —**TORY NEWMYER**

TRIPS ORIGINATING FROM THE U.S. (2015 to 2016)



■ TOURISM

Americans Are Traveling More

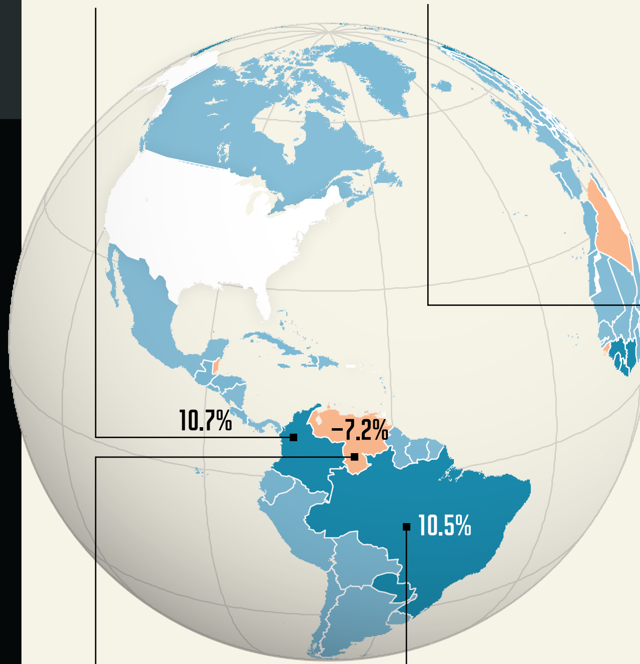
Euromonitor crunched the numbers for *Fortune* on the countries with the biggest increases (and dips) in U.S. travelers. —ERIKA FRY

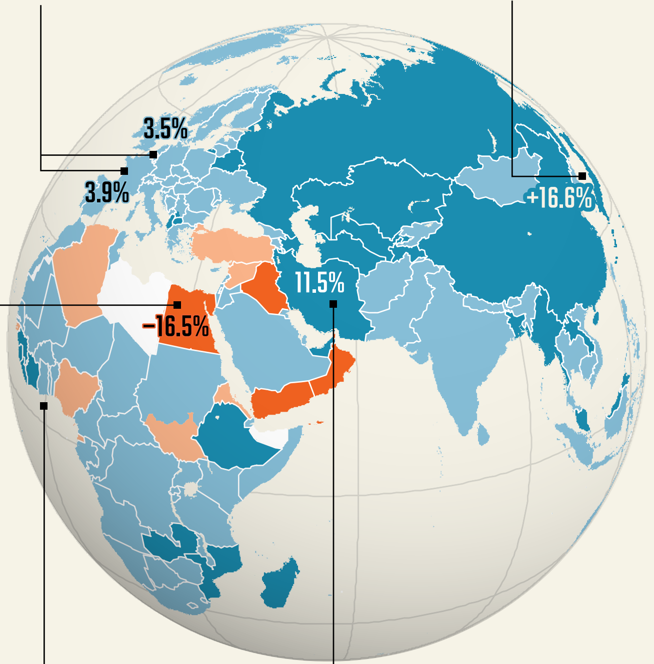
COLOMBIA
Long plagued by violence, Colombia has become safer and friendlier to visitors.

EGYPT
Tourism to the Land of the Pharaohs was hit by the Arab Spring but has ticked back up.

FRANCE AND BELGIUM
Recent terrorist attacks appear not to have seriously deterred American travelers.

JAPAN
The country is on track for a record tourism year. A weak yen has added to the appeal.





VENEZUELA
Political and economic crises have ravaged the country; kidnappings are frequent too.

BRAZIL
The Olympics host performed well with Americans this year—even after Zika.

WEST AFRICA
Ebola stalled travel to West Africa in 2014 and 2015, but travelers returned in 2016.

IRAN
Economic sanctions against Iran were lifted in January, prompting increased U.S. interest.

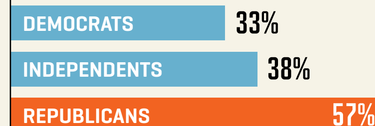
SOURCE: EUROMONITOR INTERNATIONAL (FORECAST DATA)

■ ECONOMICS

PITY PARTY

GONE ARE THE DAYS WHEN THE GOP UNQUESTIONINGLY EMBRACED FREE MARKETS.

Respondents who agree with the statement, **"The free market has been sorting [the economy] out and America's been losing."**



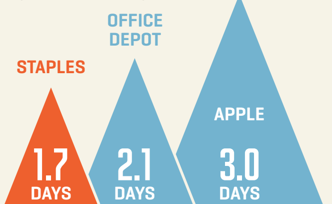
SOURCE: YOUGOV

■ RETAIL

SHIP SHAPE

FOR DECEMBER, THESE COMPANIES HAD THE FASTEST AVERAGE SHIPPING TIMES OF ANY MAJOR RETAILER.

Fastest Package Shipping
(Large Retailers)



SOURCE: STELLASERVICE

▲ CHARTS BY **NICOLAS RAPP**

BRIEFING

1 BILLION+

THE NUMBER OF ACCOUNTS COMPROMISED IN THE YAHOO HACK

ONCE THE ROAR of a dawning Internet Age, "Yahoo!" is now an unhappy refrain for customers of the purple piñata. In December the company revealed for the second time in a year that it had suffered a massive data breach. Hackers reportedly made off with personal information—names, email addresses, dates of birth, hashed passwords, and security questions—for more than 1 billion account holders in August 2013. The theft holds the ignominious distinction of being the largest known breach in history.

Meanwhile, Verizon is said to be seeking a billion-dollar discount on its $4.8 billion acquisition target.
—**ROBERT HACKETT**

Kent Is Leaving, but Coke's Problems Remain

With CEO **Muhtar Kent**'s departure, the playbook he used may also be on the way out. BY JENNIFER REINGOLD

FOOD

AFTER EIGHT YEARS at the helm of the beverage giant Coca-Cola, Muhtar Kent is stepping down. He will hand the reins to company president and COO James Quincey in May.

The changeover is significant as more than just an orderly transfer of power at an iconic company. It marks the departure of a man who exemplified a strategy that almost every global brand followed, and that may no longer work. That's the notion that one brand identity could mean the same thing to people all over the world—and that a big consumer company should increase the scale and power of that brand at all costs. (For more, see our cover package on page 56.)

But in this era of personalization, when your apps, your mattress, and, yes, your cola choices are customized, being the biggest and most efficient doesn't necessarily pay off. A failure to diversify away from a few core products—plus the increasing desire to avoid sugary drinks—helps explain why Coca-Cola has struggled, with annual revenues falling by $4 billion, or 8%, in the past three years.

"This, in my mind, is the single biggest issue for global, scale-oriented, consumer-packaged-goods brands," says Jim Stengel, head of branding consultancy the Jim Stengel Co. and former global marketing head at Procter & Gamble. "How to compete in a post-scale economy?"

Coke and Kent are to be congratulated for pulling off a (so far) seamless CEO succession. But the big-brand legacy will challenge the new boss too.

SO LONG, SCHULTZ

CEO, STATESMAN, and coffee pioneer Howard Schultz has left Starbucks...again. [He first departed in 2000, returning in 2008.] During his latest stint, revenue more than doubled to $19 billion in 2015, and store count rose from 15,000 to 25,000.

GOOD LUCK, MORAN

CHIPOTLE LOST half its chief executive team when Monty Moran relinquished the co-CEO title. Current CEO Steve Ells will stick around to try to right the ship post–*E. coli* scare.

COKE BOTTLES: GERIC PIERMONT—AFP/GETTY IMAGES

QUICKENLOANS.COM

DON'T GET HELD DOWN BY AN OUTDATED MORTGAGE PROCESS.
GO COMPLETELY ONLINE FOR A FAST, CONVENIENT APPROVAL.

GO WAITLESS

Quicken Loans Inc.; NMLS#3030; www.NMLSConsumerAccess.org. Equal Housing Lender. Licensed in 50 states. AR, TX: 1050 Woodward Ave., Detroit, MI 48226-1906, (888) 474-0404; AZ: 16425 North Pima, Ste. 200, Scottsdale, AZ 85260, Mortgage Banker License #BK-0902939; CA: Licensed by Dept. of Business Oversight, under the CA Residential Mortgage Lending Act and Finance Lenders Law; CO: Regulated by the Division of Real Estate; GA: Residential Mortgage Licensee #11704; IL: Residential Mortgage Licensee #4127 – Dept. of Financial and Professional Regulation; KS: Licensed Mortgage Company MC.0025309; MA: Mortgage Lender License #ML 3030; ME: Supervised Lender License; MN: Not an offer for a rate lock agreement; MS: Licensed by the MS Dept. of Banking and Consumer Finance; NH: Licensed by the NH Banking Dept., #6743MB; NV: License #626; NJ: Licensed Mortgage Banker – NJ Dept. of Banking, 1st (and/or 2nd) mortgages only; NY: Licensed Mortgage Banker – NYS Banking Dept.; OH: MB 850076; OR: License #ML-1387; PA: Licensed as a 1st Mortgage Banker by the Dept. of Banking and licensed pursuant to the PA Secondary Mortgage Loan Act; RI: Licensed Lender; WA: Consumer Loan Company License CL-3030. Rates subject to change. Restrictions may apply. ©2000 – 2016 Quicken Loans Inc. All rights reserved. Lending services provided by Quicken Loans Inc., a subsidiary of Rock Holdings Inc. "Quicken Loans" is a registered service mark of Intuit Inc., used under license.

How India Broke Its Economy Overnight (on Purpose)

Growth projections are down. Bitcoin values are up. BY ERIKA FRY

CASH **THE SAME NIGHT** that Donald Trump stunned pundits and became America's President-elect, Indian Prime Minister Narendra Modi dropped a bomb of his own: At midnight, his country's 500- and 1,000-rupee notes would become "worthless little slips of paper." He was taking those notes (worth about $7.37 and $14.74, respectively), amounting to 86% of India's currency, out of circulation. Indians were given until Dec. 30 to swap their old bills for new ones.

Modi warned that the surprise demonetization might involve short-term pain, and it has: The new bills weren't ready, nor were the nation's few ATMs, which had to be reconfigured to distribute them. The economy all but ground to a halt as millions spent their days waiting in bank lines (dozens, according to reports, died doing so). The cash crunch has led others to resort to bartering, and Goldman Sachs has shaved 1.5% from its 2017 GDP forecast for India.

Many are skeptical the scheme will achieve its original aim—eradicating the untaxed "black money" that fuels corruption. But there's another likely benefit: 90% of transactions in India involve cash, and the lack of it has boosted alternatives. Bitcoin and digital payment use have surged (fewer than 2% of Indians have credit cards). India may be on the way to a more efficient, cashless economy—it's just going to be a bumpy ride.

Millions of people across India lined up to try to exchange money.

BOOK VALUE

WHEN THE MARKETS SCREW UP

We caught up with Ed Thorp, an investor who is also widely regarded as the inventor of card counting and the father of wearable computers. In his new book, *A Man for All Markets,* he aims to do for stock investing what he did for blackjack. Here's how:

"Donald Trump's election shocked the nation, but from a statistical perspective, it shouldn't have. The margin of error in most polls was larger than the difference between the candidates, so the underdog had good chances from a gambler's perspective. Like polls, markets can be wrong too. As an investor, I constantly watch for where conventional wisdom could miss. Markets are mostly good at predicting outcomes, but very bad at anticipating black-swan events."

BANK LINE: SONU MEHTA—HINDUSTAN TIMES/GETTY IMAGES

SPY

RULES OF LEADERSHIP

ACT WITH CONFIDENCE

Trading nearly 16 million times an hour,* the SPDR S&P 500 ETF has given investors the confidence they need to get in, or out of, the market with ease.

Visit spdrs.com/spy to learn more about SPDR S&P 500 ETF (SPY).

STATE STREET GLOBAL ADVISORS®
SPDR®

There's opportunity in complexity℠

*Source: NYSE Arca, as of 9/30/2016.

ETFs trade like stocks, are subject to investment risk, fluctuate in market value and may trade at prices above or below the ETFs net asset value. ETF shares may not readily trade in all market conditions. Brokerage commissions and ETF expenses will reduce returns.
SPDR® S&P 500® ETF Trust, an exchange traded fund listed on NYSE Arca, Inc., seeks to track an index of large-cap U.S. equity securities.
SPDR®, S&P and S&P 500 are registered trademarks of Standard & Poor's Financial Services LLC (S&P) and have been licensed for use by State Street Corporation. No financial product offered by State Street or its affiliates is sponsored, endorsed, sold or promoted by S&P.
ALPS Distributors, Inc. is distributor for SPDR S&P 500 ETF Trust, a unit investment trust. ALPS Distributors, Inc. is not affiliated with State Street Global Markets, LLC.

Before investing, consider the funds' investment objectives, risks, charges and expenses. To obtain a prospectus or summary prospectus, which contains this and other information, call 1.866.787.2257 or visit www.spdrs.com. Read it carefully.

IBG-20879

Not FDIC Insured • No Bank Guarantee • May Lose Value

IPOs

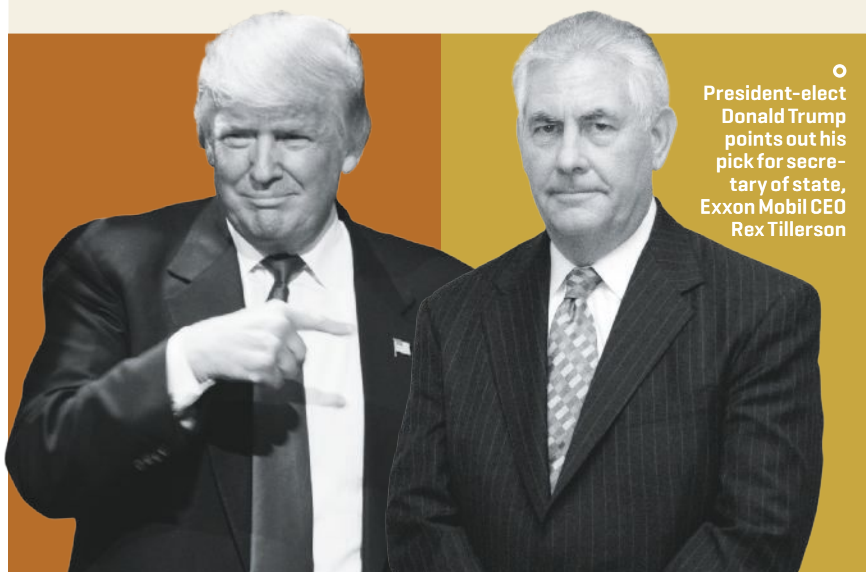
HOW TO SNAG A STOCK TICKER

SUCH IS THE HYPE for the impending Snapchat IPO that some investors are already referring to it by its presumed ticker symbol, SNAP. But there's no guarantee "SNAP" will be available (even though no one is currently using it). Since 2009, the process for claiming tickers has become more democratic—both the NYSE and Nasdaq allow anyone to request one through a simple online form. Joseph Brantuk, who leads new listings at Nasdaq, likens it to claiming a web address before officially launching a business. But there's bad news for anyone thinking of buying up tickers and flipping them: The list of holders is confidential, which prevents reselling. Plus, exchanges hold on to the likely symbols for big IPOs. Snapchat probably doesn't have to worry. **—JEN WIECZNER**

Which Offbeat Ticker Symbol Goes With Which Major Company?

A BUD
B CAKE
C HOG
D MMM

ANSWERS
A. Anheuser-Busch InBev
B. The Cheesecake Factory
C. Harley-Davidson
D. 3M



President-elect Donald Trump points out his pick for secretary of state, Exxon Mobil CEO Rex Tillerson

Trump and Tillerson: Conflict Ahead?

BY JEFFREY BALL

D.C.

AT FIRST GLANCE, President-elect Donald Trump seems to be making his cabinet in his own image. Exhibit A, the theory goes, is Trump's secretary of state nominee: Rex Tillerson. Like Trump, the Exxon Mobil CEO is well compensated, confident, and content with a fossil-fueled future. But there are profound differences between the Queens real estate baron and the Texas energy titan. And from the vantage point of this reporter, who spent a few years covering Exxon Mobil, it's only a matter of time before those differences break into the open—with potentially significant implications for U.S. policy.

For starters, Trump is a protectionist. He rails against China, embraces tariffs to help U.S. manufacturing, and promises U.S. energy independence. Tillerson, by contrast, is a free trader. He expanded Exxon Mobil's business by inking deals with foreign governments, notably Russia's; professes little concern for the national provenance of a barrel of oil; and rejects the idea of U.S. energy independence as jingoistic pablum.

Neither Trump nor Tillerson is a tree hugger. And environmentalists panned Exxon Mobil for obstructionism on climate change. Yet while Trump has pledged to "cancel" the 2015 Paris climate agreement and has rejected "the mistaken belief that global climate change is being caused by carbon emissions," Exxon Mobil under Tillerson recently pronounced the accord "an important step forward by world governments in addressing the serious risks of climate change." There's a stylistic difference too. Just as striking as Trump's blow-dried ostentation is Tillerson's starched-shirt restraint. It's partly cultural: Exxon famously subordinates the individual to the corporation. The Trump Organization, not so much.

Trump and Tillerson do appear to share one notable quality: distaste for dissent. Given each other, that's something they may have to work on.

TRUMP: TY WRIGHT—GETTY IMAGES; TILLERSON: ALEXEI NIKOLSKY—TASS/GETTY IMAGES

Acura is smart. Which is why they're expanding in Ohio.

Because each new Acura NSX supercar is handcrafted with incredible precision, Acura needed the best master technicians in the world. Which is exactly what they discovered in Ohio. But don't take our word for it.

Take theirs.

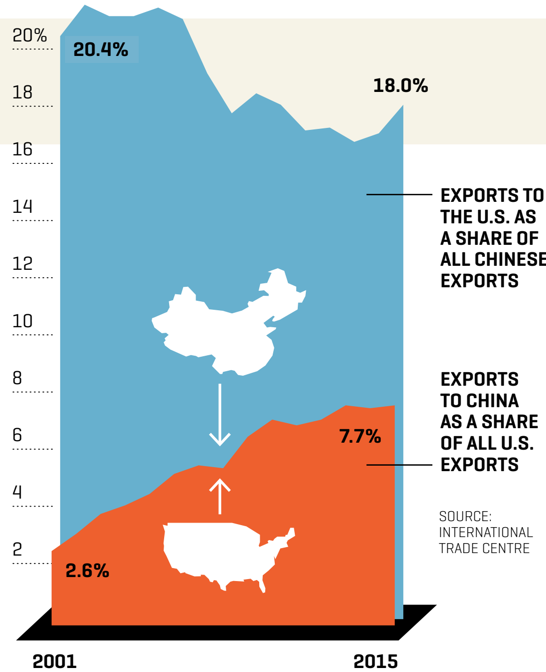
See why Acura chose Ohio at jobs-ohio.com/Acura

Welcome to Ohio. It's on.

Here's How Donald Trump Can Win a Trade War With China

The U.S has leverage.

BY CHRIS MATTHEWS



TRADE **DONALD TRUMP** rattled economists on the campaign trail with his all-out attack on U.S. trade policy. Now he's raising more hackles with his highly aggressive stance toward China. But what would actually happen if Trump pushed the U.S. into a trade war with the world's largest exporter?

As Trump has pointed out, the U.S. has the stronger hand on trade. While the U.S. is the destination for 18% of all Chinese exports, China accounts for less than 8% of American exports. The U.S. is wealthier, too, meaning that it has more resources to suffer through any slowdown that may result from a trade battle.

But China might still fare well in a fight. Countries with large trade surpluses would benefit from the removal of state subsidies that enable businesses to sell goods below cost, says Gary Hufbauer of the Peterson Institute. Those reforms could also spur more currency appreciation and policies that would encourage consumer spending.

It's quite possible that U.S. pressure would fail to achieve these results. But as the richest country in the world and a massive export destination, the U.S. has both the leverage and responsibility to reform trade and to lead the global system toward a place of greater balance.

THE WORLD'S NEW ANTAGONIZER-IN-CHIEF

CHINA'S PRESIDENT, Xi Jinping, used to be the antagonistic one in the U.S.-China relationship. Since taking office in 2013, he has overseen the militarization of the South China Sea, increased censorship of Western content, and boosted regulation of Western companies. But Trump has turned the tables in a way previous administrations never dared, at least publicly. He invoked a third rail in China—Taiwan's independence—in what he intimated was a bargaining tactic for tariff negotiations, yuan devaluation, and North Korea's nuclear armament. Chinese officials were befuddled—about as much as Western watchers have been over Xi. —**SCOTT CENDROWSKI**

WHAT CEOs ARE TELLING THEIR INVESTORS ABOUT TRUMP

THE GOOD

Jamie Dimon, *JPMorgan Chase*

Citing hopes for more stimulus and less regulation, Dimon told an industry confab, "Obviously, the stock has done unbelievably well since the election."

THE NOT GREAT

James Debney, *Smith & Wesson*

Without a gun-control advocate in office to drive stockpiling, Debney cautioned, "[we're in] an environment free of events that may spur consumer buying."

THE WEIRD

Bob Iger, *Walt Disney*

On Disney's fourth-quarter call, Iger noted, "We've already prepared a bust of President-elect Trump to go into our Hall of the Presidents at Disney World."

DIMON: DAVID A. GROGAN—CNBC/NBCU PHOTO BANK/GETTY IMAGES; DEBNEY: SUZANNE KREITER—THE BOSTON GLOBE/GETTY IMAGES; IGER: JASON LAVERIS—FILMMAGIC/GETTY IMAGES

DECEMBER 2–3, 2016 | ROME AND VATICAN CITY

The Fortune + Time Global Forum offered an historic opportunity for Fortune Global 500 and Time 100 leaders to engage with His Holiness Pope Francis to forge a new social compact for the 21st century. Special thanks to all of the participants and sponsors who made this Forum a success.

At Fortune + Time Global Forum: 1. Nancy Gibbs, Editorial Director, Time Inc. News Group, and Editor-in-Chief, Time, and Alan Murray, Editor-in-Chief, Fortune, and Chief Content Officer, Time Inc., with His Holiness Pope Francis 2. Charlie Rose, Anchor and Executive Editor, *Charlie Rose,* and Co-anchor, *CBS This Morning,* with Cardinal Peter Turkson, Prefect, Dicastery for Promoting Integral Human Development 3. Leila Janah, Co-founder and CEO, LXMI, and Founder and CEO, Samasource 4. Roger Ferguson, President and CEO, TIAA 5. Bineta Diop, Special Envoy for Women, Peace, and Security, African Union 6. Ginni Rometty, Chairman, President, and CEO, IBM 7. Richard Branson, Founder, Virgin Group. (Photos: ©2017 Fortune + Time Global Forum and ©Foto L'Osservatore Romano)

For more information, visit: **www.GlobalForum2016.com**

Partners

flex

Insigniam. Catalyzing Breakthrough Results™

MONSANTO

SIEMENS Ingenuity for life

Teneo

Knowledge Partner

McKinsey&Company

Supplier

INTERNATIONAL SOS

Fortune and Time are trademarks of Time Inc., registered in the U.S. and other countries. Fortune + Time Global Forum is a trademark of Time Inc. All other trademarks are the property of their respective owners.

HAIR TRIGGER

BEARDED MEN DISCOVER BEAUTY PRODUCTS

THE "LUMBERSEXUAL" trend may be over, but American beards are still going strong. Among men ages 18 to 24 today, 39% have facial hair—up from 15% five years ago. Overall, 20% of men are not shaving, according to Simmons Research, up across all age groups.

That's been good news for beard products. In the four weeks ended Dec. 10, some 60,000 people in the U.S. searched for "beard oil" or something similar online, according to research firm Connexity. It's part of a larger movement toward a more perfect male aesthetic: While shaving product sales climbed 10% in the past five years, men's grooming products as a whole leaped 15%, according to Euromonitor. And by 2020, the firm predicts sales will rise another 16%, to $9.8 billion. **—JEFF JOHN ROBERTS**

Michelle Warnky competes on NBC's *American Ninja Warrior.*

The Rise of the Ninja Gym

A new workout trend lets people act out their *American Ninja Warrior* fantasies.

BY DINAH ENG

FITNESS

NEED A NEW RESOLUTION this New Year's? Forget the treadmill. Hit the Salmon Ladder. Or the Warped Wall. These are obstacles featured on *American Ninja Warrior,* a reality-TV cult favorite recently renewed for a sixth season on NBC. And now fans are signing up to relive the contests at the gym.

The specialty gyms started popping up about two years ago, says Matt Powell, sports industry analyst for the NPD Group, driven by younger social sensibilities. "Today's millennial is going to a workout class, a rock-climbing gym, or a ninja gym to have a social experience," Powell says.

Sensing opportunity, several former competitors have launched their own *Ninja*-style studios—including Michelle Warnky, Alan Connealy, and brothers Chris and Brian Wilczewski, who founded the National Ninja League, now with 60 member gyms. Says Chris Wilczewski: "We want to solidify ninja warrior as a sport."

SPORTS

BASKETBALL SALARIES GET SOME AIR

Are you expecting to boost your pay 61% in the next four years? That's the average raise NBA players can count on, thanks to the deal they negotiated in December. Outsiders credit the league's success and the savvy of its players' union chief, Michele Roberts. **—MATT HEIMER**

FROM TOP: MITCHELL LEFF—CNBC/NBCU PHOTO BANK/GETTY IMAGES; JESSE D. GARRABRANT—NBAE/GETTY IMAGES

“My business. My vision.”

~ OMAR ZAKI
Allstate Agency Owner since 2007

Omar Zaki had a successful corporate career. But something was missing. So he decided to fulfill a lifelong dream. He started his own business and became an Allstate Agency Owner.

Eight years later, he has six employees and two agencies. He’s carrying out his own vision every day.

Allstate gave Omar an opportunity to fulfill his dream of opening his own business. Is that a goal of yours? Then talk to an Allstate executive recruiter today at 877-875-3466.

Hear more stories at **AllstateAgent.com**

Allstate®
You’re in good hands.

Auto
Home
Life
Retirement

Subject to all terms and conditions as outlined in the Allstate R3001 Exclusive Agency Agreement and Exclusive Agency program materials. Allstate agents are not franchisees; rather they are exclusive agent independent contractors and are not employed by Allstate. Allstate is an Equal Opportunity Company. Allstate Insurance Company, Northbrook, IL. In New Jersey, Allstate New Jersey Insurance Company, Bridgewater, NJ. © 2016 Allstate Insurance Co.

SOFT LANDINGS IN MATTRESSES

What do two startups reveal about the pros—and cons—of venture funding?

BY LAURA ENTIS

WE LIVE IN AN ERA that venerates venture capital. It can sometimes seem that a business is just a means to serve an investment fund rather than vice versa. What if—we'll whisper this to avoid incurring the wrath of the Silicon Valley gods—it's sometimes better not to take VC money? Is it possible that some companies could do better without it?

Casper and Saatva provide a revealing prism to examine that question. Both are young companies that sell mattresses to consumers over the Internet and allow customers to try them for several months and return them for a full refund. Both

have succeeded, with Casper's revenues vaulting to $200 million and Saatva's to $168 million.

The two diverge from there. Casper is backed by $70 million in VC funding, along with celebrity investors such as Leonardo DiCaprio. The company has been spending like a lottery winner on a Vegas bender. There have been TV ads, podcast ads, a traveling "napmobile," and an online publication dedicated to sleep. Casper's promotional events have included a three-course steak dinner for 15 canine "influencers." (Mock him if you will, but the Shiba Inu known as Menswear Dog has more Instagram followers than you *and* dresses better.) The occasion was the launch of Casper's line of dog mattresses.

All that spending has had another effect: There's a solid chance you've heard of Casper. You're less likely to recognize the name Saatva. Cofounder Ron Rudzin, a former retail executive, started the company in 2010 with $350,000 of his savings. Extravagant spending makes him nervous. That's one reason Rudzin has rebuffed interest from investors. He put most of his $30 million marketing budget in 2016 into plain-vanilla Google ads.

Then there's the matter of profits. Saatva claims it was in the black in its third month, which was crucial to its survival. For Casper, that doesn't seem to be the point right now. (The company declined to address the issue.) Says James Newell of IVP, one of its VC funders: "Everybody has to make the tradeoff between growth and profitability... In Casper's case it makes sense to invest dollars in building the brand, not just for generating sales in the near term, but over the longer haul to build a category-defining company."

When asked about his rival, Rudzin sounds resigned. He's used to the question. "Casper is just about getting their name outside. I did it in reverse. I built a healthy infrastructure, a moneymaking infrastructure first." The process took longer—Saatva was founded four years before Casper—but he and his two cofounders own 100% of the business. That doesn't mean his ambitions are small. "I want to be a $1 billion business," Rudzin says.

Casper, too, has big dreams. "We actually consider ourselves more of a sleep company," its chief executive, Philip Krim, said in a video interview with *Fortune*. That means Casper also sells pillows and sheets, and more extensions seem likely. (For its part, Saatva also plans to expand into sheets.)

Casper's expansive vision is a big part of what attracted venture capitalist Tony Florence of New Enterprise Associates, an early funder. Florence says he knew he would invest the first time he met Krim.

Both Casper and Saatva may be positioned for success, partly because their category is enjoying a "gold rush," says David Perry of trade publication *Furniture Today*. The online-sales portion of the mattress business is surging, from 5% of the $15 billion industry in 2012 to nearly 10% this year.

Still, for the vast majority of consumer goods startups, the VC model is an awkward fit—even harmful—argues Rory Eakin, cofounder of CircleUp, an investment marketplace for early-stage consumer product and retail businesses. "It's a very different industry [from tech]," he says. "What I'm anxious about is VC investors coming in without appreciating the dynamics."

Unlike tech startups, which often try to define a new industry, most consumer newbies enter existing ones. "There's not a huge benefit from being the first mover," says Kevin Laws of AngelList, which matches startups with early-stage investors. Joining an established industry means greater chances of solid—but not outlandish—growth. Of the 200 companies that have raised funding on CircleUp, the median growth rate is about 100%. Not bad, but not the three or four times rate VCs aim for.

In the end, it appears, it's a tradeoff. Is your business aiming to make money—or to disrupt an entire industry? If it's the latter, you'll definitely need VC millions. If not, you might do better with a few good bank loans and help from your friends.

Below: Saatva CEO Ron Rudzin. Opposite, clockwise from left: Casper CEO Philip Krim, COO Neil Parikh, chief creative officer Luke Sherwin, and CTO Gabriel Flateman.

CASPER: CHRISTOPHER LEE—THE NEW YORK TIMES/REDUX; SAATVA: BRYAN ANSELM—REDUX

VIRTUAL REALITY'S MONEY QUEST

Companies like Audi and IMAX are experimenting with how to cash in on virtual reality. But so far, public excitement about the technology is muted.

BY JONATHAN VANIAN

TECH **AUDI IS GIVING CUSTOMERS** superpowers at several of its dealerships. People can strap on virtual-reality headsets that give them X-ray vision to peek under car hoods and, just for fun, see what their dream drive would look like parked on the moon, next to asteroid craters.

The goal is to make car buying more memorable and in the process persuade more customers to splurge on Audis. Or, as Marcus Kühne, who leads strategy for Audi's virtual-reality push, put it at a recent conference in San Francisco, the hope is to make car shopping more emotional.

"If a customer leaves a dealership in the future, they should say, 'Wow, that was unexpected and much better than before,'" Kühne said.

Audi's test is an example of a broader effort by businesses like Pepsi and Fidelity to learn how to make money from virtual reality, an emerging technology that transports people into alternate worlds or enhanced versions of the real one. Despite the buzz about the technology, however, many companies are merely taking baby steps because of the public's tepid embrace of VR so far.

Sales of virtual-reality headsets, required for peering into often fantastical VR "environments," are modest at best. HTC sold 450,000 Vive headsets in 2016, while Facebook's Oculus VR sold 355,000 Rift headsets, according to SuperData Research.

That's far fewer than the millions of devices that some analysts had expected those companies to sell, combined.

It doesn't help that people who try virtual reality sometimes end up feeling dizzy and that headsets are bulky and unfashionable.

"VR is not a finished product, as much as a work in process," says Richard Gelfond, CEO of big-screen theater operator IMAX.

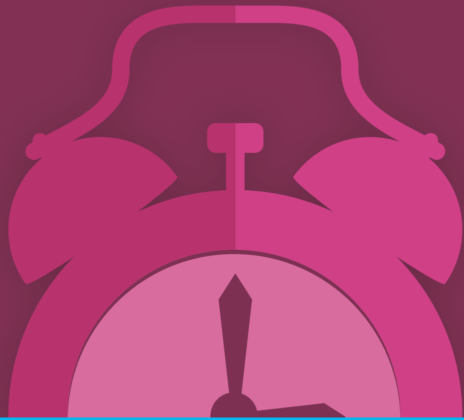
IMAX is close to making its first small push into virtual reality by opening a sort of VR arcade in January. Customers who visit the hub, in Los Angeles, will be able to watch and play virtual-reality films and games in one of 15 private soundproof rooms.

A seven-minute virtual-reality session will cost around $10. By the end of the year, IMAX hopes to open more hubs overseas.

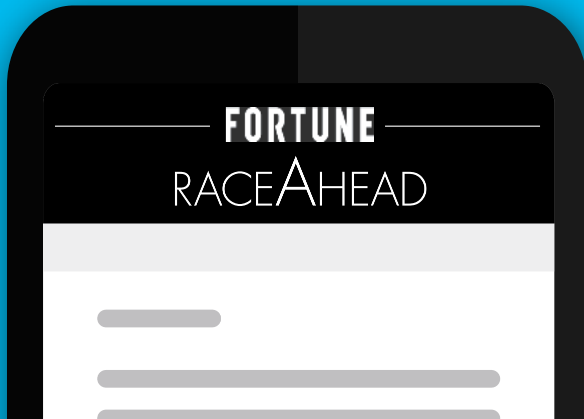
Instead of going big on virtual reality, Gelfond is taking a more measured approach. And based on public reaction, he says he may build more or fewer hubs or adjust the price. "I could get the timing wrong, but there's no question the market potential is enormous," says Gelfond, despite VR's early struggles. "It's just a question of when it comes together."

Already, there's a hopeful data point from Audi. Although it's too early to know whether its VR experiment has translated into more car sales, Kühne said that sales of car options—those sometimes pricey add-ons—are up at dealerships where virtual reality is available. F

▲ ILLUSTRATION BY **JOSH MCKENNA**



RISE.



READ.

SHINE.

FORTUNE RACEAHEAD

A MUST-READ NEWSLETTER ON CULTURE & DIVERSITY IN CORPORATE AMERICA

Proud Sponsor:

Subscribe Today! FORTUNE.com/newsletters

CEO DAILY • TERM SHEET • THE BROADSHEET • DATA SHEET • POWER SHEET • THE WORLD'S MOST POWERFUL WOMEN • BRAINSTORM HEALTH DAILY • RACEAHEAD

Copyright 2016 Time Inc. FORTUNE® and the FORTUNE newsletters are all trademarks of Time Inc.

A NEW MIND-SET

Shorter employee attention spans are driving companies like Walmart and PayPal to rethink corporate training. BY HEATHER CLANCY

BUSINESS IN THE CLOUD

TECH **LADDER FALLS** and truck accidents are no laughing matter on the job. But Walmart hopes to prevent them with the help of a game.

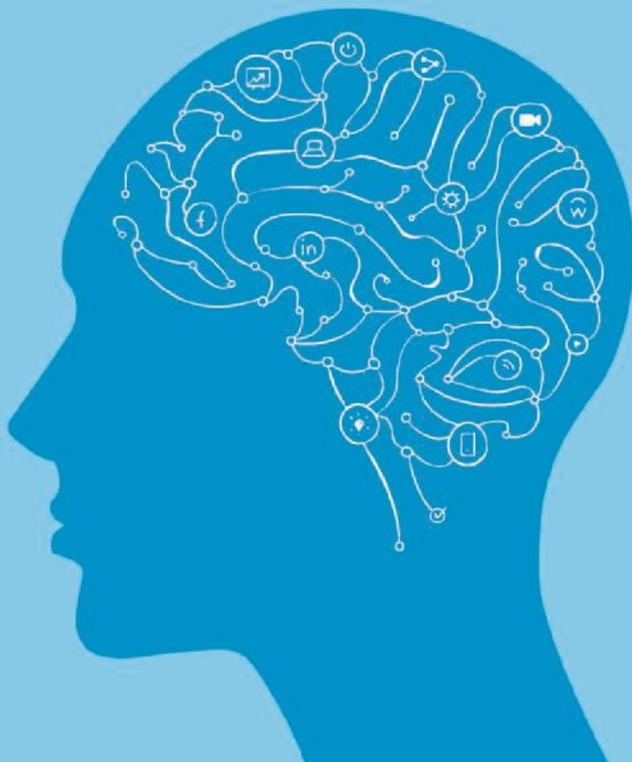
The mobile app, used by 80,000 of the retailing giant's warehouse and logistics workers, features three-minute presentations about how to do routine tasks like driving a forklift. Employees are then tested to see if they remember the material.

During an initial six-month experiment with 5,000 employees, the number of injuries deemed reportable to the Occupational Safety and Health Administration fell by nearly half.

Results like Walmart's underscore a growing interest among corporations in using software that organizes employee-training material into bite-size, video-centric courses for smartphones and tablet computers. Boring, long-winded lectures just don't cut it with workers raised on the short, staccato pace of Twitter and Facebook.

"People are not patient for long-form content. They want to skip to the part they need," says Josh Bersin, who advises companies about corporate training strategies for consulting firm Deloitte.

There's big money at stake: Companies spent an average of $1,004 per employee on training and certification materials in 2014, according to Bersin. Cutting some of those costs and shaving the amount of time employees spend in training can make a big difference.



Over the past year, online payments company PayPal has made a huge push to overhaul its employee-training programs by adopting more nontraditional learning technology. Social media plays a much bigger role because it's easy to use and it's where employees already spend a lot of time.

For example, PayPal created a private Facebook group where employees connect directly with invited experts—and one another—to troubleshoot. The company also encourages workers to use Twitter's Periscope live-video service to watch short classes.

For deeper dives, like how employees can be better mentors, PayPal has tapped Udemy, one of several online-education outfits that provide professional training. PayPal workers can browse Udemy's huge library of courses and follow them at their own pace.

Since these changes at PayPal, the number of "active learners"—workers who complete at least two training courses every six months—has doubled, says PayPal's chief learning officer Derek Hann. At the same time, the company cut training expenses by nearly 25%. "It's worth making the investment if you want top people to stay longer and do their job better," he says. ■

▲ ILLUSTRATION BY **SELMAN DESIGN**

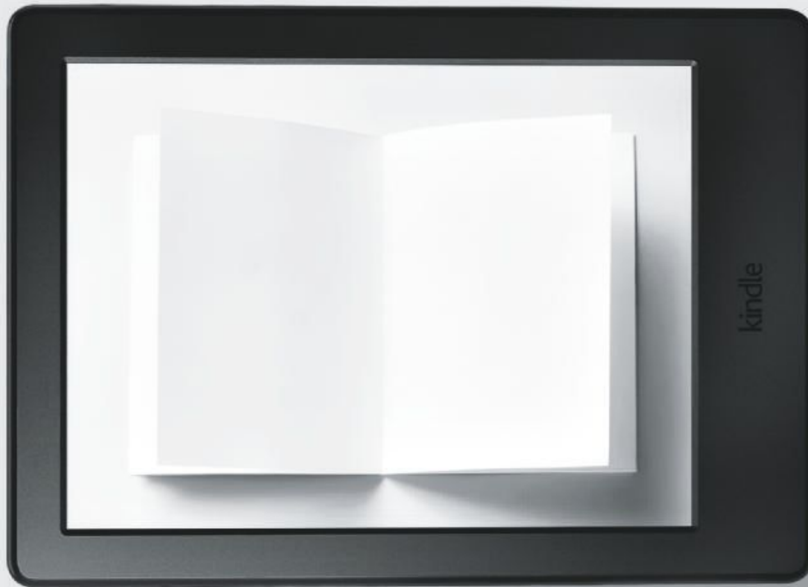
This cloud opens doors of opportunity.

The Microsoft Cloud has helped Temenos lower the cost of borrowing by 90%. By putting their core banking software in the cloud, microfinance institutions are able to reduce the need for infrastructure and management. In turn, this opens the doors of opportunity for millions of underbanked people all over the globe.

This is the Microsoft Cloud.

learn more at microsoftcloud.com

Microsoft Cloud



THE KINDLE EFFECT

The $1 billion ebook industry is spawning a whole new ecosystem of businesses that serve the burgeoning world of digital self-publishing.

BY JENNIFER ALSEVER

VENTURE

CONSIDER THE METAMORPHOSIS of self-publishing. For decades it was dismissed as the desperate refuge of authors rejected by publishing houses, wannabes who paid a fee to a musty vanity press that would dutifully typeset their words and transform them into a few boxes of books that the "writers" could hand out to their friends.

Today, thanks to ebooks and Amazon, self-publishing is a global phenomenon—an independent route intentionally chosen by more and more authors—that has spawned not only mega-bestsellers like *Fifty Shades of Grey*, but also hits in other realms, such as the movie version of *The Martian*. Ebook self-publishing has become a $1 billion industry.

But there's a lot less "self" in self-publishing these days. A burgeoning ecosystem of supporting services has sprung up to serve independent authors. There are companies that handle one step—or all of them—along the way: editing, marketing, design, distribution, and publicity. Increasingly, an array of digital operations has popped up to execute the oxymoronic process of publishing a self-published book. There are now digital publishers, "hybrid" publishers, "assisted self-publishers," and even literary agencies acting as publishers.

Call it the Kindle effect. Amazon opened the floodgates in 2007, the same year it released its first e-reader, when it launched Kindle Direct Publishing, allowing anyone to upload, publish, and sell his own ebook for free. This year Jeff Bezos's company released 4 million e-titles, and 40% were self-published. Those volumes accounted for 25% of Amazon's $2.3 billion in ebook revenues, according to AuthorEarnings.com, which uses data capture and analysis to track sales.

Amazon maintains an 80% share of the electronic-book market, and its rivals have gotten the message. Apple's iBook and Google Play now promote self-published authors, while Canadian-based Kobo, which sells books in 180 countries, recently added author services to hire professional editors and book-cover designers. Barnes & Noble started a print-on-demand service this summer for self-published writers.

Independent authors enjoy more creative control and far better royalties: They keep 50% to 70% of book sales, vs. 15% to 25% royalties for traditionally published books. So-called independent books increasingly land at the top of bestseller lists, are optioned to be Hollywood movies, and generate real money for their authors. Kobo CEO Michael Tamblyn says indie authors drive 20% of the platform's ebook sales. "They're selling better than traditional authors," he says.

And so the providers have flocked. A new platform called Reedsy.com, for example, lets authors search profiles of 500 vetted freelance editors and book-cover designers and then manage proposals, bids, payment, and vendor reviews and ratings. Reedsy takes a 10% cut of each contract. So far, its clients have ushered 1,300

BOOK: ZIRKO—GETTY IMAGES

new books to life, says CEO Emmanuel Nataf.

Packages that include editorial, design, and digital-media-strategy services cost $10,000 to $30,000 at Seattle-based Girl Friday Productions. It's a relatively new offering from the 25-person firm, which has worked for traditional publishing houses for a decade. Since 2013, its solo-author service business has doubled each year, says cofounder and CEO Leslie Miller. "There's a lot that goes into making a book," she says, "and we're going to take over everything for you."

Then there are more targeted services, such as ones for marketing. Social media site Wattpad lets authors connect with readers and build fans for free by posting chapters of their writing to the site. (The fiction series *After* racked up a billion reads on Wattpad.) Other sites, like Smashwords, Riffle Books, and Bookbub, also provide access to communities of avid readers and broad ebook distribution for a flat fee or a portion of the sales. BookFunnel was started in 2015 by fantasy novelist Damon Courtney, who became frustrated when he couldn't create links for free book promotions; it helps authors do giveaways and build readership. Now BookFunnel delivers half a million ebook downloads each month on behalf of 3,000 indie authors, who pay $20 to $100 a year for the service.

There's an option for every form of authorial desire. Say you want to publish electronically and preserve your digital rights but want to see if your work can get a second life on paper in brick-and-mortar retailers. Ingram, the largest book distributor, helps writers who use its Spark self-publishing tool gain access to 39,000 stores. EverAfter Romance does the same in its genre. In just a year it has amassed a catalog of thousands of romance books and more than $1 million in revenue. EverAfter now plans to expand to mysteries, thrillers, and science fiction, says Scott Waxman, CEO of Diversion Publishing, which owns EverAfter. "The demand from authors is astonishing," Waxman says.

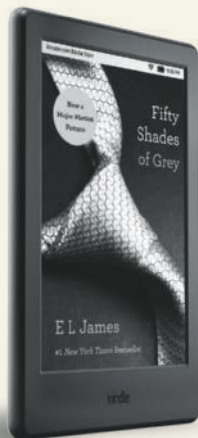
In addition to the providers that charge fees, there are those that help out in exchange for a cut of profits. Such hybrid publishers and assisted-self-publishing services have a mixed reputation. Some benefit writers, but others can be predatory, charging big commissions just to upload an author's work to digital platforms. "It's a buyer-beware marketplace," says Kobo's Tamblyn.

Hybrid publishers like She Writes Press, for instance, have traits of old and new approaches. The company says it publishes only select manuscripts, offering the value of traditional publication, such as editorial guidance, distribution, and marketing. For that, it charges authors $5,200 plus 20% to 40% of any profits.

Even literary agencies have jumped in. Several of them, including Curtis Brown, IPSO Books, and the Nelson Agency, now shepherd clients' books through self-publishing if they're unable to secure an offer from a publisher. They may take a small percentage of sales and manage the logistics of marketing and self-publishing.

There are yet other flavors, some of which operate like traditional publishers with a web-era twist. Imprints such as Unbound, in the U.K., and Inkshares, in California, let readers decide what should be published. Authors who post their ideas and sample pages to Inkshares' community of 100,000 readers, for instance, will be published if their ideas get 750 preorders from readers. Inkshares handles the editing, design, marketing, publicity, and even movie options. Authors earn 35% royalties and have direct reader engagement, says Inkshares cofounder Adam Jack Gomolin.

In the past year, Inkshares has received $2 million from investors, produced 30 book and six movie deals, and generated $5 million in revenue. Too many authors struggle to get noticed, Gomolin says. "We needed a smarter filter for new voices." But if a given author doesn't make it through that filter, the options today seem limitless. ■



WE DID IT ALL BY OURSELVES!

SOME OF THE TOP SELF-PUBLISHED EBOOKS.
(Several later migrated to traditional publishers.)

Title	Details
FIFTY SHADES OF GREY	Copies sold: **125 million** Movie revenues: **$166.1 million**
THE MARTIAN	Copies sold: **23 million** Movie revenues: **$228.4 million**
STILL ALICE	Copies sold: **2.6 million** Movie revenues: **$18.7 million**
DEPARTURE	Copies sold: **1 million** Movie revenues: **None (in development)**
WAYWARD PINES	Copies sold: **1 million** **Adapted into a Fox TV series**

SPANISH-LANGUAGE TV IS *EN FUEGO*

Cesar Conde, chairman of Telemundo, is serving up fresh programming to the fast-growing Hispanic-American audience. BY TOM HUDDLESTON JR.

AMERICAN VOICES

CESAR CONDE CHAIRMAN OF NBCUNIVERSAL'S INTERNATIONAL GROUP AND TELEMUNDO ENTERPRISES

The New Telenovela
After its high-budget hit *El Señor de los Cielos,* Telemundo is pushing out similarly lavish follow-ups, or "Super Series."

Youth and Experience
Just 35 when he became president of Univision in 2009, Conde was one of the youngest U.S. network presidents ever.

Résumé Fodder
He is on the boards of PepsiCo and Owens Corning and has launched several charitable Hispanic outreach programs.

VENTURE **CESAR CONDE** is one of the most powerful people in Spanish-language television. And with the U.S. Hispanic population at 56.6 million and growing, that's a very big deal.

Born in Miami, Conde is of Cuban and Peruvian descent. After graduating from Harvard and Wharton, he did stints at a startup and a bank but was always drawn to TV (he says he saw mass media's power for good when "used responsibly"). He joined Univision in 2003, became president, and jumped ship to NBC in 2013.

Now, Conde, 42, is chairman of NBCUniversal's international group and Telemundo Enterprises, which has recently been besting Univision in the ratings race among the key viewers ages 18 to 49. But crucially, as Conde is quick to point out, his Spanish-language networks are also nipping at the heels of the four biggest U.S. broadcasters—ABC, CBS, NBC, and Fox.

"From an economic perspective, we're seeing a demographic whose consumer spending power has skyrocketed," he says. NBCUniversal has poured money into Telemundo accordingly, paying $600 million for the rights for the next two FIFA World Cups. Conde has also helped with the network's revamp of the telenovela, featuring higher production values and targeting U.S. audiences.

"We reinvented the type of series that [U.S.] Latinos are seeing," Conde says. "And, clearly, it's resonating." F

REDUX

▲ PHOTOGRAPH BY JEFFERY SALTER

TOYOTA | Let's Go Places

I spy, with my little eye, something beginning with "S."

Who knows what you'll see in the backup camera[1] of your new 2017 Corolla, but that's kind of the point, isn't it? That's why it comes standard, along with **Toyota Safety Sense™ P.**[2] Because, even though you might see almost anything, one thing we think you should definitely see is safety. **How many things can you spy that start with the letter "S"?**

The New 2017
COROLLA
Toyota Safety Sense™ Standard

Prototype shown with options. Production model may vary. 1. The backup camera does not provide a comprehensive view of the rear area of the vehicle. You should also look around outside your vehicle and use your mirrors to confirm rearward clearance. Environmental conditions may limit effectiveness and view may become obscured. See *Owner's Manual* for details. 2. Drivers should always be responsible for their own safe driving. Please always pay attention to your surroundings and drive safely. Depending on the conditions of roads, vehicles, weather, etc., the system(s) may not work as intended. See *Owner's Manual* for details. ©2016 Toyota Motor Sales, U.S.A., Inc.

A LEGACY WORTH WORKING FOR

Susan Michel's children will help decide what happens to her financial advisory business after she retires or dies. If they want control of the firm, though, they'll have to earn it. BY RYAN DEROUSSEAU

INVEST

SUSAN MICHEL has always taught her four kids a consistent lesson: You get what you earn. When Rob, her youngest, was in high school, he was swooning over a girl, but he didn't have the cash to pay for a date. In support of young love, Susan and her husband, John, paid Rob $20 to paint the yellow shed in the backyard. That wasn't enough for a movie, so Rob took the young lady to Taco Bell.

Susan, 58, has approached succession planning at her financial advisory business, Glen Eagle, with the same philosophy. The kids have watched her grow the Princeton, N.J., firm from a kitchen-table operation into a regional stalwart with $400 million in client assets under advisement. Now, as Susan considers retiring in 10 years or so,

FAMILIAL ADVICE Susan Michel (center) and her children Carol Ann and Rob at her Princeton, N.J., financial firm, which the kids may run someday.

▲ PHOTOGRAPH BY PATRICK JAMES MILLER

she's empowering them to earn the right to take over, in a process designed to steer control to someone with a passion for the business.

Succession planning in family-controlled entities can turn into a grim sideshow. A lack of clear guidance often leaves a feuding family and an embarrassing legacy: It's one reason only 30% of family businesses survive to a second generation, says Mary Ann Sisco, a senior vice president at Northern Trust.

Succession plans are particularly rare among financial advisers—even though that's like a doctor avoiding physicals or an estate lawyer not having a will. Fewer than 40% of firms have a succession plan, according to consultancy the Aite Group. That's less surprising, however, when you consider that advisory practices often start out lean and informal—sometimes as little more than one person with a phone and a desk.

That was the case for Susan Michel. She started her career as an educator, teaching at military bases where John was deployed. In 1988, after John transitioned to civilian life, Susan began training as an adviser. At first her work mostly involved meeting female friends and acquaintances at her house to discuss their plans. But by 2002 she had a big enough client book to justify hiring staff. Today she runs three offices in the Northeast, with 12 advisers on her team. The kids have always been involved: In the meet-at-home days, they helped tidy up and shred papers, and in 2004, Susan recalls, Rob and his sister, Carol Ann, 12 and 14 at the time, encouraged her to sign a lease on a bigger office.

Two years ago, Susan gave her family network a more formal role. Her three sons, daughter, and husband now form a family advisory board that meets regularly with Susan. "Engaging the kids in the business early on" is rare in the financial planning world, says John Anderson, who heads practice management solutions at the SEI Network of advisers. But that engagement is crucial to Susan's succession plan, which will determine future ownership of Glen Eagle based in part on how much value the children bring to the firm.

Here's how it works: Each child will receive a percentage of shares of the company, determined by Susan and passed along through revocable trusts. No one will have a majority, Susan says, and the percentages can change anytime at her discretion. If something happens to Susan and John, the council of kids will immediately become Glen Eagle's owners and board of directors. Absent such sudden tragedy, Susan will gradually transfer ownership shares before she retires. Either way, the board's first priorities would be to pick a CEO and then decide how much ownership the family would retain and how much the CEO would receive. And in any shareholder decisions, the weight of each child's vote will be based on the shares they earn with sweat equity today.

While Susan's two older sons and daughter don't work in financial planning—they're a marketer, lawyer, and banker, respectively—collectively the board has the securities certifications to help manage the firm if needed. Susan won't discuss the size of the shares she's planning to designate to each child, but it's Rob, now 25, who currently seems likeliest to succeed her. He splits his time between an MBA program at the Wharton School and Glen Eagle, and he's the only child to have expressed interest in the business as a full-time gig. Right now, in his first big initiative for the company, Rob is developing a technology platform that will allow customers to see all their assets in one spot. Before it moves forward, of course, Rob must prove to the family board that it's a sustainable endeavor.

The Michels' arrangement isn't without shortcomings. The plan certainly creates the possibility for intrafamily feuding over ownership and fair sharing of responsibilities, scenarios that Sisco has seen create "conflict that can drive family members apart." And if the family hires an outsider as CEO, that could generate further tension.

Still, Susan says, the system creates the meritocracy that she seeks. It's up to family members to earn more ownership shares by taking on more responsibility or suggesting new ideas. Susan is adamant that she wants a committed entrepreneur in charge. By formalizing her plan, she has given her kids the power to step up or step aside. ■

PASSING ALONG A FAMILY BUSINESS

Tips for keeping a family-owned firm humming once you're no longer in charge.

Give the kids a trial run.
Before members of the next generation get a say in the business, assign them projects in which they can demonstrate commitment and develop aptitude.

Don't dawdle.
At least under current law, firms can generate big estate-tax bills if the head of the family owns a major stake when he or she dies. Transferring ownership while still alive can help avoid the blow.

Have a separate estate plan.
Owners should have a separate plan for bequeathing personal wealth. That can help the transfer of a company go more smoothly, while making sure less business-savvy kids don't feel excluded.

MASTER YOUR FAMILY'S FUTURE

CHASE PRIVATE CLIENT

MORE THAN MONEY

While creating wealth has been a focus for dynamic entrepreneur Stephan Aarstol, he knows that life is about making more than money—a value he's passing along to his son.

HAVING INHERITED AN entrepreneurial spirit from his father, a solo-practitioner optometrist, Stephan Aarstol has founded a series of fast-growing businesses, most recently and notably, Tower Paddle Boards. With his new book, *The Five Hour Workday: Live Differently, Unlock Productivity, and Find Happiness*, Stephan is rewriting the rules of entrepreneurship to focus on working smarter and more efficiently. With this focus, he's growing his business while investing a good deal of his time and energy in his relationship with his 11-year-old son.

Even as he builds on his professional success, Stephan has been able to attend every one of his child's baseball games. "When they won the championship this year, it was a shared experience," Stephan says proudly. "All I could think was, if I were working, I would have missed this!"

He's also teaching his son many life lessons about being both generative and strategic. "It's about having both a plan and a growth mindset; continually creating and building things," Stephan explains. "Wealth is not a fixed, limited thing I want to just hand over to him. I want him to embrace his own potential to build on investments by creating something of his own."

Today, Stephan is creating long-term financial strategies to provide his son with the tools he needs to succeed in life. "Part of working smarter is knowing what you're working toward," he says. "So I make time to plan for the future."

PREPARING FOR FUTURE GENERATIONS

Family legacy planning provides a solid foundation for those you love. Start by asking these questions.

WHAT'S YOUR TIME FRAME?

What are the milestones in legacy planning and where on that timeline are you and your family now?

IS MONEY A TABOO TOPIC?

Can you talk openly with your family about finances? If money is a touchy subject, explore ways to start the conversation.

WHAT DOES MONEY MEAN?

Whether wealth itself is a goal for you or a means to a more fulfilling life, does your family share your values?

CHASE PRIVATE CLIENT

LEARN MORE ABOUT STEPHAN AND HOW YOU CAN MASTER YOUR FAMILY'S FUTURE AT WWW.FORTUNE.COM/FAMILYFUTURE

This article is for general information purposes only. JPMorgan Chase & Co. shall not be liable for any use of the information contained in this article and such information may not be relied upon by you in evaluating the merits of participating in any transaction.

Sometimes life brings about a change in direction.
Be prepared with a personalized financial strategy.

You never know what the future will hold. With a personalized financial strategy, you'll be better prepared to make the most of any situation. Ask for an introduction to a J.P. Morgan Private Client Advisor to discuss your financial priorities and take advantage of our advice and investment expertise.

Visit your local branch or **chase.com/privateclient** to learn more.

CHASE PRIVATE CLIENT

"Chase Private Client" is the brand name for a banking and investment product and service offering.

Bank deposit accounts, such as checking and savings, may be subject to approval.
Deposit products and related services are offered by JPMorgan Chase Bank, N.A. Member FDIC.

Certain bank managed advisory products and related services, such as custody services, are offered by JPMorgan Chase Bank, N.A. and its affiliates. These assets are segregated by law and are not subject to FDIC or SIPC coverage. Other investment products and services are offered through J.P. Morgan Securities LLC (JPMS), a member of FINRA and SIPC. JPMS is an affiliate of JPMorgan Chase Bank, N.A. Products not available in all states.

INVESTMENT PRODUCTS ARE: NOT FDIC INSURED • NOT A DEPOSIT OR OTHER OBLIGATION OF, OR GUARANTEED BY, JPMORGAN CHASE BANK, N.A. OR ANY OF ITS AFFILIATES • SUBJECT TO INVESTMENT RISKS, INCLUDING POSSIBLE LOSS OF THE PRINCIPAL AMOUNT INVESTED

© 2016 JPMorgan Chase & Co.

STOCK MARKET SENTIMENT

KEEPING AN EYE ON THE ANIMALS

Charles Schwab strategist Liz Ann Sonders sees a welcome revival of optimism among mom-and-pop investors. But will that bullishness turn a stock rally into a bubble?

INTERVIEW BY MATT HEIMER

FINANCIAL GIANT Charles Schwab oversees $2.7 trillion in assets, including more than 10 million active brokerage accounts. The breadth of that customer base gives Liz Ann Sonders, Schwab's longtime chief investment strategist, a unique role—as both a source of advice to those legions of "retail" clients and an observer of their behavior.

So it's worth noting that Sonders sees a revival of "animal spirits" since November's election, an optimism that's driving small investors to put more money in stocks and accept the risks that come with them. As she notes, that trend could skew negative if it goes too far: With stock valuations already at historic highs after a long bull market, the risk of a euphoria-driven bubble has grown. Sonders spoke about this issue and more with *Fortune*. Edited excerpts follow; find more at Fortune.com.

INVEST **FORTUNE: Markets climbed pretty steadily after the election. What do you think drove that?**

SONDERS: The uncertainty factor lifted, and you just can't help but wonder whether that uncertainty was such a weight that regardless of who won, the fact that at least we knew who the ultimate victor was would have been enough to incite a rally.

Certainly going from kind of an antibusiness environment to more of a probusiness environment is a big factor. I think there is a more important shift, from monetary policy being the only game in town to one where fiscal policy has taken on greater importance. And maybe the biggest positive is that animal spirits appear to be reviving. It's across the spectrum from investors to consumers to businesses. And that is something we have been lacking in the economy.

So how will those spirits shape what you're going to be watching in the new year?

Fed policy has been a big factor in markets, and I think that continues to be the case. The market's going to have to start to digest a faster pace of interest-rate hikes in 2017 than what we have gotten used to, as the economy grows. Related to that is whether inflation really heats up: I think that could be a risk factor.

But I also think that the cap-ex cycle is important. If we get tax reform, ▷▷

BEWARE OF EUPHORIA
Sonders sees investors walking a line between optimism and "froth." For now, they're on the right side.

▲ PHOTOGRAPH BY **BEN BAKER—REDUX**

Friend in town, dinner in fridge, kids at practice. Happiest hour.

- Shared Family Calendar
- Shopping & To Do Lists
- Meals & Recipe Box

Get Cozi. The #1 organizing app that serves up family life, neat.

▷▷ particularly corporate tax reform, and it's in conjunction with repatriation, the big open question is, If that money comes back, where does it go? Does it go to financial engineering, i.e., increased dividends and buybacks, which has been the game in the last several years? Or does it go to debt pay down? Or does it finally start to go into productivity enhancing, long-term capital spending?

What sectors of the stock market are you recommending to clients right now?

Our overweight recommendations are financials and technology [see sidebar]. We have underweight recommendations on both utilities and telecoms. Because so much money was chasing yield, those sectors became overvalued.

We have a relative overweight recommendation to U.S. equities vs. developed international equities. And then, within U.S. equity, we have a slight bias toward small-caps.

And why is that?

A stronger dollar tends to hurt multinationals more than the more domestically oriented small-caps. Small-caps also tend not to have the same tax breaks as bigger companies. That means they generally pay a higher effective tax rate—and therefore benefit to a greater degree from potential tax changes.

Are there any less widely followed indicators that you're keeping a close eye on?

There's a set of indexes put out by finance blog Sentiment Trader: They call them the Smart Money/Dumb Money Confidence indices. What I like about them is they're not attitudinal measures of sentiment. They're looking at what these two cohorts of investors are actually doing, the positions they're taking. It tends to be sort of institutional money vs. retail [small investor] money, but a little more nuanced than that. Unfortunately, it's not telling a great story right now. The smart money is getting less optimistic, and the dumb money is getting more optimistic.

I look at fund flows, for traditional mutual funds and ETFs. And what's remarkable about this bull market since it began is that on a cumulative basis, not a single dollar of net new money has come into U.S. equity [funds]. Which is unheard-of in an eight-year bull market.

But in the last few weeks, that tide has shifted. After years and years and years of massive, massive inflows into bond funds and equally massive outflows out of domestic equity funds, we've finally started to see that shift. The so-called great rotation that for years everybody has been waiting for. It may be real this time.

Is that a lot of "dumb money" coming off the sidelines?

No, this is not just individual investors. Hedge funds' net long exposure never got much above the low fifties [in percentage terms] in this entire bull market. Pension funds have more fixed-income exposure than equity exposure.

So you ask: "Well, if it hasn't been retail investors powering this market, if it hasn't been hedge funds or other institutional investors, if it hasn't been pension funds, then who the heck has been buying stocks?"

The answer is that companies have been buying back their own stock. And that's been the biggest support of the market. We may be now shifting to an environment where corporations buy less of their own stocks, but investors actually buy more stock.

We've been talking for the past year about whether we were in a maturing bull market and whether we'll have to get used to a low-return environment. It seems like a "great rotation" could counterbalance that.

Oh, I think so. And I do think we are in a more mature phase for both the market and the economy. But you can stay in that mature phase for quite some time.

Generally when you go from the more mature phase to sort of the end of the stock-market cycle, it tends to be an environment of excess euphoria. What to me is remarkable is that all we've done, almost in this entire bull market, is bounce back and forth between panic and relief. We haven't gotten anywhere near the kind of euphoria that exists at major bull-market peaks.

That's what we may be seeing change right now. That's the most interesting facet to watch, and I would say there's both an opportunity and a risk. Because historically when optimism grows to euphoria, sure enough that's right at the peak of the bull market. And then the bear market starts. **Then we'll have a much different conversation.** ■

RIDING A "MATURE" BULL MARKET

Here are some of Sonders's investing themes for 2017:

BANK ON IT Sonders sees financial stocks as cheap relative to their potential for growth, with bank earnings likely to get a boost from both rising interest rates and deregulation. Bank stocks that experts currently like include **Bank of America** and **Citigroup.**

POWER DOWN A hunt for dividend income led investors to pour money into high-yielding utility stocks in 2016. Sonders thinks they're too expensive now.

THINK SMALL Few small U.S. companies currently enjoy the same tax breaks as big ones, so they'll benefit more if Congress approves corporate tax reform. Exchange-traded funds like **Vanguard Small Cap** offer inexpensive access to their stocks.

A GREAT DAY
STARTS
ON A
GREAT MATTRESS...

Beautyrest®

Beautyrest
SILVER

…that provides energizing sleep for a restored you

Hit the ground running, refreshed and ready to go. Sophisticated design paired with intuitive innovations, such as DualCool™ Technology Fiber, help you wake up and embrace the day ahead. Get the fresh start you deserve.

Get Beautyrest Silver

…designed for elegantly orchestrated sleep

A masterpiece of elegant design, Beautyrest® Platinum™ features legendary Pocketed Coil® support combined with advanced cooling technologies. Beautyrest® Platinum™ features the latest in sleep innovations all working in harmony for Elegantly Orchestrated Sleep.

…that indulges the senses

Sleep is the ultimate luxury. Beautyrest Black® is where technology and luxury intertwine to take you far beyond mere comfort. More than a mattress, this restorative sleep is like nothing you've experienced before. A night with Beautyrest Black® creates a restful escape where you can **Dream in Black™**

TAKE ON
TOMORROW

START TONIGHT

GET YOUR
BEAUTYREST®

Find a store near you at beautyrest.com

Beautyrest®

17BRBP8P1-04-134850-1

TYING VCs TO SHAREHOLDERS

Too often, public shareholders are left holding the bag for money-losing startups. A solution? Link founder and VC windfalls to the company's profits. **BY DAN LYONS**

DOZENS OF TECH COMPANIES have gone public in the past five years while losing money. Some keep on posting losses for years after their IPO—and sometimes the amounts are significant, more than a quarter of a billion dollars per year.

But here's a modest proposal that might coax companies into achieving profitability: "I wonder if the solution may be that companies can IPO with losses, but that founders and VCs are severely limited in the amount they can cash in," says Tony Greenham, a London investment banker turned think-tank director.

Greenham was an investment banker at Credit Suisse First Boston from 1996 to 2000, during the go-go years of the first Internet bubble. He is now director of economy, enterprise, and manufacturing at the Royal Society of Arts, in London. The RSA was founded in 1754 to address social challenges. Greenham's online bio says he aims to create "a new kind of economics—one that has human and planetary welfare as its goal."

In his plan, founders and VC firms could not sell shares into the IPO but instead would put them into a trust. The shares would be released only after the company posts two years of consecutive profits. Founders and VCs might take a bit of money off the table at the public offering, say $5 million for individuals and $25 million for VC firms. But otherwise they would have to wait.

DAN LYONS is the bestselling author of *Disrupted: My Misadventure in the Start-Up Bubble.*

If the company becomes profitable, the founders and VCs get rich. "But if the company goes bust, the founders and VCs will never get the money. If it is acquired below the IPO price, their shares could be sold to make good the public shareholders up to the IPO price," Greenham says.

The idea is to create incentives that prod companies to become sustainable. One downside is that some founders might focus too much on the short term, racing to show a profit (and grab their bounty) as quickly as possible. Another is that venture capital would be locked up rather than cycled into other startups. Rules like this also might dissuade VCs from placing ambitious long-shot bets—depriving the world of some "moonshot" ideas. But at least the proposal would "align the interests of founders and VCs with the interests of the public shareholders," Greenham says.

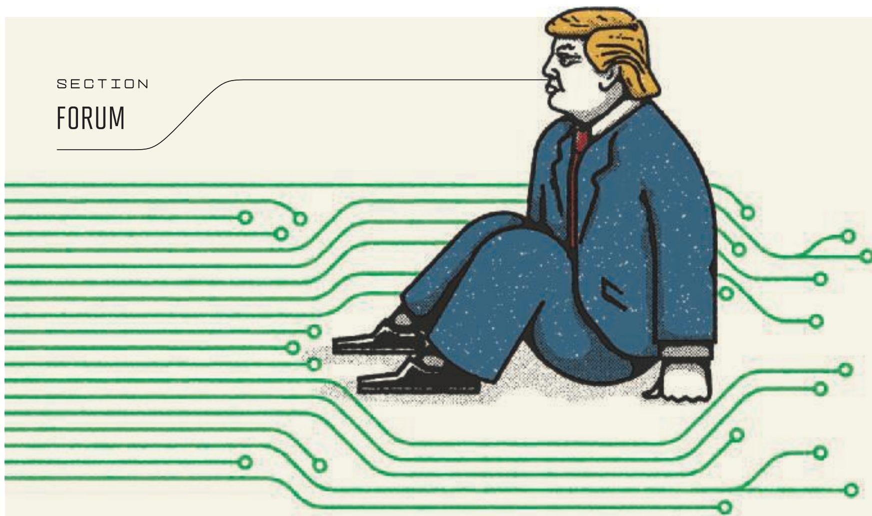
To be sure, this is all kind of pie in the sky. Regulators aren't likely to implement radical changes when markets are booming. And if anything, we seem to be entering a period when regulations on businesses and Wall Street will be loosened rather than tightened.

But that said, bull markets don't last forever. And when markets crater, people always cry foul and howl for reform. We may look back on the past half-decade as an era in which savvy founders and VCs were able to generate billions for themselves by flogging shares to gullible punters.

If and when that reckoning comes, feel free to call forth this "modest proposal." Hey, if nothing else, it'll rile up some VCs. ■

LYONS: GRETCHEN ERTL

▲ ILLUSTRATION BY **SAM ISLAND** FEEDBACK: **LETTERS@FORTUNE.COM**



IN TRUMP TECH (MUST) TRUST

President Trump may be good for Silicon Valley. Cue the cringe. BY ERIN GRIFFITH

"F*CK TRUMP." That was the message Charles River Ventures, a Boston-based venture capital firm, blasted at anyone who visited its website this fall. A page railed against Donald Trump's anti-immigration stance: "If you are for building walls and stopping change, stay away. Bigots need not apply."

It was a potent sentiment shared throughout the tech industry and expressed equally on Twitter, in Medium blog posts, on conference stages, and in campaign donations. One hundred forty-five tech leaders signed an open letter opposing Trump. Amazon CEO and *Washington Post* owner Jeff Bezos declared that Trump is eroding the U.S. democracy. Hewlett Packard Enterprise CEO Meg Whitman, a Republican, donated to Hillary Clinton and called Trump a "dishonest demagogue." No sector of business was more vocal in its opposition.

I say "was" because those sentiments are fading. CRV's homepage has returned to normal. Some venture investors admitted to me that they deleted their anti-Trump tweets. Whitman announced that "it is the obligation of every citizen to support our President." And in December, a cabal of Silicon Valley's top leaders—Bezos among them—trudged to Trump Tower to glad-hand the President-elect.

FOR MORE
Follow Erin Griffith on Twitter (@eringriffith) or at fortune.com/boom.

The reversal has not gone unnoticed. Writer Paul Carr called it Silicon Valley's "Come to Satan" moment. Venture capitalist Chris Sacca shamed the tech leaders for "legitimizing fascism." Worker bees inside tech companies banded together in opposition, pledging to resist Trump's proposal to register Muslims in the U.S.

The dirty secret is that a President Trump will be very good for certain power players in Silicon Valley. Set aside morality—in Trump's America, fiduciary duty comes first. Despite tough campaign talk about consolidation, Trump is not expected to oppose monopolistic behavior. Good news if you're Amazon, Alphabet, or Facebook.

Trump may also benefit startups. A Republican-controlled Congress could end gridlock, creating opportunities to reform laws that are slowing down startups, says Bradley Tusk, CEO of Tusk Holdings, a political consultancy and venture firm known for advising Uber. Areas of interest include contract-worker rights, peer-to-peer lending laws, online gambling restrictions, and scrutiny toward for-profit education.

An extremely business-friendly administration will only help. Elaine Chao, Trump's nominee for Transportation secretary, has signaled a friendliness to the so-called gig economy that includes Uber and Lyft's fleets of part-time drivers. And while the Securities and Exchange Commission has recently started paying closer attention to large private startups, most observers don't expect that to be a focus under Trump.

The prospect of a Trump-size cut to corporate taxes could even send the public markets soaring—just the thing to jump-start a string of long-overdue tech IPOs.

It could be huge. Trust me. F

▲ ILLUSTRATION BY **MICHAEL GEORGE HADDAD**

THE/DRIVE
WHERE CARS + CULTURE MEET
TAKE A RIDE WITH US.
THEDRIVE.COM
/thedrive
@thedrive
@thedrive

THE STRATEGIC SUPPLY CHAIN

HOW COMPANIES ARE RIDING THE CLOUD TO COMPETITIVE ADVANTAGE

TO GROW CUSTOMER RELATIONSHIPS and penetrate new markets, leading companies need supply chains to do a lot more than fulfill orders. These complex global networks have to read market signals in real time, pivot swiftly, and implement design changes that reflect what works now—not what worked last year or even last quarter.

Bringing operations to that level can be a tall order, but firms are getting there by leveraging a game-changing tool: the cloud.

This software-as-a-service technology is eliminating guesswork in complex global supply chains. Plugging suppliers, distributors, and customers into a single platform in cyberspace is allowing for unprecedented visibility and efficiency. No more outdated directives, costly lag periods, or long waits for status updates from manufacturing or shipping divisions. That's all history when everyone is reading a common set of data that's constantly up to date.

"You still have to forecast, produce stuff, store it, and ship it downstream—those physical aspects still exist," says Rick Blasgen, president and CEO of the Council of Supply Chain Management Professionals. "But now the information that's attached to it—and that you use to make decisions—is much better and much more timely."

Companies are jumping at the opportunity. Sixty percent of those that outsource to third-party logistics providers, or 3PLs, are leveraging the cloud's massive and versatile power, according to the 2016 Third-Party Logistics Study.

"Cloud technology is helping 3PLs and shippers reduce transportation costs, improve visibility, manage inventory, and achieve regulatory compliance, addressing several of the top challenges shippers face," according to a joint study by Capgemini Consulting and C. John Langley Jr., a professor of supply chain management at Penn State University.

Here's how it works: Rather than build and maintain in-house IT portals, firms now steer customers and suppliers to a cloud-based platform such as GT Nexus.

Acquired by enterprise software company Infor last year for $675 million, GT Nexus has 27,000 customers, including Levi's and Columbia Sportswear. One GT Nexus customer, Caterpillar, cut costs by $150 million as heightened visibility allowed the heavy-equipment manufacturer to purge inefficiencies and shave three days off its production cycle.

"When you get rid of all the paper, you can not only reduce costs by improving visibility and knowing where everything is, you can also reduce costs by automating processes," says GT Nexus president Kurt Cavano. "Payables is one of those examples."

60%

OF COMPANIES THAT OUTSOURCE TO THIRD-PARTY LOGISTICS PROVIDERS, OR 3PLS, **ARE LEVERAGING THE CLOUD'S MASSIVE AND VERSATILE POWER**.

—2016 THIRD-PARTY LOGISTICS STUDY

The cloud is also powering competitive advantage. Take Adidas: The athletic apparel giant uses the GT Nexus platform to fulfill individual orders for custom-made sneakers. What used to be fodder for science fiction is now reality—and very lucrative. Asian factories are plugging into the cloud and shipping personalized footwear to Adidas customers in Europe and North America.

"It's only costing them wholesale, plus a little extra shipping and a little extra manufacturing, so for them the margins are huge," says Cavano. "It's rethinking how you deliver to the customer and having the ability in the supply chain to be able to do that."

With end-to-end transparency and big data analytics, companies are translating cloud power into lean fulfillment processes and highly satisfied customers. Supply chain complexity is no albatross, it turns out, when the right tools are brought to bear to manage it.

CSCMP Council of Supply Chain Management Professionals
Educating and Connecting the World's Supply Chain Professionals.™

Global trade can open up a whole new world. Unless you're doing it the same old way.

There's a world of opportunity out there for your company. But it's not enough just to think globally; you need to act globally, too. At GT Nexus, we offer you the most powerful cloud-based, single-platform solution available anywhere. Instead of merely staying in touch with your trading partners, now you can turn your entire supply chain into a single, fine-tuned global moneymaking machine. On-demand and in real time, you'll be able to respond to every opportunity and every challenge with the kind of speed and precision you've never known before. It's time to say "out with the old, in with the new."

GT NEXUS™
an Infor® company

gtnexus.com

BREAKTHROUGH BRANDS

HOW AIRBNB FOUND A MISSION—AND A BRAND

THIS EXCERPT FROM LEIGH GALLAGHER'S UPCOMING *THE AIRBNB STORY* REVEALS HOW THE COMPANY SEARCHED FOR ITS SOUL—WITH SOMETIMES PAINFUL RESULTS—AND DEEPENED ITS CONNECTION TO CUSTOMERS.

PHOTOGRAPHS BY **JOE PUGLIESE**

Brian Chesky rued the fact that "mass-produced and impersonal travel experiences" had become the norm. Along the way, he says, "people stopped trusting each other."

Airbnb has been one of the signature successes of the "sharing economy." Along with Uber, it's a young brand that has penetrated consumers' consciousness—and rung up a $30 billion valuation—so quickly that many people already use it as a verb. (As in, "Let's go to Miami for the weekend. We'll Airbnb a place by the beach!") In her upcoming book, *The Airbnb Story: How Three Ordinary Guys Disrupted an Industry, Made Billions … and Created Plenty of Controversy,* Leigh Gallagher takes readers inside the company's rise. Gallagher, an assistant managing editor at *Fortune,* identifies how Airbnb astutely expanded its brand from one known for putting budget travelers in people's living rooms to endless exotic options (tree houses, anyone?) to renting ultra-high-end gems to the likes of Gwyneth Paltrow. The book explores Airbnb's significant challenges along the way, from battles with regulators to racial discrimination and other unwelcome behavior on its platform, but also how, with 140 million "guest arrivals" since its launch in 2008, it has clearly struck a chord with consumers. In the following excerpt, Gallagher examines how cofounder and CEO Brian Chesky's search for a mission for employees turned into a rebranding for the whole company, a revealing process that spotlights the interplay between what can be seen as a company's soul and the way it engages with the outside world.

SOMETIME IN 2013, Airbnb started thinking about reorienting its entire mission and center of gravity to better articulate the elements that made using its platform so unique. Douglas Atkin, the company's new global head of community, began by posing the questions, "Why does Airbnb exist? What's its purpose? What's its role in the world?" The answers to those questions, as Atkin puts it, would become "the rudder that guides the whole ship."

Atkin is an expert on the relationship between consumers and brands and the author of *The Culting of Brands*. He and his team interviewed 480 employees, guests, and hosts around the world. Again and again, he says, he heard guests saying that "the last thing they wanted to be is tourists." That felt too passive to them. Airbnb customers wanted to engage with people and culture; they wanted to be insiders.

A single idea began to emerge: the notion of "belonging." By mid-2014 the company had settled on a repositioning around this concept. Airbnb had a new mission statement: to make people around the world feel like they could "belong anywhere."

The company had a new logo to symbolize this: a cute squiggly shape it called the "Bélo," the result of months of conceiving and refining. It had been named by Airbnb's chief marketing officer, Jonathan Mildenhall, who had recently joined from Coca-Cola. Mildenhall also persuaded the founders to expand "Belong anywhere" from an internal mission statement to the company's official tagline.

In July 2014, Airbnb introduced the rebrand, as well as a redesign of its mobile app and website. Chesky explained the concept in a cerebral, high-minded essay on Airbnb's website: A long time ago, he wrote, cities used to be villages. But as mass production and industrialization came along, that personal feeling was replaced by "mass-produced and impersonal travel experiences," and along the way, "people stopped trusting each other."

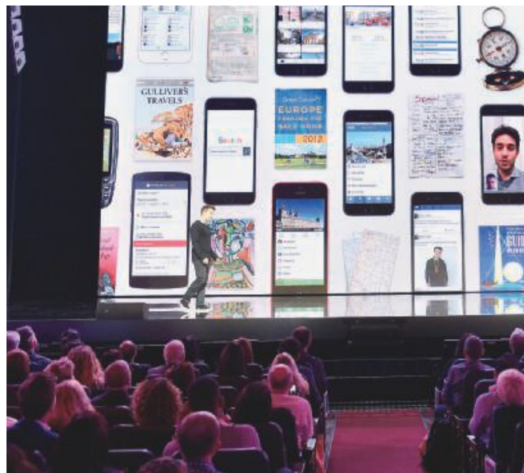
Airbnb, he wrote, would stand for something much bigger than travel; it would stand for community and relationships and using technology for the purpose of bringing people together. Airbnb would be the one place people could go to meet the "universal human yearning to belong." The Bélo itself was carefully conceived to resemble a heart, a location pin, and the "A" in Airbnb. It was designed to be simple, so that anyone could draw it. Indeed, the company invited people to draw their own versions of the logo—which, it was announced, would stand for four things: people, places, love, and Airbnb.

To say Airbnb can be idealistic is an understatement. The media were skeptical, to put it mildly. TechCrunch called "Belong anywhere" a "hippy-

dippy concept," while others wondered whether it was really warm and fuzzy "belonging" that drove people to Airbnb or whether they just wanted a cheap and cool place to stay. Media outlets lampooned the Bélo, not for its idealism so much as its shape, which they said looked alternately like breasts, buttocks, and both male and female genitalia all at once. Within 24 hours the sexual interpretations of the logo had been curated and posted on a Tumblr blog. "Nothing says temporary home like the vagina-butt-uterus abstraction that Airbnb chose as its new logo," tweeted reporter Katie Benner, now of the *New York Times.*

I, too, was skeptical—not of the logo, but of the "belonging" concept—at first. I thought it meant spending time with the person who lived in the space you rented. In the few times I had used Airbnb, I hadn't met or seen my host and didn't want to; I mainly wanted to save money.

But "belonging" in the Airbnb-rebrand context didn't have to be about having tea and cookies with the person whose place you're staying in. It was much broader: It meant venturing into neighborhoods that you might not otherwise be able to see, staying in places you wouldn't normally be able to, bunking in someone else's



Clockwise from top left: Chesky onstage at the Airbnb Open, its annual gathering of hosts, in 2016; guests at another event during the Open; Snoop Dogg promoting Airbnb at South by Southwest in 2014; a protester in San Francisco charges that landlords evicted tenants to facilitate Airbnb rentals; actor James Franco's Hollywood Airbnb pop-up promotion. Below: Chip Conley, the company's head of global hospitality and strategy.

CLOCKWISE FROM TOP LEFT: STEPHANIE KEENAN—GETTY IMAGES (2); VIVIEN KILLILEA—GETTY IMAGES; JUSTIN SULLIVAN—GETTY IMAGES; CHRIS WEEKS—GETTY IMAGES. CENTER: BERNARD WEIL—TORONTO STAR/GETTY IMAGES

space, and having an experience that person "hosted" for you, regardless of whether you ever laid eyes on him or her. When I booked a place through Airbnb in Philadelphia, I warily pushed open the door to an apartment in a run-down walk-up in Rittenhouse Square to find an inviting studio with high ceilings; walls lined with books; cozy, minimalist decor; and a string of twinkly lights hanging over the fireplace. I liked everything about "Jen's" place, from her book collection to the towels she'd fluffed and folded, to the handwritten card she left for me. (It helped that Jen and I had the same aesthetic taste, but then that's precisely why I picked her listing.)

Whatever the press thought of the rebrand, Airbnb's users seemed to get it. Over the next few months, more than 80,000 people went online and designed their own versions of the logo, a rate of consumer engagement that would be considered off the charts by larger brands. Airbnb even embraced the logo hubbub. Atkin, who spearheaded the journey to "belonging," later referred to it as "equal-opportunity genitalia."

Cofounder Nathan Blecharczyk is Airbnb's CTO, but his role has broadened over the years. He's also a host: He has had 178 guests in his home in the past two years.

AS A COMPANY, Airbnb had a third constituency it needed to enlist: not just employees and guests, but the people who rent out their houses and apartments. It wasn't enough just to get the hosts to sign on and to offer their spaces; the company had to get them to work hard to offer a good experience. The number of Airbnb listings dwarfs the quantity of rooms in even the largest hotel chains, but it neither owns nor controls any of the inventory, nor the behavior of any of the people offering it.

The founders knew this from the earliest days, when persuading people to list their spaces was a struggle. But it wasn't until late 2012, when Chesky read an issue of *Cornell Hospitality Quarterly,* the journal of the esteemed Cornell University School of Hotel Administration, that he started thinking more seriously about the experience the company was offering. He decided they needed to transform Airbnb more deeply from a tech company into a hospitality company.

Shortly after that, Chesky read *Peak: How Great Companies Get Their Mojo From Maslow.* The book's author was Chip Conley, founder of the Joie de Vivre boutique-hotel chain, which grew to 38 boutique properties before he sold a majority stake in 2010.

Conley had become something of a guru. In *Peak,* he explained how he had saved his company in the wake of 9/11 and the dotcom bust by applying the psychologist Abraham Maslow's hierarchy of needs—the pyramid of physical and psychological needs humans must have met in order to achieve their full potential, with food and water at the bottom and self-actualization at the top—to corporate and individual transformation. Chesky saw in Conley both business and hotel savvy and perhaps a kindred idealism. (Conley talked about wanting his guests to check out three days later as a "better version of themselves.")

Chesky lobbied Conley and eventually recruited him into a full-time position, in the fall of 2013, as global head of hospitality and strategy. Conley was fascinated by the challenge of democratizing hospitality, which had become "corporatized." He wanted to "take it back to its roots."

Conley traveled to 25 cities, giving talks and offering tips to help apartment dwellers channel their inner innkeeper. He set up a centralized hospitality-education effort, created a set of standards, and started a blog, a newsletter, and an online community center where hosts could learn and share best practices. He developed a mentoring program wherein experienced hosts could teach new ones good hospitality.

Among the mandates and suggestions now articulated in Airbnb's materials: Aim to respond to booking queries within 24 hours. Before accepting guests, try to make sure their idea for their trip matches your "hosting style"; for example, if someone is looking for a hands-on host and you're private, it may not be the best match. Communicate often and provide detailed directions. Establish any "house rules" (if you'd like travelers to take their shoes off or not smoke) very clearly. Clean every room thoroughly, especially the bathroom and kitchen. Bedding and towels should be fresh. Want to go beyond the basics? Consider sprucing up the room with fresh flowers or providing a treat upon check-in, like a glass of wine or a welcome basket. Do these things, he says, even if you're not present during the stay.

MONTHS AFTER ADOPTING "BELONG ANYWHERE" AS A TAGLINE, CHESKY ASKED, "WHAT DOES IT ACTUALLY MEAN?"

HOW HOTELS ARE STARTING TO IMITATE AIRBNB

Why you might thank Brian Chesky for the unique art on the wall of your guest room.

OVER THE YEARS, Airbnb and the hotel industry have largely maintained a nonaggression pact. The incumbents tended to pooh-pooh the potential threat posed by the upstart, and the upstart insisted it has absolutely no desire to take business from the incumbents. "For us to win," Chesky is fond of saying even today, "hotels don't have to lose." Until now, that's been largely true, with Airbnb enjoying astonishing growth and the hotel industry reaching record occupancy in 2015.

But, increasingly, each side is making incursions in the other's terrain (not to mention more contentious efforts, as the hotel lobby funds the regulatory fight against Airbnb). Chesky's company has designs on the lucrative business-travel market, courting corporate customers like Google and Morgan Stanley and creating a new classification of "business travel ready" room options.

And the hotel chains are starting to experiment with ways to tap into the "home-sharing" boom themselves. In 2016, AccorHotels, the France-based parent of Raffles, Fairmont, Sofitel, Swissôtel, and others, acquired the short-term-rental startup Onefinestay, which offers luxury accommodations in private homes with the high-end service of a hotel. Accor also invested in Oasis Collections, another startup pushing a "home-meets-hotel" concept.

Airbnb-style individualism is seeping into hotels, with more seeking to customize the look of individual rooms—once anathema in a business that thrived on uniformity—and granting employees more latitude in how they interact with customers to inject more "humanity" into the experience. Thomas Cook is experimenting with a "Casa Cook" hotel, which the company describes as "like staying at a friend's house, where the kitchen is always open." A microchain, Freehand Hotels, offers separate—or shared—rooms to appeal to the budget-travel set. Last year, Choice Hotels, which owns Comfort Inn, EconoLodge, Quality Inn, and other brands, launched Vacation Rentals by Choice Hotels, a partnership with vacation-rental management companies, to offer an alternative to hotel rooms.

Big Business has often joined disruptive trends—frequently after discovering they can't beat them. In recent years, after shaving-club newbies Dollar Shave Club and Harry's struck a chord with millennials, Gillette started its own alternative, and Unilever bought Dollar Shave Club for a reported $1 billion. And packaged-food giants have hustled to catch up with the shift toward natural and organic offerings: Campbell Soup Co. acquired Bolthouse Farms and Plum Organics, and meat-processing giant Tyson Foods went so far as to take a stake in a plant-based, protein-alternative startup called Beyond Meat.

Of course, the same has happened before in the hospitality industry. It wasn't that long ago that boutique hotels—Ian Schrager's Morgans, which opened in New York City in the 1980s was one of the first—were considered revolutionary. Now almost every hotel company has its own twist on the concept. So will we see "At Home by Marriott" or "Hilton HomeShares"? Not tomorrow. But maybe sometime soon.

IN NOVEMBER 2014, four months after Airbnb launched "Belong anywhere" as its mission, Chesky went back to Atkin. He said he loved "Belong anywhere," and he truly felt it would be the company's mission for the next 100 years. But he still had some pressing questions: What does the phrase actually *mean*? How do you measure it? How does it happen?

Chesky dispatched Atkin on another focus-group odyssey to figure it out. When Atkin came back, after talking to another 300 hosts and guests, he had an answer: Belonging anywhere wasn't a single moment; it was a transformation people experienced when they traveled on Airbnb. The company has codified this as the "belong anywhere transformation journey." It goes like this: When travelers leave their homes, they feel alone. They reach their Airbnb, and they feel accepted and taken care of by their host. They then feel safe to be the same kind of person they are when they're at home.

Airbnb cofounder Joe Gebbia is now the company's chief product officer. Gebbia first contacted Douglas Atkin, who led the company's rebranding, after reading his work.

When that happens, they feel like freer, better, more complete versions of themselves, and their journey is complete. This is Airbnb-speak, and while it may sound hokey to the rest of us, many would say this is a huge reason Airbnb took off. There is a cultlike devotion among Airbnb's truest believers, who embrace this vision. (During his focus-group travels exploring the meaning of Airbnb, Atkin encountered one host in Athens who had painted "Belong anywhere" on his bedroom wall, and another in Korea who had changed her name to a Korean phrase meaning "welcome to my house.") But whether or not it is a "transformation journey" for the average traveler, Airbnb has enjoyed success that is about something more than just low prices and easy access to quirky spaces. It touches on something bigger and deeper.

The opportunity to show some humanity or to receive some expression of humanity from others has become rare in our disconnected world. This is another element about Airbnb (and other short-term-rental services) that makes it different from other aspects of the so-called sharing economy. At its core, Airbnb involves the most intimate human interactions: visiting people in their homes, sleeping in their beds, using their bathrooms.

That is precisely what makes it objectionable to so many people who can never imagine using it. But it's also what makes it unique. This kind of "sharing" is not present when you hire a person to fix a leak on TaskRabbit, or when you get into someone's air-conditioned black car for a silent ride to the airport. More than anything else, it is this aspect of Airbnb that distinguishes it from Uber, Lyft, and any other of its sharing-economy peers. Elisa Schreiber, marketing partner at Greylock Partners, an investor in the company, summarized this distinction concisely after we got to talking about it one day. "Uber is transactional," she said. "Airbnb is humanity." ■

Excerpted from *The Airbnb Story: How Three Ordinary Guys Disrupted an Industry, Made Billions ... and Created Plenty of Controversy*, by Leigh Gallagher, to be published on Feb. 14, 2017, by Houghton Mifflin Harcourt. Copyright ©2017. Used by permission.

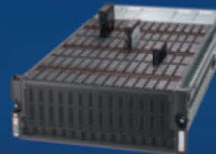
SUPERMICRO

The Fastest Growing IT Infrastructure Company in the Fortune 1000

OVERALL RANKING	
2016	COMPANY
#18	SUPERMICRO SILICON VALLEY

MicroBlade

All Flash NVMe Solutions



High Capacity Data Storage

HPC Solutions

Twin Architecture

Internet of Things

Intel Inside®.
Powerful Productivity Outside.

5x

We began with a bold vision to lead the IT industry with the greenest portfolio of server and storage products powered by Intel® Xeon® Processors. With greater than 30% yearly growth over the past 6 years we have achieved that vision and are looking towards an even brighter future.

Learn more at www.supermicro.com

Intel, the Intel logo, Xeon, and Xeon Inside are trademarks or registered trademarks of Intel Corporation in the U.S. and/or other countries.

BREAKTHROUGH BRANDS 2017

AIRBNB ▸ INSTAGRAM ▸ SLACK ▸ SNAPCHAT ▸ SPOTIFY

MY SACRED RULES OF BRANDING

TIM FERRISS, EARLY-STAGE INVESTOR (UBER, FACEBOOK, TWITTER, ALIBABA, ETC.) AND AUTHOR OF THE NO. 1 *NEW YORK TIMES* BESTSELLER *TOOLS OF TITANS: THE TACTICS, ROUTINES, AND HABITS OF BILLIONAIRES, ICONS, AND WORLD-CLASS PERFORMERS.*

1. INSTEAD OF FIXATING ON THE OFTEN NEBULOUS "BRAND," think of how you can "own a category" in the minds of 1,000 die-hard fans who can then act as your strongest marketing force. If you can't be No. 1 or No. 2 in a category ("Uber for X," imported light beer, low-cost airline, whatever), find or create another category.

FERRISS: ANDREW KELLY

HROUGH

WHAT DOES IT TAKE FOR A BRAND to truly break through in today's crowded market? Just as it has with everything else, digital transformation has upended the traditional rules of marketing. In less than a decade brands like Uber and Airbnb have attained the kind of consumer mindshare that companies used to have to work decades to create. Part of this is the simple fact that most of these newer brands are technology companies; they provide products and services that themselves can be built almost overnight, thanks to the proliferation of smartphones, cloud computing, and fast, free, and universally accessible digital tools. But many of these brands are also resonating on a deeper level with consumers. We wanted to get to the bottom of which companies best exemplified this—those brands that have attained the emotional resonance with consumers typically reserved for big blue-chip companies, but in a fraction of the time. So we surveyed 4,000 consumers and asked them to name the brands that meant the most to them, both overall and across a variety of industries. We then sorted the list by industry, category, and age to come up with our list of 10 "Breakthrough Brands"—companies that, when measured on the basis of how they resonate with consumers, sit side by side with Apple, Coca-Cola, Disney, and other mature brands despite being relative babes. The 10 names here are new and white-hot; they are all tech companies; and they have all "broken through" to claim space among the giants. All but two of them are less than a decade old.

We've also shared some other key findings from our survey, like the brands that received the most mentions overall—those that may have broken through decades ago but still register highly in consumers' minds. On that list, Apple trounced everyone else. But it's the breakthrough brands of today that we find most compelling. These are the ones that are best positioned to become the Apples of tomorrow.

SQUARE ▸ TESLA ▸ UBER ▸ VENMO ▸ WAZE

2. DON'T MAKE A PRODUCT FOR "EVERYONE." If everyone is your market, no one is your market. Particularly with the first versions of your product or service, it's better to have 1,000 people who *love* you (and many who hate you) than 100,000 who think you're kinda, sorta cool. *"Great"* to 1,000 edge-case nerds beats "good" to 100,000 of anything else, every time. In a social-sharing-driven world, cultivate the intense few instead of the lukewarm many.

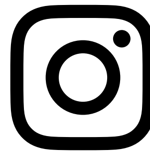
3. FORGET BRANDING. Think about consistently over-delivering one or two benefits to your customers/users/fans. Branding is a side effect of consistent association. Don't put the cart before the horse. Put good business first, and good "brand" will follow.

SURVEYS CONDUCTED BY MORNING CONSULT AND TIME INC.

AIRBNB

FOUNDED: **2008** | HEADQUARTERS: **SAN FRANCISCO**

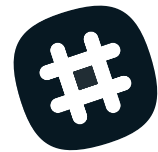
A PAYMENTS APP or a messaging service is one thing. Opening up peoples' homes to let strangers stay in them? Well, that's just *crazy*. That's what lots of smart people thought back in 2008 when Airbnb's founders were trying to get their startup off the ground. Some 140 million "guest arrivals" later, it has reimagined travel, building an online platform for home-based accommodations with lush, inviting photography, an easy interface, and appealing prices, all wrapped in the cozy image of "belonging." This company has its challenges, like discriminatory behavior by its users and pushback from regulators—but breaking through has not been one of them. *—Leigh Gallagher*



INSTAGRAM

FOUNDED: **2010**
HQ: **MENLO PARK, CALIF.**

CANDID PHOTOS OF FRIENDS with a vintage patina, vistas with vivid hues, close-ups of fancy cocktails—Instagram's 2010 debut made everyone seem like a shutterbug—and everyone could be, thanks to the app that brought professional-grade photo tools to the iPhone-holding masses. But Facebook's billion-dollar acquisition of the fast-growing photo app in 2012 accelerated everything. Then Instagram had 30 million users; today it has more than 500 million. What started as a faddish distraction developed into a full-blown social network. Once a serious threat to Facebook, Instagram is now a critical pillar (alongside WhatsApp, Oculus VR, and the company's namesake service) of its $25 billion business. And you can still use it to take a great photo. *—Andrew Nusca*



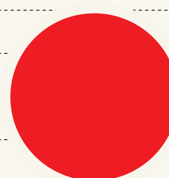
SLACK

FOUNDED: **2009**
HQ: **SAN FRANCISCO**

WORKPLACE CHAT SERVICE Slack was an accidental success. Originally developed as an internal tool, the company—then named Tiny Speck—took a big bet on launching it to the outside world in 2013 after its original product, a videogame named *Glitch*, wasn't paying off. Slack wasn't the first app for chatting with coworkers—HipChat, Yammer, and others came before it—but it had a quirky design and slick user interface, and perhaps most critically, it came at just the right time: taking the tech industry by storm as it spread among the then-exploding number of new Silicon Valley startups. Today the service has more than 4 million daily active users—1.25 million of them paying—and Slack's colorful plaid logo has become an icon in Silicon Valley. *—Kia Kokalitcheva*

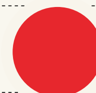
THE ALL-STAR BRANDS

AS PART OF OUR METHODOLOGY, we asked respondents to name one company in any category that best exemplified a breakthrough brand. Apple topped the list—and got more than three times the mentions of the runner-up, Walmart. Here are the top 15.

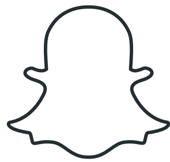


APPLE
1,229

WALMART
396



GOOGLE
346



SNAPCHAT

FOUNDED: **2011**
HQ: **VENICE, CALIF.**

PLENTY OF PARENTS are still thoroughly confused by the mobile ephemeral-messaging app, but that doesn't matter to Snapchat, which has achieved the holiest of holy grails: capturing the fickle hearts—and precious time—of teenagers and young adults the world over. It now has 150 million daily active users, numbers that have prompted attempts by Facebook and Instagram to copy some of Snapchat's most popular features. The ambitions of parent company Snap have grown in lockstep with Snapchat's scale as it moves beyond mobile apps for sending photos and reading bite-size news from media giants like ESPN and *People*: In the fall, Snap unveiled its first pair of video-recording sunglasses, called Spectacles. *—Kia Kokalitcheva*

SPOTIFY

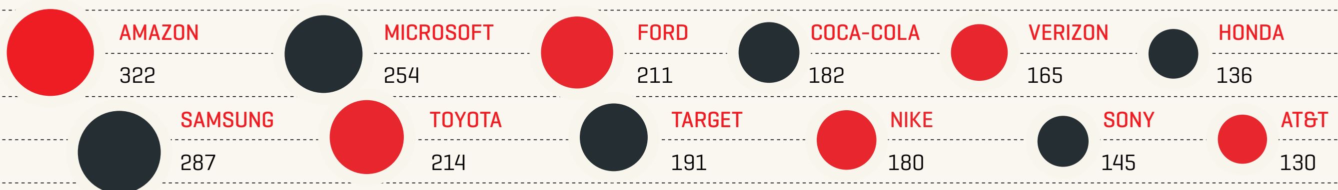
FOUNDED: **2006** | HQ: **STOCKHOLM**

SPOTIFY HAD ITS FIRST BREAKTHROUGH MOMENT back in 2011, when a Facebook partnership introduced the Swedish streaming service to the U.S. market and it went from a little-known cult favorite to a popular service. But it's not until you tangle with Taylor Swift that you really hit the big time. When the pop superstar pulled her music from Spotify's catalog and penned a critique about its artist compensation practices in 2014, she inadvertently lent her celebrity to the brand. Since then, the company has ballooned from 12.5 million paying listeners to the 40 million it has now, nudging millions of would-be song pirates into the paid-subscriber camp. Apple Music and others are on its heels, but Spotify's early lead—and Swiftgate—solidified its position in a competitive market. *—Robert Hackett*

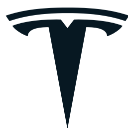
SQUARE

FOUNDED: **2009**
HQ: **SAN FRANCISCO**

JACK DORSEY'S other company, Twitter, gets all the attention—good and bad. But Dorsey also runs Square, the company whose little white dongles changed small business forever. The idea was simple enough: Give away small credit card readers that connect to mobile phones and tablets and charge the same rate for each transaction, regardless of the type of card. Square was the first to make that easy, and along with its user-friendly accounting services, it fast became a tool of economic empowerment for tutors, dog walkers, and shingle hangers of all stripes. Dorsey may or may not remain Square's leader, but he has already made a lasting imprint on the way we pay for—and sell—goods and services. *—Michal Lev-Ram*



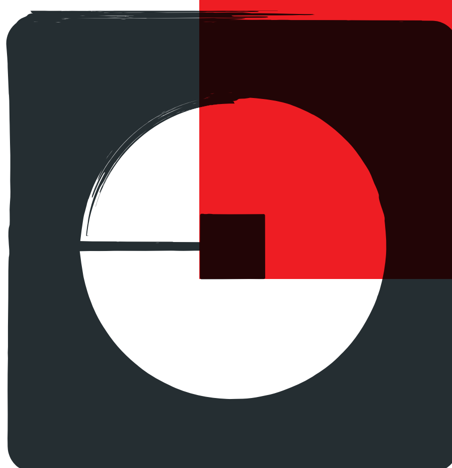
BREAKTHROUGH BRANDS 2017



TESLA

FOUNDED: **2003**
HQ: **PALO ALTO**

ELON MUSK doesn't have customers. He has *followers.* Not since Steve Jobs has a company's product been so closely aligned with the person who brought it to them. In Musk's case, his customers admire not just his raw ambition but his ideology: He has made it cool to want a carbon-emissions-free world. After several rocky years, Tesla began to hit its stride when the Model S, its all-electric luxury sedan, was named the 2013 Car of the Year by *Motor Trend*—the first time in the award's 64-year history that its winner was not powered by an internal-combustion engine. Tesla's next act, its upcoming Model 3, isn't expected to ship until the end of 2017, but 373,000 customers have already plunked down $1,000 to reserve one. —*Kirsten Korosec*



UBER

FOUNDED: **2009** | HQ: **SAN FRANCISCO**

FEW COMPANIES EVER SEE their name become adopted as a verb, but for Uber it happened almost out of the gate. The ride-sharing startup quickly grew from a fun way to summon a black car with a mobile app to a business currently valued at nearly $70 billion. Though Uber has competitors around the world, its "win at all costs" attitude—including often rattling local lawmakers—helped it establish dominance in many markets, including the U.S. Today it operates in more than 70 countries and isn't limited to shuttling people around; it also delivers hot meals, is developing autonomous-driving technology, and dreams of a future with flying cars. —*Kia Kokalitcheva*

VENMO

FOUNDED: **2009**
HQ: **NEW YORK CITY**

FROM JUNE to September last year, nearly $5 billion was sent through popular payments app Venmo for everything from sending in rent to your landlord to paying your friend back for covering for you at dinner the other night. PayPal inherited the popular app—which lets people send money to one another instantly from their phones—as part of its $800 million acquisition of Braintree. Venmo first drew a cult following among younger users, who liked its mobile and social elements and distrusted "bigger" brands like PayPal. But it's now becoming the shining star in PayPal's portfolio of digital-wallet apps, on track to process $20 billion a year—and to never let anyone mooch from his or her friends again. —*Leena Rao*

OLD BRANDS, NEW MOMENTS

TRADITIONAL BRANDS AREN'T DEAD—far from it. Consider Apple, which got more mentions than any other brand in our survey. Or consider these three brands that made our list—legacy names by any definition that are having a resurgence.

Disney is in the midst of a hot streak that kicked off the moment Princess Elsa appeared on-screen in 2013's *Frozen,* its 53rd animated feature.

America's most famous denim brand has won plaudits both for its sustainability principles and for barring customers from bringing guns into its stores.

WAZE

FOUNDED: **2008**
HQ: **MOUNTAIN VIEW, CALIF.**

NAVIGATION SYSTEMS existed long before Waze came onto the scene in 2008. (If it isn't obvious by now, a brand need not be first to be a breakthrough.) But its unique community-driven navigation service helped it stand out by making it fun and social for drivers to contribute road updates, like alerts about construction or accidents. By the time Google—which already had its own popular mapping app—beat out other companies to acquire the Israeli startup for more than $1 billion in 2013, Waze had 50 million users. Now based in Mountain View, it's growing its influence in the ride-sharing space, via a partnership with Lyft and its own nascent car-pooling service in the Bay Area.
—*Kia Kokalitcheva*

HOW TO BUILD A BREAK-THROUGH BRAND

JIM STENGEL | FORMER CMO | PROCTER & GAMBLE

THERE HAS ALWAYS been some science to the high art of brand building: Identify what the brand is supposed to stand for and whom you are trying to reach. Build a strong messaging platform. And target your resources to the right media. That approach is still accurate, yet both the way consumers evaluate brands and the method by which their meaning is disseminated have changed completely. *Fortune*'s Jennifer Reingold spoke with **Jim Stengel,** head of branding consultancy the Jim Stengel Co. and former global marketing head at Procter & Gamble, to get some perspective.

What are the biggest changes you see in building a brand today vs. 10 or 20 years ago?
People are really trying to convey a sense of purpose. I don't think that's a fad; it's been with us for several years, and people are getting better at it. At the recent ANA [Association of National Advertisers] meeting, there were several remarkable stories about employee enablement of the company's purpose.

One was Mattel. Barbie has been in a funk for a long time, and no one knew what to do with her. They went back to when the company was founded. What did the founder hope Barbie would do? The original intent was to get girls to think of themselves in various roles and inspire confidence through play.

What other changes are there?
We have to look at the rise of the "story" brands. They have a story that's easy to access and understand. There's a willingness to be human and have a personality and have some fun. They behave like a friend behaves.

Social media has got to be the biggest single difference in how a brand's message gets out.
It's enormous. It lets you create advocates and to have a dialogue, to learn more, and to react. The brand building is about fully engaging those who are potential advocates. You have to be okay with lots of people talking about your brand—and give them license to do so.

Social media can also really harm a brand—and quickly. How do you deal with that?
You have to be willing to jump on [problems] when they happen. Before, you had more time to think. That requires a different decision-making process and a fast, nimble, and empowered team.

When Starbucks stumbled on its race initiative, it didn't have lasting impact. They blew right by it because everyone knew their intent was good. And they quickly said, "We didn't get that right." It was very human.

Some big brands that have always relied on scale to get their message out have stumbled. Why?
Scale is not bad. But it's not the competitive advantage it used to be. For one, everyone is now selling through different channels. Another shift is the incredible rise in computing power and data available to everyone. Also, the ecosystems in marketing are different. You can't underestimate the overwhelming influence of Google and Facebook. F

The retail giant is one of the industry's top performers and is beloved by its affluent clientele. Now it's finally turning its focus toward e-commerce.

STENGEL: GINO DEPINTO

WORKSITE WELLNESS 2.0

BEYOND BLOOD PRESSURE AND CHOLESTEROL: A NEW DEFINITION OF WELLNESS

WORKPLACE WELLNESS HAS TRADITIONALLY MEANT health assessments, weight loss and biometric screenings. No longer. “Instead of wellness, think well-being,” says Michael Sokol, MD, chief medical officer at WebMD Health Services. That encompasses everything from financial well-being and mindfulness to resiliency, social networks and work-life balance.

This “pivot,” explains LuAnn Heinen, vice president for workforce well-being, productivity, and human capital at the National Business Group on Health, comes as the largest generation in history, the millennials, enters the workforce: “They want a workplace that is energizing as well as collaborative.” Even such seemingly mundane things as workspace lighting and access to the outdoors become part of well-being.

Because well-being is so important to millennials, they are more likely to use well-being programs and solutions than their older counterparts. That’s one finding from an independent survey from WebMD Health Services of millennials and their attitudes to health and well-being. The survey also found that a company’s environment is often a factor in whether millennials join a company or stay there. Thus, Sokol notes, employers should think about well-being programs as part of a recruitment and retention strategy for this population segment.

Heinen echoes that sentiment: “Healthcare costs are not the sole focus anymore. Instead, it’s business outcomes that really matter, be it recruitment and retention or Net Promoter Scores.”

Sokol’s and Heinen’s observations were also highlighted in a research report from the Transamerica Center for Health Studies and the Institute for Health and Productivity Studies at the Johns Hopkins Bloomberg School of Public Health. After conducting a thorough review of the literature, researchers found that the strongest workplace wellness programs create a culture of health, intertwining individual-level health promotion efforts with overall company goals and objectives. They also ensure that leadership and the workplace environment support healthy choices.

Any well-being program, however, must be carefully planned, and individualized for the various segment’s workforce, says Sokol. “You need to have a formal strategy with a vision, mission and objectives,” he says. Just as important is that the plan have the support and sponsorship of executives at the highest levels in the company.

In addition, he says, “the strategy should be multi-year, with clear expectations.” It should cover the entire healthcare continuum, including healthy people and those with chronic or acute diseases, as well as their families.

Finally, Sokol emphasizes, “All the elements of the initiative—programming, education and engagement, work environment, communications and promotions, and measurement—should be interconnected and function in a holistic manner.”

The result can be well worth the effort, says Heinen: “The happiness of your customers is a direct reflection of how happy and engaged your employees are.”

ISTOCK

A HEALTHY SERVING OF

Strategy Sessions

Well-being means more than thinking big only at work.

At WebMD Health Services, we recognize that well-being includes the rewards of a job well done, but it also means spending time with family. That's why we approach well-being differently. We offer configurable programs that are continually updated to meet the changing needs of the individual. Our goal is to help energize a culture of well-being with programs that go beyond the ordinary, to achieve results that exceed expectations.

FOR MORE HEALTHY SERVINGS, VISIT US AT
webmdhealthservices.com

A different approach to wellness.

WebMD
health *services*

▲ ILLUSTRATION BY **ALCONIC**

THE UGLY UNETHICAL UNDERSIDE OF SILICON VALLEY

Silicon Valley's startup scene celebrates iconoclasts and romanticizes rule breakers. But as scandals pile up, it's time to ask whether tech entrepreneurs are taking "fake it till you make it" too far.

By ERIN GRIFFITH

VINOD KHOSLA DID NOT SHOW UP at TechCrunch Disrupt to be harangued by some smartass, know-nothing journalist. The venture capitalist came to talk about disruption and revolutions to an audience of 1,000 potential disrupters and revolutionaries, laptop glow illuminating their faces in a San Francisco warehouse. ¶ *But of course* the journalist had to bring up Hampton Creek, the vegan-food company that had fashioned itself—and more important, valued itself—like a tech company. Khosla, a legend in Silicon Valley, was a Hampton Creek investor, alongside Peter Thiel's Founders Fund and Salesforce CEO Marc Benioff. Despite media reports of shoddy science at the company on things like shelf-life testing, and an FDA battle over misleading labeling, Khosla declared Hampton Creek was "doing awesome." ¶ "Debatable," the journalist, TechCrunch's Jonathan Shieber, needled before beginning his next question.

Khosla cut him off with a "talk to the hand" motion and turned to the audience with a wide, *this guy amirite?* grin. "Here's a journalist," he said, "who doesn't know what's going on, has an opinion, just like he does, to make interesting stories." He turned back to Shieber: "I know a lot more about how they're doing, excuse me, than you do."

This was in September 2015. And what Khosla may not have known was that Hampton Creek's employees and contractors had been covertly buying its jars of eggless mayo from grocery stores for more than a year, allegedly as a way to make the product appear more popular to its retail partners. It would be another year before *Bloomberg Businessweek* revealed the scheme, in an article featuring an animated GIF of founder Josh Tetrick's face covered in squirts of mayonnaise. (Hampton Creek has denied wrongdoing, describing the buybacks as quality-control testing. Khosla declined to comment.)

RULE BREAKER Parker Conrad's startup Zenefits admitted violating state insurance rules. He's now starting a new, similar company.

The startup community has a set response to this kind of news, and it sounds a lot like Khosla's sniping. Blindly defend; it's us against them. After the *Wall Street Journal* first exposed problems at blood-testing startup Theranos in 2015, for example, venture investors like Greylock's Josh Elman and Y Combinator's Sam Altman tweeted defenses against the one-sided "slam piece."

But as scandals have piled up—and other negative stories have proved to be true—the defensive strategy hasn't aged well. While some investors are standing by their tainted companies, others are taking pains to distance the bad actors from the rest of the startup pack. Theranos, which has since voided two years of its test results and faces a criminal investigation, is now described as an exception. Just one bad apple. ("Theranos doesn't represent us, we are better," a group of startup founders sang in the annual holiday video created by VC firm First Round Capital.) Likewise Zenefits, the human-

CONRAD: JIM WILSON—THE NEW YORK TIMES/REDUX

resources startup that admitted its employees had cheated on mandatory compliance training: a freak occurrence. #NotAllStartups.

Lending Club's loan doctoring? *That's* not what startups are about. Same for WrkRiot, the startup that abruptly shut down after an employee accused it of forging wire-transfer documents. Or Skully, the failed maker of smart motorcycle helmets, being sued for "fraudulent bookkeeping." Or ScoreBig, the struggling ticketing site being sued by brokers. Or Rothenberg Ventures, the firm under investigation after using investors' money to finance founder Mike Rothenberg's side startup. (The firm says it informed investors.) Or Faraday Future and Hyperloop One, ambitious, well-funded companies now tainted by lawsuits and accusations of, respectively, overhype and of mismanagement. (Faraday has not commented on its suits; Hyperloop denies the accusation and had settled its suit.) Or any of the dozens of smaller shady accounting shortcuts, growth hacks gone awry, and other implosions too minor to make headlines.

No industry is immune to fraud, and the hotter the business, the more hucksters flock to it. But Silicon Valley has always seen itself as the virtuous outlier, a place where altruistic nerds tolerate capitalism in order to make the world a better place. Suddenly the Valley looks as crooked and greedy as the rest of the business world. And the growing roster of scandal-tainted startups share a theme. Faking it, from marketing exaggerations to outright fraud, feels more prevalent than ever—so much so that it's time to ask whether startup culture itself is becoming a problem.

Fraud is not new in tech, of course. Longtime investors remember when MiniScribe shipped actual bricks inside its hard-disk boxes in an inventory accounting scam in the 1980s. The '90s and early aughts brought WorldCom, Enron, and the dot-bombs. But today more money is sloshing around ($73 billion in venture capital invested in U.S. startups in 2016, compared with $45 billion at the peak of the dotcom boom, according to PitchBook), less transparency as companies stay private longer (174 private companies are each worth $1 billion or more), and an endless supply of legal gray areas to exploit as technology invades every sector, from fintech and med-tech to auto-tech and ed-tech.

The drama has some investors predicting more disasters. "What if Theranos is the canary in the coal mine?" says Roger McNamee, a 40-year VC veteran and managing director at Elevation Partners. "Everyone is looking at Theranos as an outlier. We may discover it's not an outlier at all." That would be bad news, because without trust, the tech industry's intertwined ecosystem of money, products, and people can't function. Investors may find the full version of the old proverb is more accurate: "One bad apple spoils the whole barrel."

ALBA: STEFANIE KEENAN—GETTY IMAGES; ABOVITZ: BRIAN ACH—GETTY IMAGES; TETRICK: KATE WARREN—THE WASHINGTON POST/GETTY IMAGES; HOLMES: CARLOS CHAVARRIA—THE NEW YORK TIMES/REDUX

The Startup Scandal Scale

On a scale of one to Theranos, how serious is your startup scandal? Using our own gauge of intensity (inspired by one created by venture capitalist Phil Libin), *Fortune* ranks some recent episodes.

EVERYBODY DOES IT → GETTING SHADY → TIME TO HIRE MORE LAWYERS

FALLING SHORT OF HYPE

A once-hot company stumbles, with slowing growth, layoffs, and fears that the company was overvalued and overhyped. It's common and survivable.

THE HONEST COMPANY: **Jessica Alba's** consumer-products startup recently announced layoffs and the departure of a cofounder after a year plagued by lawsuits over its labeling. Honest Co. has denied wrongdoing, and one of its lawsuits was dismissed in December.

CREEPING EXAGGERATIONS

The company uses dubious metrics to exaggerate its number of users, revenue, or product capabilities while underreporting problems that could trip it up. Fairly common and usually legal, but a dangerous path to start down.

MAGIC LEAP: **Rony Abovitz's** $4.5 billion valuation virtual-reality startup wowed the tech world with its gorgeous demo videos—but didn't make clear that it had used animation to augment one of them.

UM, DO WE NEED TO DISCLOSE THAT BUSINESS ISN'T GOOD?

It becomes apparent that the startup's technology or business model isn't working. The options are pivot, shut down, or—in some cases—cheat.

HAMPTON CREEK: Under cofounder **Josh Tetrick,** this eggless-mayonnaise company ordered contractors and employees to buy back its own product from retailers, effectively inflating sales figures. (The company says it was a quality-control effort.)

ALLEGED FRAUD

Cheating becomes a potentially criminal activity, as a company's continued effort to "fake it till we make it" involves outright lies and clear rule breaking. Regulators get involved.

THERANOS: The blood-testing company reached a $9 billion valuation before it became apparent that its technology seldom actually worked. CEO **Elizabeth Holmes** has barred from owning or operating a medical lab for two years, and some investors are suing.

ZENEFITS: The HR software startup lost over half its value after acknowledging that its software enabled employees to dodge state licensing requirements.

BREAKING THE RULES makes you a Silicon Valley hero. That's great if you're breaking a dumb rule, not so much if you're breaking an important one. Startup mythology is packed with stories of That Time Steve Jobs the Genius Did Whatever It Took to Win, and That Time in the 1990s that Larry Ellison the Badass Calculated Revenue the Way He Damn Well Pleased. Today's founders cite Airbnb's famous "farming" strategy (it spammed people advertising rentals on Craigslist to lure them to Airbnb). They speak breathlessly about how "T.K."—Uber cofounder Travis Kalanick—has repeatedly ignored legal roadblocks. Admirers see an aggressive attitude and a $70 billion valuation, ignoring Uber's careful, behind-the-scenes negotiations with regulators in many cities, notes Bradley Tusk, a political consultant for Uber.

The romantic lone-cowboy tales make it easy for founders to rationalize questionable decisions. "The whole 'fake it till you make it,' 'move fast and break things' attitude—all those sorts of battle cries are misinterpreted by some folks into making things up," says Jakub Kostecki, founder of StartupFactCheck, a consultancy that helps investors conduct due diligence on startups. Three-quarters of the 150 early-stage startups he has investigated have pitched investors with misleading or purposely incomplete information, like identifying as "customers" people who are merely using a free trial, or taking full credit for past projects they played only a small role in.

Even when truth-stretching founders get caught, early-stage investors may look the other way. Dave McClure, founding partner of venture fund and accelerator 500 Startups, says misrepresentations don't always preclude his firm from investing. "You might even find a correlation between 'interesting' behavior and successful entrepreneurship," he says. A founder who recently pitched 500 Startups claimed he "attended" a college he wasn't even enrolled in—technically true, since he had snuck into some lectures. Fudging the facts is so common at the early stage, it's practically expected. "Everyone just assumes that the [investment] amounts involved here are too small, [that] reputation matters, and that all startups exaggerate a bit," says Naval Ravikant, founder and CEO of AngelList, a platform for early-stage investing. AngelList says it has facilitated 1,100 investments over the past six years with no incidents of fraud.

By definition, entrepreneurship requires promoting the heck out of things that don't exist yet. Even a founder with a strong moral compass and a heart full of good intentions has to persuade investors, engineers, and customers to believe in a future where their totally made-up idea will be real. "That's not 'My cola tastes better than yours.' That's 'Let me explain to you how the world's going to be.' " says Chris Bulger, managing director at Bulger Partners, an investment bank that advises technology companies on acquisitions. "Is that person lying when they turn out to be wrong?"

THE UGLY UNETHICAL UNDERSIDE OF SILICON VALLEY

"WE HOPE THAT FOUNDERS BEND THE RULES BUT DON'T BREAK THEM. THERE'S A FINE LINE BETWEEN ENTREPRENEURSHIP AND CRIMINALITY."

If a founder's vision does turn out wrong, investors often have little recourse. Ever since Google's and Facebook's founders negotiated dual-class share structures to retain control over their companies, hot startups including Uber, Airbnb, Square, Snap, Palantir, and WeWork have pushed for, and gotten, similar founder-friendly terms. If anything goes wrong, too bad. That includes you, Theranos investors: CEO Elizabeth Holmes's supershares are worth 100 votes per share.

Some founders grow into talented CEOs. Most don't. That's an inevitable by-product of Silicon Valley culture, where everybody fetishizes engineers, designers, and inventors while managers get little respect. "We have an epidemic of bad management," says Phil Libin, a partner at venture firm General Catalyst. "And that makes [bad] behavior more likely, because people are young, inexperienced, and they haven't seen the patterns before."

So inexperienced people are handed giant piles of money and told to flout traditions, break rules, and employ magical thinking. What could possibly go wrong? "We hope that entrepreneurs bend the rules but don't break them," McClure says. "You know the saying 'There's a fine line between genius and insanity'? There's probably a fine line between entrepreneurship and criminality."

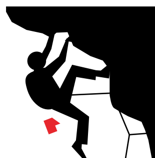
AT ITS WORST, venture capital culture can push founders across that line. To understand VC incentives, flip everything you know about business on its head. Squishy terms like "traction" and "momentum" are more valuable than functional business models, revenue, and profits. But that's all part of the fun! Venture is high risk, high reward. Wouldn't you rather play the lottery than toil away for a boring little paycheck for the rest of your boring little life?

To spread risk around, VCs make dozens of bets in each fund. Only one needs to be a Facebook. So why not push the other companies to set impossibly lofty projections? Why not encourage them to advertise a "$1 trillion market opportunity" and "$100 billion in revenue" in their pitch deck? "Every time I meet my investors, they're asking me, 'How can we pour more gas on the fire?'" one founder recently explained. In public, investors denounce this habit, calling it the "foie gras effect."

Once the fire is roaring, nobody wants to put it out. While some startups are transparent with their investors—and some investors demand it—the hottest companies have enough leverage to keep inconvenient numbers under wraps. The rich people buying into Uber's latest round of funding, for example, got no financial information beyond

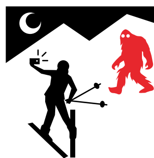
The Recipe for Startup Fraud

The Association of Certified Fraud Examiners identifies three main factors behind workplace fraud—all of which happen to be in plentiful supply for the people running venture-capital-backed startups.



PRESSURE
Venture capital investors demand hyper-growth and immediate results. Competition is intense. The costs of launching and innovating mean the founder is burning money.

OPPORTUNITY
Privately held companies can publicize self-reported, unaudited financials or not report at all. A hype-friendly media won't look too skeptically at an upbeat story.



RATIONALIZATION
Tech culture says founders should change the world, move fast and break things, and disrupt; many hear that as "ignore the rules."

a set of risk factors, according to reports. Likewise, the media feeds on self-reported scraps of information—dubious "annual recurring revenue" here, a growth percentage (from what base?) there. If that sounds familiar, recall the 2000s housing bubble, when Americans reported their incomes on mortgage applications with no outside verification. No surprise, they took liberties. Startup financial disclosures are the "liar loans" of corporate accounting.

It's easy to shrug off a startup that pushes ethical boundaries a smidgen too far when it's just a few people and an idea. We assume it will iron things out before it gets big enough to cause real problems. But in the so-called Age of Unicorns, startups can go from zero to $1 billion in valuation in the blink of an eye. And that hype can help them quickly rack up customers, vendors, and employees—all of whom are vulnerable if something melts down. We can't assume that a billion-dollar valuation is a sign of maturity.

"Startups are desperate," says Sean Ellis, CEO of collaboration software startup GrowthHackers. "[Mature] companies aren't going to die if they don't figure out how to accelerate growth. Most startups will die, and when you're desperate, you'll do stupid things." Like build a computer program to cheat on mandatory compliance training. Or fudge your quarterly numbers. Or buy your own mayonnaise from the store.

LAST MARCH, Securities and Exchange Commission chair Mary Jo White traveled to Stanford to deliver a message to Silicon Valley: We're watching you. The SEC is increasingly concerned, she said, with "eye-popping valuations," questionable governance, and the lack of transparency at high-risk tech startups.

But when I asked investors about White's visit, few even remembered it. There's little reason to worry, the thinking goes, when startups can raise money with ease. Right now the supply of greater fools feels endless. U.S. venture funds are on track to break fundraising records this year, according to PitchBook. Sovereign wealth funds and state-backed investors in the Middle East and Asia are upping their stakes. SoftBank created a $100 billion tech fund alongside Saudi Arabia's Public Investment Fund. And *Fortune* 500 companies, betraying their own desperation, are eager to throw money at their disrupters: The number of active corporate venture firms quadrupled between 2012 and 2015, according to CB Insights. The early-stage market is equally flooded. Angel investment in the U.S. grew an estimated 37% between 2009 and 2014, in dollars committed.

Historically, Silicon Valley forgives, even celebrates, failure. E-commerce startup Fab.com promised world domination, then promptly burned through $336 million of investors' money, selling for just $15 million. That didn't stop some of the same investors from giving millions to cofounders Jason Goldberg and Bradford Shellhammer for their next startups. (Shellhammer's failed in less than a year.) Zenefits CEO Parker Conrad stepped down amid the cheating scandal in February; within months he was working on a new employee-benefits startup that sounds a lot like Zenefits. It helps if you spin your meltdown as a learning experience.

But the near-daily revelations of silliness demand greater skepticism toward the truth benders. If America stops trusting the Valley, startups will lose the freedom to innovate. They'll have a harder time persuading customers, investors, and potential employees to work with them. Their businesses could even be regulated out of existence.

Recklessness with the financial truth is often a sign of an economic bubble about to deflate—see the dot-bombs and Enron in late 2000 and the banks amid the 2007 subprime mortgage crisis. Scandals don't cause recessions, but they can help trigger one. As White warned her Stanford audience: "Who loses when the truth behind inflated valuations is revealed? I think we all do." ■

GAME CHANGERS

You need to **innovate** to stay relevant and profitable, but do you know how to do so successfully?

"CHANGE," Greek philosopher Heraclitus said, "is the only constant in life." Although he said that more than 2,500 years ago, his view that life is in flux has never been more relevant, especially in the business world.

"The pace of change globally is accelerating," says Scott Anthony, managing partner of Innosight, a growth-strategy consulting firm, and a frequent contributor to *Harvard Business Review*. "That's not a remarkable statement because it's been true since the Industrial Revolution, but what's different now is how quickly and pervasively ideas, concepts, technologies—and, indeed, companies—spread globally."

Companies need to constantly reinvent themselves to remain relevant. Of course, that's a lot easier said than done. According to a 2015 global survey by the Boston Consulting Group (BCG) on the state of innovation, 79% of respondents ranked innovation as either the top priority or a top-three priority—the highest percentage since BCG started asking the question in 2005, when 66% said innovation was their top priority or among their top three.

"Innovation is the only insurance against irrelevance, it's the only guarantee of long-term customer loyalty, it's the only way to escape the curse of commoditization, it's the only way to outgrow your industry," says Gary Hamel, who teaches innovation management at London Business School.

Only 6% of business leaders are satisfied with their company's innovation performance, according to a recent McKinsey & Company poll. Hamel believes there is no other area of business where such a large gap exists between what companies are doing and what they ought to be doing. Many companies have an innovator award or an internal incubator, but few organizations have looked at every element of their management model—how they hire, compensate, promote, allocate resources, create strategy—and retooled them to support innovation.

"Until you do that, most companies are going to struggle, because most large organizations are bureaucratic at their core, and top-down, conformance-worshipping management structures are toxic to innovation," says Hamel. "You really can't build an innovative organization until you tackle the problem systemically."

MANAGING OUTSIDE THE BOX

Over the last couple of decades, almost every company has used technology to reengineer its operating model, from the supply chain and logistics to customer support and purchasing. But real innovation doesn't require any sort of gee-whiz invention. It just requires good old-fashioned common sense.

"If you really want innovation, you have to

Big Enough to Change the World,

NIMBLE ENOUGH TO DO IT NOW.

Following a merger in summer 2016, much of the talk surrounding the "new" Leidos involved scale—the sheer size of the organization. But inside the company, employees are focused on a different kind of increased scale—innovation.

"WE HAVE TWICE AS many employees now and see each one of them as an innovator," says John Fratamico, president of Leidos's Technology Group and Chief Technology Officer. "We're looking to them to solve the perils facing this world and support our customers in their critical missions."

CRITICAL MISSIONS LIKE:

› **PROTECTING** $1.8 trillion of maritime commerce. Leidos developed a semi-autonomous 130-foot ship, Sea Hunter, to track a new class of cheap, virtually silent submarines. Sea Hunter can be at sea for months, helping keep shipping lanes and shores safe, without a single sailor on board.

› **PREVENTING** dangerous cargo and contraband from crossing borders without slowing down commerce. Leidos invented VACIS, a real-time, full-vehicle scanning system to speed inspection and increase security at border crossings —monitoring U.S. ports with 1,200 radiation portals.

› **DEVELOPING** new vaccine candidates for malaria, Zika, HIV and other diseases using a "virtual pharma" approach for customers. Leidos drafts a vaccine project and brings together commercial biotech and university labs to create new vaccines for clinical trials.

› **KEEPING** air travel safe and efficient. The number of people using the civil aviation system is set to double within 10 years. Leidos is helping airports enhance the travel experience, optimize terminals, and protect against unidentified threats—like drones—in their airspace.

The semi-autonomous Sea Hunter can track submarines for months at a time.

Following the combination of Leidos with Lockheed Martin's Information Systems & Global Solutions business (IS&GS), Leidos created a group within the company—Advanced Solutions—with the charter to conduct research and development and look for technologies to help customers complete their mission.

Leidos brings together experts who work with customers in the defense, intelligence and homeland security, health, and civil government markets to see if insights gleaned from one part of the company can be applied to another customer's challenge.

For example, Sea Hunter's autonomy is based in part on technology from NASA's Jet Propulsion Laboratory (JPL) developed for the Mars Exploration Rover. Leidos tapped into this innovative work to minimize the coding and development work required to design Sea Hunter.

To keep more innovation in the pipeline, Leidos focuses on empowering its employees to bring new ideas forward.

"We want our employees to experiment and take managed risks," Fratamico says. "Our leadership team encourages it, allows fast-failure and provides resources for it."

Resources include the use of concepts like internal crowdsourcing and ideation. Leidos conducts regular R&D contests, for example, where employees can win up to $50,000 in seed money to explore new ideas.

"It's really energized our technical workforce," Fratamico says. "Our employees are people that are looking for the next big solution. They want to save lives. They want to make a difference, and they want to have an impact. It's our job to give them those opportunities and the resources they need to get it done."

reengineer the management model because there's much with traditional administration that interferes with innovation," notes Hamel. "For example, in most companies, if you have an idea, the only place to sell that idea is up the chain of command, and if the idea doesn't fit the prejudices or priorities of your boss, it dies. In a hierarchical organization, there's typically one individual—your boss, or boss's boss—who is judge, jury, and executioner on a new idea. Contrast this with the situation in Silicon Valley where there are thousands of potential routes to funding."

Hamel estimates that excess bureaucracy is costing the U.S. economy more than $3 trillion a year in economic output, or about 17% of GDP. "How do you change bureaucracy when it's as deeply rooted as aristocracy or patriarchy was?" he asks. "Why is this so hard for organizations? Because most of the management systems are built for discipline, alignment, focus, efficiency, and control, all of which are wonderful things, but almost none of it was built for people to innovate, create, and adapt. Ultimately, we're going to have to weed bureaucracy out of organizations entirely without giving away the benefits of control and coordination."

Examples of innovative companies are everywhere these days, from Amazon to Tesla, but perhaps the best way to understand innovation is to examine what it isn't. Take Eastman Kodak, which filed for bankruptcy in 2012 after pretty much owning the photo industry. What was once "a Kodak moment" is now a selfie. People didn't stop taking photos—in fact, we take more than we ever did before—but the business model has completely changed. We now display them on social media instead of printing them. What's ironic is that Kodak invented digital photography and spent billions trying to commercialize it.

The real failure was one of imagination and envisioning what the business of the future could look like. "The thing that gets me personally, even more than doing something with that digital camera, is that Kodak was so close to creating Facebook," says Innosight's Anthony. "In 2001, they bought Ofoto, which was an early photo-sharing site, and with a couple of small tweaks, you had something that looks exactly like a social network. But Kodak didn't do that. Instead, it said, how do we use this platform to get more people to print more photos or mugs with photos on them? It was right there, but they couldn't get out of the captivity of their current business."

It all goes back to the timeless business question that Harvard Business School professor Ted Levitt first asked in 1960: What business are you really in? "It's easy for a CEO to get trapped in the view of the products or services being sold as the definition of business," says Anthony. "Kodak thought they were in the business of making silver-halide-based film, when they were really in the business of memory sharing and creating human connections."

To really innovate, companies need to think outside the box in more ways than one. It's vital that the C-suite not only views all employees as potential entrepreneurs, but that they also expand their traditional view of the company. "They need to build a platform where people outside the organization understand what resources you have, what problems you're working on, and how they can connect to you, so they can share ideas and find ways to partner," says Hamel. "That's now the challenge: who can build the most effective ecosystem for harnessing imagination and talent wherever it is in the world, not simply within your own company." ●

> "Innovation is the only insurance against irrelevance, it's the only guarantee of long-term customer loyalty."
> —GARY HAMEL,
> *London Business School*

Let's go

CREATE LASTING EXPERIENCES
WITH THE PEOPLE YOU LOVE MOST.

thorindustries.com

BEACH BUDDIES
A 2012 powwow in Hawaii between Michael Dell [left] and Silver Lake's Egon Durban helped build an industry-shaking partnership.

PHOTOGRAPHS BY **Wesley Mann**

THE GAMBLERS BEHIND TECH'S BIGGEST DEAL EVER

How a decades-long relationship between a computer mogul and a boutique investing firm paved the way for the high-risk, high-priced Dell-EMC merger.

BY **MICHAL LEV-RAM**

Everything's bigger in Texas—even the deals.

DELL X EMC

Just ask Michael Dell, founder and CEO of his namesake company, once the largest PC maker in the country. In 2013, along with private equity firm Silver Lake Partners, he took Dell private, a transaction worth $24.4 billion—the largest leveraged buyout since the Great Recession. The sequel, two years later, was even grander: Dell helped orchestrate a $67 billion merger with EMC, a leader in data storage, in the biggest tech deal in history. That transaction closed in September, and the combined Dell-EMC, now dubbed Dell Technologies, is—for now—the world's No. 1 seller of storage systems, No. 2 of servers, and No. 3 of PCs, according to research firm IDC. And thanks to Dell's financial engineering, it has a Texas-size pile of debt stuffed into its saddlebags.

Not that the founder is floundering. The bigger the gamble, the better, in Dell's view—and this isn't his first rodeo. This is a guy who revolutionized the computer industry by selling PCs directly to consumers, then spent billions on acquisitions to give Dell a post-PC future. "I have never been afraid to take a different approach to things that other people thought made no sense at all," Dell says in an interview during a conference in Austin, 20 miles from the tech giant's headquarters.

In a light-blue button-down and dark slacks (no tie), 51-year-old Dell is barely beginning to show his age; the touch of gray in his curly helmet of hair is quarantined—at least for the moment—to a patch just above his ears. You have to hope he feels as youthful as he looks: He will need all the energy he can muster. His corporate maneuvering over the past decade has been guided by his belief that Dell can dominate as a one-stop tech shop for corporations facing profound technological change. As Dell describes it, especially in the face of fast disruption, customers want simplicity.

Now he's going to learn whether his bet was the right one. His new company, which carries nearly $57 billion in debt, will be searching for growth in industries largely in decline. (Overall sales of PCs, servers, and storage systems were down year over year in the most recent quarter, and Dell's revenue in 2015, pre-merger, was $58.1 billion, 6% lower than in 2012.) Integrating the companies, with a combined workforce of 140,000, will also be an exercise in moving mountains.

Customers' needs, meanwhile, are rapidly evolving. Servers, which run operations for multiple smaller devices like PCs and phones, along with storage systems for companies' data, are Dell Technologies' new bread and butter. But they face an enormous threat from the public cloud, which allows companies to off-load computing and storage to "rentable" data centers instead of building their own. The breakneck growth of the cloud could rattle Dell's financial foundations—even as Dell provides cloud powerhouses like Amazon Web Services and Microsoft with some of their equipment.

Dell, the CEO, hopes his bulked-up company will become a dominant player in selling to these providers. He also hopes a bigger product line—and "hyper-converged" systems that combine these building blocks and more into one souped-up offering—will appeal to customers who still build their own data centers. But allies and competitors alike see an uphill climb. "I don't think the data center market has ever experienced the kind of disruption it is seeing today," says Scott Dietzen, CEO

STEVEN PUMPHREY

TIMELINE

THE UPS AND DOWNS OF DELL

The Dell-EMC merger is just the most recent phase in a three-decade journey for Dell, a pioneering tech company that has changed shape frequently—and not always successfully—to keep up with the competitive landscape.

1984

At age 19, Michael Dell starts "PCs Limited," later renamed Dell Computer Corp. [Right: Dell in 1990.]

1988

Dell Computer raises $30 million in its IPO, giving it a total market cap of $85 million.

1992

Dell debuts on the *Fortune* 500. [Right: Dell with Sun Microsystems' Bill Joy and Microsoft's Bill Gates in 1992.]

BELOW, FROM LEFT: ANN E. YOW-DYSON—GETTY IMAGES; JOHN MUGGENBORG; SARAH A. FRIEDMAN—CONTOUR BY GETTY IMAGES

of Pure Storage, a maker of data-center memory products. The pace of that disruption is unprecedented, as another Dell rival points out. "I believe the future belongs to the fast," Meg Whitman, CEO of Hewlett Packard Enterprise, tells *Fortune*. "The winners are going to be the companies that are nimble, fast, and focused."

Michael Dell is gambling that big, broad and experienced will be the better trifecta. As *Fortune* reports here for the first time, Dell's deals reflect a decade or more of meticulous planning, as well as some vital, long-lasting relationships—formed with a serendipitous boost from a Hawaiian vacation community. With an estimated net worth of more than $20 billion, Dell has made his fortune and then some. But his latest gamble could return him to the top, securing his legacy at the company whose products bear his name. As he told a crowd of employees and customers in 2015, just after explaining the merits of the EMC deal, "Go big or go home, baby."

PRIVATE FIGURE Sources say Dell toyed with the idea of taking his company private for years, believing he couldn't reinvent it under Wall Street's scrutiny.

ALL THE PLANNING in the world is no good without a little chutzpah, and Dell showed plenty of that before he was old enough to order a beer.

Originally from Houston, Dell had a love for technology from early on. In the fall of 1983, as a University of Texas at Austin pre-med freshman, he started tinkering with hard drives in his dorm room. Dell soon transitioned to building PCs, buying pieces wholesale and assembling them to sell at a fraction of the cost of the pricey IBM products that dominated the market.

His parents wanted him to surround himself with books, not motherboards. When they came to visit, Dell says, he hid the damning parts in his roommate's bathtub. Mom and Dad caught on and insisted he quit the computer biz and focus on school. "I went cold turkey for, like, 10 days," recalls Dell. "And it was during that time that I concluded that this wasn't just a hobby." By the end of the school year, Dell had dropped out and started his company. He never went back to graduate. ("I'm still living with the Jewish guilt for not being a doctor," he jokes.)

Dell's next big idea was to sell PCs to customers directly, without a middleman distributor. He relied on low-cost direct marketing, printing ads in computer magazines and letting customers order by mail or via a toll-free phone number. (Later Dell would harness the Internet to the same end.) He

2001 Having begun selling servers, Dell becomes the No. 1 computer systems seller worldwide. (Right: A Dell Dimension 8200 desktop PC.)

2003 Dell drops "Computer" from its name, to reflect its wider product line.

2004 Michael Dell steps down as CEO, staying on as chairman; Kevin Rollins (right, with Dell) succeeds him as CEO.

2007 Rollins resigns from the company as Dell shares plummet and sales wane throughout the PC industry. Michael Dell returns to run the company.

also innovated on the supply-chain side, sharing the rich customer data generated by his direct sales with his suppliers—an unprecedented move that enabled Dell to deliver computers almost in real time, keeping costs and inventories low.

The model was a huge success: In 1988, with annual growth at roughly 130% and sales of $159 million, Dell took the company public. In 1992 it had nearly $550 million in revenue and made its debut on the *Fortune* 500. (Dell, at 27, was the youngest CEO on the list.) And in 1999, it became the top-selling computer maker in the U.S.

But the party didn't last. By the mid-aughts, mobile phones were hot, clunky computers were not, and cheaper manufacturers from China were causing headaches. PCs were still a cash cow, but demand was declining; so was Dell's piece of the pie, as it lost its market-share lead to HP. Michael Dell had stepped down from CEO duties in 2004, but in 2007 he came back to cope with the crisis.

As it became clear that the company needed to wean itself off PCs, the founder wanted to pivot toward equipment for data centers, a far more profitable market. The company embarked on an acquisition spree, buying enterprise-focused players like Force10 Networks, which made routers and switches, and EqualLogic, a maker of storage equipment.

According to people familiar with the company, Dell first dabbled with the idea of taking it private as early as 2007. His initial foray into privatization wasn't exclusive to Silver Lake: Dell engaged with private equity firms including KKR, Blackstone, and TPG. Those talks didn't pan out, but the more time Dell spent on his company's turnaround, the better going private sounded. Changing direction—and hurting revenue in the process—under the short-term-focused eye of Wall Street was a tough undertaking. By 2012, Dell's stock was trading at barely half its 2007 price, making a move to private status increasingly attractive. And thanks to a long-standing relationship, Dell thought he had the right partner.

N THE LATE 1990S, as Dell's fortune grew, he set up a firm called MSD Capital to manage his personal wealth (the letters stand for "Michael Saul Dell"). One of MSD's first investments was in an unknown, tech-focused private equity firm called Silver Lake, which at the time was raising its first fund. Dell knew all of the founders—James Davidson, David Roux, Glenn Hutchins, and Roger McNamee, whom he had first met in the late '80s, during his company's IPO "road show" (at that time, McNamee was running T. Rowe Price's science and technology fund). Dell would also become "vacation neighbor" to several Silver Lake partners; like him, they owned estates in Kukio, a gated community on Hawaii's Big Island known as a "billionaire getaway" for the tech industry's elite. (Dell also owns a nearby resort and golf course, along with his 18,500-square-foot estate, valued at a reported $64.7 million.)

Dell stayed connected with Silver Lake as it became a bona fide force in Silicon Valley. One of its biggest successes was plucking Skype from eBay in 2010 and selling it to Microsoft 18 months later with a reported capital gain of $5 billion. The dealmaker behind this coup was Egon Durban, a managing partner and emerging star. In July 2012, Dell and Durban met at a *Fortune* technology conference in Aspen. The two clicked: "I'd say we definitely complement each other," says Dell. One glaring commonality: Both like to make big bets, even when popular opinion is against them. Another bonding factor? Both men were born in Houston.

They shared a second key geographic connection: Durban, too, was Dell's vacation-home neighbor in Kukio. That August, the two met in the Aloha State and talked about taking his company private, and over the next few months they hashed out what became the buyout. Dell rolled his company equity—he then had 16% ownership, worth roughly $4 billion—into the deal, throwing in an additional $500 million in cash. Silver Lake kicked in a cash

2008

Dell acquires storage leader EqualLogic, the beginning of a string of acquisitions designed to diversify its product lines and make it an integrated IT firm. Dell makes some 20 acquisitions in servers, networking, software, and IT services over the next five years.

2013

Michael Dell and private equity firm Silver Lake Partners take the company private, in a deal co-engineered by Silver Lake's Egon Durban (right). Leaders say going private will help Dell reorganize after several years of faltering sales.

2015

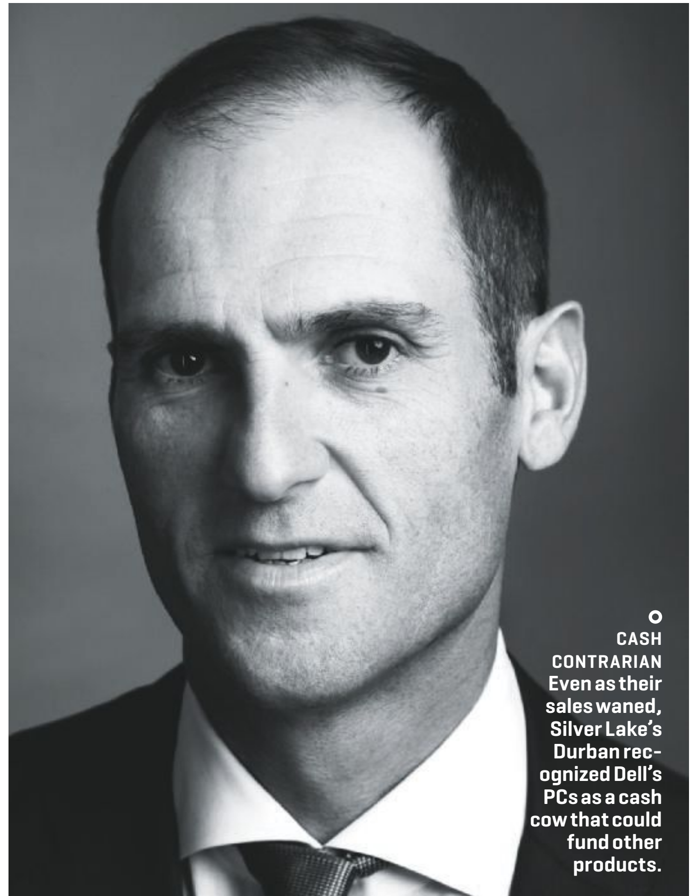
Dell says it will join with software and storage giant EMC in a $67 billion deal, the biggest tech merger in history. (Right: Dell takes a selfie with EMC execs David Goulden and Joe Tucci.)

FROM LEFT: KEVIN MOLONEY—FORTUNE BRAINSTORM TECH; COURTESY OF DELL-EMC

equity investment of about $1.4 billion, and most of the rest was raised in debt financing and from the company's own reserves. The deal would grant Dell 70% ownership of the private company.

Shareholders approved the sale, which paid them $13.65 in cash for each share of common stock, a 37% premium over the recent average closing price. But while those folks were appeased, others were dubious. As Durban tells it, many in the industry thought Silver Lake was crazy for buying a PC maker. "People looked at us like we were buying real estate in Cleveland—it could be a good thing but is hard to understand," Durban says in an interview at the firm's posh, marble-floored offices on Sand Hill Road in Menlo Park, Calif. Dell's revenue fell further after the announcement of the buyout, making outsiders even more skeptical.

Where other investors saw a contracting industry, Durban saw untapped opportunity. "A dollar of cash flow in a large tech company is fundamentally mispriced," he told an audience at a *Fortune* conference in 2015. Even with overall sales in decline, PCs generated cash that Dell could invest in more promising products, like storage and servers. Still, Dell and Durban soon faced a new challenge: Getting to No. 1—and fighting off archenemy HPE, let alone the threat from ascendant cloud services—was nearly impossible with Dell's current size and scope. They had to get even bigger.



CASH CONTRARIAN Even as their sales waned, Silver Lake's Durban recognized Dell's PCs as a cash cow that could fund other products.

MICHAEL DELL makes the case that his company's merger with EMC has its true roots back in 2001. That's when the two tech behemoths announced an alliance to jointly develop and sell storage and server tech—businesses in which Dell was just getting its feet wet. "What was under the covers was that EMC became our largest OEM customer," says Dell, meaning a company that sells another company's product as part of its offering. "In research and development, supply chain, sales, culture, we became friends."

Another fact that was under the covers until now: Dell looked into buying EMC in 2009. Both companies hired big consulting firms to explore a merger, Dell says. "We did revenue synergy analyses and cost synergy analyses, and we had hundreds of pages of decks of how you would organize." But the talks ultimately fell through, partly because of jitters related to the financial crisis. "While I have an above-average appetite for risk, not all participants had the same level," says Dell.

After Dell went private, however, vaster forces began pulling the companies back together. Dell and Durban needed to offer a more complete range of products for enterprise customers. They believed that, together, Dell and EMC could dominate that field while streamlining costs. EMC, based in Hopkinton, Mass., faced challenges of its own. Revenue growth at the 37-year-old maker of storage systems had taken a hit, pressured by the cloud and the commoditization of hardware. EMC also had a complex structure, as a "federation" of several companies, the biggest and most valuable being VMware, a maker of virtualization software (more on them later). Activist investors wanted EMC to divest assets and appoint a new CEO. But EMC's beloved chief, Joe Tucci, didn't have a clear successor.

"PEOPLE LOOKED AT US LIKE WE WERE BUYING REAL ESTATE IN CLEVELAND," DURBAN SAYS OF THE 2013 DELL BUYOUT.

None of those drawbacks deterred Dell and Durban. Less than a year after going private, Dell phoned Tucci. Recalls Dell: "I said, 'Hey, Joe, maybe we should get the band back together. Let's chat.'" By the summer of 2014, when the cloud had taken more market share from each company, both sides were eager to do the deal.

The obstacle was financial. EMC's immensity (it had a market cap of $55 billion in 2015) and Dell's already leveraged state meant this deal, too, would be paid for mostly with debt—upwards

of $50 billion. The financing process ultimately involved a full year of sleepless nights and confidential meetings with banks. One key, late development: Credit agencies gave the hypothetical combined company a good rating—allowing it to attract a wider range of lenders.

By the fall of 2015, more than a year after Dell and Durban first approached EMC, the financial commitments were in place—with nine banks, including JPMorgan Chase and Goldman Sachs, onboard. On Oct. 12, 2015, the deal was announced, and Dell and Durban knew they were on the verge of something unprecedented.

I**T WOULD TAKE** another 11 months for the deal to close. Michael Dell used that time to prepare, appointing two executives, one from EMC and one from his own management team, to lead the integration efforts. He announced an executive team that plucked leaders from both sides and shuffled roles. Karen Quintos, Dell's chief marketing officer and the sole woman on his leadership team (former or current), became the new chief customer officer. Jeremy Burton, former head of product and marketing at EMC, is now CMO for the combined entity. And David Goulden, former head of EMC's infrastructure group, now plays a similar though even bigger role at Dell Technologies. By the time the deal closed, on Sept. 7, 2016, the team was solidly in place.

The next steps for Dell Technologies, however, are much murkier. It will be years before the huge company's sales teams and back-end systems are fully integrated. Layoffs, naturally, have also taken place—with about 3,000 reportedly given the pink slip (the company won't confirm the number of layoffs but says it plans thousands of additional hires in the not-too-distant future). Several high-profile execs have also left since the deal was announced, including Amit Yoran, the CEO of the RSA cybersecurity unit, who departed in mid-December.

The team is also likely to change through attrition, because the need to pay down debt puts pressure on Dell and Durban to sell off businesses to generate cash. Just five days after the merger closed, they divested the company's enterprise content management division (which makes software that organizes companies' internal documents), selling it to OpenText, a Canadian software company, for $1.62 billion. Between the deal closure and early December, the company says, it retired $5.8 billion in debt.

Amid this disruptive maneuvering, Dell and Durban need to maintain a focus on aggressively fighting for market share in all three areas they sell to: servers, storage, and PCs. They also need to dominate in converged systems, selling a smorgasbord of IT components like hardware and server management software in bundled and customized packages. And they must succeed in selling all these products to, among others, the very cloud companies that are causing their traditional market to shrink. Amazon, Microsoft, et al. need servers and storage systems to be able to rent out computing power to the rest of us—and Dell and EMC are among the firms they're buying it from.

A DELL-EMC MERGER FELL THROUGH IN 2009. "I HAVE AN ABOVE-AVERAGE APPETITE FOR RISK," DELL SAYS. "NOT ALL PARTICIPANTS HAD THE SAME."

With their new and ginormous scale, Dell and Durban think they have a good shot of blowing away their biggest competitor, Meg Whitman's HPE. "There's no question that for Dell to win as a combined entity, they're going to need to take share," says Matt Eastwood, a senior vice president at market research firm IDC. "This is a consolidation play, largely at the expense of HPE."

But taking share—a.k.a. growing the business—and divesting assets aren't necessarily aligned. One asset that's unlikely to be auctioned off (and that provides some insight into Dell's plans) is VMware, arguably the crown jewel of the EMC merger. VMware makes virtualization software, the tools that power the cloud by making it possible for multiple operating systems and functions to run on the same "virtualized" computer. It still functions as its own publicly traded company, as it did under EMC, but it is now majority-owned by Dell Technologies. And unlike other parts of Dell's new empire, it is growing at 10% a year.

It would be tempting to sell VMware—given the company's $34 billion market cap, doing so could wipe out a chunk of Dell's debt in one fell swoop. But if Dell Technologies has a long-term future, it needs to hang on to this little engine that can. And that—ironically—means continuing to count two of Dell's biggest threats, HPE and Amazon, as its biggest customers.

Dell acknowledges that he can't predict how the big shift in the way companies buy and use technology will play out. "How fast the world moves from one way of doing IT to another way—each company will take their own pace on that," he says. As for his path, it's clear there's more to come. He says going private and merging with EMC have been act I and act II of his career reinvention. "For act III, you'll have to come back," he says coyly.

Whatever that act may be, it'll play out on a big stage. When *Fortune* talked with him in Austin, Dell was hosting what may be the last employee-customer conference to take place there. The next one, hosted by Dell-EMC, will take place in a much larger convention center Las Vegas. Yes: Dell Technologies has gotten too big for Texas. ■

NO MATTER WHAT KIND OF BUSINESS YOU RUN,

WE'VE GOT YOU COVERED!

FEATURING

OVER 30

COVERAGE OPTIONS!

GENERAL LIABILITY

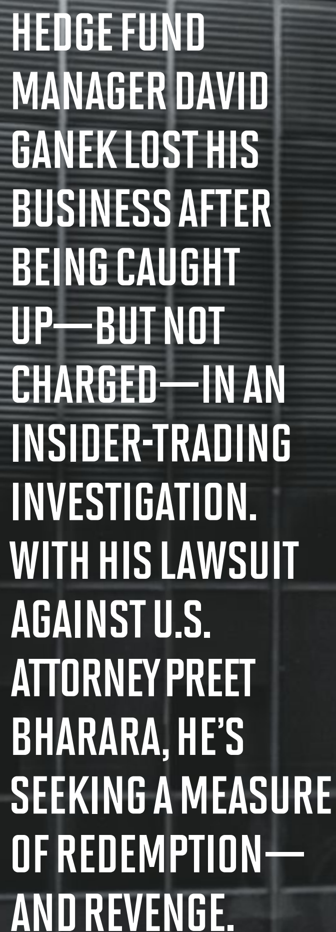
WORKERS' COMP

COMMERCIAL AUTO

PROTECT YOUR BUSINESS WITH PROGRESSIVE TODAY!
VISIT PROGRESSIVECOMMERCIAL.COM.

PROGRESSIVE® COMMERCIAL

Progressive Casualty Ins. Co. & affiliates. Business insurance may be placed through Progressive Specialty Insurance Agency, Inc. with select insurers, which are not affiliated with Progressive, are solely responsible for servicing and claims, and pay the agency commission for policies sold. Prices, coverages, privacy policies and commission rates vary among these insurers.



HEDGE FUND MANAGER DAVID GANEK LOST HIS BUSINESS AFTER BEING CAUGHT UP—BUT NOT CHARGED—IN AN INSIDER-TRADING INVESTIGATION. WITH HIS LAWSUIT AGAINST U.S. ATTORNEY PREET BHARARA, HE'S SEEKING A MEASURE OF REDEMPTION—AND REVENGE.

PAYBACK

BY BETHANY MCLEAN

▲ PHOTOGRAPH BY **ANDREW HETHERINGTON**

David Ganek photographed in his offices on Dec. 14, 2016.

TIME

The anger is always lurking just below the surface for David Ganek. And as the pugnacious money manager begins to recount the events that led him to lose his hedge fund business, his influence as a patron of contemporary art, his status in Manhattan society, and some of his longtime friends, it threatens to boil over.

We're sitting in a large conference room in Ganek's office on the 45th floor of a Midtown Manhattan office building, just a few blocks away from where he used to preside over the $4 billion Level Global Investors fund. Ganek took the space a few years ago as a home base for managing his own portfolio and overseeing his charitable work. But it still has a temporary feel, as if he's just camping out. There isn't the chic modern art on the walls that one might expect from a noted collector, as Ganek has been for years. And the quiet is almost eerie. Other than the receptionist, there doesn't appear to be anyone else around. It feels strangely still for a natural-born trader who used to live his work 24/7, monitoring a "constant ticker tape of communication."

These days Ganek, 53, spends much of his energy plotting his revenge on the federal authorities he accuses of wronging him. And the more we delve into his favorite subject—his legal case—the more agitated he becomes. "If the government's misconduct didn't make me furious, I wouldn't have filed the lawsuit," he says, his body tensing and his voice rising. "But that's good news and bad news for me. I filed the lawsuit because it makes me so furious."

He pauses and adds, "As much hell as I went through, if the system works as I have every reason to believe it does, it will be even more hell for them, given the severity of their misconduct."

The primary target of Ganek's ire is Preet Bharara, the powerful U.S. Attorney for the extremely powerful Southern District of New York (SDNY). In early 2015, Ganek filed a lawsuit against Bharara, as well as 14 other current and former FBI agents and prosecutors. Ganek's chief allegation is that the defendants, including Bharara, used false evidence about him when, in the midst of their crackdown on insider trading, they got a search warrant to raid his fund, Level Global. The raid, which happened in 2010, made headlines around the world. "The Day of Hedge Fund Reckoning," the *New York Observer* called it.

Ganek's suit has set up a potentially explosive confrontation—one that reads like an episode of the Showtime drama *Billions*—between an unlikely set of characters. And the implications for the chief protagonists on each side could be profound on both personal and professional fronts.

Ganek's motivations appear elemental: redemption and payback. Until Bharara came along, Ganek was a prototypical master of the universe. Although he was never charged with a crime, the raid, with its connotation of guilt, says Ganek, spooked his investors and left people whispering about his reputation. Now his mission, maybe even his obsession, is taking down the man he thinks wrecked his life.

For Bharara, the lawsuit is a blow to the reputation of a once unimpeachable office—one that has already seen its prestige take some hits. The formidable federal prosecutor led the SDNY to a string of unprecedented victories on insider-trading cases after his appointment in 2009. But in 2014 an appeals court not only reversed two of Bharara's most prominent convictions—including that of Ganek's junior partner—but also delivered a broadside to Bharara himself, citing the "doctrinal novelty" of the SDNY's approach. (The ruling was seen as a damaging precedent that would impair future enforcement of laws against insider trading, but a recent Supreme Court decision in another case has cheered prosecutors. For more, see the box on page 94.)

If Ganek's case moves into discovery, it threatens to shed a very public and ugly light on the process prosecutors use to put people in jail. After meeting with President-elect Donald Trump in late November, Bharara announced that he had "agreed to stay on" as the head of the SDNY. That means he will still be in office as the lawsuit plays out.

Adding to the high-profile nature of the case is Ganek's surprising partner in his crusade—his

thought he would represent a hedgie, Scheck offers a blunt "No." But he argues that what happened to Ganek speaks to a deeper problem with all-powerful prosecutors who can serve as jury, judge, and executioner. "This is an issue of principle and professionalism," he says.

Neither the defendants, including Bharara, nor the SDNY will comment. But in legal filings, Bharara's office has called Ganek's allegations "grandiose," "farfetched," and "wholly implausible." Lawsuits against federal prosecutors are rare, and the bar is high for cases alleging this kind of government misconduct. However, last spring, Judge William Pauley allowed the suit to move forward. "Discovery is now appropriate to ascertain whether this case is about a simple misunderstanding or whether something more troubling was afoot," he wrote in his opinion.

Bharara then took the unusual step—available only to the government—of appealing Pauley's decision, which has put discovery on hold. In late November the National Association of Criminal Defense Lawyers (NACDL), a professional bar association for public defenders and private criminal defense lawyers, filed a brief supporting Ganek's case, noting that while it isn't in a position to comment on the underlying

celebrity attorney, Barry Scheck. Scheck, who played himself in the CBS drama series *The Good Wife*, is the rumpled lawyer still best known to many Americans as a member of the team that defended O.J. Simpson against murder charges in the early 1990s. He's also the cofounder of the Innocence Project, which uses DNA evidence to exonerate people of crimes for which they were wrongfully convicted. Scheck is not, as Ganek says, someone who is typically "into protecting the rights of hedge fund managers." When asked if he ever

U.S. Attorney Preet Bharara has won dozens of insider-trading convictions and media plaudits, but some have questioned his aggressive style.

merits of Ganek's charges, the "allegations as detailed … describe a serious case of misconduct," and a lawsuit is the only means by which they will even get heard. "In many respects, this case is extraordinary," wrote the NACDL. "It's not every day that the United States Attorney for the Southern District of New York is alleged to be so directly involved in the allegations underlying a civil rights lawsuit."

Ganek worries about some form of retribution. But he relishes the chance for the whole world to hear the details of his story—the ones he replays

BHARARA: JESSE DITTMAR—REDUX

over and over in his head. "As much as people think it's crazy to poke the bear," he says, "it's much more productive poking than being poked."

WHEN BHARARA took office in August 2009, his predecessor at the SDNY had already gotten wiretaps on Raj Rajaratnam, the billionaire founder of hedge fund Galleon Group. That October, FBI agents arrested Rajaratnam at his multimillion-dollar Manhattan apartment. (Rajaratnam would be convicted in 2011.) Bharara said the arrest should serve as a "wake-up call" for hedge fund managers, adding, "We are targeting white-collar insider-trading rings with the same powerful investigative tools that have worked so successfully against the mob and drug cartels."

Some cynics saw Bharara's aggressive insider-trading prosecutions as a ploy to distract from the government's failure to prosecute anyone in the wake of the financial crisis. But Bharara nonetheless gained enormous plaudits in the media. *Time* put him on a 2012 cover under the headline "This Man Is Busting Wall Street."

It soon became common knowledge on Wall Street that Bharara and his team had their sights on an even bigger target than Rajaratnam: Steve Cohen, the multibillionaire founder of hedge fund SAC Capital and David Ganek's former boss. That put Ganek right in the firing line. (In 2013, Cohen's fund, SAC Capital, pleaded guilty to civil, not criminal, charges of insider trading, paid a $1.8 billion fine, and stopped managing money for outside investors. Cohen will be free to take on outside investors again in 2018.)

The son of a prominent Manhattan money manager, Ganek had worked in finance since graduating from Franklin & Marshall College in 1985. It was all he had ever wanted to do. In 1996, he went to work for Cohen, just as SAC was beginning a run of spectacular returns that made Cohen a legend in the industry. Ganek became one of the firm's biggest moneymakers, thanks in part to shorting the technology bubble before it burst in 2000. In 2003 he left SAC with a junior partner named Anthony Chiasson to start his own fund. He named it Level Global, with the idea that it would produce stable returns through times both good and bad.

Ganek didn't shy away from the spotlight that came with his immense financial success. In 2006 he joined the board of the Guggenheim Museum. He and his wife, Danielle, a former fashion-editor-turned-novelist, reportedly paid $19 million to purchase a duplex that had once belonged to Jacqueline Kennedy Onassis at 740 Park Avenue, Manhattan's most gilded address and the same building where Blackstone CEO Steve Schwarzman and Treasury Secretary nominee Steve Mnuchin live. Ganek and his wife were regulars on the party circuit, and they also bought the requisite estate in the Hamptons, where they threw charity bashes for hundreds of people.

He says it wasn't deliberate, but Ganek also did his part to help create the cliché of the hedge fund manager who dabbles in art. He had begun collecting back in 1981, he says, long before doing so became de rigueur for hedgies. He and Cohen shared the same adviser, and at various times, Ganek owned works by artists beloved by the hedge fund set: Damien Hirst, Richard Prince, Cindy Sherman, and Jeff Koons.

At Level Global, Ganek did not earn a reputation as a likable boss. When I ask a former senior employee if Ganek was a bad guy, this person responds, "No. He is the worst guy ever." But it was an issue of personality, not ethics. There were complaints that Ganek was cheap when it came to bonus time, and he could have a vicious temper. The former employee nevertheless says that Ganek was conservative when it came to compliance, with a strict set of internal rules. "There was never pressure to get close to the line," this person says.

Another employee says that Ganek was a tough boss but adds that the hedge fund business is itself a tough one, filled with prickly personalities, and that Ganek was always fair. This person seconds the notion that Level Global did deep research and was not a fund that was driven by a quest for edge.

Ganek shrugs off criticism of his style: "It wasn't my objective to be liked by everyone." But he says that everyone was paid a bonus. And he stresses that even after the raid only one employee left the fund before Level Global shut down.

Likable or not, Ganek built a solid business. Level Global didn't blow the lights out, but it

INSIDER-TRADING LAW: A SUPREME COURT RULING GIVES PROSECUTORS A BOOST

IN DECEMBER, the Supreme Court handed down its first ruling about insider trading in more than two decades. It affirmed the conviction of a grocery wholesaler named Bassam Salman, who traded on tips from his banker brother-in-law, making hundreds of thousands of dollars in the process. Lawyers for Salman pointed to the precedent set in the overturned convictions of traders Todd Newman and Anthony Chiasson in 2014. They argued that because Salman's brother-in-law didn't receive any financial benefit from passing information, it wasn't insider trading.

That argument failed to fly with the justices. In a unanimous ruling the court found that giving a gift of tradable information to a friend or relative creates a benefit even if no cash or goodies change hands. "[T]he tipper benefits personally because giving a gift of trading information is the same thing as trading by the tipper followed by a gift of the proceeds," wrote Justice Samuel Alito. The decision was hailed by U.S. Attorney Preet Bharara of the Southern District of New York, who called it a matter of common sense. Observers predict the ruling could renew the appetite of prosecutors, cowed by the *Newman* ruling, to pursue insider-trading cases.

But while the Supreme Court decision called into question a significant part of the *Newman* ruling, it does not necessarily suggest the outcome of that case should have been different. Unlike the grocer and his brother-in-law, the hedge fund bosses at the center of it were several steps removed from those who used the confidential information.

Bottom line: Insider trading is still a gray area, but prosecutors are back in business.
—JEFF JOHN ROBERTS

fulfilled its promise of balanced performance. Over seven years it produced an average annual return net of fees of 12%, and it even weathered the financial crisis of 2008 with only small losses. By 2010, Ganek, who had started with around $500 million, was managing some $4 billion. He had 60 employees, and earlier that year he had sold a piece of his business to Goldman Sachs in a deal that valued his company at $400 million.

Then came the Nov. 22, 2010, raid on Level Global, along with two other hedge funds, including the $5 billion Diamondback Capital Management, co-managed by Steve Cohen's brother-in-law Richard Schimel. (Schimel was never charged with a crime.) "There wasn't a day of my life up until the minute this happened that I ever thought something like this could happen," says Ganek. "It was unimaginable."

Indeed, in a typical insider-trading investigation, prosecutors subpoena records and conduct a methodical probe. The government's decision to raid the three funds was a dramatic deviation from its usual procedure.

The Fourth Amendment provides protection from "unreasonable searches and seizures," so to get a judge to sign a search warrant for, say, an individual's office, the government has to present a sworn affidavit, demonstrating that there is probable cause to believe incriminating evidence will be found there. A raid doesn't mean the individual is guilty. But practically speaking, it often gets interpreted that way, particularly in a white-collar case.

Ganek, along with Chiasson and one other employee, was personally named on the warrant. Along with all the documents in Ganek's office and his personal cell phone, the agents carted off Ganek's list of artwork and a folder labeled

"THERE WASN'T A DAY OF MY LIFE THAT I EVER THOUGHT SOMETHING LIKE THIS COULD HAPPEN," SAYS GANEK. "IT WAS UNIMAGINABLE."

"S/A/C/ Correspondence." The media seized on the story. "Targeted Hedge Funds Are Toast," blared the *New York Post*, which noted that investors would run at the first sign of trouble.

The day after the raid was Danielle's birthday, and Ganek remembers trying desperately to remain stoic through dinner at Manhattan's Palm restaurant with his wife and three children. He knew his reputation had just taken a major hit. "I also knew that there wasn't anything I could do about it," he says. "It would be like blowing into a tornado."

For Ganek, it kicked off a dark period, marked by an uncertainty that was particularly maddening for the trader. "The worst thing for market participants is fear of the unknown," he says. "Once you know what it is, you can take action. But that's not the way the government plays ball."

Being named on a search warrant doesn't give you the right to see the underlying affidavit or to learn anything about what the government's case against you might be. For that, you have to wait until you're charged.

But investors weren't willing to be patient. Their capital was at risk and they wanted to know if Ganek had been named on the warrant. When he couldn't say no, they began to pull out their money.

Ganek tried desperately to save his business. On Dec. 20, a month after the raid, his lawyers met with representatives of the SDNY, including Rich Zabel, then the chief of the criminal division, and David Leibowitz, a prosecutor on the case. Ganek's legal team pressed the prosecutors on whether or not they were sure of their facts and emphasized that the uncertainty was dooming Ganek's fund. According to Ganek's lawsuit, Zabel and Leibowitz informed Level Global's lawyers that the commercial consequences of the raid "had been

carefully considered at the highest levels."

There was some history between Ganek and Zabel. Rich Zabel's father is William Zabel, a name partner in the law firm Shulte Roth & Zabel, which specializes in doing work for hedge funds. But more to the point in Ganek's mind: He and Rich Zabel were rivals on the squash court.

Squash has been a key part of Ganek's life. He played at Franklin & Marshall, where he was the captain of the team, and he remains devoted to the sport. (In early 2014, he donated $2 million to the U.S. Squash program to fund the hiring of a national coach for the first time.) Zabel, meanwhile, captained the squash team at Princeton and won two national championships by the time he graduated in 1983. Through their families, both were members of Manhattan's private Harmonie Club. Ganek says the two faced off against each other in the finals of the Harmonie Club squash championship multiple times between 1985 and 2000, and the rivalry was fierce.

Zabel won't comment, but Ganek says the antagonism between the two was long-standing and mutual—and a conflict of interest for Zabel. "Shouldn't he have recused himself?" Ganek asks. Several lawyers I spoke with, however, didn't consider past squash showdowns to be a problem.

In a last-ditch effort, Ganek hired another lawyer who had a personal relationship with Bharara. Ganek says this lawyer told him that if an internal investigation found that Ganek was clean, he would personally appeal to Bharara. On Feb. 4, 2011, this lawyer met with Bharara, and asked him to provide assurances that Ganek wasn't at risk of being charged. Bharara responded that he was "unable to do anything ... that would help Level Global," according to Ganek.

With his investors continuing to bail, on Feb. 11, 2011, Ganek announced that he was shutting down Level Global. He set up a new family office to trade his own money and named it Apocalypse 22 after a word painting by Christopher Wool he had once owned called *Apocalypse Now*.

IT WASN'T UNTIL early 2012, well over a year after the raid, that the government indicted Ganek's junior partner, Anthony Chiasson, and others, including Todd Newman, a trader at Diamondback. That's when it came out that a former junior employee at Level Global named Sam Adondakis, who had been forced to leave in the spring of 2010 for compliance reasons, was cooperating with the government. The government alleged that Adondakis and others were part of a long chain—even Adondakis was several steps removed from the sources—who were getting information passed to them from company insiders at Dell and Nvidia.

"NEW YORK IS A VERY TRANSACTIONAL TOWN," SOROS TOLD GANEK. "IF YOUR TRANSACTION HAS GONE BAD, IT'S A VERY TOUGH PLACE TO BE."

Ganek wasn't charged. But Chiasson's lawyers were thinking about asking Ganek to testify, and the judge allowed the affidavit to be disclosed to the defendants and prospective witnesses. That's when Ganek learned that, according to the affidavit, Adondakis had told the government that he had provided inside information to Ganek, that Ganek had traded on it, and, critically, that Adondakis had "informed Ganek of the sources of the inside information." (You can't be guilty of insider trading unless you knew, or should have known, that an insider breached his or her fiduciary duty.) There were no specifics, and although the affidavit was 32 pages long, Ganek wasn't mentioned anywhere else.

Sources close to Chiasson say that he likened being indicted to "being buried alive," and also say that he was repeatedly told that he could get leniency if he cooperated with the investigation—and if he gave the government Ganek. But despite immense pressure, he did neither.

As Chiasson's case headed to trial in the fall of 2012, what Ganek calls his "well-built life" began to crumble. "It wasn't, 'Your kids can't play with mine,' but you quickly found out who your friends were," he says. "A lot of friends and business contacts wouldn't take calls from me. I was told they were afraid I was wearing a wire. They cut me out of their lives."

He began to adjust to his new reality. Ganek is still very well off, and he continues to work and invest privately. But without hedge fund compensation, art has become more of a business than a pleasure for him. He has delayed plans to give his collection to a museum, and no longer feels like he can give the millions in cash and art that are expected with prominent board positions. In 2013, he stepped down from the board of the Guggenheim.

One of the more interesting meetings Ganek had after his fund shuttered was with the multibillionaire hedge fund manager George Soros, with whom he plays backgammon. "He was kind enough to reach out and invite me to dinner," says Ganek. "He asked me how I was doing in New York. I said it was tough. It's a hard place to have public problems. He said, 'New York is a very transactional town. If your transaction has gone bad, it's a very tough place to be.'"

"Think about it," says Danielle Ganek. "Is there anything more devastating to a person's soul than a false accusation? My husband was never actually [charged with] anything, but in a very public and loud fashion the question was deliberately raised. It was very painful."

NEWMAN: BRANDON MCDERMID—REUTERS; CHIASSON: MIKE SEGAR—REUTERS

would think the fund in question must be one of those that was to be raided. But in fact, it was a tiny two-man shop with no connections to any of the firms that were raided on Nov. 22, 2010.

Furthermore, says Ganek, none of the information the government got during the raid of Level Global was used in the indictment. (The government ultimately got the information used to indict Chiasson the traditional way—via subpoenas.)

In Ganek's mind, the unjustness of the raid, combined with what he sees as the illegality of putting his name on the search warrant, turned into a bitter stew. "All of these things combined, for better or for worse, to make me unable to let go," he says.

So Ganek began to talk to lawyers. They all advised him to leave it alone. "You are taking on the biggest machine you can take on," the attorneys told him, "and this machine plays dirty." And in a business where relationships with prosecutors are part of your currency, few lawyers were willing to take on the SDNY.

Then he had a phone call with Barry Scheck. Ganek was thinking about giving money to the Innocence Project. He mentioned his own case, and Scheck invited him in to talk to his team. Everyone in the meeting was skeptical at first, but as he talked Ganek could feel the mood in the room changing. Soon after, Ganek hired Scheck and sued.

What Ganek really wants to know is this: If Adondakis never implicated Ganek, then how did an affidavit stating the opposite get written, and why didn't it get fixed?

"There are a lot of times where clients feel wronged by the government," says Nancy Gertner, a former federal judge and professor at Harvard who is working with Scheck on Ganek's case. "But it's rare where there is proof. This is a terribly important case with a unique set of facts." Scheck says the SDNY had a "duty to correct" the affidavit just as it would to correct testimony in a case if advances in DNA science changed conclusions about the evidence in a case.

Ganek's lawyers are sure that discovery will show that there was a deliberate fabrication. Ganek is convinced that he was targeted not because of anything he did, but because of his connection to Cohen and because of what he represented. "The destruction of our business went into their pocket as a different kind of

Diamondback Capital trader Todd Newman (left) and Ganek's junior partner at Level Global, Anthony Chiasson, were convicted of insider trading in 2012 but had their convictions overturned on appeal in 2014.

WHEN CHIASSON'S TRIAL finally began, Ganek's pain turned to shock. He was stunned to learn that a critical allegation supporting the government's warrant appeared to be false.

When Adondakis was put on the stand, he said he had never told Ganek that the information was coming directly from contacts at Dell. And an FBI agent corroborated that statement. "Mr. Adondakis did not say that he told Mr. Ganek that the Dell information was coming from a source inside Dell," the agent testified.

Although both Chiasson and Newman were convicted, that trial turned out to be what Ganek calls "the peak of the bubble for prosecutorial victories." The two traders immediately appealed; their convictions were overturned two years later, in December 2014.

At this point, it all could have been over. "Most people would slink off into the corner and lick their wounds," says John Carroll, a Skadden Arps lawyer and former SDNY prosecutor who represented Ganek. Ganek didn't think he had much left to lose. In his view, he had lost his business because of false information in an affidavit. As he thought about it, his outrage grew. Even if it had initially been just a mistake, wouldn't the prosecutors, up to Bharara, have discovered and fixed the error when pressed by his lawyers to be sure of their facts?

But the outright false information in the affidavit wasn't the only issue. The way it was written was also misleading, argues Ganek's lawsuit. The affidavit justified the raid in part by stating that a hedge fund was destroying evidence of insider trading. If you read it quickly, you

capital—as political capital, as magazine covers, as lucrative jobs in the private sector," he says. (In an irony of sorts, Zabel is now the general counsel for hedge fund powerhouse Elliott Management.) But, Ganek adds, "by putting me out of business they've also put me in a position where I can say things that other people think but can't say."

He is hardly Bharara's only critic. Most recently, Judge Valerie Caproni chastised Bharara's office, accusing him of orchestrating a "media blitz" around the prosecution of former New York state assembly speaker Sheldon Silver. "There is definitely a sense that Preet is a press hound," says a former SDNY prosecutor. "And there is something to it. There's declining patience on the bench and in the community."

More pointedly, Ganek and his advocates accuse Bharara of hypocrisy for not practicing what he preaches by conducting an investigation into how false information might have gotten into the affidavit. "Preet Bharara talks about how corporate leaders should react to employee wrongdoing by cleaning their houses," says Carroll, the former SDNY prosecutor who represented Ganek. "Shouldn't he take his own medicine and respond to this false affidavit by cleaning up his own house?" Bharara declined requests to comment for this story.

Celebrity attorney Barry Scheck, known for defending O.J. Simpson and for having played himself on TV's *The Good Wife*, is representing Ganek. He says prosecutors had a "duty to correct" the record if the affidavit that led to the raid of Level Global included incorrect information.

THE BAR IS HIGH for a case like Ganek's because of the doctrine of "qualified immunity," which protects government officials charged with violating a person's constitutional rights—all but the "plainly incompetent or those who knowingly violate the law," as the Supreme Court puts it. One reason the government argues that it's entitled to qualified immunity in Ganek's case is that it says it doesn't matter whether Ganek had inside information on Dell or not: The affidavit didn't specifically reference Dell, but rather referred more broadly to Ganek's knowledge of insider trading. Ganek calls that argument "really nefarious."

At the time of the raid, the government included only one company name in its keyword search of Level Global's servers: Dell. But now it is arguing that prosecutors had other information—which they never have to produce and which was never sufficient to charge him. "They're firing shots at me that only the government gets to fire," he says.

The government also argues that because it had a cooperating witness and because Ganek did trade Dell, it would have had the ability to search his office even without the incriminating information in the affidavit. "The government got to Level Global in a very typical way," says a source close to events.

In the community of those who worked on the insider-trading cases, there's a feeling that Ganek is more than a little self-centered to believe that anyone cared enough about him to make up evidence. "You only think this story makes sense if you think that you, David Ganek, must be at the center of the storm," says one source close to the defendants. There's also a sense of outrage that he would accuse public servants like FBI agents and prosecutors of doing such a thing.

In the broader legal community of former prosecutors, the more common view is that an overly aggressive office, high on its own press and sense of self-righteousness, believed Ganek was guilty, got sloppy in its effort to nail him, and never owned up to it because prosecutors believed they'd eventually get him on something. But even if they believe his lawsuit won't succeed, there is a surprising amount of sympathy among the prosecutorial community for Ganek's basic position. "The government already has a lot of advantages and does not need to take more," says one former SDNY prosecutor.

At any rate, Judge Pauley called the government's arguments "unpersuasive" and did not dismiss any of the defendants from the case. The doctrine of qualified immunity allowed Bharara to appeal immediately, and the Second Circuit Court of Appeals will hear oral arguments in the coming months.

Ganek is too angry and too blunt to hide that he is seeking vengeance. But he also says the case is about more than that. "If they can do this to me, what can they do to other people who don't have the resources to fight back?" he asks. "What I want to do is create the environment where they have the same deterrence against misconduct that they claim to be creating for Wall Street."

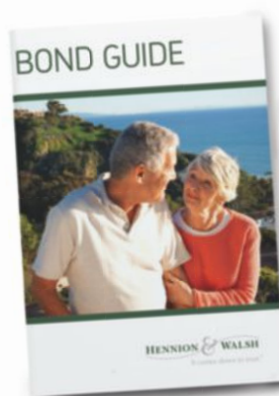
And if his lawsuit accomplishes that, then win or lose, he may eventually be able to close out his position and move on. ■

SCHECK: MONICA SCHIPPER—GETTY IMAGES

IN YOUR YOUTH, LIFE WAS FREE AND EASY.

TODAY, THE SAME GOES FOR OUR GUIDE.

Get your **FREE Guide to Municipal Bonds** and learn how to generate investment income free from federal, and potentially state and local income taxes, based on where you live.



To request your copy of our FREE, no obligation Bond Guide, call (800) 316-2804

About Hennion & Walsh
Since 1990 Hennion & Walsh has specialized in investment grade tax-free municipal bonds. The company supervises over $3 billion in assets in over 16,000 accounts, providing individual investors with institutional quality service and personal attention.

HENNION & WALSH
It comes down to trust.®

© 2016 Hennion and Walsh. Securities offered through Hennion & Walsh Inc. Member of FINRA, SIPC. Investing in bonds involves risk including possible loss of principal. Income may be subject to state, local or federal alternative minimum tax. When interest rates rise, bond prices fall, and when interest rates fall, bond prices rise. If sold or called prior to maturity the amount received may be less than the amount paid, and the yield received may be less than the yield calculated at purchase. Past performance is not guarantee of future results.

800 GIGABITS PER SECOND

SIZE OF DDoS ATTACKS

ONLY LARGE ATTACKS [>100 Gbps] SHOWN

ATTACKS ON THE U.S.

Data shown is gathered from 300-plus service providers around the world, equal to approximately one-third of all Internet traffic.

700

600

ATTACKS ON OTHER COUNTRIES

500

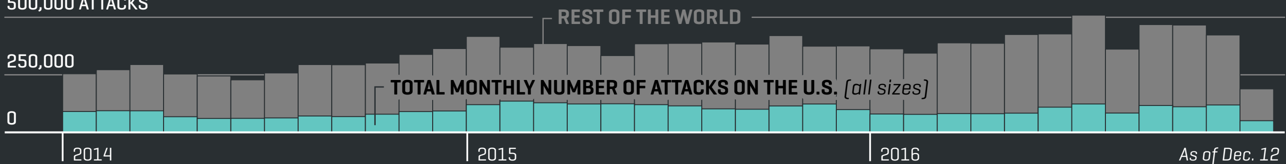
400

300

200

100

2014 2015 2016

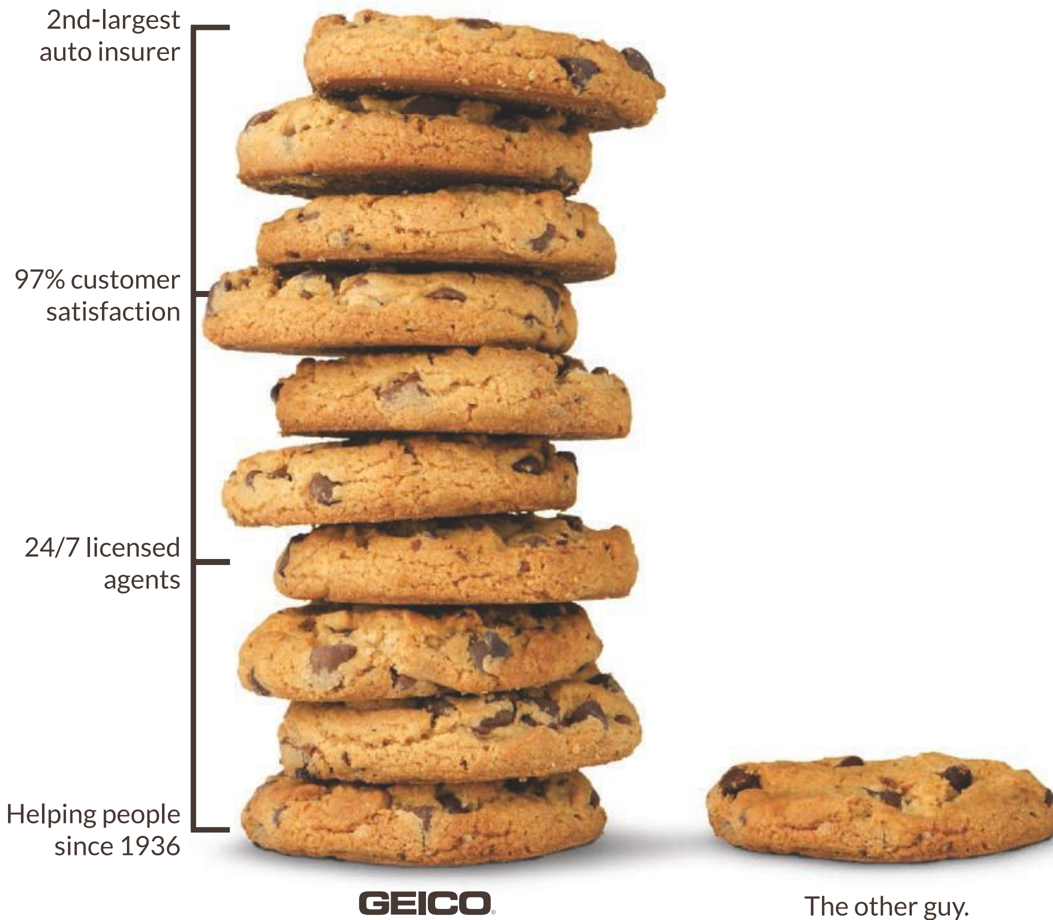


HACKERS ARE GETTING BOLDER

NO NETWORK is safe from hackers [just ask the Democratic National Committee]. The number and size of DDoS—or distributed denial of service—attacks have been growing. Through November, there were an average of 414,985 DDoS incidents per month globally in 2016, according to network security company Arbor Networks, up from 283,303 monthly in 2014, a 46% increase. And new malware that hijacks Internet-connected devices like baby monitors and DVRs only increases the threat. —**BRIAN O'KEEFE**

SOURCE: **ARBOR NETWORKS**

GRAPHIC BY **NICOLAS RAPP**



The choice is yours, and it's simple.

Why enjoy just one cookie when there's a whole stack in front of you?

The same goes for car insurance. Why go with a company that offers just a low price when GEICO could save you hundreds and give you so much more? You could enjoy satisfying professional service, 24/7, from a company that's made it their business to help people since 1936. This winning combination has helped GEICO to become the 2nd-largest private passenger auto insurer in the nation.

Make the smart choice. Get your free quote from GEICO today.

GEICO®

geico.com | 1-800-947-AUTO | Local Office

Some discounts, coverages, payment plans and features are not available in all states or all GEICO companies. Customer satisfaction based on an independent study conducted by Alan Newman Research, 2015. GEICO is the second-largest private passenger auto insurer in the United States according to the 2014 A.M. Best market share report, published April 2015. GEICO is a registered service mark of Government Employees Insurance Company, Washington, D.C. 20076; a Berkshire Hathaway Inc. subsidiary. © 2016 GEICO

CAN A CAR FEEL RIGHT,
RIGHT FROM THE START?

Mazda3 Grand Touring interior with Premium Package shown.

THE NEW MAZDA3

The 2017 Mazda3 is designed to make driving better. Before you go anywhere. Its newly refined interior is crafted with driver-centric details that help you enjoy every drive. Even more. Like an available leather-wrapped, heated steering wheel that fits the optimal position of your hands. An advanced Active Driving Display that lets you keep your eyes on the road. And a new electronic parking brake, placed within easy reach. Why do we obsess over making every detail feel just right? Because Driving Matters.

ZOOM-ZOOM

DRIVING MATTERS®