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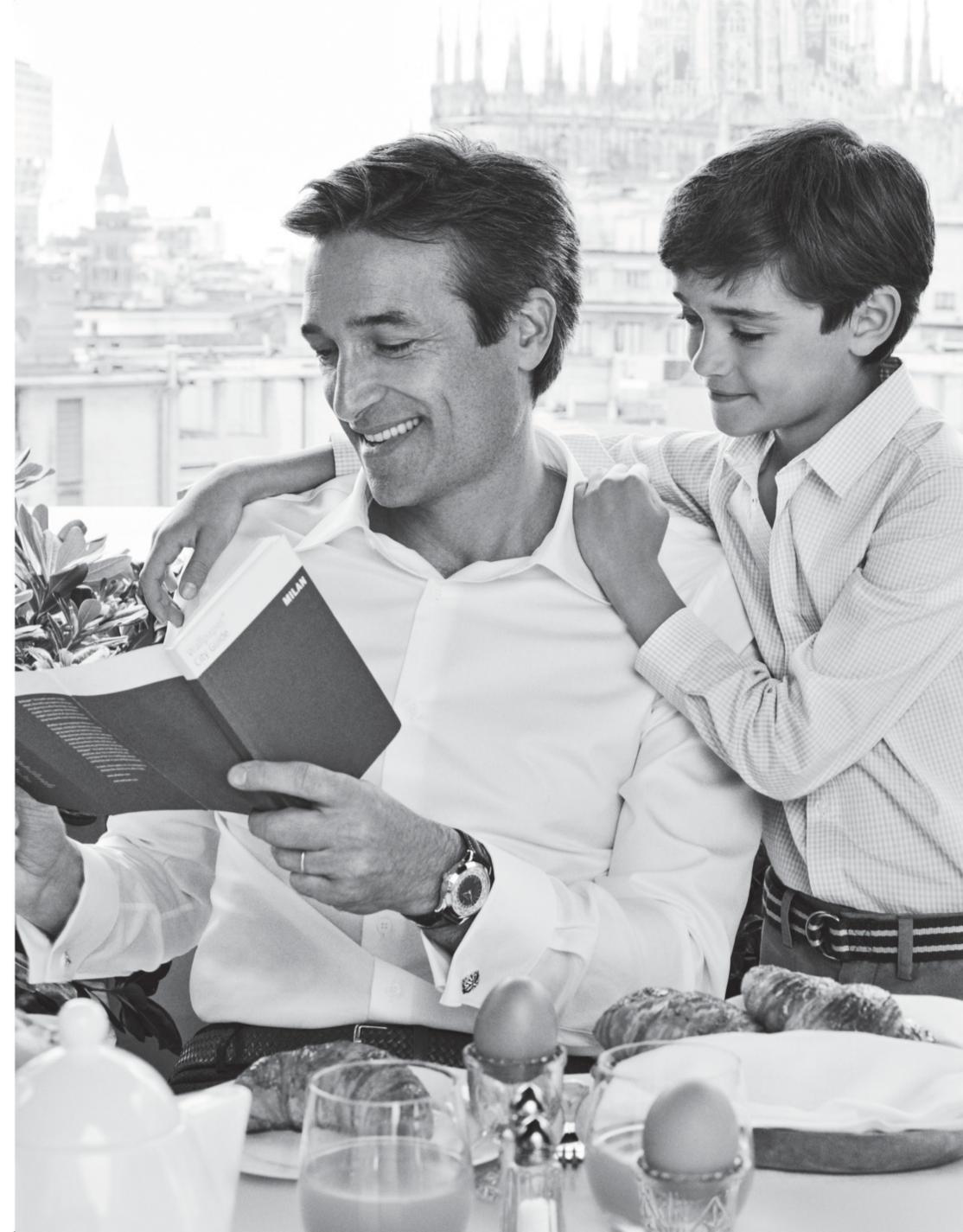
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Boomberg Markets

VOLUME 28 ISSUE 3 JUNE / JULY 2019

The Contrarians Issue









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JPM UN Equity	103.42			
KO UN Equity	45.92	11		
MCD UN Equity	173.34			
MMM UN Equity	184.95			
MRK UN Equity	70.40			Contraction of the local division of the loc
MSFT UW Equity	106.96			
NKE UN Equity	72.07	5	9	
PFE UN Equity	42.60	>13	>13	
PG UN Equity	87.86			
TRV UN Equity	121.29			
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Bloomberg Markets

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"My first roundintroduced. Alas,of sketches was ofherds and tidespeople challengingfelt flat and leftthe tides. Animalslittle room forin oppositioninterpretation.to the herd wereWhen the lone

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Corrections: In "Markets Almanac" (April/May), we included an OPEC meeting on April 17-18 that was canceled just before we went to press. In "Investors Are Getting Swept Into a U.S. Government Debt Supercycle," we incorrectly described Christopher Brown as co-head of the total return fixed-income fund at T. Rowe Price. He became sole head of the fund earlier this year.

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The Contrarians Issue

In the markets, the true legends are always the contrarians. They're willing to challenge the status quo. They're never certain they'll succeed—many contrarians don't. In this issue, *Bloomberg Markets* examines some of the people and organizations taking new, difficult, controversial, or unpopular positions.

Mekong Capital Ltd.'s founder, Chris Freund, took an unusual path when he started a private equity firm in Ho Chi Minh City, Vietnam. But as **Tom Redmond** and **Giang Nguyen** explain in "The Convert" (page 52), Freund's management approach is what really sets Mekong apart.

From its base in Los Angeles, Capital Group Cos. is resisting the trend toward low-fee passive investing. "Staying Active" (page 58), by **John Gittelsohn**, tells the story of the mutual fund giant's efforts to preserve a three-generation tradition of research-driven stockpicking. Ben Axler is also a believer in research. In "The Exterminator" (page 68), **Michael P. Regan** describes how one surprising phone call about a Chinese company turned Axler into that most contrarian type of fund manager: a short seller.

Jim Coulter helped found TPG in Texas and California to make contrarian investments in companies. Today he's running the firm with his hand-picked co-chief executive officer, Jon Winkelried. In "Moving Forward" (page 72), the two talk to **Jason Kelly** about TPG's approach—and recent challenges.

Managing money for Princeton's elite endowment is a mark of distinction for any fund. That gives its chief, Andrew Golden, a lot of influence. As he tells **Janet Lorin** in "Beyond the Ivory Tower" (page 62), Princeton is trying to use that power to change the overwhelmingly white, male industry.

Those are just a few highlights in an issue we hope you'll find thought-provoking. We welcome your feedback.

Christine Harper, Editor

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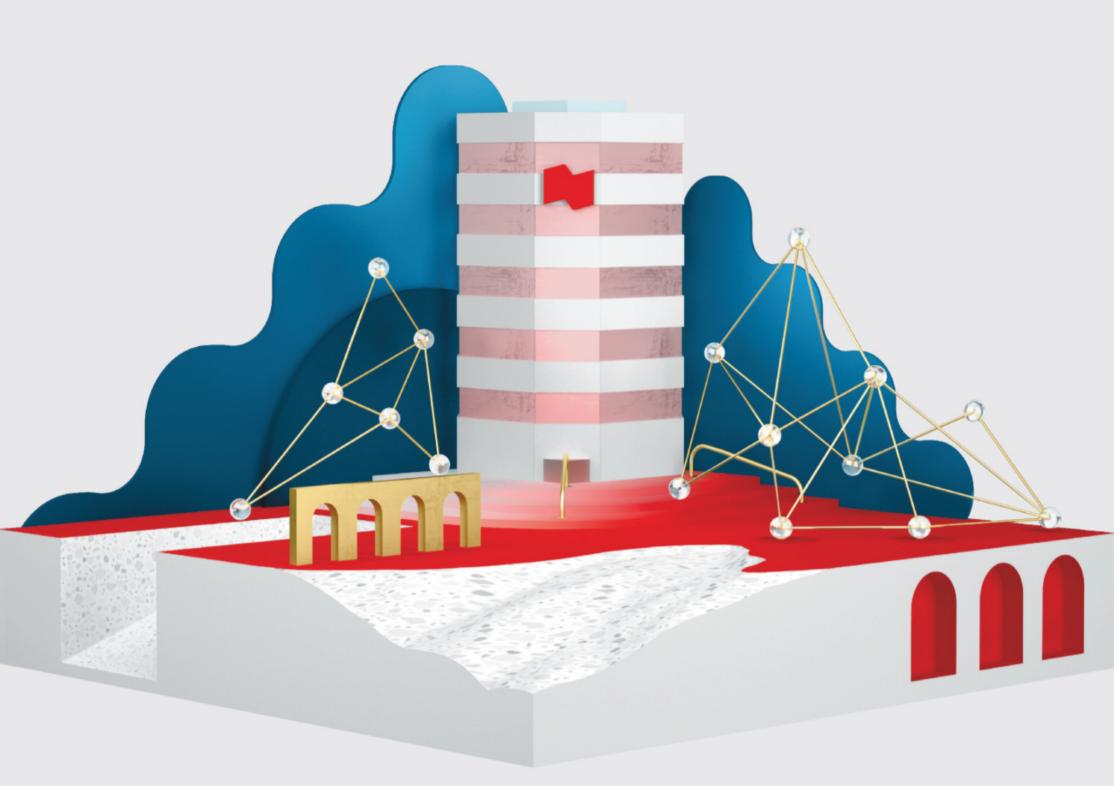
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A few key events for your calendar in the coming months.



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Surveillance

By VINCENT BIELSKI

NIGOL KOULAJIAN, founder of New York-based Quest Partners, has beaten rival hedge fund managers over two decades by refusing to follow them into crowded trades. Since the financial crisis, commodity-trading advisers (CTAs), which specialize in trading futures or options, have piled into long-term bullish bets, riding the market up in search of steady gains. That's left them vulnerable to big losses when volatility strikes—the very moments when Koulajian's \$1.35 billion quant firm cleans up. His AlphaQuest flagship fund has posted an annualized gain of 9.7 percent since its inception in 1999, almost three times that of the BarclayHedge BTOP 50 managed futures index and nearly 4 percentage points more than the S&P 500, according to a document seen by Bloomberg. Here Koulajian, who turns 52 in June, talks about style drift, momentum, and how surviving a civil war in Lebanon shaped the way he trades.

How Do You Bet Against Crowded Trades?

Not by nature. I grew up in an environment which is different than most people on Wall Street. For me, the world is much less stable than it appears to a typical asset manager, because I grew up in a wor zone. The tail event, the low-probability event that can have a massive impact, has much more importance to me.

You were raised in Lebanon during the civil war in the 1970s and '80s. How dangerous was it?

I have friends and family who died. I've been shot at. I was next to a car bomb. I've walked on minefields, unknowingly. I've been held at gunpoint a few times. I'm still here. [Laughs.]

At 16 you fled Lebanon and came to the U.S. You got an engineering degree at Notre Dame. How does an engineer approach markets differently than, say, a mathematician?

An engineer is much more aware of the potential impact of errors. If there's a small chance the market will be down 50 percent, I would take that 1 percent scenario into account much more than a mathematician. Our strategy is designed around the fact that the mind can't handle low-probability events very well.

At Columbia, where you got your MBA in 1992, what did your professors think of your fascination with technical trading?

 They laughed and said fundamentals are much more relevant. I had a business plan ready to go, and I had to follow the professors into the **bathroom** to have the time to speak to them about my models.

What is your strategy today?

 Where the typical quant manager looks for long-momentum trends with low volatility, we look for moves where the market is most likely to have an expansion in volatility and then benefit from that.

How common is your strategy?

Not common at all. Very few managers trade in the time frame we do, seven to eight days on average. It's much more difficult to trade short term. There are more transaction costs.

Why bet on spikes in volatility?

Since tail-risk events that cause volatility to rise aren't priced into assets by most managers, that's our edge. We can buy these assets—similar to long-term outof-the-money options—very cheaply. When the surprise strikes, the typical manager will have to react very quickly and will dramatically affect the market. We hope to benefit from that. In today's world, we're more likely to go long commodities than short commodities.

So you're betting that commodities prices will rise?

No. We're betting if they rise, it will be unpleasant for most managers. The market is effectively short, and they'll have to cover their shorts very quickly. When you are short commodities, you are getting paid carry. In energy it's 15 or 20 percent a year. Our models are saying there's too much of that going on, and anytime the market goes up it forces these liquidations, and you want to take advantage of that.

You've taken losses so far this year through April. What happened?

In general, we make money when the S&P goes down and when volatility is increasing. And this year, both of those factors have worked against us. When we lose money, we tend to lose it very consistently and then make it very fast, exactly the opposite of a typical hedge fund.

You're critical of style drift—managers who flock into long wagers and give up on shorts. What caused that drift?

When central banks became very accommodative in providing liquidity a decade ago, the market cycle became much more longterm. A lot of hedge funds adapted. They became more long-term and bicsed toward long trades. They're likely to benefit much more in this market. But they're also very likely to get hurt substantially should the regime shift.

Have CTAs betrayed their mandate to provide downside protection?

They definitely have betrayed their original philosophy. Investors still don't understand the style drift that their managers have engaged in. In some cases it's likely the managers themselves don't understand the style drift. They're following what's worked, the strategies that have the best returns. As a result, unknowingly, they're becoming much more risk-on. And because of machine learning, these biases are not as visible as they used to be.

Where is the crowding today?

► Too much money has flowed into factor strategies like momentum, value, and low volatility. And now they're providing very consistent negative returns, although the market environment hasn't changed. So being contrarian means evaluating how **crowded** a strategy is and going short something that's always made money just because people believe in it. It also means not believing academia no matter how many research papers have been written. It's more about evaluating what the supply and demand is for the factors.

You have a meditation room in your offices. Does anyone use it?

Oh, yeah. We're exposed to so much information. Our nervous system wasn't designed to handle this. Stress has an effect on your objectivity. When you're under stress you act with 100 percent confidence—this way or that way—but you might be wrong. Meditation helps you reevaluate the world and question your thoughts and see the world without all your memory and fears.

Bielski is a senior editor on the investing team at Bloomberg News in New York.

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El Petro, or What We Can Learn From Venezuela's Doomed Crypto-Petrocurrency

By AARON BROWN Illustration by matt chase

SHAKESPEARE tells us, "Misery acquaints a man with strange bedfellows." Venezuela's 20-year slide from peaceful, prosperous democracy to violent, impoverished dictatorship has caused misery on a vast scale. And it brought together the protagonists in the story of el petro—a mashup of fringe economists and cypherpunks, socialists and libertarians, real-asset fundamentalists and next-generation financial engineers, the "Dutch disease" and exorbitant privilege. Their experiment ended in failure, but their ideas deserve exposure.

Consider the French Revolution in 1789. Its political accomplishments were short-lived: a century alternating among monarchy, republic, and empire. But the metric system it introduced spread throughout the world and persists today.

When revolutionaries took over France, they looked to the *cahiers de doléances*, lists of grievances. Among the most common demands was one for standard weights and measures. Peasants hated local nobles changing the size of the containers used to measure their obligations. They wanted one fixed local bushel kept where they could see it year-round.

Five brilliant Enlightenment scientists were recruited: Jean-Charles de Borda, Joseph-Louis Lagrange, Pierre-Simon Laplace, Gaspard Monge, and Nicolas de Condorcet. But they misunderstood the problem.¹ They created a good system—though not one the peasants embraced—because it was designed by smart people.



El petro is an oil-backed cryptocurrency designed at an October 2017 meeting at the Venezuelan central bank, where bemused bankers met socialist economists and cryptocurrency zealots. A white paper and official announcement followed in December. But the details kept changing. Since then, Venezuela has produced a confusing series of grand announcements, countered by denunciations from elsewhere. Amid all the debate, there has been too little analysis of the underlying theory.

BENJAMIN GRAHAM is remembered today as the father of value investing and Warren Buffett's mentor. But he thought his important contribution to finance was his idea for a commodity-backed currency.² He came up with it in 1921 long before he lost his money on Wall Street and turned to undergraduate teaching and textbook writing to make ends meet. He promoted it in articles and books throughout his lifetime.

Graham, like many others, noticed that when commodities are plentiful and cheap, the economy is in recession. In prosperous times, commodities are scarce and expensive. As he wrote in his 1937 book *Storage and Stability: A Modern Ever-Normal Granary*:

> [I]f surplus stocks do operate as a national liability rather than an asset, the fault must lie in the functioning of the business machine and not in any inherent viciousness of the surplus itself.... Some means must be found to restore the Goddess of Plenty to the role of benefactress-in-chief that was hers without question under a simpler economy.

Holding commodity buffer stocks to smooth supply is as old as the seven fat years story in the Bible, or the ancient Chinese system of "ever-normal granary." But Graham's genius was to use commodity buffer stocks to regulate the supply of money, not commodities. When commodities were cheap, the government would issue commoditybacked notes to buy them. These would not replace traditional banknotes, then backed by gold, but would circulate in parallel. The point was not to manipulate the supply or price of commodities. It was to get money into the hands of commodity producers so they could spend it-preventing financial distress for them and their workers and stimulating the economy, thus creating demand for the surplus.

If prices were high, the government could redeem the recession-issued notes by selling down its commodity stocks. This would pull money out of the economy, damping irrational exuberance.

John Maynard Keynes and Friedrich Hayek both enthusiastically backed this idea. It appeared in the English proposals brought to the Bretton Woods negotiations and had wide support among economists at the meeting. But gold producers and holders blocked it from the final agreement.

Graham's idea was revived in the second half of the 20th century when oil discoveries wreaked havoc with developed economies (the Dutch disease, in which oil export revenue causes the currency to strengthen, draining profit and capital from other sectors) and undeveloped ones (the "resource curse," in which natural resource wealth leads to corruption and violence, stifling productive economic activity). The government didn't have to buy and store oil. It already owned it, safe in the ground. All it needed to do was issue an oil-backed currency when oil prices were low and redeem it when prices were high. It could do this through a central bank, which would make domestic loans in the oil currency when prices were low to help the local economy. The drop in lending when prices rose would help offset the flood of export earnings. The non-oil economy could function on a traditional currency.

Venezuela's Hugo Chávez started lecturing oil-producing nations about the need for alternative economic arrangements as early as 2000. In 2009 he proposed an oil-backed currency. He appears to have been primarily seeking a way to avoid U.S. financial controls. Nevertheless, some economists dusted off Graham's arguments. Cryptocurrency lovers added a technological twist. Time will tell if they were as smart as the guys who designed the metric system.

THE ECONOMISTS slipped an

underappreciated aspect into el petro. Although Venezuela has the largest proven oil reserves in the world, its oil is low in quality and expensive to extract. The lowest-quality and most expensive to extract, but also the largest in quantity, is in the Orinoco Belt. There could be two Saudi Arabias or more there, but extracting it requires massive investment. So one petro could be exchanged for a barrel of oil a kilometer under the remote village of Atapirire (population 1,300).

Some have taken that as evidence that el petro was a fraud. But the cryptocurrency makes sense in theory. Let's do some wild ballparking: If the backing were credible and the government stable and honest and if

1

See an entertaining discussion in Theodore M. Porter's *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life.* 2 See Perry Mehrling's "The Monetary Economics of Benjamin Graham: A Bridge Between Goods and Money?," *Journal of the History of Economic Thought*, Vol. 33, Issue 3, September 2011. giving the government one petro for every barrel you extract covered all royalties and taxes, a petro might be worth about half a barrel of oil.

In that case, a Venezuelan entrepreneur might borrow 100 million petro from the central bank to fund extraction at a rate of 20 million barrels a year after, say, three years of development. Each barrel extracted would allow paydown of one petro of debt, after one petro is paid to the government for the royalties and taxes. This could well be a positive net present value investment.

An oil-backed currency allows the government to offer loans in a hard currency without being limited by its currency reserves, and the investment return is largely insulated from oil price fluctuations because revenues and expenses are both denominated in oil.

Unfortunately, none of the key requirements to make this plan work—a credible government, an oil shortage, and investors interested in taking on the massive technological and political risks of the drilling schemes—were in place. You could imagine it working better if oil soared above \$200 a barrel and Canada tried it to spur development of its oil sands.

As a securitization of future oil royalties and taxes, it could be managed on a private centralized ledger. Only a few people in the oil business would hold el petro, and the currency would flow from the central bank to the entrepreneurs, from the entrepreneurs to the equipment and expertise providers, and from the providers back to the central bank. That could help fund oil development, but policymakers in Venezuela had grander ideas.

Using cryptocurrency tools opened

breathtaking possibilities. Venezuela was starved for a trusted currency, and its citizens were accustomed to mining and using cryptocurrencies. Global investors were wild for anything crypto and were buying into even obvious frauds. El petro had very weak backing—royalty and tax savings on oil that might never be extracted—but Bitcoin and other cryptocurrencies had no backing at all, and their market capitalization was approaching \$1 trillion.

Many crypto enthusiasts denounced el petro because it required trust in the Venezuelan government to honor its legal promises to allow extraction of the oil. But if el petro had gone into general use for payment of taxes and fees, for government benefits, and eventually for nongovernment transactions, users wouldn't care about the theoretical backing by oil any more than they did when currencies were backed by gold. People would have accepted the currency for what it could buy today, not for its ability to get oil in the distant future.

The bigger problem was the need for trust in the honesty and competence of Venezuela's currency management. Because el petro was on a private centralized ledger, it would allow corrupt officials to expand issuance and steal the proceeds until the currency was worthless. That had already happened to the official currency, the bolivar. The Venezuelan government couldn't be trusted, or more precisely, it could be trusted to steal everything.

But the technology exists for a thoroughly untrustworthy government to credibly manage the issuance, acceptance, and use of a currency. Venezuela could have implemented a public blockchain. It could have released a public register of petro sales. But there never was a real cryptocurrency. Corrupt government officials need cryptotrust, the trustless exchange provided by a public blockchain, even more than anonymous internet transactors; they know they are dealing with crooks; the internet transactors only fear they might be.

During the 19th century, Venezuela averaged a revolution or civil war every five years. After the Blue Revolution of 1867-68, Venezuelan journalist Cecilio Acosta wrote in his essay "Las Revoluciones"³:

> The truth is that revolutions carry and leave new ideas to incubate; they throw down the old and force reconstruction. They are admirable as providential when they are honest; but honest or dishonest, they are convulsions that upset, and remedies that regenerate.

Chávez's self-named Bolivarian Revolution carried and will leave behind new ideas to incubate. The French Revolution gave us the metric system, with worldwide influence more than two centuries later. Perhaps the chaos in Venezuela will be remembered for fusing—if only in theory—the technological and financial ideas that could someday allow us to link volatile resource prices with risky development to promote the economy's general welfare.

3 See Antología del Pensamiento de Cecilio Acosta, Biblioteca Popular Miranda, 1977.

Brown is a former managing director and head of financial market research at AQR Capital Management. He is the author of *The Poker Face of Wall Street*. He may have a stake in the areas he writes about. This column doesn't necessarily reflect the opinion of Bloomberg LP and its owners.







Fresh Approach

SUMMERTIME MEANS strawberries in many parts of the Northern Hemisphere. Strawberry festivals abound throughout the U.S. and Canada. At Wimbledon, the prestigious tennis tournament on the outskirts of London, strawberries and cream are a courtside tradition. The berries are red; the cream is white.

In Japan, where peak season ends in April, things are different. White strawberries are particularly prized. Sold in highend department-store food halls and packaged like jewelry (and often purchased as gifts), the white berries can cost more than 1,000 yen (\$9) apiece. (The one shown here, from Teshima Farm in Saga prefecture, cost 720 yen.) Although they taste similar to red berries, they have advantages: They stain less and attract fewer birds, and the plants resist some diseases. Perhaps just as important, they challenge your assumptions.

To find news about Japanese foods, run **{TNI FOOD JAPAN <GO>}**. For a guide to global agriculture prices, run **{GLCO AGS <GO>}**. For Bloomberg Intelligence research on retail staples and wholesale goods in North America, including strawberries: **{BI RETFN <GO>}**. —*Christine Harper*

PHOTOGRAPH BY ERI HOSOMI Food stylist: Kaoru Mitsui CG designer: Kaori Yuki

For Meridiam's Thierry Déau, Assets Mean Airports and Tunnels

By SREE VIDYA BHAKTAVATSALAM photograph by julie glassberg

THIERRY DEAU'S ENGINEERING training in France led him early in his career to building government-funded infrastructure. But it was his entrepreneur father back home in Martinique who inspired him to strike out on his own in 2005. He started Paris-based Meridiam to finance, build, and manage long-term projects. Now, with €7 billion (\$7.83 billion) in seven funds and nine offices across Europe, the Middle East, Africa, and North America, Meridiam is playing a key role in high-profile projects such as the upgrade of New York's LaGuardia Airport and a road tunnel under the Port of Miami. Déau describes Meridiam's investment approach in an interview with *Bloomberg Markets*.

SREE BHAKTAVATSALAM: What led you to start Meridiam?

THIERRY DEAU: First of all, I am an engineer. I still don't define myself as a financier. I think finance is a means to produce other things. In the first part of my career, I actually built things and invested for governments and the French development banks. It was about how you invest to create better service and how do you maintain that in the long term. Clearly that triggered for me the need for an investment that is much longer than the typical private equity investment. So [that led to] creating a 25-year fund to really think about optimizing the investment and the infrastructure over the long run.

SB: What's involved in thinking about a 25-year investment? **D**: Obviously that immediately creates the focus on the outcome for the public—environmental, social, and governance issues. ESG is a very stringent engineering process; it's not painting things green and putting a stamp on it and having some fancy marketer come talk about it. Our ESG person here is an engineer who has been in this for years. So we've taken that to include the Sustainable Development Goals from the UN. If we can address probably five of the 17 clear goals of ESG in a significant way with our strategy, that's worth using to show where we produce impact. So whether we are talking about clean energy, resilient infrastructure, good jobs, or economic growth—especially when it comes to emerging markets—we can clearly show how we contribute and quantify it over the long run.

SB: What kinds of investors are most drawn to this?

D: Probably 95 percent of our investors are very much driven by these same [ESG] issues. Probably about 10 or 15 percent of our AUM [assets under management] comes from development banks. They are the kind of investors we used at the beginning to help us build up our methodology and standards. And then about 50 percent of the money we manage comes from pension funds—a lot of public pension funds but private as well. And the last bit is really coming from insurance and life insurance. So I must say that at the beginning we had maybe 10 to 15 investors, and they were very much people who were looking to do these kind of things. We grew to about 60. I would say that the first 45 were naturally doing it, and the rest we had to convert. There's always a lot of concern about how much it's going to cost in returns. This is a fake debate. You can create impact without necessarily costing returns.

SB: What kind of return can investors expect? The Harvard Business School case study of the Madagascar airport said 12 to 15 percent was the target. Is that the norm?

The risk-adjusted return that we target depends on whether you're in a developed market or an emerging market and on the risk specifics of the project. The range is probably a bit higher than that for emerging markets, but clearly it's an either low-teens or high-teens type of [percentage] return. But these are 25-year returns, so they don't come overnight.

SB: How does volatility factor in?

D: It comes from whether you can actually deliver the cash flow that you signed up for when you closed the project financially. Then you can have volatility from the counterparty that you contracted with. There are certain volatile counterparties—people call that political risk. It exists in every jurisdiction, not just emerging markets, because it's linked to public perception of your project. One way of dealing with that is actually making sure that satisfaction and engagement with the users and the beneficiaries of the infrastructure are at the highest level.

SB: What's your process when you evaluate countries?

TD: I can describe what the perfect country is for us: The perfect country has good financial standing but also an administration capable of engaging over the long term. If we stay for 25 years, we also need to partner for 25 years or more. The administrative capacity of the country is very, very important for us before engaging. That is also why we want to support as much as possible countries and regions in a capacity-building exercise. It's about managing the complexity of these [projects]. You need engineers, lawyers, financiers to sort of merge into one pool of people. **SB**: What attracted you to the LaGuardia Airport project? **TD**: The Port Authority [of New York and New Jersey] has a lot

of [administrative] capacity, and so that makes it more attractive

Déau



to have a client that actually knows what they're doing. It's not always the case. And then it was a bit of, you know, we've all come through that terminal and thought, Oh, God, what are we doing here? Is this the U.S. or is this, you know, some sub-Saharan city?

We were able to build the new central terminal before destroying the old one and then do all the concourses. That phased approach to maintaining operations while building has been critical. So a lot of thinking was done with a full focus on all the stakeholders' interests, because if you miss a few, then you end up with the wrong design and with the wrong approach.

So we created that group [LaGuardia Gateway Partners, with Skanska, Vantage Airport Group, and JLC Infrastructure], we bid it. There are two rounds and a number of discussions with the Port Authority. [Former U.S. Federal Aviation Administration chief] Jane Garvey, with her background in aviation, led the discussion for us. So that was quite successful. But I think price and things weren't the real driver in terms of winning. It was addressing all of these different issues and managing risk—environmental risk for an airport is very high, and the construction risk there was also very, very high.

SB: Does it help you to have a network of people with a lot of experience in the public sector?

D: I have a number of people who've actually managed and done things in the public sector—not necessarily on the political level but in the administration, delivering infrastructure, who have dealt with the unions, stakeholders, have been in public hearings about projects and understand how tough it is. And we have people from the industry, from contractors, developers, or operators. We have very few people who are purely financial within Meridiam.

SB: Do you deploy funds when you see opportunities, or do you raise pools dedicated for certain purposes?

No, we raise on a regular basis basically regional funds. We typically have three and a half to four times more money signed up than we need. So we scale back investors. Today this \$7 billion or \$8 billion that we manage has been tranches of \$1 billion or \$2 billion at a time. And on top of that, our management side is growing. Today we have 73 projects in 23 countries with a combined capex [capital expenditure] of about €50 billion.

SB: How do you structure your fees?

The funds are based on the typical sort of management fee and carry structure, but the carry goes to a pool for the individuals. The company itself really only runs on the management fee. But we also have a labor-intensive approach because we have probably two or three times more people than most funds that are doing the same thing in the market in a different way. And so if investors request, we give them our accounts, and they get what we do.

The other interesting bit is the way the carry works on a 25-year fund, which we had to invent. Carry is actually distributed halfway through, at Year 12 and in shares. So you become co-LPs, and you can liquidate those shares gradually. You need to keep a small bit of it basically as a pension fund for 25 years.

So it also attracts a different type of profile of people who certainly can make money out of carry, but there is a long-term commitment because you're basically putting some of that in your pension plan.

Bhaktavatsalam is managing editor for finance and investing news in Europe, the Middle East, and Africa.

Exchanges

Settling the Wild West: Companies Put Down Stakes on AIM

By LISA PHAM

MARCUS STUTTARD doesn't like the expression "Wild West."

The label gets used a lot to describe AIM, the London Stock Exchange's junior market for growth companies, and the two words provoke a mirthless laugh. "I care more about our market users than I do about people occasionally deciding to throw a bit of mud that's not well-founded," says Stuttard, the head of AIM.

AIM, once seen as a stepping stone for hundreds of small companies wanting to list on the exchange's main market, has been trying for years—decades even—to get past its reputation as a volatile venue where corporate blowups are commonplace.

And for many investors and companies, it's succeeded. A greater proportion of companies listed on AIM are profitable. Such stocks accounted for the highest percentage of the exchange's market value in its history recently. Why? For one thing, more companies are staying on AIM even as their market valuations have ballooned.

So what's changed?

The types of companies on AIM are different. Started in June 1995, the submarket's early years coincided with the dot-com boom, and it wasn't immune when the bubble burst at the turn of the century. AIM went through another cycle of boom and bust as it pulled in listings by U.S. companies seeking to sidestep regulatory provisions of the 2002 Sarbanes-Oxley Act. Each bull market has led to a surge in listings, only to see some of those companies implode when the economy soured. Along the way, though, AIM has attracted companies from a wider variety of sectors, including consumer, health care, and industrials. Now, more than 10 years after the financial crisis, the market is thriving again.

Government measures have also helped. In 2013, AIM shares were allowed to be included in individual savings accounts for the first time, which meant investors wouldn't be taxed on dividends or pay capital gains tax on profits. Another perk: Many AIM stocks are exempt from inheritance tax if they've been held for at least two years. Companies thus have less incentive to leap to the main board; they can now potentially have a stable investor base on AIM.

A number of U.K. household names have opted to stay on AIM, including online fashion retailer Asos Plc and premium tonic maker Fevertree Drinks Plc. This has pushed up valuations and helped improve the junior market's reputation.

Asos is regarded as the first company that didn't feel the need to move to the main market, says Phil Harris, a fund manager at EdenTree Investment Management Ltd. A spokesman for Asos says the company still doesn't feel a need to move. "AIM works really well for us, and we have no compelling reason to change," the spokesman says. "We keep it under review." The London-based company listed at only 20 pence (26¢) in October 2001 and traded above £39 on April 30, a total return of 19,505 percent, or 35 percent per year.

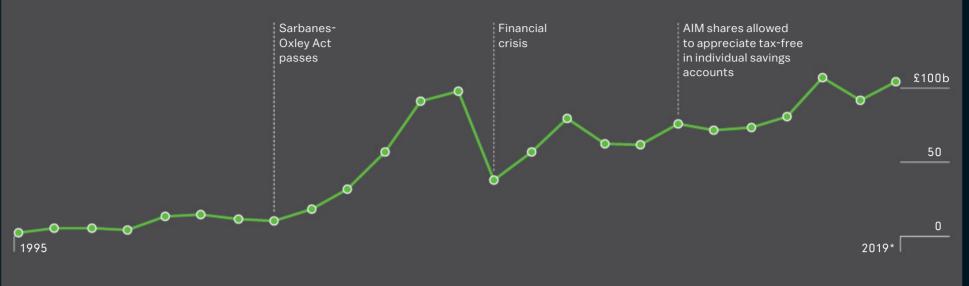
Shareholders used to expect companies to eventually move onto the "grown-up" main market. In fact, Harris says that 10 years ago, he would have been asking AIM companies that had grown sufficiently about whether it was time to consider transferring. These days, he doesn't care which market they're on. "It's just not a conversation that ever comes up anymore," he says.

WHAT DIFFERENTIATES AIM from other growth markets around the world is its ability to marshal investors. Almost 60 percent of capital raised on European growth markets last year took place on London's AIM. Helping drive that dominance are AIM's so-called nominated advisers, or nomads, firms that guide companies during the listing process and in meeting their continuing obligations once they start trading. The nomads vet the companies they

Growth Market

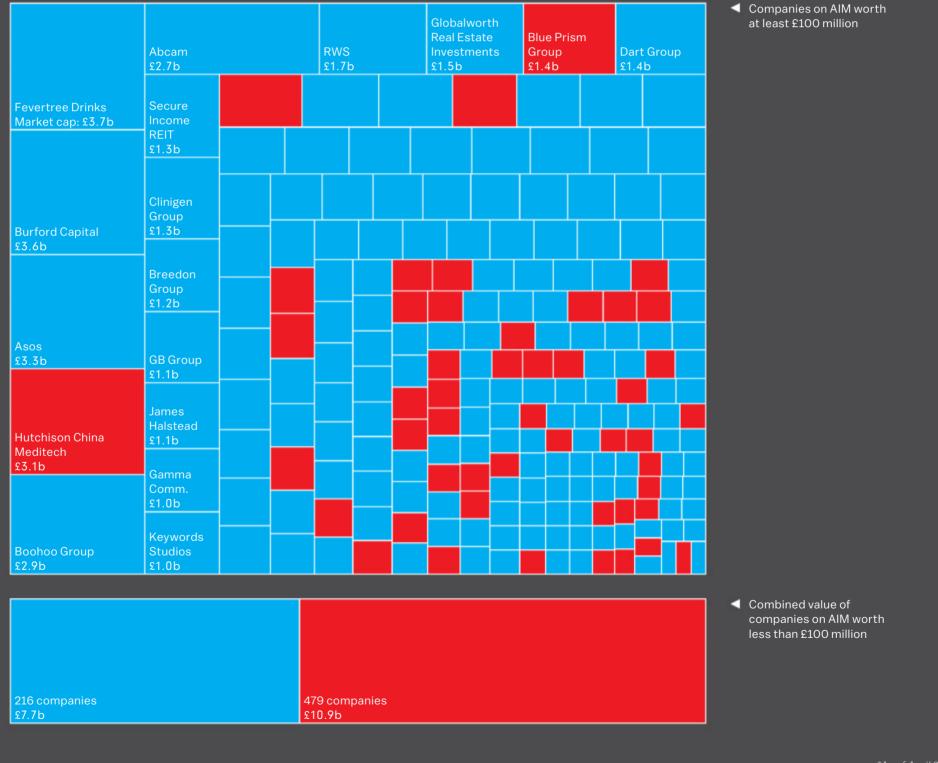
AIM, a segment of the London Stock Exchange focused on smaller companies, has grown in market value since it was founded. Its members are remaining on the exchange longer, and most are now turning a profit.

Aggregate value of companies listed on AIM at yearend



Value of companies listed on AIM on April 30, by market capitalization and profitability over the trailing 12 months





*As of April 30 Sources: London Stock Exchange, {EQS <GO>}, {FA <GO>} advise, which may make some investors more willing to invest.

Despite Brexit uncertainties, AIM companies raised almost ± 1.1 billion in the first three months of 2019 compared with only ± 424 million raised on eight other junior markets in Europe, according to accountancy company UHY Hacker Young Group. The number of initial public offerings on AIM slowed in that period, though, with only one listing in March, the lowest quarterly IPO activity in a decade.

The combined market valuation of the 904 companies listed on AIM was \pounds 97.6 billion at the end of March, with 46.6 billion shares traded that month, according to London Stock Exchange data. That compares with the main market's aggregate valuation of \pounds 3.8 trillion.

FOR INVESTORS, AIM may offer the potential for higher returns, but it still comes with higher risks. Of the almost 4,000 companies that have listed on that market since its introduction, less than a quarter are still trading.

Part of what fueled AIM's Wild West reputation were the mining and oil and gas companies that flocked to the market—only to delist a few years later. Those are sectors that Harris stays away from, because of the amount of travel that would be required to ensure that a company drilling in Africa, for example, has actually unearthed a viable amount of oil. "I don't think they're particularly interesting investments," he says. "I don't touch them, but I think that part of the market inevitably will always have that slightly more Wild West reputation."

EVEN MINING COMPANIES can decide to leave AIM. London-based Sirius Minerals Plc transferred to the main market in 2017. The company is developing the world's biggest deposit of polyhalite, a mineral salt used as a fertilizer, at a site located in a national park in England's eastern county of North Yorkshire. It expects production to start in 2021.

Nick King, Sirius Minerals' general counsel and company secretary, says it was a natural evolution. "We felt it right to be seen to hold ourselves to the highest of standards, which was always our goal whilst on AIM," he says. On the main market, the company's reporting and disclosure requirements are higher because of its so-called premium listing, and items such as remuneration reports now require shareholder approval.

"Any perceived reputational issues for AIM are a bit unfair," King says, adding that the submarket offers the opportunity for businesses without experience operating in a listed environment to develop appropriate systems and governance practices. "The trade-off for investors is that AIM businesses will be evolving these practices."

DOZENS OF EMPLOYEES are immersed in their monitors on the trading floor of Winterflood Securities Ltd., located about a stone's throw from the Thames River in London. The brokerage firm founded by financier Brian Winterflood was one of the original market makers when AIM started. Last year it was the leader in trading AIM shares, both by volume and value.

Ben Jowett, head of client sales and business development, has been with the company for more than two decades. He's seen AIM outlive other European growth markets, including France's Nouveau Marché, Germany's Neuer Markt, and Italy's Nuovo Mercato. These days a lot of retail investors are placing orders through their smartphones and are attracted by the prospect of investing in a company that might one day strike oil or find gold, Jowett says. They're also interested in tech stocks that may be developing game-changing technology, as well as companies that have the potential to grow exponentially.

The companies that get really big, such as Asos and Fevertree, trade more like FTSE companies, Jowett says. There's so much activity that trades are largely matched via order books, in contrast to some other stocks that might need a market maker to be on the other side of a trade. As the big get bigger, it means they're distorting the data. "We sometimes had to exclude Asos from our trading data to get a clearer picture of what was happening in the broader AIM market," Jowett says.

Not everything is rosy on AIM. Because there's more liquidity, making it easier for speculators to put on negative bets, AIM is increasingly becoming a hunting ground for short sellers. Asos, whose market valuation reached a record £6.5 billion in March 2018, became one of AIM's most-shorted stocks by the end of that year after unexpectedly cutting its sales outlook, according to IHS Markit Ltd. data. IQE PIc, another short seller favorite, was the target of research reports by London-based ShadowFall Capital & Research LLP as well as Carson Block's Muddy Waters Capital LLC last year. There were more activist short campaigns targeting AIM companies last year than in any other year, according to data that Activist Insight compiled.

AIM companies can sometimes seem to suffer from a lack of management oversight. Some make costly acquisitions. Recent high-profile collapses were U.K. bakery chain operator Patisserie Holdings Plc and Bargain Booze owner Conviviality Plc.

Defenders are quick to point out that those failures had nothing to do with the AIM market itself, noting that construction company Carillion Plc imploded on the main market.

"We're not operating a zero-failure regime," AIM's Stuttard says. "One of the big benefits of the public markets is that they allocate capital efficiently, and that's their role. It's not to prevent failure."

Stuttard joined the London Stock Exchange's listing department in 1994, the year before AIM was introduced, and 2019 marks his 10-year anniversary as the head of AIM. His tenure has already exceeded the length of his predecessor, Martin Graham. Stuttard says he's proud of the contribution AIM has made to the U.K. economy.

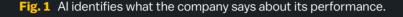
Meanwhile, there may be a new Wild West in London: a standard listing on the main market, "which is very cheap with no corporate governance," says Scott Evans, a researcher at the London Business School. "Three of the brokers I've talked to have told me they find it staggering that people want to invest in a lot of standard-listed companies because there's no corporate governance whatsoever."

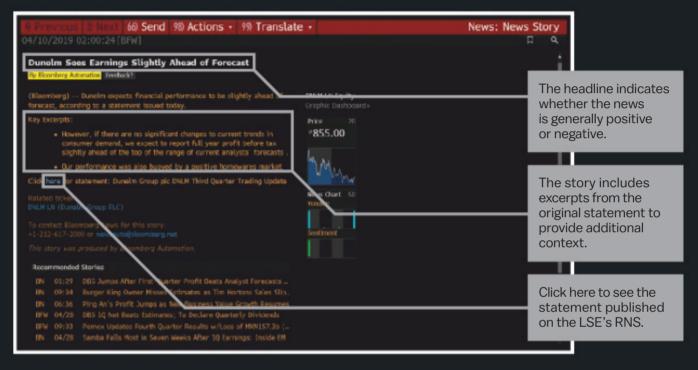
Stuttard bursts into laughter at the prospect that increased interest in standard listings will spell the death of AIM. "Absolutely not," he says. "I think we've got the right balance, both with AIM and the main market, and it's for companies to decide which market they want to go to."

Pham covers European equities and equity markets at Bloomberg News in London.

Al Can Help You Stay on Top of U.K. Trading Updates

By LINA VOURGIDOU





ON A TYPICAL WEEKDAY morning in London, dozens of press releases with actionable trading updates and financial statements from U.K. publicly traded companies hit the Bloomberg terminal at the same time: 7 a.m.

It's a challenge to keep up.

Until now, that is. New Bloomberg Al algorithms immediately scan all trading updates from the London Stock Exchange's Regulatory News Service, or RNS. Al identifies what the statements say about current or future performance—and how this compares to prior forecasts or market expectations.

The algorithm publishes a story within milliseconds of each statement hitting the terminal (Fig. 1). The headline will give you insight into whether the news is generally positive or negative. Is

the company going to beat or miss expectations? By what margin?

In the body of the stories, you'll find excerpts from the statements that provide the most important additional context. The stories are tagged to the relevant companies and appear in the regular news flow as well as in general stock market news sources, such as First Word. Run **{FIRS <GO>}** for the real-time digest of news.

To see all of these RNS trading update stories, use natural language: Type "News on RNS trading updates" on the command line and hit <GO>.

Vourgidou is on the News AI & Extraction team at Bloomberg News in New York.

Explore Chinese Bonds With These Formulas for Data-Heavy Analysis

By VINCENT TONG and MICHAEL McDONOUGH

BLOOMBERG INDEXES began adding Chinese yuan-denominated bonds to the Bloomberg Barclays Global Aggregate Index in April. The process of gradually increasing the weight of these bonds in the benchmark will continue until November 2020, when China is projected to account for about 6 percent of the Bloomberg Barclays Global Agg.

To find opportunities related to this watershed event in global capital flows, you can use Bloomberg Query Language (BQL), which enables you to perform data-intensive analysis across economic, fundamental, and pricing data in the Bloomberg cloud. We've put together three examples of BQL formulas to help you gain insight into China's bond market. To download a spreadsheet containing these examples, type "DOCS 2090734" on the command line of a terminal screen, hit <GO>, and click on the Download Document button.

(A quick word about BQL syntax: The formula that operates on data in the Bloomberg cloud takes the form =BQL.Query(). Within the parentheses, you can set up the operations you want to perform and specify the universe of data you want to look at with "get()" and "for()" clauses, among others. For more on BQL syntax, go to **{BQLX <GO>}**.)

Economic Overview

Let's start with economics. In the spreadsheet, click on the Economic Overview tab. At the top of the sheet are three clauses: A "let()" clause is in cell C9, a "get()" in C10, and a "for()" in C11. These clauses are called by a formula in cell B13 that looks like this: =BQL.Query(C9&C10&C11).

What does this formula do? In effect it says to calculate the average gross domestic product growth over the last five quarters for every country in the world, then rank those economies by nominal GDP, and show the resulting data for the 10 largest ones.

Unsurprisingly, China's average growth of 6.56 percent was the second-highest, after India's 7.47 percent.

OK, China's economic growth has been moderating since 2010. Yet Bloomberg Economics's proprietary monthly GDP estimate (ticker: **{CHBNINDX Index}**) jumped in the first three months of the year, and prospects are looking up.

That outlook, combined with a pause from the Fed, could bode well for Chinese bonds. Last year the country's decelerating growth and yield compression led to a slowdown in foreigners buying Chinese on-shore bonds (Fig. 1). This year, by contrast, could see increased demand.

The inclusion of Chinese bonds in Bloomberg indexes required a joint effort between Bloomberg and the Chinese government, with China implementing a real-time settlement system for this \$13 trillion market. Analysts say the inclusion could lead to more than \$100 billion in foreign inflows. That would make China the world's second-largest bond market, a spot currently occupied by Japan.

So how can you identify opportunities here?

Fixed Income Index Matrix

Let's start with a so-called statistics index that includes Chinese bonds at full weight. Its ticker is **{I32751 Index}**. (To be clear, this is a theoretical daily snapshot of what the Agg would look like if the gradual process of adding Chinese bonds were complete.) Thing is, this index included 23,515 bonds as of April 30. Doing any analysis on all the benchmark's members would be a labor-intensive task requiring heavy data downloads and extensive data manipulation. It's a lot to wrestle with.

Not with BQL. In the sample spreadsheet, click on the Fixed Income Index Matrix tab. With a single query we can take all the bonds in the index, sort them by country of risk, and then further group them into maturity buckets: 1 to 3 years, 3 to 5 years, and so

Fig. 1 Run {ECWB <GO>} to use the Economics Workbench function to chart data on bond holdings from China Central Depositary & Clearing Co.

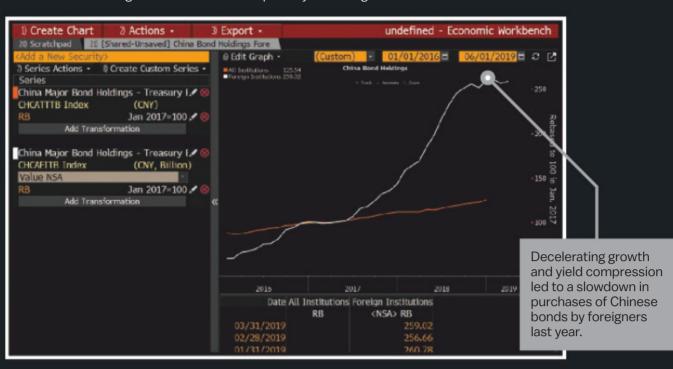


Fig. 2 To download a spreadsheet with three examples of BQL formulas for getting insight into China's bond market, go to {DOCS 2090734 <GO>}.



forth. Then we can track how the average yield in each of those buckets has changed in the past 90 days. A little Excel manipulation allows us to create a matrix of all those changes (Fig. 2). In it, you can see that the average yield for Chinese bonds (country-of-risk code: CN) in the 10- to 15-year bucket increased by 17 basis points. That might be an opportunity. By comparison, the average yield on bonds in the 7- to 10-year bucket decreased by 21 basis points.

Let's drill down to see how bonds in a given maturity band are trading.

Bond Screening

So what are the most liquid bonds—by the tightest bid-ask spreads—trading on the Shanghai, Shenzhen, and Interbank China exchanges that mature in 10 to 15 years? One more condition: The

amount outstanding must be more than 100 million yuan (\$15 million).

To see the formula that does this, click on the Bond Screening tab in the spreadsheet. As of April 30 the most liquid bond was one issued by Guangdong Provincial Highway Construction Co. that pays a 4.25 percent coupon and matures in 2030.

To see additional information on using BQL for bond analysis, run **{BQLX <GO>}** and click on the BQL for Fixed Income link. For more on Bloomberg functionality for Chinese debt—including platforms that allow users to trade Chinese bonds directly via connections to onshore channels and brokers—go to **{RMB <GO>}**.

Tong is a member of the desktop build group at Bloomberg in London. McDonough is chief economist for financial products in New York.

Investing

Skill or Luck? Get Insight for Your Manager Selection Process With BQL

By OWEN MINDE and JOSH SCHECHTMAN

UNTANGLING LUCK AND SKILL is a famously hard problem in investing. One particularly insightful observer on this topic is Michael Mauboussin. The director of research at Bluemountain Capital Management LLC coined the phrase "paradox of skill": When fund managers develop more skill, their performance becomes more consistent, and luck becomes a more important determinant of relative performance. Perhaps that explains some of the shift of assets into passive investments in recent years.

For that matter, only 35.5 percent of U.S. active funds outperformed the S&P 500 in 2018, according to S&P Global's most recent Spiva Scorecard. Over longer time frames, performance is even worse. Just 17.9 percent of such managers outperformed over the five years through Dec. 31, 2018.

Let's say you're selecting funds and are considering one of those managers that did outperform. Is the manager's strong performance likely to persist? Analyzing fund performance metrics over time can provide some insight. Metrics demonstrating stable and persistent outperformance could indicate a skillful manager. Inconsistent, variable performance may suggest that strong returns were just luck. You might even infer that a "lucky" manager's performance will revert to the peer group mean in the next period.

TO KICK OFF such an analysis, you can use Bloomberg Query Language (BQL), a new application programming interface that allows you to screen vast amounts of fund performance data in the Bloomberg Cloud.

Arguably, the most time-consuming part of fund performance analysis is pulling the data and cleaning it up. BQL can speed up this process significantly. To download a sample spreadsheet with a formula that lets you analyze the monthly returns of all actively managed open-end funds benchmarked to the S&P 500 Index, run **{DOCS 2090748 <GO>}** and click on the Download Document button. At the bottom of the spreadsheet, click on the Monthly Excess Returns tab if it isn't already selected. At the top of the sheet is the formula (Fig. 1). What is this? To step back for a moment, the formula that enables you to perform custom data operations takes this form: =BQL.Query(). Within the parentheses, you can embed clauses: A "get()" clause, for example, lets you specify what data you want to get.

In this case, we're using four clauses: let(), get(), for(), and with(). First, in the let() clause, we're going to define some variables, which are specified by the #. The "#fund_return" variable consists of the "Return Series" data item between the end of 2015 and 2018, with a monthly periodicity. The "#spx_return" variable pulls in the S&P 500 return for each of those monthly periods. The "#spread" variable, then, is the difference between the fund return and the benchmark. In other words, it's the monthly outperformance or underperformance of the funds.

Next, in the get() clause, we're looking to output the #spread for all of the funds for which data are available.

In the for() clause, we're using a BQL function, fundsUniv(), to start with the universe of all funds. Then we're using the filter() function to drill down to the open-end funds that are benchmarked to the S&P 500 and are actively managed. By adding a few words to this query, you could screen for geographical focus, management style, strategy, or asset class, for example.

The with() clause adds a global override to the query to make it run faster.

Finally, the query itself is in cell H12. Important note: This query pulls a lot of data and can affect your usage limits. If you decide to run it, use the drop-down in cell C10 to select Y. Doing so as of early May populated the spreadsheet with three years of monthly performance data for 661 funds.

Interestingly, only 101 of the 661 funds outperformed the S&P 500 in more than half of the periods we're looking at. In other words, only 15 percent of the funds outperformed half the time.

Click on the Average Excess Return tab to see a formula that calculates that figure for the universe of 661 funds. In 2018 the average was -0.96 percent behind the S&P 500.

OK, let's zoom in on the top performers. Click on the Scatter

Fig. 1 To download a spreadsheet with some examples that use BQL for fund analysis, run {DOCS 2090748 <GO>} and click on the Download Document button.

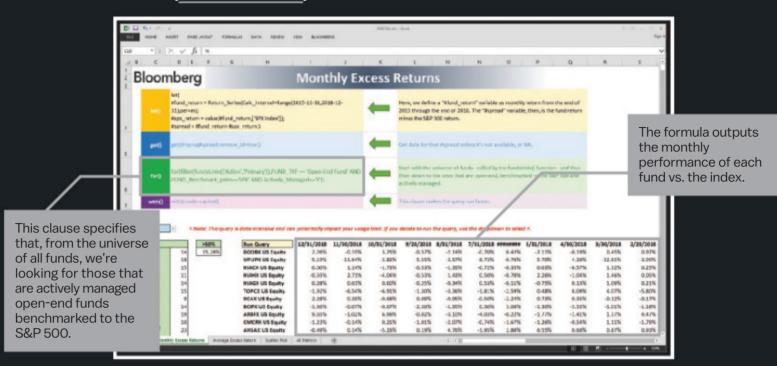
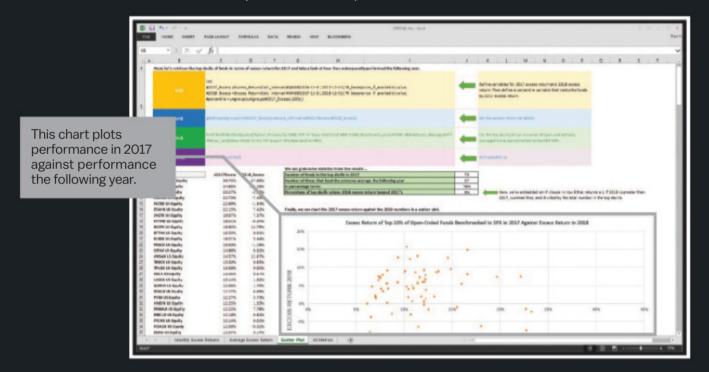


Fig. 2 The Scatter Plot tab lets you examine the top decile of funds in 2017 and see whether their performance held up in 2018.



Plot tab. As you can see, the formula here is similar; however, we're adding another variable, "#percentile." In defining it, we're using the cut() function to divide the data into a certain number of pieces—specifying "100" divides the 2017 excess returns into percentiles. Then, in the for() clause, we're saying that we only want to pull in the funds in the top decile of excess returns: "#percentile>=90."

Those top funds are listed on this worksheet. There were 75 of them. We can look in a couple of ways at how the top funds of 2017 performed the next year. How many beat the average excess return of the whole universe in 2018? Fifty-six, or 75 percent. What percentage of 2017's top funds outperformed themselves in 2018? Just 9 percent. In summary, there is evidence of both performance persistence and reversion to the mean.

You can also see that in the scatter plot of the data (Fig. 2).

Finally, click on the All Metrics tab for a summary of performance and risk metrics for a single fund. Here, we've set the dates to the period in December when the S&P 500 plunged 16 percent, so you could, for example, examine how a contrarian fund bucked that market drop. Once you have a fund you want to analyze in greater detail, go to **{XLTP XRSK <GO>}** to download the Risk Measures for Funds sample spreadsheet. This template, powered by BQL, enables you to drill down into a fund's performance metrics over time and compare it with its peer funds. For more on BQL, go to **{BQLX <GO>}** and click on BQL for Funds.

Minde is an FX and macro market specialist and Schechtman is a senior equity specialist at Bloomberg in New York.

Against Consensus: How to Spot Divergences in Dividend Forecasts

By JESSICA BEATUS, CHRISTOPHER RUNG, and ZHUO ZHANG

CONTRARIANS LIKE TO zig while others slog glumly along with consensus. So if you're feeling contrarian, here's an area you might consider: dividend forecasts.

Future dividends are important, as they directly affect portfolio returns and options pricing. Bloomberg Dividend Forecasts (BDVD) provide as many as four years of projected payouts, including dates and amounts.

BDVD's forecasts, historically more accurate than Wall Street consensus, are based on three things. First, BDVD analysts start with the selected company's stated dividend policy. Second, they perform bottom-up analysis using key publicly available information. This includes guidance, financials and pricing data, options put-call parity and dividend swaps, sector- and region-based knowledge, and market momentum. And third, they consider patterns in payment history.

BLOOMBERG FORECASTS may at times deviate from consensus. These types of divergences might be interesting if you're digging into a company's dividends per share and changes in free cash flow. Here's how you can find such deviations by screening for stocks with 12-month-forward dividend yield data.

Type "equity screening" on the command line of a Bloomberg terminal screen and click on the EQS item in the list of matches. EQS lets you drill down to a list of stocks that match the criteria you specify.

Let's focus, for example, on the members of the S&P 500. (Of course, you could instead use your own universe—a watchlist or portfolio—in this analysis.) Enter "S&P 500 Index" in the Add Criteria field and click on the matching item. That winnows the list to the benchmark's 505 stocks as of April 25.

Next, let's screen for companies with a consensus dividend forecast that's lower than the BDVD projection. Enter "BEst Div Yld" in the Add Criteria field and click on the matching item. By default, the period will be set to Blended Forward 12 Month. Keep that. Then select < Less than. In the field that appears below, enter "BDVD Projected 12-Month Dividend Yield," select the matching item, and hit <GO> while your cursor is still in that line.

The search yielded 192 companies as of April 25 (Fig. 1). Click on the See Results | WATC button for a list. In WATC you can further filter the stocks. To see the S&P 500 companies with projected yields that are higher than the forecast 10-year Treasury yield, for example, enter >2.5 in the amber field in the Proj 12M Dvd Yld column and hit <GO>.

FOR AN EXAMPLE of a company whose BDVD forecast differs materially from consensus, consider Broadcom Inc. Run **{AVGO US Equity BDVD <GO>}** to see BDVD forecasts for the San Jose-based chipmaker (Fig. 2). Add up the BDVD forecast amounts for the next four quarters, and the projected payout is \$11.70 per share. By contrast, the Street consensus was \$11.22 per share. That's a 4 percent divergence.

What's behind the higher BDVD forecast? Broadcom has historically returned 50 percent of its free cash flow from the

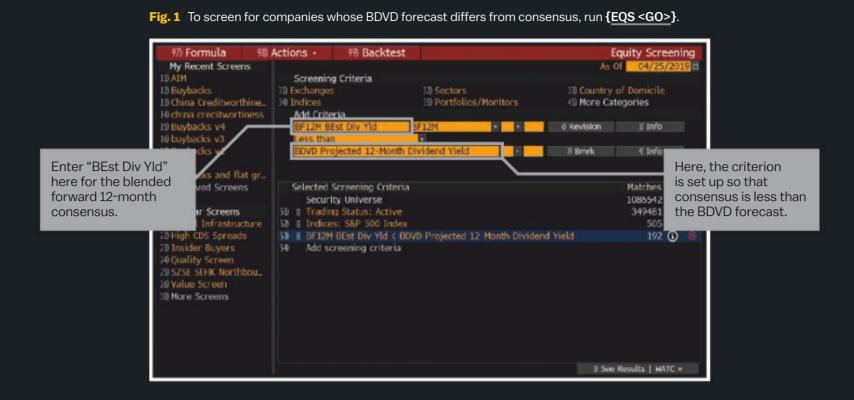
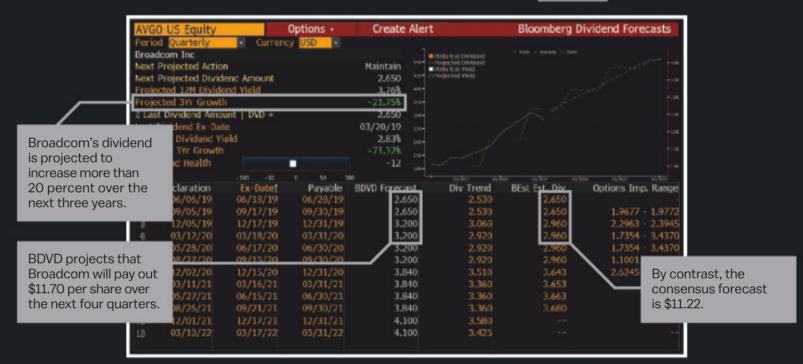


Fig. 2 To see Bloomberg Dividend Forecasts for a selected company, run {BDVD <GO>}.



previous year in the form of dividends. And when the company reported fourth-quarter earnings in December, Chief Financial Officer Thomas Krause said on the call that planned buybacks would reduce the number of shares while free cash flow would increase. "So when you do that math," he said, "you're going to come up with a number that's north of 20 percent in terms of potential for dividend growth."

To check out some history of Broadcom's payouts, click on Last Dividend Amount | DVD, which will open up the Dividend/ Split Summary (DVD) function. Click on the Settings button on the red toolbar, and tick the box next to Show Comparative BDVD Forecasts if it's not already selected. Then click Close.

In the past four quarters, BDVD missed only once, by 1¢—a 0.38 percent difference—when Broadcom announced fourth-quarter

earnings in December. Consensus was off by 17 percent.

To see Wall Street estimates, run **{EEB <GO>}** for the Estimate Consensus Detail function. Click on the arrow to the right of Measure, and then select DPS. Let's take a look at the first quarter of 2020. Set the Period to 2020 – Q1. As of April 25, six estimates fed the consensus for Broadcom's first-quarter dividend. They ranged from \$2.65 to \$3.31. The mean was \$2.96, while BDVD's projection was \$3.20. That's an 8 percent difference.

Combining BDVD with Street consensus can supply you with a comprehensive set of predictions of future dividends—and you may be able to find some divergences in that. • — *With David Tung and Gilbert Xu*

Beatus, Rung, and Zhang are dividend analysts at Bloomberg in Princeton.

Using the Fixed Income Worksheet To Dig Into Local-Currency Debt

By SANDRO AMORIM

IF YOU FOLLOW credit markets, you're probably familiar with the Fixed Income Worksheet (FIW) function. Clients sometimes call it "Bloomberg's Bond Portal." One of FIW's key features is its userfriendly interface that lets you easily filter and analyze an extensive universe of bonds from different sources such as Bloomberg Barclays Indices, custom searches, an exchange-traded fund, or your own portfolio.

Given the dovish outlook in the U.S., you might be thinking about moving a bit further out on the credit risk spectrum. One of the usual candidates is U.S.-dollar-denominated Latin American debt. However, if you're willing to take a bit more risk, you might want to look at Latam debt issued in local currency. The upside: higher interest rates plus potential local-currency appreciation.

That raises a question. For dollar-denominated bonds, it's straightforward to perform relative value analysis in FIW and check liquidity and performance using your preferred pricing sources.

But is that also true for local-currency bonds?

1. To start answering that question, let's look at a couple of examples by using the Bloomberg Barclays EM Local Currency Latam TR Index Value Unhedged USD, an index made up of the most liquid local-currency Latin American sovereign bonds. This year the index has returned 4.96 percent in dollar terms through May 1. By contrast, the U.S. Aggregate Bond Index returned 3 percent.

Run **{FIW <GO>}**. Use the drop-down in the upper-left corner of the screen to select [More Lists...], and a Select List window will appear. Under Source on the left side of the window, click on Fixed Income Index. Then in the <Search> field, enter "EMAMTRUU" and click on the matching item. Click on the Select button. Close any bright blue "pills" near the top of the screen that show you have other filters set up. Click on the Matrix tab. At the top of the screen next to the label Group By are two amber fields that let you specify groupings for the bonds. Select Country of Risk and then Years to Maturity. To plot the whole set of bonds, click on Bond Chart (Fig. 1).

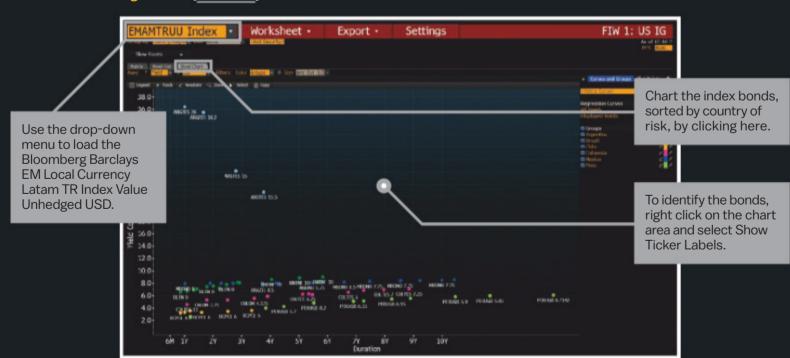
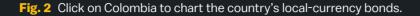


Fig. 1 Go to {FIW <GO>} for the Fixed Income Worksheet function.

2. Colombia. In the right panel, uncheck Groups and tick the box for Colombia (Fig. 2). Set the Y axis to Yield Conventional. Most of the bonds that appear are known as COLTES, which are fixed-rate Colombian-peso-denominated bullet bonds that pay an annual coupon. Note that there are also three bonds with the ticker COLOM. These global bonds follow the same cash-flow structure as the COLTES but were specially designed for offshore investors,

paying coupons and redeeming in U.S. dollars. After a smooth political transition following the 2018 elections, Colombia has inflation within its targets and a negative output gap, supporting low interest rates. The economy is oil-dependent, so the main risk for a Colombian-peso bond portfolio this year would be oil prices returning to the lows of December. That would hit the country's finances and cause foreign exchange weakness.





3. Argentina vs. Chile. Select Argentina and Chile to plot bonds of the two countries, showing the wide gap between the index's highest- and lowest-yielding bonds (Fig. 3). The two countries are facing very different economic and political situations.

Argentina's fixed-rate bonds, called BOTES, are bullet instruments with a semiannual coupon. They have the highest yields among index members. Volatility in the country's financial markets will probably linger this year, especially with Argentine general elections slated for Oct. 27. Inflation rose to almost 53 percent in March, while the economy is still in recession, putting the central bank in a difficult position. If the worst is already priced in to bond prices, though, the rewards could be high.

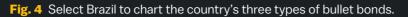
Chile is in a much more comfortable situation, with the lowest yields in the index. Economic growth picked up in the fourth quarter of 2018, while inflation continues to be manageable and near the lower limit of its target. The central bank recently paused a hiking cycle, but upward moves are still in the plan though at a slower pace.



Fig. 3 Select Argentina and Chile to compare the highest-yielding debt with the lowest.

4. Brazil. When you filter for Brazil, three kinds of fixed-rate bonds appear (**Fig. 4**). All are bullet bonds. The LTNs are zero-coupon instruments and are the main reference for the short tenors. The NTN-Fs are longer-dated and pay 10 percent coupons semiannually. Like Colombia, Brazil has sold global bonds, which appear under the ticker

BRAZIL. Payments on these Brazilian-real-denominated bonds for offshore investors are settled in U.S. dollars. The market still has high expectations for Brazil's economy under the new government of President Jair Bolsonaro, counting on his political and economic teams to deliver on promised reforms including a pension overhaul.





5. Brazil Local Corporate Bonds. If you're looking to move even further out on the risk curve, you might consider Brazilian-real-denominated corporate bonds, known locally as debentures. Run {SRCH @BRAZDEBEINFRA <GO>} to search for infrastructure-sector debentures with the Fixed Income Search function. Click on Additional

Analysis Options and then on Evaluate Pricing | FIW >>. In FIW, select Group By BCLASS Level 3 and then Maturity. Click on the Bond Chart tab. In a few clicks, you can compare a specific sector with the local sovereign bonds. Select a sector and click on the small chart icon beside it to load a regression curve (Fig. 5).

Fig. 5 Run {SRCH @BRAZDEBEINFRA <GO>} to search for Brazilian infrastructure debentures. You can then load them in FIW and compare with a government curve.



THESE ANALYSES just scratch the surface of FIW.

Once you do your own analysis, you can save it and even share it via MSG or IB. For a link you can share, click on the Worksheet button on the red toolbar and select Copy Link.

At the end of the day, there are any number of reasons to

add—or not add—Latin American local-currency bonds to your portfolio. But lack of analytical tools is definitely not one of them.

Amorim is a fixed-income market specialist at Bloomberg in São Paulo.



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Use Trading Signals to Pick Up Some Contrarian Alpha

By SUKETU KOTHARI and TOM SCHNEIDER



Fig. 1 The Trading Signals function lets you use sample indicators or create your own custom signals. Run {TSIG <GO>} and select a signal such as RSI to analyze its effectiveness.

U.S. TREASURIES rallied a lot in March. The yield on the 10-year Treasury dropped from 2.76 percent on March 1 to a low of 2.37 percent on March 27. Fundamentally, it was a flight to quality: People were worried about the equity markets' performance and a no-deal Brexit. So they were buying Treasuries as safe assets. In addition, Federal Reserve policymakers scaled back their projections of rate increases at their March 20 meeting.

What can you do with that? Fundamentals may be saying that rates are going lower, but you can use technical analysis to potentially profit from the other side of that trade. Let's say you're running a long bond portfolio and don't want to sell into the rally. Can you pick up a bit of alpha around the move? When you see the trend starting to become exhausted, for example, you could put on a structured derivative trade that would pay off if yields rose.

That's where technical trading signals come in. Run **{TSIG <GO>}** for the Trading Signals function. Then click on the Sample Signals subtab for a list of ready-made signals. Let's look at RSI, one of the most commonly used technical indicators, for

example. Scroll down in the list to Relative Strength Index and click on it. Let's use the generic 10-year Treasuries futures for this analysis. Enter "TY1" in the field in the upper left corner of the Trading Signals: Signal Analysis screen and then click on the matching item. (Bear in mind that we're now looking at price rather than yield.)

RSI is a momentum study that compares the size of up moves with down moves during a set number of trailing periods—typically 14—and indexes that to a scale of 1 to 100. When rising moves predominate and RSI breaches a level of 70, the market is considered overbought. A break below 70 generates a sell signal. On a daily chart of the Treasury futures, RSI generated such a sell signal on March 29, when the contracts traded at a price of 124-07. Five days later, the futures traded at 123-19.

Kothari is an interest-rates derivatives and fixed-income market specialist and Schneider is a charts, technical analysis, and data-visualization market specialist at Bloomberg in New York.

The Research Industry Works on How to Win and Keep Clients

By JUSTINA LEE

UBS ANALYSTS tore a Tesla Model 3 apart.

They teamed up with engineers to examine its parts and detail its technology. They did the same with BMW and Chevy electric vehicles. Then the analysts wrote five reports—totaling more than 200 pages—comparing the three cars (spoiler: Tesla won).

Clients of UBS Group AG might recognize such work as the hallmark of its Evidence Lab, which specializes in collecting proprietary data. That includes regularly sweeping the internet for prices of luxury handbags, surveying Chinese tourists, and using algorithms to interpret earnings calls.

THAT'S WHAT RESEARCH can look like these days as analysts stretch to hang on to business. From bulge bracket banks to independent shops, the industry is rethinking how to lure and retain clients who are keen to slash their research budgets. The backdrop, of course, is MiFID II and the flow of assets into passive strategies. The European Union's Market in Financial Instruments Directive, which went into effect last year, unbundled research fees from trading commissions and forced asset managers to pay for the research they use. At the same time, the pot of euros they can devote to paying for star strategists' musings and financial models is less full. Asset managers' fees are shrinking as clients opt for cheaper passive strategies—which, by definition, aren't interested in analysts' price targets.

By the end of 2019, brokers' revenue from European equity research will drop by \$300 million, or 20 percent, as a result of MiFID II, according to consulting firm Greenwich Associates. "Given the smaller research pool, investment banks and other providers will continue to fight for every last dollar," Greenwich's William Llamas said in a report. "Success will be defined as 'almost' capturing the same revenue as in pre-MiFID II times."

And it's not just MiFID II in Europe that's spurring the changes to research budgets. In the U.S. fees have fallen to about half of what they were in 2000, Morningstar Inc. found in a study released in April. Since the global financial crisis, the commissions funds pay to execute trades have also declined; even where research costs can still be bundled with trading commissions, deflationary pressure has intensified.

SO WHAT CAN analysts do to win and hang on to clients? Cue the podcasts and webinars, novella-length thematic analyses, secret bespoke reports, and instant-messaging platforms for quizzing analysts.

Proprietary data is a buzzphrase. Exane BNP Paribas SA produces its own Survey of Telecom and Media Preferences, which questioned more than 15,000 customers this year. UBS Evidence Lab, legally separated from the bank late last year, is moving toward selling its data directly to clients, says Dan Dowd, UBS's global head of research. "The future of sell-side research is going to be deep industry expertise coupled with deep and broad primary data collection capabilities," he says.

Technology has also remade how research is distributed. Sanford C. Bernstein, AllianceBernstein Holding LP's research arm, is working with platform Podbean to produce podcasts in which analysts discuss their latest ideas, says global director of research Colin McGranahan. AlphaValue, a French independent research provider, has launched an instant-messaging platform for clients to communicate with analysts, says Maxime Mathon, head of marketing.

Citigroup Inc. has been doing more bespoke work—detailed research requested by clients—in part because asset managers are more willing to pay for projects with substantive, visible results, says Terence Sinclair, global franchise director of research.

Some of the industry's exclusive reports have been unusually influential: In February, Exane BNP Paribas published a report for selected clients on the Luxembourg-based laboratory testing company Eurofins Scientific SE that prompted the company to make changes to its corporate governance. "What we have learned is that we now have to be more focused than ever on the specific needs of our individual clients if we want to maximize the value we add," Ben Spruntulis, head of equities at Exane, said in an email.

Thematically, three topics are hot: ESG (environmental, social, and governance), renewable energy, and alternative data, says Mike Carrodus, founder of Substantive Research, which helps the buy side monitor content and pricing. Reams of thematic reports have been penned on broad, long-term trends: What does Generation Z like? What do we do about income inequality?

"We're seeing a genuine demand for both macro strategy economic and thematic content—and for a micro, forensic understanding of companies and what drives the stocks," says Rupert Jones, head of European equity research at Barclays Plc, whose department produces both forensic accounting work and thematic reports.

Another focus for Bernstein: private companies going public. Investment banks can't always cover them, and investors are often under pressure to make a decision, McGranahan says.

Amid all the innovation, there's anxiety that cost-cutting has eroded the quality of the work. In the last five years, headcount for equity research at 12 major investment banks declined about 20 percent to an estimated 1,100 in Europe, the Middle East, and Africa, according to data from Coalition Development Ltd. Interestingly, a CFA Institute survey conducted in December shows 44 percent of sell-side respondents say research quality has worsened since MiFID II. Only 27 percent of their customers agree; on the buy side, 48 percent say it's unchanged.

To find new sources of revenue, some Scandinavian banks and French brokerage Kepler Chevreaux are offering sponsored research, reports that are paid for by the company under study.

INDUSTRY CONSOLIDATION is also accelerating amid a scramble for shares of the shrinking pie. Sanford C. Bernstein's acquisition of Autonomous Research, which specializes in financial-sector coverage, became a poster child for consolidation. "We are active in believing the market should consolidate," says Bernstein's McGranahan. "It makes sense in an industry where there has been excess capacity."

U.S. securities company Stifel Financial Corp. bought the equity research and brokerage operations of German group Main-First Holding AG, which had taken over Raymond James Financial Inc.'s institutional brokerage business in European stocks. Alpha-Value combined forces with Baader Helvea; the two now cover 600 European stocks in total. "Many investors—tier-1 or tier-2 understand if you don't cover more than 250 European stocks, you're not relevant to their budget," says AlphaValue's Mathon. (Tier-1 refers to the largest institutional investors.)

While MiFID II is supposed to level the playing field between large and smaller firms by separating the costs of research and trading, there's evidence that the biggest global banks, including JPMorgan Chase & Co. and UBS, have maintained an advantage because of the breadth of coverage they can offer. "While there certainly may be nichey issues that we can't help them address, in general, 90 percent of the things they're interested in at any given point in time, we have terrific content on," says UBS's Dowd. Top-tier clients allocate 60 percent of their external research and advisory budget in Europe to global investment banks, Greenwich data show.

WHEN MIFID II kicked off in early 2017, the priority for research providers was simply covering the bases, says Substantive Research's Carrodus. As the dust settles, there's a greater focus on quality. "We've seen now the first green shoots of a return to an interest in the discovery of differentiated work," Carrodus says.

So, time to tear apart some cars, or perhaps moonlight as a deliveryman (as one Jefferies analyst did). "The best people are being forced to be really thoughtful, original, and differentiated in what they offer, otherwise clients just don't want to spend time or budgets on them," says Barclays' Jones. "If you're good, it's a very healthy and cathartic change. If you're not very good, it's a difficult change."

Lee covers European equities for Bloomberg News in London.

Emerging Markets

The Lawyer Who Helped Greece and Argentina Sees New Emerging-Market Defaults Brewing

By BEN BARTENSTEIN photograph by erica berger

FOR DEVELOPING COUNTRIES facing down creditors, Lee Buchheit was the cavalry. During his 43-year career at Cleary Gottlieb Steen & Hamilton LLP, the quick-witted restructuring lawyer gained a reputation for shattering investors' dreams of sky-high returns.

Buchheit, 68, brought arcane legal terms such as collective action clauses and asset protection orders into modern debt markets. He deployed the former to spur a settlement for Greece, enabling a supermajority of creditors to forge an agreement that was binding on all bondholders. Buchheit applied the latter in Iraq to force U.S. investors to divest from local assets.

Now retired from Cleary, the Pittsburgh native has a frightening prognosis for the coming decade: He foresees the biggest string of defaults since the early 1980s. He blames the rise of bullet bonds, noncallable debt instruments that pay back the entire principal at the final maturity date. In an interview, Buchheit spoke about what he's learned over his career and the restructurings he sees on the horizon.

BEN BARTENSTEIN: How did you get involved in the debt restructuring business?

LEE BUCHHEIT: I realized that my long-term survival in the legal profession would require me to find a practice area that would offer a degree of continual intellectual refreshment. The sovereign practice does that. Each country is different. Not just in their financial condition but also in their culture, geopolitical leverage, and internal politics. **BB:** And not without some drama. You almost had your passport revoked, right?

LB: That's right. I was in Quito [Ecuador] in either 1999 or 2000 and had to get back home. Someone, I think it was the finance minister, said, "No, no, you have to stay." And I said, "No, I really have to go home." And they said, "You know we have the power to take your passport." I said, "Yeah, but if you do that you won't have a friend in me anymore." Eventually, they let me go.

BB: Did you ever feel in danger on the job?

LB: Sometimes. In one Asian country we privatized the state airline. We were on the deal team waiting for the closing. Everyone got a death threat under their hotel door. It turned out there was a group of employees of the airline who'd taken advantage of flights to put narcotics in the nose of the airplanes and weren't happy about new owners taking over.

BB: Tell me about your suitcase.

LB: Well, I'd be on the road 50 to 60 percent of the time. The suitcase is always packed. My first rule is never check a bag. Then you're not hostage to the airlines if they cancel or delay the flight. For me it's usually three shirts, three ties, underwear, socks, a shaving kit, and cuff links. Then I have a lot of sleeping pills, and caffeine in the morning.

BB: What's one of your biggest lessons from the field?

LB: When I first got involved with the Philippines in the 1980s, Ferdinand Marcos was still in power, and I watched Cory Aquino's rise to power. That was quite exhilarating. There was also a lesson.



The problem I found—I went through that in the Philippines and when [Iraqi leader] Saddam Hussein was overthrown—is the people who've been suffering under some regime assume that once the son of a bitch is gone, everything will get better right away. Of course, the higher those expectations, the more painful it is when they crash down. No government, no matter how well-intentioned, can cure all the ills in a society.

BB: What's the problem with bullet bonds?

When we moved into the bond era in the 1990s, the market actually preferred trading bullet maturities, maturing 5, 10, or 100 years out. When that date comes, the country may not have access to the market at an interest rate it can afford. Risks are aggravated if borrowing was done during a commodity boom. It's like having a pal who's on a diet, and just before they take a bite of their chocolate éclair, you say, "A moment on the lips, a lifetime on the hips." You borrow today, and the liability goes on the hips. BB: Who's most at risk?

LB: I'm worried about the 20 or so countries that never before came to international bond markets and were able to issue inaugural bonds this past decade. In sub-Saharan Africa you see a number of countries that will have problems, particularly if interest rates continue to rise or a withdrawal of quantitative easing pulls liquidity out of the market.

BB: How do politics contribute to this problem?

LB: That's always been a characteristic of sovereign finance. The people who borrow are rarely the ones who pay it back. Then you have the obvious tension when there's a government in place and a great crisis. The opposition wants to see the government fall on its face. A finance minister from an African country once came to me before defaulting. This was a preemptive restructuring. When I finished meeting with him, I said, "Let me express my admiration for dealing with a problem that's inevitable, but you're doing it earlier." And he said, "Son, we don't have an election for another eight months. Don't you think if I could hand this bag of garbage to the next administration I would do it? But we won't last eight months." The domestic politics make this job so fun.

BB: What role do investors play?

Well, a modern bond investor doesn't normally expect to be there when the debt matures either. Investors can say, "I'll buy the bond with a bullet maturity, and when that day comes, when they refinance it, I don't expect to be there. I'll have sold it." The one trait shared by every hedge fund investor is they know they're smarter than everyone else. They'll say, "I can perceive the early warning signs of trouble and sell to some other poor devil."

BB: So what's your outlook now?

LB: Another bout of emerging-market sovereign debt problems may be in the offing. Interest rates have come up from their historic lows. QE programs are being wound down. The commodity boom is well off its highs. A lot of debt, both corporate and sovereign, was put on the books during the sunny days.

Bartenstein covers emerging markets at Bloomberg News in New York.

Here's a Roundup of Tools For Tracking Distressed Situations

By ALEX WISCH



Fig. 1 To create a Launchpad panel with news on distressed debt, go to **{FIRS <GO>}**, click on the Actions button, and then click on Select Market Focus. Click on the > to the right of Leveraged Finance, then select Americas Distressed Debt. Click on Update and run **{LLP <GO>}**.

DISTRESSED SITUATIONS may be among the most attractive investment opportunities for 2019, given historically low bond yields and equity market uncertainty. If you can bear the accompanying risk, here are a few news tools on the Bloomberg terminal that can help you get a handle on the area.

Start by adding a monitor to your Launchpad dedicated to the most important news about distressed situations. To do that, run {**FIRS <GO>**} for the First Word function. Click on the Actions button on the red toolbar and then on Select Market Focus. In the Choose Your Focus window, unclick any option on the right, then click on the arrow next to Leveraged Finance. Next, if you want to focus on the U.S., say, click on Americas Distressed Debt. Press the Update button. To launch the monitor in Launchpad, run {LLP <GO>} (Fig. 1).

You'll notice that there are three tabs at the top. Americas Distressed Debt, the main one, shows the best of Bloomberg's breaking news coverage. Markets Live is a real-time blog of market events. Morning includes all the fixtures you need to start your day. On the Morning tab you'll find Distressed Daily news and commentary on the main distressed situations, including links to further related articles and tools, and Distressed Daybook items, which are created by Bloomberg Artificial Intelligence and provide key agenda events for the current day and next few days.

For a broader set of news sources, you can set up a scrolling panel that incorporates the most interesting news codes related to high-yield and distressed opportunities. Of course, with natural language processing you don't need to know those codes. Just type "news on distress or bankruptcies or high yield" to get a flow of more than 10 relevant stories an hour. To narrow this search further to a particular region or universe of securities, click on the Actions button on the red toolbar and select Use the Advanced Editor.



Fig. 2 To set up a search for tweets relating to distressed debt, run {TWTR <GO>}.

For those interested in more market chatter, you can try the same search on Twitter. Just run **{TWTR <GO>}** for the Twitter Search function. In the amber field, enter "distress" and click on the Smart Match. Next, do the same with "bankruptcies" and then "high yield." That will create a filter for tweets on any of those topics (Fig. 2). When you're ready, click on the Open in Launchpad button to create a Twitter feed you can add to your view.

Beyond News

For a list of distressed bonds, you can run **{DIS <GO>}** for the U.S. Distressed Debt function. DIS displays a list of the bonds that are trading at yields of at least 1,000 basis points above the benchmark government debt yield on the Trace, the bond-price reporting system of the U.S. Financial Industry Regulatory Authority. If you want to focus on fresh opportunities, tick the box next to Newly Added Bonds Only. For an overview showing companies filing for

bankruptcy protection and which industries have been hit hardest, go to **{BCY <GO>}** for the Bankruptcy Dashboard function.

If you want to dig into bankruptcy filings, you can run docket searches using **{DCSH <GO>}** and get alerts when new documents are filed in a case you're monitoring.

You may now have a decent number of daily ideas in the distressed space. Why not share them with potential clients or peers? Use the People Search (PEOP) function to find them. Run **{PEOP <GO>}**. In the <Focus> section under Contact, type "distress" and choose Distressed Debt from autocomplete.

And if you can't cope with the stress, leave the job to someone else. To find a selection of distressed-debt private equity funds, just go to **{PE < GO>}**. Click and select Funds in the left-hand column. Select Strategy and Debt and then Distressed. No stress.

Wisch is a market specialist for news at Bloomberg in New York.

He Just Won't Stop Betting on a Crash

By NISHANT KUMAR photograph by conor o'leary

RUSSELL CLARK'S ENTRY into the high-stakes world of investing could hardly have been less promising. As a graduate trainee at UBS Group AG in Sydney, he was wowed by friends getting rich by day-trading tech stocks in 2000. So he spent his first few pay-checks on five dot-com shares. Four crashed to zero, and the fifth lost half its value as the tech bubble burst.

That lesson was so brutal that it helped turn Clark, now 45, into a career contrarian. These days the hedge fund he runs for London-based Horseman Capital Management is prepared for a market crash. It's an audacious contrast to what's been the most popular trade in town for years: wagers that stocks will keep rising. What's more, with a resolve virtually unheard of in the industry, he's been betting on stock declines for more than seven years.

In a world dominated by ultralow interest rates and central bank interventions, bearish strategies have led to excruciating losses for hedge funds. During each of the past three years, more hedge funds have closed than have opened. Yet Clark remains convinced that a crash is near. And if he's mistaken?

"This could be my farewell interview," he says.

Clark is slumped casually in a chair at Horseman's offices inside a small, unassuming house in a quiet mews near Buckingham Palace Gardens. Then he brightens, stalwart in the belief that his fund, Horseman Global, is going to be all right. "But if my views are correct," he says, "it's not going to be good for anyone else."

Of late, persistently buoyant equities markets have tested Clark's skepticism. Horseman Global lost 15 percent of its value in the first quarter as the S&P 500 index climbed 13 percent. Clients are fleeing. Assets have halved, to \$690 million, in the previous two years.

But Clark is holding steady. His contrarian thinking has withstood a decade-long bull market. He's been net short equities since 2012 and made money. In each of the S&P 500's worst five months since 2012, Horseman Global earned bumper profits. And in the most recent sell-off, in December, when the index suffered its biggest loss since early 2009, Horseman's fund surged 13.5 percent.

Clark isn't a name that most mom and pop investors would recognize. But within the confines of the hedge fund world, he's a star. His video interview last year on the Real Vision subscription website was one of the most requested of 2018.

His fund is a roller coaster ride: Losing or gaining more than 5 percent in a given month isn't unusual. It's not for everybody. "He has made money over time, and some people love him, but we found [his fund] to be a bit too volatile," says Rob Hawcroft, a former executive at HSBC Asset Management's alternative investing unit, which invests in hedge funds.

Tim Ng, chief investment officer of Princeton, N.J.-based Clearbrook Global Advisors LLC, says his fund pulled its money for similar reasons. "The stretches of negative performance and the high volatility of monthly returns became a consistent drag on our portfolio's overall return, which prompted us to redeem," he says.

The vicious December sell-off, crowded trades, low trading volume even during market rebounds—these are signals to Clark that the market is about to crack. Which for him is good news. "The stars are aligning, and the markets are complacent," he wrote in January. "Get the popcorn ready, it's showtime."

Clark has a front-row seat. He's shorting the U.S. dollar on a number of bets. He's trained his skepticism on U.S. shale companies, which he calls "capital destruction machines" that produce oil but no money. Then there's his wager that autocallables, complex equity-linked securities that aim to generate regular income for their buyers, are going to collapse and volatility will soar. Investors hungry for yields have piled into autocallables, artificially suppressing stock market instability. This, he says, is "unsustainable and will end badly. I've seen it twice, three times even. And it feels so close to that inflection point. Everyone's in the same trade." Clark



BORN AND RAISED in Canberra, Australia, Clark almost wasn't allowed into the U.K. In 2002, in his second year as a full-time UBS employee, he landed in London on assignment for a subsidiary company and focused on emerging markets. Customs authorities wouldn't let him in because his salary, in Australian dollars, didn't make the cutoff when converted to pounds. They relented when he said UBS would pay his rent.

By 2006, Clark's fortunes had begun to improve. Horseman Capital recruited him to start an emerging-markets hedge fund. His big break came in 2009 when John Horseman, the firm's founder and a highly successful global stock fund manager in the 1990s, retired from the business at age 40 after losing 25 percent of the net asset value of his fund after the financial crisis. The firm's partners got together and picked Clark to replace the founder as manager of the Horseman Global Fund. He took over on Jan. 1, 2010.

The transition was painful. The \$3.2 billion fund that Clark inherited sank a staggering 96 percent, to \$111 million, in just two years as clients, spooked by the management change, withdrew their money. By 2011, Horseman Global had shrunk so much that it was barely economical to run. Clark concluded in 2012 that if he didn't become a short seller, there was no reason for clients to pay him the kind of fees hedge funds charge.

In 2013, when the S&P 500 index rose 30 percent, he made money by shorting Brazilian equities, which slumped. Shorting global fertilizer companies did incredibly well, and some long equity bets also paid off. That year, Horseman Global made 19.2 percent. Toward the end of 2014, the oil market broke, benefiting Clark's short positions there and contributing to the fund's 12.6 percent rise that year. In 2015, Horseman Global soared 20.5 percent, propelled by a continuing oil price slump, short bets that benefited when China's stock market plunged, and long bond positions.

The year 2016 was a dream turned nightmare for Clark. He started out with a waiting list of potential investors. By the end of the year, Horseman Global had racked up a loss of 24 percent. In 2017 and 2018 clients headed toward the exits again.

Clark, who invests practically all of his own money in Horseman funds, takes the long view. In the nine years through 2018, his money pool has surged about 61 percent, beating the average 35 percent gain across all hedge funds. Reflecting on the bad times, he sees an opportunity. "I've been through a number of hero-tozero periods," he says. "When people hate you and write terrible things about you, it tends to be the best time to invest."

It takes patience and trust to stick with Clark at a time when many investors seem to favor a team-led approach over individual managers. "This fund lives and dies with Russell's macro call," says Marcus Storr, head of hedge fund investing at Feri Trust GmbH, based in Bad Homburg, Germany, which manages €34.5 billion (\$38.6 billion). "Every investor has to understand that his performance is mainly driven by directional investment ideas."

And if any investors think Clark might change direction anytime soon, think again. "If you talk to any manager," he says, "they always want to be bullish, and the classic line will be, 'There's always a bull market somewhere.' My observation is there's always a bear market somewhere." • — With Hema Parmar

Kumar covers hedge funds for Bloomberg News in London.

IS Monetary Policy B ro ke

At the Start of the Central Bank Era, Inflation Was The Enemy

 For a half-century or so, there's been broad agreement in developed countries that monetary policy is the most effective tool for managing the economy.

In the previous, Keynesian era, governments were supposed to finetune the engine through taxes and spending. That belief was jettisoned when inflation threatened to surge out of control in the 1970s. Central banks were put in charge of fighting it, with interest rates as their weapon. Federal Reserve Chairman Paul Volcker, who oversaw a boost in U.S. borrowing costs to 20 percent at the start of the 1980s, was the new policy's emblematic figure.

To free their hand for this battle, the central bankers who waged it were supposed to be immune from political pressures. That would place them above the short-termism that comes with the need to get reelected. The doctrine of central bank independence emerged.

The enemy was routed. In the U.S., inflation averaged close to 5 percent through the '60s and '70s; it's only rarely exceeded that level since the mid-'80s and has mostly been much lower. In other rich countries, it's been a broadly similar story.

Central bankers and economists who supported them weren't shy about celebrating their victory. In the mid-2000s, they would boast of having achieved a "great moderation" that solved the problem of economic depression, perhaps forever.

In one developed nation, policymakers had already encountered a different challenge. Japan's inflation rate slipped below zero in 1986 and was back there a decade later. But Japan was deemed a special case, with problems that didn't apply elsewhere. "I don't mean that monetary policy won't work at all; I mean that it won't work hardly at all in stimulating economic prosperity in the ways that we are used to having it stimulate economic activity, which are through interest-rate cuts and through quantitative easing."

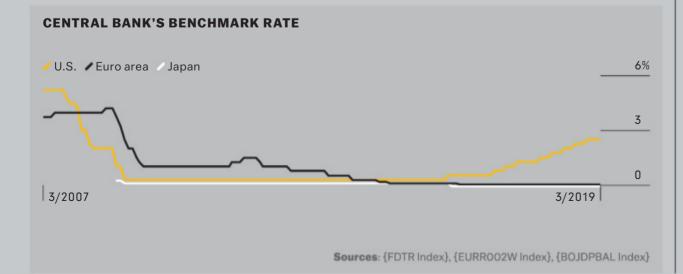
Ray Dalio

FOUNDER OF BRIDGEWATER ASSOCIATES, IN A MAY NOTE It takes a trauma to shake up economics. After the Great Depression, and again during the stagflation of the 1970s, new orthodoxies emerged. Something similar may be under way now, a decade after the financial crisis, as economists and investors **start to wonder** if it's time for a different approach. —*Ben Holland*

In the Crisis, the Banks Put Growth First. They Slashed Rates ...

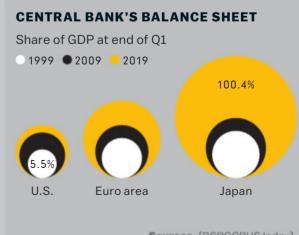
The 2008 crisis blew up any claim that central bankers had engineered lasting stability. Economic output slumped, threatening another Great Depression.

The response was the same one the Bank of Japan had tried a decade earlier: cut rates to zero. That's what the key banks did, though the European Central Bank took longer. About this time, the "zero lower bound" entered the daily lexicon of economics. The problem for central bankers who wanted to inject more stimulus was that there was nowhere for rates to go. Negative rates have been tried in some countries, but the general belief was that, with cash available as an alternative, they wouldn't work.



... and Expanded Their Balance Sheets

Central bankers found another means of stimulus: quantitative easing. They bought securities to hold on their balance sheet, raising prices and lowering yields. Many of them were government bonds. The Bank of Japan now owns almost half the national debt, which is the world's largest. The Fed and ECB increased their share, too.



Sources: {BSPGCPUS Index}, {BSPGCPEU Index}, {BSPGCPJP Index} "Given the existential threat of the degradation of the environment, including climate change, the priority should be to use the ECB's money-creation capacity towards the support of environmental projects. This can be done without creating inflation."

Paul De Grauwe

ECONOMIST AT THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE, IN A MARCH ARTICLE IN SOCIAL EUROPE

Through the Recovery, Inflation Remained Low...

With governments loosening the purse strings and central banks offering cheap money, the scale of economic stimulus after 2008 was unprecedented. Plenty of voices warned that it would bring inflation back.

That hasn't happened. Central bankers have persistently fallen short of

their targets. Steady prices don't sound like a bad problem to have, but most economists prefer a little inflation. It helps employers manage their wage bills and makes debt servicing easier. And central bankers were hoping that higher inflation would allow them to raise interest rates back toward normal levels.



... Except in Stock, Bond, and Real Estate Markets

While real-economy prices were stagnant, asset prices took off in the years of cheap money. Stocks and bonds surged. QE works directly via asset channels, bringing a giant new buyer to the market, but it also raised what could be a political problem for central banks. Disparities in income and wealth, already growing before the crisis in most Western countries, deepened in its aftermath. Financial assets tend to be disproportionately owned by wealthier people. A policy that sent them soaring could trigger a backlash if attempted again.

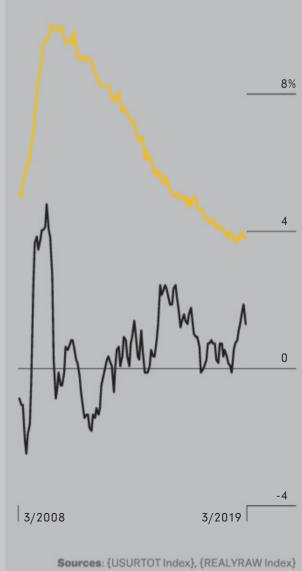
Wage Growth Lags Unemployment's Fall

■ Faster wage growth, especially at the lower end of the pay scale, would balance out the gains for asset holders. That's what economists expected to happen in response to one of the biggest successes for central banks: the steady decline in unemployment, which in the U.S. has reached the lowest level in a half-century.

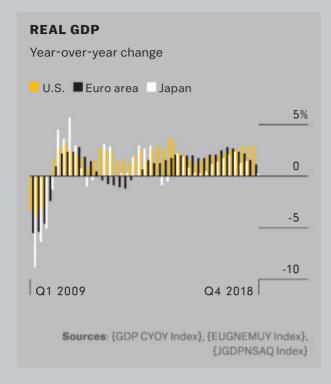
Wages have been accelerating lately, but it took longer than the models predicted. That's called into question a relationship that's key to central bank thinking: the connection between the jobless and inflation rates. Letting unemployment drop below a certain level was supposed to trigger price rises that would let central bankers know when it was time to tighten. Without that signal, it became harder to chart a course for policy.

U.S. LABOR MARKET INDICATORS

- Unemployment rate
- Real average hourly earnings,
- year-over-year change



Growth Has Been Stronger in the U.S.



Although the Fed wasn't sure what to do next, at least the U.S. was growing at a fair pace. The expansion that began in 2009 will soon be the longest on record. Growth rates have been lower than in past recoveries, but they look good when compared with many peers.

Europe has had a slower recovery. The ECB earlier this year postponed a shift toward normal monetary policy and restarted a cheap loan program for banks.

In Another Downturn, Limited Firepower

• Even if there were more privatesector borrowers out there, the central banks aren't in a position to deploy their usual tool of interest-rate cuts to make credit more attractive to them.

Former Fed Chair Janet Yellen estimates that the bank's typical response to a recession, historically, was to lower borrowing costs by some 500 basis points. But the Fed will probably be able to cut by only about half that amount if a downturn arrives in the coming year or so.

Central banks in Europe and Japan, still stuck at the zero lower bound, could be in even worse shape—unable to cut rates at all.

Debt Has Risen Everywhere, With Governments The Main Borrowers

■ The commercial banks, though, were short of customers. Monetary policy is supposed to stimulate the economy by encouraging businesses and households to borrow, spend, and invest. For several decades, they did. Growth was financed by private credit, which rose to unprecedented levels and it was a private-debt crisis that crashed financial markets and the world economy in 2008.

DEBT AS A SHARE OF GDP

In the low-rates era that followed, it's been mostly governments dipping into the red. Households and businesses have been slower to borrow. Measured as a share of the economy, public debt has grown much faster than other kinds.

That's a problem for the dominant theory that says monetary policy offers a counterweight to deficit-spending governments. Instead, central banks have appeared to be enabling them.



Sources: {FDTGATPD Index}, {CPNFUSNG Index}, {CPNFUSHG Index}, {IGS%EURO Index}, {CPNFXMNG Index}, {CPNFXMHG Index}, {IGS%JPN Index}, {CPNFJPNG Index}, {CPNFJPHG Index}

"Fiscal and monetary policies need to work as one.... The BOJ's current policy does not have a mechanism to heighten inflation expectations. We need a mechanism where money flows out to the economy directly and permanently."

Kikuo Iwata

FORMER BANK OF JAPAN DEPUTY GOVERNOR, IN A FEBRUARY INTERVIEW WITH REUTERS

All Signs Point to Fiscal Policy as the Way Out

 For all these reasons, many economists think governments will have to play a bigger role if another recession arrives—or even beforehand.

The loudest case has been made by the proponents of Modern Monetary Theory, which says countries borrowing in their own currencies can't go broke and can spend so long as inflation is subdued.

Even establishment figures such as Olivier Blanchard, former International Monetary Fund chief economist, and ex-Treasury Secretary Larry Summers say it's a good time to set aside fears about deficits and debt. The politicians in charge of budgets in the U.S. and Japan have, in effect, already done so. Central bankers could end up as their junior partners. MEKONG CAPITAL, A PRIVATE EQUITY FIRM IN VIETNAM, WAS MIRED IN TROUBLE.



The CONVERT



ITS FOUNDER, CHRIS FREUND, SET OUT ON AN UNCONVENTIONAL PATH TO SAVE IT

hris Freund had reached one of life's nasty crossroads, and he was in despair. Six years earlier he'd set up a small private equity firm, Mekong Capital Ltd., in Ho Chi Minh City. Now it was 2007, the firm was a mess,

riven by gossip and office politics and a lack of discipline, and the companies it had invested in were just not performing the way they should. "I never was going to give up on Mekong Capital, but I was about to give up on myself," he recalls. "I didn't quite know what to do."

His search for answers took him back to the 1990s, when he was studying psychology at the University of California at Santa Cruz. There, in a stretch of the West Coast that still bore the imprint of 1970s New Age experiments and lifestyles, he'd come into contact with an organization called Landmark Worldwide. Founded in 1991 as the continuation of Werner Erhard's est (for Erhard Seminars Training) movement, Landmark specialized in personaldevelopment programs. Freund even took one of its courses at the time. He was impressed but over time gradually forgot about it.

Until now. As he wrestled with his predicament, Freund remembered hearing that Landmark had branched out to Singapore, so in June 2007 he flew there to enroll in a three-day Landmark Forum course, which costs S\$1,260 (\$924) today. Current courses offered by Landmark, which include The Illusion of Someday: Rethinking Possibility and The Pervasive Influence of the Past, suggest a cross between Socratic interrogation and self-help motivational psychology—the sort of group therapy that would enthrall some people and repel others. Freund was plainly one of the former. "What I got at the end of those three days was life-changing, and I knew it," he says. "I felt very elated and excited."

Six months later, fortified by his new sense of purpose, Freund called in a team of trainers from Vanto Group, the consulting subsidiary of Landmark. When they landed, Mekong's 50 or so employees didn't know what hit them. "I basically signed up our whole team to do this program in Vietnam without even telling them why we're doing it," Freund says. The move didn't go down well. Some employees took to the training and would later become stars of Mekong. Others found it unpalatable; more than half of Mekong's staff would quit over the next two years.

Undeterred by the initial resistance, Freund pressed ahead. He and his employees created a set of core values to guide their behavior. They expressed them first in plain English, but words like "integrity" meant different things to different people. So Mekong designed its own vocabulary. To the uninitiated, "beautegrity" sounds like gibberish, but at Mekong it's one of eight core values emblazoned on wall posters and is defined as "honoring our word so that everything works; working together as a unified powerful force."

When Mekong hires new employees, it's more interested in whether they're a good fit with this culture than in what university they went to or if they've been certified as a chartered financial analyst. Mekong lives by its code, says Chris Shayan, the company's director of business engineering. "It's not just on the wall," he says. That may be, but how would this weird amalgam—Age of Aquarius meets Wall Street meets communist Vietnam—turn a broken PE shop into one that actually worked?

A CHILD OF 1970S America, Freund tried on several different religions even as a high school student. He was born Jewish but became a Buddhist in high school and pursued his interest in the religion during college, traveling to India and on to Thailand. From there, Freund set off in 1992 on a backpacking trip into Vietnam. He fell in love with this war-scarred nation battling to find its place among Asia's fast-growing emerging economies. "The people were so friendly and kind of optimistic," he says. "I wanted to come back."

The lifting of the 30-year-old U.S. trade embargo on Vietnam two years later paved the way for Freund's return. After graduating from UC Santa Cruz in 1995, he took a job with Templeton Asset Management Ltd., the renowned emerging-markets investor, and set up Templeton's first office in the country. The asset manager's joint-venture investments with state-owned enterprises didn't pan out as expected, so Templeton closed the office after three years. Freund transferred to Singapore and stayed with Templeton until he quit in March 2001.

Within a week he was back in Vietnam. In his mind, he'd never really left, nor had he abandoned his yearning to start a PE firm there. Before long, he set up Mekong Capital, named after Southeast Asia's longest river. Mekong Enterprise Fund I debuted in May 2002. It was tiny, at \$18.5 million, and backed by development finance institutions, which provide financing to help boost economic growth in countries such as Vietnam. From the outside, the firm, which had grown from 12 to 50 people by 2007, looked successful.

But on the inside, Freund says, there was no sense of personal accountability. Portfolio managers were making excuses—playing

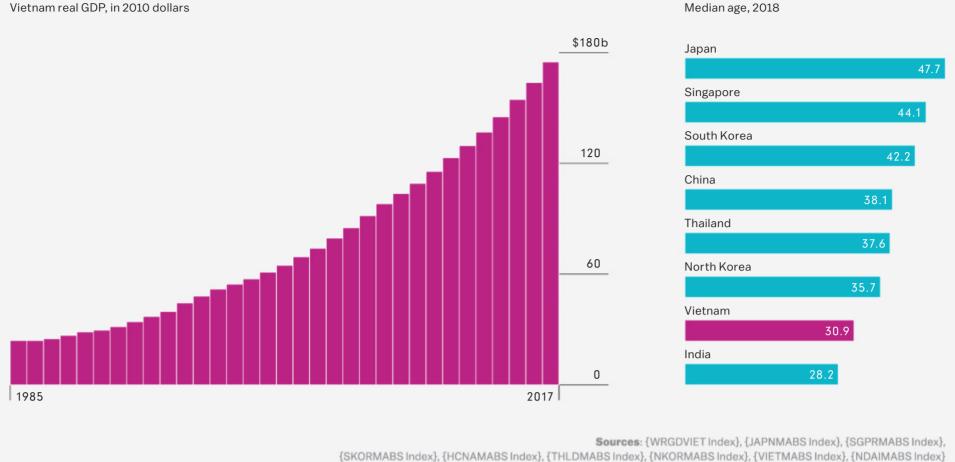
"I never was going to give up on Mekong Capital, but I was about to give up on myself. I didn't quite know what to do"

С

Betting on the Future

Vietnam's healthy economic growth and relatively young population support Mekong Capital's strategy of investing in consumer-focused companies.

Vietnam real GDP, in 2010 dollars



the victim, blaming others—when their investments didn't perform as planned. "Companies kept not achieving their targets, and a lot of them weren't even growing," Freund says. What's more, according to a Harvard Business School study, investors in Mekong's funds "were questioning whether the team had the depth necessary to structure investments, add value, and achieve optimal exits."

"It was a very emotional time," says Freund, 46. "There were a lot of people blaming each other or just getting upset. Sometimes it was me getting upset. Sometimes it was someone else." Though he was learning the language and would later marry a Vietnamese woman, Truong Ngoc Phung, Freund still felt like an outsider. It's not that business opportunities were hard to find. The communist state had been moving away from a highly centralized command economy since the 1980s. The private sector, still young, was fertile ground for PE investors. But he was beginning to feel, as he puts it now, "that it's impossible, that I'll never understand Vietnamese people."

That was when Freund, desperate for inspiration, turned to Landmark. Its training is designed to get participants to break down the "stories," or preconceptions, they have about themselves and to take responsibility for their behavior and their relationships with other people. Freund says the course he took in Singapore showed him what was wrong in his life: that he was playing the victim, that he needed to be the agent of his own change, to be, in the language of Landmark, "cause in the matter."

Freund says he became a different person. Before Landmark, he would react emotionally to things, he says; with time he became much less reactive and more focused on the facts. So much so, says one investor in Mekong who didn't want to be quoted by name, that the firm's founder can appear to be "borderline autistic." Freund has heard this before. "He's not the only person who has that assessment," he says. But this has nothing to do with his genetic makeup, he says; he learned to change his behavior through Landmark's training and coaching.

THE NEXT STEP for Freund after his return from Singapore was to replicate his transformation among his co-workers at Mekong. "Freund believed their current problem was not due to a lack of technical knowledge," according to the Harvard study published in 2010, "but was rather a consequence of imperfect internal management and corporate culture." In retrospect, Freund says, he could have done a better job of preparing the employees for what was coming. "I didn't make the effort to ensure they were on board."

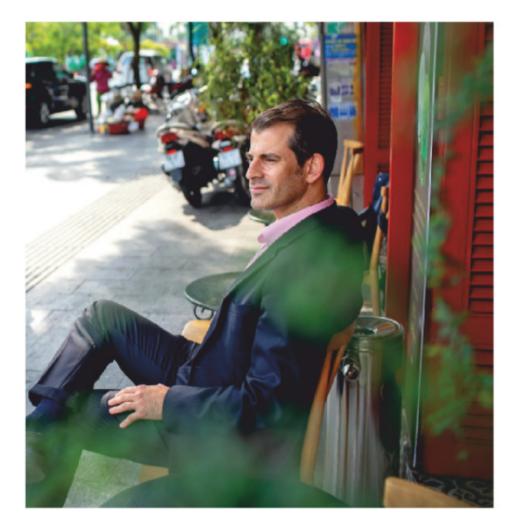
One of the employees who would leave Mekong was Duong Do Quyen, who sat on Mekong's board of directors and was portfolio manager for one of its funds. Quyen resigned toward the end of December 2007 but stayed on for about six months until the company found her successor. "I was not totally in agreement with him," she says of Freund. "The new philosophy was trying to put everyone into the same way of thinking." Quyen, who now works for Dragon Capital in Ho Chi Minh City, says she took some of the Vanto training even though she had resigned. Her verdict: "It's a little too religious. It's a bit too extreme."

Not for Freund and his co-believers. "That's what's most attractive to me," Chad Ovel, a partner who was chief executive of one of Mekong's portfolio companies before joining the firm in 2013, says of the strong corporate culture. Mekong, he says, "knows exactly what it is. And more importantly, when we go out and meet pipeline companies, they know who we are."

Freund says building and enforcing a corporate culture doesn't happen by accident. "It's a very deliberate effort," he says. "If you look at religions, they also have their own, what people > might call, jargon, and it means something to them, which doesn't make much sense to outsiders. We're doing that. But our goal is not any religious goal." At the same time, Freund says, "It's not a coincidence that a lot of really successful companies that have a strong culture are often called cultlike."

The firm's strictly defined corporate culture of teamwork and personal responsibility is not unlike what Ray Dalio, with his unconventional management style and his belief in the importance of understanding one's "ego-barrier," has inculcated in his employees at Bridgewater Associates LP, the world's largest hedge fund. It could be argued that Mekong doesn't go as far as Bridgewater, which records conversations in its offices and doesn't allow its employees to speak in meetings about colleagues who aren't present.

At Mekong, Freund says, focusing on direct communication is paramount. You don't sugarcoat anything, but you also don't make others feel like they're in the wrong. To reinforce this and other aspects of Mekong's culture, staff members are encouraged to hold



"storytelling" sessions in which they talk about how company values affect their personal or work experiences and to write about them on the company's internal blog, with some entries later becoming publicly accessible.

In some ways, Mekong, which now employs 37 people, is a typical emerging-market PE fund. It raises money from development finance institutions, family offices, endowments, and other investors to put into small Vietnamese consumer companies with growth potential. The Southeast Asian nation is ideal for this strategy. Its economy has been growing at more than 5 percent a year since the turn of the century. It's not as dominated by large corporate groups as other Southeast Asian countries are, so homegrown companies are still small and industries fragmented. The median age of Vietnam's 97 million people is just over 30, and the consumer class is expanding quickly: In the sprawling city many still call Saigon, shopping malls are proliferating, global brands are everywhere, and more and more cars jostle with motorbikes in chaotic traffic. What distinguishes Mekong is not just its employees' nearapostolic adherence to the firm's core values but also that it takes its bespoke philosophy—which it calls Vision Driven Investing and persuades the companies it backs to embrace it as well. Mekong even has a hand in hiring about 75 percent of the senior managers who go to work at companies it invests in. The VDI regime essentially involves setting a target for where a company wants to be in five to eight years. Mekong and the company then meticulously track the steps needed to get there, inviting "breakdowns" that can be used as lessons learned en route to "breakthroughs."

Mekong's approach of "declaring a big future" for companies goes well beyond what he learned when getting his MBA at the University of Chicago, Ovel says. "There was nothing in the curriculum about using future-based language to pull for new actions or about the importance of authentic listening or direct communication in leadership teams as a pathway to increasing the velocity of results," he says. And the companies have taken that approach on board. *Bloomberg Markets* interviewed executives at eight of Mekong's investments. Almost all spoke about themselves or their companies using Mekong and Landmark's distinctive vocabulary.

The kind of investment aftercare practiced by Mekong matters, says Menno Derks, Amsterdam-based partner and managing director for fund investments at Kitchener, Ont.-based Sarona Asset Management, an investor in Mekong.

Take Mobile World Investment Corp., a company in which Mekong invested in 2007, the year of Freund's transformation. Mobile World had only seven stores then and was co-owned by five friends. Mekong helped the company recruit three key people in 2008, including the current CEO and two board members. It introduced Mobile World to Vanto, which helped the company strengthen its culture. It also brought in an outside expert, Bob Willett, former co-CEO of Best Buy Co., the U.S. electronics retailer. Willett, who is still on Mobile World's board even after Mekong sold its shares, helped make the company more customer-driven, Freund says.

Today, Mobile World, which sells mobile phones, electronics, and groceries, has more than 2,000 outlets and is one of the country's biggest public companies. When Mekong finally exited in January 2018, its return was more than 50 times its original investment. They helped us with "so many things," says Nguyen Duc Tai, Mobile World's chairman and co-founder.

Companies like Mobile World benefit hugely from Mekong's advice, Derks says. "We are a strong believer that all those midmarket companies don't only need money to grow," he says. "They need really active support. And we really thought that was a pretty unique selling point of Mekong Capital."

DID MEKONG'S TRANSFORMATION do the trick? Freund says it did, and to make his case, he allowed *Bloomberg Markets* to see the firm's investment results. After those stumbling early years, the performance of Mekong funds surged. The gross internal rate of return on investments from Mekong Enterprise Fund II, which exited its final investment in 2018, was five times higher than its predecessor, which sold its last portfolio company in 2013. On average, Fund II achieved a 6.5-fold return on its original investments in companies in the fund.

"It's not a coincidence that a lot of really successful companies that have a strong culture are often called cultlike"

More recently, Mekong has been working with Pharmacity JSC, one of the companies in Mekong Enterprise Fund III. Pharmacity aims to open 1,000 drugstores in Vietnam in 1,000 days running up to November 2021. Mekong works with companies such as Pharmacity to map out key progress indicators, build technology infrastructure, design bonus systems, and so forth. But that's only part of it. "We're really in the game of helping companies define who they are, what they want to be, how they want to be, and ensuring that they embed a corporate culture very early on before they scale too much," Ovel says. "This is not a theoretical approach. Everything we do is based on what worked in the past."

It worked for Chris Blank, the U.S.-born founder of Pharmacity, who at Mekong's suggestion went through the Vanto training. "It changed my life," he says. "If there is one thing that I'd say I'm really thankful to Chris [Freund] for, it's turning me on to that." Blank, who was orphaned early in life, says he experienced constant feelings of worthlessness before a light-switch moment during training when he realized he could change his perception of himself. Visit Pharmacity's main office in Ho Chi Minh City and the first thing you'll see on the wall is a big poster proclaiming its vision and an electronic counter keeping tabs on the number of stores the firm has opened toward its expansion goal.

In interviews, limited partners who've invested in Mekong make it clear they're not expecting another 50-times return like with Mobile World. But Freund and his colleagues say some of the new investments have great potential. They say the most promising companies in Fund III, which raised \$112.2 million at its final close in May 2016, are Pharmacity and F88 Investment JSC, which makes smallish loans to borrowers using their motorbikes as collateral.

What matters is that Freund has instilled values in Mekong that are reliable and durable drivers of success, says Sarona's Derks. "We're a satisfied investor with Mekong Capital," he says. "We don't invest with the expectation that we'll see another Mobile World."

NGUYEN THI MINH GIANG, 35, recalls what it was like when she got a job offer from Mekong in 2010. At the executive search firm where she worked at the time, friends and colleagues cautioned her that Mekong was like a cult, "a weird religion," she says. "They told me, 'Minh Giang, you are crazy. Why would you join Mekong Capital?"

Minh Giang decided to keep an open mind. She's now Mekong's director of talent and culture, and her faith has been repaid. She was able to pay off her mortgage and can now support her extended family. She's taken Mekong's philosophy to heart. Shortly after her interview with *Bloomberg Markets*, Minh Giang was due to travel to Las Vegas to take a look at Zappos.com, the online shoe and clothing retailer that enshrines "Create Fun & A Little Weirdness" as its Core Value #3, to see what lessons she could learn from another strong corporate culture.

Minh Giang and Freund agree that the Mekong way is, as he says, "not for everybody." Freund doesn't even mind being asked if Mekong isn't a little bit like a cult. "In a way it's kind of a compliment to me because, yeah, I think we've built a strong culture," he says. "And I'm proud of it."

Redmond covers equity markets from Singapore. Nguyen is a reporter in Hanoi.



IT'S BEEN A TRYING decade for Rob Lovelace. Capital Group Cos., the money-management firm his father's father founded in Los Angeles during the Great Depression, took a beating after the financial crisis. Over seven straight years, clients pulled out a staggering \$425 billion. The company cut hundreds of jobs. Employees and customers wondered if Capital Group could turn things around.

At 56, Lovelace is slender, with bright blue eyes behind rimless glasses and a prominent forehead framed by wavy, light brown hair. In a rare interview at the company's headquarters in a downtown L.A. skyscraper, he's glad to say the arrows are pointing up again. New clients are coming with new money. Assets under management have rebounded to \$1.9 trillion, double their low a decade ago. But the company's future is far from secure. For Lovelace—who, unlike his father and grandfather, is vice chairman instead of chairman—this challenge is bigger than Capital Group. It's about his family's faith that research and reason can help investors beat the overall market. That conviction has been at the root of the company, best known for its American Funds family, for almost 90 years. But now, more than ever, active management is being dismissed by the investing public. Vanguard Group Inc. and BlackRock Inc. have vacuumed up market share with funds that mimic broad market indexes for a fraction of the cost of Capital Group's funds.

In some respects, Lovelace is resigned to the trend toward such low-cost, passive investing. "We don't fight passive," he says. "It's OK. We just know what we do is even better."

That contrarian streak can be traced back to Lovelace's

$\begin{array}{ccccccc} C & I & E \\ A & T & V \end{array}$

For almost 90 years, **Capital Group** has placed

carefully researched stockpicking at the center of its fund-management empire. But will people keep paying for it?

By JOHN GITTELSOHN ILLUSTRATION BY MASSIMILIANO AURELIO



grandfather. Jonathan Bell Lovelace, known as JBL, was a math whiz who grew up in Alabama and moved to Detroit after World War I to join an army buddy's brokerage. In September 1929, alarmed by the gap he saw between companies' fundamental values and their stock prices, he cashed out most of his holdings in the market and the firm. He was on a California-bound train when the stock market crashed on Black Tuesday.

In Los Angeles he started Capital Research and Management Co., recommending stocks for funds run by his struggling former firm in Detroit. In 1932, JBL took over as chairman of those funds, building Capital's assets throughout the Great Depression.

"His somewhat heretical view at the time was you should actually know something about the companies in which you're investing," Rob Lovelace says. "It was always based on research. This was our comparative advantage. This is in our DNA."

As Capital Group grew, JBL persuaded his son, Jon, to join and eventually lead the company. In the 1950s, after JBL suffered a heart attack that put him out of commission for years, Jon created a system to distribute fund-management responsibilities, reducing the company's reliance on any single person.

"Everybody thought that was a cockeyed idea, including me," said Jon, who died in 2011 at age 84, in a book published for the company's 75th anniversary. "But it was good for the transition, at least, and that's how it began. And it ended up working so well, we kept it!"

The Capital System works like this: Every fund has from 3 to 13 managers, each of whom oversees a distinct portfolio known as a "sleeve." Within general parameters, such as market **>**

capitalization or bond ratings, managers are free to choose the securities they want. They're encouraged to follow their strongest convictions. Those are informed by research that goes beyond analyzing company financial statements and meeting executives last year Capital Group's 320 investment professionals logged 12,400 visits to factories, warehouses, laboratories, and other sites.

An example is the \$88.7 billion New Perspective Fund. Facebook Inc. is the fund's second-biggest holding. But Rob Lovelace, the longest-tenured co-manager, doesn't own any Facebook among his sleeve's 80 securities. He prefers Amazon.com Inc. Net of fees, the fund has beaten its benchmark consistently over two decades.

Lovelace recalls visiting Capital Group's offices as a boy, when managers used slide rules and adding machines to analyze balance sheets. He became interested in investing as a teenager and still owns shares of toymaker Hasbro Inc., the first stock he ever bought. Today, Capital Group is Hasbro's largest shareholder, with an almost 15 percent stake. The stock returned an average of about 20 percent annually from the end of 1980 to the end of 2018, almost double the 11 percent average annual return for the S&P 500.

Until the financial crisis, American Funds outperformed competitors, losing less in bear markets and starting from a higher base in ensuing recoveries. It reeled in hundreds of billions of dollars after the dot-com bubble, vaulting to the top ranks of mutual fund families. Its Growth Fund of America became the world's largest mutual fund.

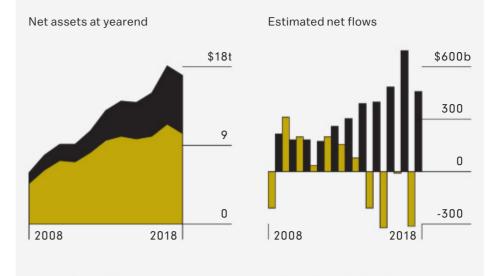
As Capital Group thrived, a radical idea was starting to take hold. A growing body of academic research cast doubt on stockpicking. Markets were so efficient that investors couldn't beat them over the long term. Jack Bogle, a Princeton graduate like Jon and Rob Lovelace, thought investors were being ripped off. In 1974 he founded Vanguard Group in Valley Forge, Pa. Two years later, Vanguard started selling a fund that simply held all the stocks in the S&P 500 index. It was the first retail index mutual fund.

Back in Los Angeles, in keeping with its generic name, the closely held Capital Group blended into the background. Then, as today, it sold its funds through intermediaries such as retirement fund consultants and financial advisers. The company logo doesn't appear on its headquarters, which occupy 12 of the 55 floors in the Bank of America Plaza building.

The north-facing windows provide a view of the Hollywood sign, but Capital Group has no celebrity managers, and its executives keep a low profile. When James Rothenberg, chairman for

Mutual funds and exchange-traded funds*

Actively managed Passively managed



*Excludes closed-end, money-market, and funds of funds. Includes obsolete funds. Source: Morningstar

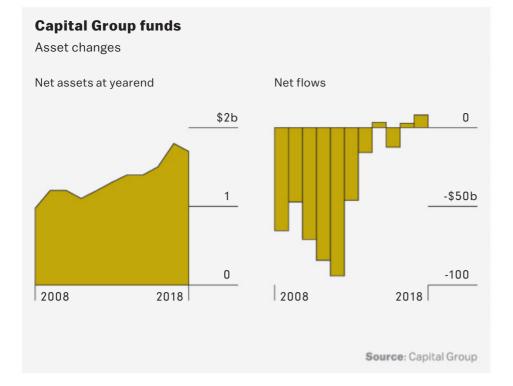
almost a decade, died suddenly of a heart attack in 2015, it barely broke stride. "He was a fantastic leader," says Gordon Crawford, the retired Capital Group portfolio manager who delivered the eulogy at Rothenberg's funeral. "But you took out Jim and slotted somebody else in, and the funds didn't get negatively impacted."

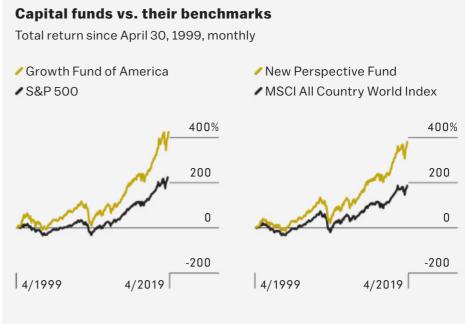
Capital Group installed Tim Armour, now 58, to take over. Like many executives, he's spent his entire career at the company, having joined after graduating from Middlebury College. He still manages part of the \$21.7 billion New Economy Fund, which invests in large-capitalization stocks around the world. It's returned about 11 percent annually over the past five years, beating 97 percent of its Bloomberg peer group.

Most Capital Group portfolio managers have at least \$1 million of their own money in their funds. A group of analysts, including some recent recruits, manage a sleeve of about 20 percent of each fund, adding to the diversity of views feeding portfolios. Women made up almost 45 percent of new hires last year, though they're still only 23 percent of the money managers and analysts. Compensation awards are heavily influenced by five- and eightyear records, promoting long-term performance. "It's not possible to build a good record and coast," says Alec Lucas, a Morningstar Inc. analyst who follows American Funds.

Owned by 450 partners, the company is secretive about its revenue and profitability. After Armour filed for divorce in 2003, it intervened to seal court records that revealed compensation or

"People are too fixated on fees. They should be fixated on their total return after all fees"





Sources: {AGTHX Equity}, {SPX Index}, {ANWPX Equity}, {MXWD Index}, {COMP <GO>}

financial performance. The move surprised Armour, but he says it made sense for the company. "I think the organization did what it needed to do, trying to protect what's very valuable to us."

The company offers 36 stock, bond, and balanced mutual funds, a modest menu imposed to avoid confusing customers and to gain scale to keep fees low. It offers no exchange-traded funds, even though it received regulatory approval to do so in 2015. "Nothing seems to move particularly fast with Capital Group," says Jonathan Nolan, an analyst with Francis Investment Counsel in Brookfield, Wisconsin. "They're not concerned with any investment fads."

The financial crisis was a trauma that couldn't be ignored. Assets under management plunged to \$975 billion in 2008, from \$1.6 trillion a year earlier. The firm cut 18 percent of its staff over the next three years. Vanguard overtook American Funds to become the biggest U.S. stock and bond fund manager, a position it still holds. Capital Group executives grappled with what to do. They concluded the problem wasn't with the funds' investing style. Instead, they decided they had to fix their relationship with clients.

They kept selling funds through intermediaries, but used technology to improve customer relations. The American Funds website, which catered to advisers, was remade to include information for retail clients as well. And the company developed a platform called North American Distribution Intelligence Augmentation, or Nadia, that draws data from digital traffic, phone calls, and other interactions to help its sales force anticipate client questions and demands from the advisers who sell American Funds.

More important, it found success in selling products designed to achieve specific investor goals, such as saving for a college education or retirement. Last year its 11 target-date retirement funds had net inflows of \$22 billion, or \$14 billion more than the company as a whole, according to Bloomberg estimates. With \$120 billion in assets as of March 31, American's family of target-date funds is now the industry's fifth-largest. "People like that simplicity," Lovelace says. "If you put them in something called the 2050 target-date fund, the label reminds them this isn't for trading. You hold the 2050 fund because you're going to be 65 in 2050."

Last year's fourth quarter, when U.S. stock indexes dipped into bear market territory, was a big test. The American Funds 2020 Target Date Retirement fund beat T. Rowe Price, Vanguard, and JPMorgan SmartRetirement funds by more than a percentage point, says Jim Scheinberg, chief investment officer of North Pier Fiduciary Management, a Los Angeles consulting company.

Capital Group also found ways to cut costs. It started providing funds that eliminate the upfront sales fees that traditionally induced advisers to sell its products. In January 2017 it began offering "clean shares," with fees as low as $33 \notin$ per \$100, that strip out distribution fees and commissions collected by advisers.

Portfolio managers with opposite views of the same securities exchange them internally, eliminating external transaction fees. When the firm's 70 traders buy and sell securities externally, they do so in blocks that are small for a company of Capital Group's size, to avoid influencing market prices unfavorably. The company has invested in Luminex Trading & Analytics LLC and IEX Group Inc., two alternative exchanges that aim to enhance trading efficiency.

Performance is the priority. Net of fees, most American Funds have beaten their benchmarks by an annual average of 1.5 percent over 3-, 5-, 10-, and 20-year periods, according to Armour. "People are too fixated on fees," he says. "They should be fixated on their total return after all fees."

That argument has gotten through to some people. Last year, Capital Group attracted \$7.8 billion in net new client money. But Vanguard raked in \$230 billion, fueled by fees as low as 4¢ per \$100 under management—about one-tenth the cost of Capital Group's cheapest funds. Fidelity Investments, with \$2.4 trillion in assets, took the trend to the extreme in August by offering the industry's first zero-fee indexed mutual funds.

This year the amount of money in passive U.S. equity funds is expected to surpass active funds for the first time, with most new cash flowing into the most basic ETFs, according to Alex Blostein, a Goldman Sachs Group Inc. analyst who follows asset managers and brokerage firms. "For a lot of the population, that's probably OK," he says.

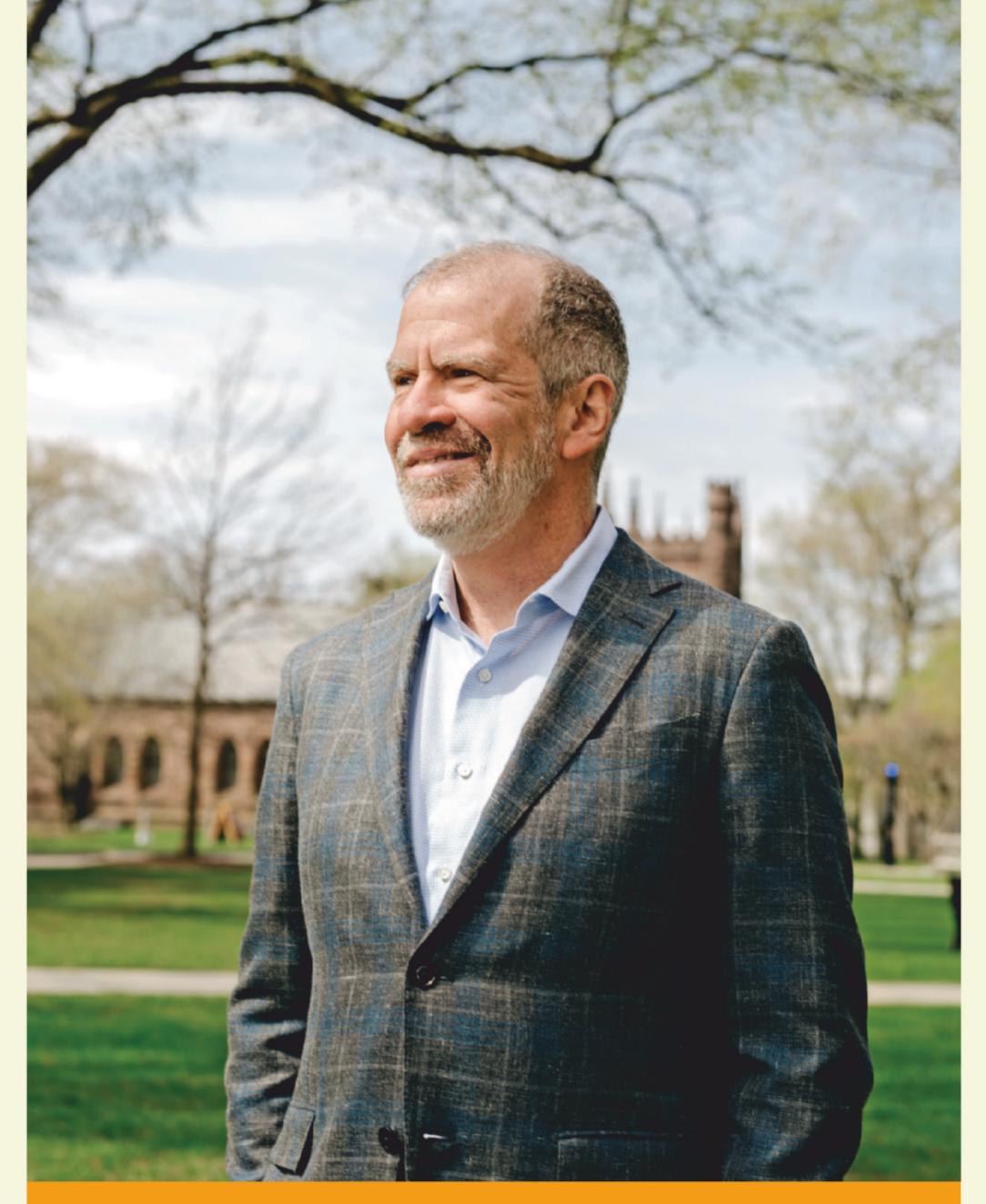
For Lovelace, that trend only reinforces his commitment to the research-focused investing style he inherited from his grandfather and father. "This Capital System is different and unique," he says. "And it works. That's special. Why would I change that?"

Gittelsohn covers investing for Bloomberg in Los Angeles.

Beyond the Ivory Tower

By JANET LORIN photographs by heather sten





As chief of Princeton's \$25.9 billion endowment, Andrew Golden can transform the fortunes of fund managers overnight. Now he's (slowly) trying to make them more diverse

ne morning in May 2018, two venture capitalists rented a Zipcar in Midtown Manhattan. They picked a 300-Class Mercedes on special for \$15 an hour, perfect for the occasion and their tight budget. On a pilgrimage to suburban New Jersey, Aaron Holiday and Nnamdi Okike were heading to the audience of a lifetime.

After the $1\frac{1}{2}$ -hour drive, the two men entered a red-brick, colonial-style building across from one of the nation's most beautiful and exclusive college campuses. They walked into a third-floor reception area decorated with framed business magazine covers signed by famous investors, people such as venture capitalist Benjamin Horowitz and bubble prognosticator Jeremy Grantham.

For Holiday and Okike, it was time to reach for the golden ticket, the chance to run money for Princeton.

Only in their 30s, Holiday and Okike ran their company, 645 Ventures Management LLC, out of a WeWork space near Manhattan's hip Flatiron District. But they had impressive investment results. Their first fund had cashed in with early bets on software company Source3, acquired by Facebook Inc.; on photo editor Fly Labs, bought by Google; and on hotel-software maker Alice, in which Expedia Group Inc. snapped up a majority stake.

Their background stood out from the many other investors pitching Princeton's \$25.9 billion endowment. Both are black. Holiday's mother had worked 30 years for Sears, mostly as a bill

Okike and Holiday



collector. His father counseled drug addicts. Neither had attended college. Okike's father had immigrated to the U.S. from Nigeria.

The men had met with 300 funds and wealthy investors. Few were ready to hand over money to a company founded only four years earlier. Princeton's endowment represented the ultimate challenge. It chose only one out of every 100 investment firms it considered; by contrast, the famously selective university across Nassau Street made offers to six out of 100 applicants to its freshman class. The odds against 645 Ventures were daunting. This is not going to happen, Holiday told himself.

As they settled into a conference room, Okike and Holiday discovered they were meeting none other than Andrew Golden, president of the Princeton University Investment Co. for the past quarter-century.

Golden wanted to know more, much more, about the algorithms that 645 Ventures used to select its portfolio. Golden, who once worked as a professional photographer, asked penetrating questions, as if he were training a telephoto lens at a distant subject.

"Are you putting together a recipe book or cooking a meal?" Golden asked. He was expressing skepticism about machines picking investments. In a promising sign, he then asked to look under the hood of what the founders called 645's "data room."

On their way home, Holiday and Okike couldn't stop reliving the conversation with Golden. At one point, a truck bumped their rented Mercedes and drove away. They took it in stride. In another lucky break, Zipcar didn't charge them for the small ding.

Getting a second look from Princeton would cause any investor to celebrate. But, for 645, it resonated more deeply. It had the chance to become a Princeton money manager owned by black investors. More to the point, it would be the only one.

AMERICA'S COLLEGE endowments manage more than \$600 billion, roughly equal to the gross domestic product of Taiwan. The biggest funds have a time horizon of centuries. Their leaders can afford to wait for the legendary payoff of startups that turn into the likes of Google and Facebook.

These vast investment funds remain almost exclusively the province of the white and the male, making them an anomaly in the world of higher education. Women now earn almost 60 percent of U.S. bachelor's degrees, and nonwhite students, more than a third. The share of women on faculties is approaching one-half, if not in the most senior positions.

Yet the pipeline of women and underrepresented minorities starts narrowing in finance courses. It tightens in business school. At the pinnacle of investing, it all but shuts off. Firms owned by women and minorities manage just 1.3 percent of assets in the \$69 trillion investment industry, according to a Knight Foundation study published in January.

Men head the 10 largest college endowments. (Jane Mendillo did lead Harvard's from 2008 to 2014 following a stretch as Wellesley College's chief investment officer.) None of the people who run them is black or Latino, though the heads of Harvard's and the University of California's funds are of Indian descent. Some universities are diversifying their staffs. By August, nine of Princeton's 23 investment professionals will be women-including two Asian Americans. There are two Latino men on the team.

0

Orange in the Black

20%

10

0

Princeton's endowment returned 14.2 percent for the year ended June 30, 2018, contributing to financial aid and research

Real assets

\$4.4b

One-year return on endowment's assets

Princeton 8% Columbia U.S. stocks 8 \$1.2b Emerging markets stocks Penn \$2.2b 7.7 Developed markets stocks (ex-U.S.) \$1.2b Dartmouth 7.6 Yale 7.4

Hedge funds

\$5.9b

Value of assets on June 30, 2018

Private equity

\$9.2b

Sources: Princeton, Columbia, University of Pennsylvania, Dartmouth, Yale, Brown, Cornell, Harvard

Fixed

\$1.3b

income/ cash

Typically, endowments don't manage the money themselves; they farm it out to the best money managers they can find. Princeton has more than 70, including 44 based in the U.S. Until 2018, women owned only one, Nancy Zimmerman's Bracebridge Capital hedge fund, which also works for Yale. Black money managers owned none, though one did in the past. (Golden declined to name the company.)

Golden is a graduate of Duke University and Yale's school of management, where he earned a master's degree in public and private management. He started running Princeton's fund after working five years for David Swensen in Yale's investments office and a stint with Duke's endowment.

Princeton and Yale use a similar strategy of making long-term bets on illiquid investments and have achieved some of the best results among university endowments, in part because of their early bets on successful venture capital firms. Over the 20 years ended June 30, 2018, Princeton has reported an 11.4 percent average annual return, right behind Yale's 11.8 percent.

Because of its age (it was founded in 1746), the deep loyalty of its alumni, and its investing skill, Princeton is, by one measure, the richest major university in the U.S.: Its endowment per student is a stunning \$3.2 million. It relies on the fund for half of its annual budget, a bigger proportion than any other Ivy League school.

Princeton picks perhaps three new investment firms a year. By design, two-thirds have less than a three-year record. Golden can build a meaningful position in the most successful companies by getting in early. Once an investment company becomes successful and well-known, everyone wants a piece, and entree becomes tougher. That strategy has led to some of his biggest successes, such as buying into Horowitz's VC firm, Andreessen Horowitz LLC, before it struck gold with investments in Facebook and Pinterest Inc. (Bloomberg LP, which owns *Bloomberg Markets*, is an investor in Andreessen Horowitz.) Entrusting money to untried companies requires using a mix of intuition and character judgment. Without intervention, the selection process tends to favor companies whose owners are already part of Princeton's network and can therefore seem familiar, an implicit bias that can work against women and minorities something Golden is seeking to counter, however slowly.

Brown

Cornell

Harvard

Average annual return for the decade ended June 30, 2018

5.9

4.8

4.5

As one of America's oldest universities, Princeton has a fraught history with race and gender. It admitted its first black undergraduates in 1945, decades after other Ivy League schools. It didn't accept women as undergrads until 1969, sparking opposition from some alumni.

But Princeton has been a leader in expanding access to college, awarding among the most generous need-based financial aid packages in the country. In the class of 2022, 15 percent are the first in their family to go to college, and 18 percent are African American or Latino.

As part of his legacy, Golden, who turns 60 in May, would like Princeton's outside money managers to become similarly diverse. Trim with a white-flecked beard, he looks and sounds more like a popular professor than a Wall Street type. He has a self-deprecating sense of humor, referring to himself at times as "Sparky" because of a small fire at his home more than a decade ago caused by a defective dryer vent pipe. His bio page on the Princeton website ends with a quip: "He wishes he had time to learn golf—he wouldn't use it to learn golf, but he wishes he had the time."

At the endowment's headquarters recently, he peppered his conversation with literary, historical, and pop culture references, including Hemingway, Nixon, and the '80s classic *Fast Times at Ridgemont High*.

In describing his quest for diversity, Golden at times seems to be echoing the admissions office, which likes to tout the demographics of Princeton's student body. "I can't imagine having a **>** roster of managers providing the best possible returns without them being diverse and inclusive," he says. "We're looking, ideally, for something that looks like America."

Last August, Golden picked Forerunner Ventures LLC as Princeton's second money manager owned by a woman. Golden had met its founder, Kirsten Green, at an endowment conference in 2015, and his team had been tracking her. Green, now 47, was already an established Silicon Valley figure, having raised several hundred million in three funds.

A certified public accountant who once specialized in retail for Deloitte & Touche LLP, Green demonstrated the kind of special insight and experience Golden seeks. Walmart Inc. had bought two of Green's investments, retail marketplace Jet.com and men's retailer Bonobos. In March, Airbnb Inc. acquired another, lodging booker HotelTonight.

She also won a key endorsement from Joel Cutler, a co-founder of General Catalyst Partners LLC, which manages money for Princeton and has invested alongside Green in companies such as glasses retailer Warby Parker Retail Inc. "I really want to believe we earned our way into all the relationships because we have toptier returns," Green says. "I want people to invest with us to see all of that, not only because we are a woman-led firm."

GOLDEN'S DIVERSITY push began 12 years ago. An endowment board member at the time, John Rogers Jr., who runs Ariel Investments LLC in Chicago, suggested surveying Princeton's external managers annually to find out how many women or minorities they had in senior positions. Few, if any, he discovered. "If you want to be a successful 21st century company, you can't look like the 1940s," Rogers says.

Historical outsiders—that is, people who aren't typically white and male—with Princeton links were making that case. Rogers, who's black, played basketball at Princeton with Craig Robinson, the older brother of Michelle Obama, who also graduated from the university. Kathryn Hall, who runs her own asset management company in San Francisco, was the chair of the endowment board at the time. Another board member calling for greater diversity was Shirley Tilghman, who was then Princeton's president, the first woman ever to hold that position.

Golden, who grew up in South River, N.J., the son of a dentist, is the grandchild of Russian-Jewish immigrants. Like other Ivy League schools, Princeton once had strict Jewish quotas to keep out people just like his ancestors.

Golden rejected the approach of some of the largest pension funds, which commit to investing a set percentage of their money with companies owned by women and minorities. He said he wanted to continue with the university's strategy of starting with small investments in new managers. Along the way, Princeton had tried to encourage diversity by prodding existing managers to diversify their leadership. In 2017, after a decade of disappointing survey results, the university decided to try another strategy as well.

It's hard to know how Princeton compares with other elite endowments, which are notoriously secretive. The rest of the fivelargest private funds—Harvard, Yale, Stanford, and MIT—either declined or didn't respond to questions from *Bloomberg Markets* about the makeup of their outside managers.

Lobbyist Robert Raben, who founded a nonprofit pushing for diversity in money management, says some private endowments won't return his calls or disclose any information about the demographics of their outside investment managers. (Harvard has met with Raben.)

Raben, who's spoken with Golden half a dozen times, praises his effort but urges him to move faster. "We've established everywhere in professional settings that diversity of background, diversity of networks strengthens outputs," says Raben, who'd been an assistant attorney general in the Clinton administration. "Asset management, in part at elite institutions, is a holdout."

At the same time, Golden risks drawing the wrath of those

"I can't imagine having a roster of managers providing the best possible returns without them being diverse and inclusive. We're looking, ideally, for something that looks like America"



Green

Princeton faculty and alumni who've long been skeptical of the college's embrace of affirmative action and other efforts to promote inclusion. Robert George, a professor who directs Princeton's James Madison Program in American Ideals and Institutions, says the endowment would be better off focusing on investment returns. "We should hire or contract with the people who are most likely to give us good decisions and access to markets," George says.

Golden says he's committed to maintaining his excruciating selection process, which involves an average of 350 hours of staff time to vet each candidate. "We don't want to mess with the core elements of success," he says.

645'S OWN JOURNEY shows why Golden's effort is destined to move at a gradual pace. Holiday and Okike spent four years building the company, forgoing salaries part of the time and staying at Airbnbs as they pitched to potential investors. And that's even though these two are a rarity: unconventional candidates who nonetheless check every meritocratic achievement box and travel in all the right circles.

They are ridiculously qualified, their résumés wrapped in ivy. The son of two doctors, Okike, who is 39, has a bachelor's, a law degree, and an MBA, all from Harvard. He worked for eight years at New York-based Insight Venture Partners, where the companies he helped select for backing were acquired for more than \$5 billion. A 6-foot-5-inch former track star who ran the 400 and 800 meters at Harvard, he literally stands above the crowd.

A head shorter, Holiday, 37, is, like Okike, bookish, given to reading physics texts and the tomes of the late cosmologist Stephen Hawking. He studied computer science at historically black Morehouse College, then developed trading software at Goldman Sachs Group Inc. He earned an MBA at Cornell, where he led a campus venture fund.

Okike and Holiday are world-class networkers who vacation in Martha's Vineyard, a gathering place for both Boston Brahmins and the black elite. They named their company after one of the Massachusetts island's telephone exchanges: 645.

Holiday won his first introduction to Golden through Scott Kupor, a partner at Andreessen Horowitz whom he'd met through the Cornell fund. Ken Chenault, the former chairman of American Express Co. and now a venture capitalist at General Catalyst, which has been a longtime manager of Princeton's money, told Golden he's invested personally with 645. "I like how they were going about building their firm," Chenault says.

Last July, two months or so after Holiday and Okike took their drive to Princeton, Golden and a team of investment staffers made a site visit to the WeWork space on East 28th Street. The next month, one of his lieutenants phoned with the news: Princeton committed to their \$40.6 million fund. Holiday was standing behind Okike, who was seated, when the call came in. "We did it!" Holiday said, squeezing his partner's shoulders with both hands.

As significant as they may be, Princeton's investments in black-owned 645 and woman-owned Forerunner represent a round-ing error: less than \$50 million out of a \$26 billion fund.

But Golden likes to think of it differently. Forerunner and 645 were two of only three managers Princeton picked during the past year. If successful, they could one day become major holdings. "By definition, it's a glacial move to get to truly untapped pools of talent," he says. "It's planting seeds that grow into tall trees."

Today's effort resembles an initiative Princeton started about 15 years ago. To gain a deeper understanding of overseas markets, Golden says, the endowment decided to seek out the best international investors based in their home countries. Those managers now represent more than 30 percent of the portfolio.

It would be hard to overstate the impact of Princeton's vote of confidence on the young VCs who'd been toiling away in their WeWork space. Several months after Golden picked 645, whose team of seven people now manages about \$50 million, the company moved into permanent digs in an office building across from Grand Central Terminal.

The silver-framed photos greeting visitors suggest the founders' ambitions: Okike with Billy Beane, the numbers-minded Oakland A's general manager, star of Michael Lewis's *Moneyball* and idol of quantitative-minded investors everywhere; and Holiday with Robert Smith, a prominent African American investor who co-founded Vista Equity Partners and has put money with 645.

"We could really move more into the big leagues," Okike says. "Once you have a strong institutional investor, all things open up. This is an opportunity, but we have to make the most of it. Now we're in the game." •

Lorin covers endowments for Bloomberg in New York.

Short seller Ben Axler profits by sniffing around companies for signs of trouble—for "cockroaches," as they're called.

Then he gets the word out.

So far he's bucked the bull market and says the bugs aren't going away **THE STOCK MARKET'S** closing bell has just rung on the third day of short seller Ben Axler's campaign against Dexcom Inc. in late March, and things are going pretty much according to plan. That's to say, things are going terribly for Dexcom.

Almost \$2 billion of the company's market value has been vaporized since Axler's firm warned that Dexcom, which makes glucose monitors for diabetics, was about to face stiff competition from a cheaper product sold by Abbott Laboratories. The front of his 83-page report that launched the campaign features a photo illustration of a woman with a monitor clipped to the top of her jeans. The screen reads, "Stock Alert: Extreme Sugar High." On a bare midriff above the monitor, the woman sports a superimposed tattoo of a heart topped by the words "I LOVE BEN."

"It's down about 20 points," Axler says, referring to the number of dollars wiped off Dexcom's stock price. "One hundred twenty more to zero, right?"

The 42-year-old hedge fund manager is half-joking: He isn't expecting to knock this particular stock completely out. Rather, he sees the potential for the stock to dive to as low as about \$65 a share in the near term. Axler is sitting in the common area of the co-working space a few blocks south of New York's Central Park that serves as the nerve center of his hedge fund firm, Spruce Point Capital Management. The vibe is more college dorm than Wall Street, but Axler is making a serious point.

Sending a company's stock price to zero—the ultimate badge of honor for a short seller—isn't too far-fetched as targets go. Over the past decade, Axler has sent shares of five companies to zero or near zero. Fifteen chief executive officers and 11 chief financial officers left companies that he's targeted. Lawsuits from shareholders often follow in his wake. A single Manhattan-based law firm, Pomerantz LLP, filed at least seven class-action complaints against companies that were subjects of Axler's research.

With just three full-time employees operating out of the shared office, Spruce Point is on a hot streak. Its soft-spoken—yet outspoken—leader is wreaking havoc on investors who haven't done the type of deep-dive research that's become his trademark. The Spruce Point Research Activism Partners fund returned 24 percent last year, making it the best-performing equity marketneutral fund tracked by BarclayHedge in 2018. It ended the year with about \$182 million under management.

"Ben puts a lot of work into unearthing red flags in various parts of the business, and you can see from his presentations that he has information packed into every margin," says Josh Black, the editor-in-chief of research firm Activist Insight, which ranked Spruce Point as the second-most-impactful short seller of 2018, behind veteran short seller Andrew Left's Citron Research. "He's not a provocateur, and his presentations are meant to convince sophisticated analysts. To do that in as many situations as Spruce Point does, in a bull market, is impressive."

Finding stocks to bet against was once a prime focus of hedge funds. But a Hedge Fund Research index of short-biased funds has dropped 67 percent from its high a decade ago. What happened? The 10-year bull market has been one challenge. Another is the growing number of passively managed funds, shareholders that will never sell a stock unless it's dropped from an index.

Spruce Point and a handful of other small firms, such as Kerrisdale Capital and Muddy Waters Capital, have bucked the

The Exterminator

PHOTOGRAPH BY JUSTIN FANTL

ILLUSTRATION BY MIKEY BURTON



"Easy money plus a low regulatory environment creates opportunities for what we call bad actors or low-quality businesses to become public"

trend. They use Twitter and other social media outlets to broadcast their research. From Axler's perspective, low interest rates and a White House hellbent on ripping up business regulations are creating a bumper crop of overvalued companies.

"Easy money plus a low regulatory environment creates opportunities for what we call bad actors or low-quality businesses to become public," he says. "We have seen the IPO market, for example, bring public a lot of companies that don't have proven business models—that are losing a lot of money—but yet are carrying big stock valuations. When you put those factors on the table, we see a very good time—a golden era—to short stocks."

BECOMING ONE OF the most profitable and impactful activist short sellers in the U.S. market wasn't Axler's original plan. As a laid-off investment banker cast aside in the upheaval of the financial crisis, he first set up Spruce Point in 2009 as a value fund looking for bargains at the end of a brutal bear market.

It was perhaps the perfect time to start such a fund, which means it was also a near-impossible time to pitch the idea. Axler struggled to attract investors. "No one wanted to invest in equities," he says, "even though it was probably the best time of our lifetimes to do so."

His career was refocused by a brief phone call. He noticed in the annual report of ZST Digital Networks, a TV set-top box maker based in China, that the company said it regularly presented at the annual Consumer Electronics Show in Las Vegas.

"So I picked up the phone, and I called the conference, and I said, 'You know ZST, um, how are they doing? Are they going to be presenting again this year?" Axler recalls. "And the conference organizer said, 'Who?' The first thing I checked: Do they actually come to the States to do what they say they do? And the answer was no."

Axler is a believer in the "cockroach theory," a popular notion during the subprime crisis that likens financial problems to those dreaded insects: If you find one bug scurrying across the floor, there are likely a bunch more hiding nearby.

He'd discover many more cockroaches at ZST. The newly public company had three different auditors in three years, and its CFO didn't have a degree in accounting. Axler couldn't even find any of its products for sale on the internet. He shorted the stock—a process in which shares are borrowed and sold in a bet the loan can be repaid with cheaper stock in the future—and released his research on the investing websites SumZero and Seeking Alpha. The market took notice; ZST shares quickly sank. Eventually they were delisted by the Nasdaq Stock Market.

"I realized, Hey, there's an untapped opportunity here to be more vocal on the short side, because most of the research and the blogs you see out there are structurally positive," Axler says. (ZST couldn't be reached for comment. Other Spruce Point targets mentioned in this article either didn't respond to requests for comment or declined to comment.)

After closing the value fund, Axler launched the Spruce Point Research Activism Partners fund in 2016 as a vehicle to profit from short sales inspired by his forensic accounting investigations.

Axler's skeptical approach to financial statements can be traced to the start of his career in investment banking in 2000. With the ink barely dry on his Yale master's diploma in statistics, Axler witnessed how swiftly—and spectacularly—financial schemes can fall apart. In his first year at Credit Suisse First Boston, the team sitting next to his in New York had a high-profile client: Enron Corp.

"I knew an analyst who worked on the team that was working on Enron, and I asked them, 'Did you understand any of this?'" he says. "And the answer was no. So I was like, 'Hmm, OK.'"

Not long afterward, Enron imploded.

More troubling developments would follow Axler around Wall Street. CSFB was forced to write down a big chunk of the value of its \$11.5 billion takeover of Donaldson, Lufkin & Jenrette, which closed just as Axler was being hired. In 2006 he moved to the team advising industrial companies at Barclays Plc but lost his job when the British bank took over the remnants of a crashed Lehman Brothers two years later.

Following his success with ZST, he focused on searching for more cockroaches. Spruce Point often finds that first bug quickly— or else Axler moves on to another target.

"Because I run a small business, we don't have a lot of time to waste going down rabbit holes where there's a dead end," he says. "I can generally sniff out a company pretty quickly."

A GOOD SHORT often starts with bad people.

A company's management and board of directors—career histories, connections, conflicts of interest—are often what Axler inspects first. His favorite place to start is with corporate proxy statements that reveal the backgrounds and experience of board members and detail how executives are compensated.

"What skin in the game does management have? Do they own 1 percent or 50 percent? Have they been selling down over time? What metrics motivate them?" Axler says. "If I can understand what metrics motivate management, then I can go back and say, 'OK, are these metrics that they're motivated on fairly stated?""

Like any hedge fund manager, Axler is always seeking an edge on the market. That's easier said than done in this age of Big Data. Fund managers with deeper pockets than Axler hire computer and math wizards to create quantitative models that they feed with all manner of data, such as the movements of ships at sea or satellite images. Axler's edge often comes from digging up obscure information others haven't thought about. That means filing Freedom of Information Act requests and writing to a wide variety of government agencies. "You can get information from the county—it could be property records," he says. "You can get information from an environmental agency if it's a manufacturing company, or get information from the SEC, the Department of Justice, the FTC, the FDA. All these regulators are untapped sources."

In his research on Beijing-based Camelot Information Systems Inc., Axler noted the company's prospectus mentioned thousands of employees. But when he checked LinkedIn he could only find a few profiles, all created shortly before the IPO. A discovery like this typically leads to further investigation and eventually to an in-depth report. The research, which can be hundreds of pages, is placed on Spruce Point's website, with details tweeted prolifically from the firm's account.

One of Axler's greatest hits was in 2015 after he spent several months investigating Caesarstone Ltd., a maker of quartz countertops and tile. The CEO had previously led a company called Tefron, which was, in Axler's words, "an Israeli-listed company that promised a new dynamic technology in manufactured garments. And the stock kind of petered out and never delivered on

Thirty-Three Kisses of Death

Ben Axler's shorts since starting the Research Activism Partners Fund

Change in share price, by period since short position announced* • One week later • Four weeks • Trough

25% -100% -75% -50% -25% 0 AECOM Echo Global Logistics **Burlington Stores** Ultimate Software MGP Ingredients **CECO Environment** PTC Wix.com **Radiant Logistics** Gentex Dorman TSO3 Envirostar **Tootsie Roll Industries** AeroVironment Matthews International **Ballard Power Systems** Reality Income **Kratos Defense** Globant Mercury Systems U.S. Concrete Momo Healthcare Trust 2U Maxar Technol Weis Market Dollarama **XPO** Logistics Amdocs Aerojet PetIQ

*Through May 6, 2019. Stocks listed in chronological order of date position taken. Source: Bloomberg promises. So he disappeared and resurfaced in a number of years as the CEO of Caesarstone."

That's the kind of résumé that catches Axler's attention. What drew him in further were Caesarstone's profit margins, which were suspiciously high for a company making a commoditized product like countertops.

"So OK, how can I disprove these numbers?" he remembers thinking. Then he had an "aha!" moment. The company typically requested that the SEC allow it to keep its quartz purchasing contracts confidential. He spotted the date on which the latest contract would be unsealed, then dashed off a letter to the SEC asking for a copy before Caesarstone could request additional confidentiality. When he got the contract, a red flag emerged: The price the company was paying for quartz was climbing faster than its regulatory filings suggested.

"So as an investor, what I try to do is reverse-engineer what management says," Axler says. "I tried to put myself in the position of the CFO. If I were the CFO, and I knew my costs of quartz were increasing, what might I do? Well, I might put less quartz in my product to cut back on my costs. This was my hypothesis."

He set out to prove it. He collected countertop samples from Caesarstone and eight competitors. Axler sent them to a materials-testing laboratory at New Jersey's Rutgers University, where he'd gone to college before attending Yale. Tests showed there was less quartz in Caesarstone's countertops than the company claimed and less than in competing products.

The lab tests were the centerpiece of his Caesarstone report, which also alleged that margins were significantly overstated and described questionable dealings with the Israeli kibbutz that was both the company's major investor and source of labor. His first report on Caesarstone weighed in at 146 pages—not the sort of product investors typically get from bank analysts covering a stock. After Spruce Point began its campaign in 2015, Caesarstone said it stood by its regulatory filings and statements. The company declined to comment for this article.

RESEARCH DEPARTMENTS at Wall Street firms have shrunk. Analysts are so stretched that some are covering dozens of stocks, Axler says. "They're not really stress-testing the accounting metrics, they're not looking at governance issues," he says. "They're not writing Freedom of Information Act requests, testing products. We've had some success doing this sort of stuff that a typical sell-side analyst is not trained to do, nor expected to do."

Cockroaches aren't the only nasty critters that Spruce Point traffics in when getting the upper hand against Wall Street analysts. There are also rats. Lots of rats.

Photo illustrations on Axler's reports use rodents to illustrate some problem with a company—often and shamelessly. There are rats running around a robot vacuum cleaner on a report about its manufacturer. There are rats on the shelves in an image for a report on a supermarket chain. A rat sits on the roof of a broken-down sedan in the report about an online used-car platform.

Axler laughs when the topic of rats comes up in our interview. "Yeah, you have to have fun," he says. "I think that is what's kept me going. I truly enjoy doing this. I enjoy being a contrarian.

I enjoy stirring debate, being against the grain."

Regan is a senior markets editor for Bloomberg News in New York.





PG, with more than \$104 billion under management, is an established contrarian in the private equity industry. Founded in 1992 by David Bonderman and Jim Coulter, two alumni of the Bass family office, the

company once known as the Texas Pacific Group has headquarters in Fort Worth and San Francisco. It remains a partnership when most rivals have gone public. And it's expanded into areas such as credit, real estate, and early-stage technology investments, with notable success in the likes of Uber Technologies Inc. and Airbnb Inc. When Bonderman decided to step down as co-chief executive officer in 2015, Coulter recruited Jon Winkelried, a former Goldman Sachs Group Inc. executive.

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Replacing a founder is never easy. Winkelried's task list including putting structure on an intentionally unstructured group of dealmakers and creating a more diverse workforce—got even trickier this year. William McGlashan, the star manager of TPG's growth and social impact funds, was charged in an alleged criminal conspiracy to rig U.S. college admissions. (He pleaded not guilty.) He was pushed out of TPG, and Coulter assumed his responsibilities. An internal investigation found McGlashan in 2017 introduced TPG funds to the admissions scam's ringleader, who pitched them on his ideas, but the funds passed on investing with him.

In an interview with Bloomberg News's Jason Kelly, Coulter and Winkelried, both 59, talk about TPG's history, their relationship, managing through crisis, and how they're maintaining TPG's contrarian roots.

JASON KELLY: This is a firm that was essentially founded on something of a contrarian bet on a bankrupt airline. Tell me about that. JIM COULTER: It was not obvious that you would begin a firm by investing in the least admired company in America, Continental Airlines. [It] had been led by the single most hated CEO in the industry and was a cyclical commodity business. In spite of the size and notoriety of the company, we were essentially the only investor who showed up with capital to restructure an airline. So the very roots of our business were based on taking on problems that other people had perhaps seen but not been willing to take on.

JK: Was that an ethos you picked up from the Bass organization? Or was it just who you and David [Bonderman] were?

JC: I think it was both. Starting with family capital, we never had to raise capital to do transactions before Continental. And while everyone wants to be a contrarian in theory, actually raising money for something contrarian is difficult. The private equity industry has been set up in a way that makes contrarianism more difficult. The best way to raise money in private equity is to point to a deal you did five years ago and show that it worked out well and to say that you will do the same type of deal for the next five years. That is a great money-raising strategy; it is not a good investment strategy. JK: Jon, I'm going to ask you this question: Could this firm do Continental today? Or would it?

JON WINKELRIED: Absolutely. We create an environment around here where we have a very open process in terms of vetting opportunities, vetting different styles of investment, pulling in the best capability and best resources from across the firm.

JC: We haven't changed at all. What's changed is the marketplace. If Continental Airlines showed up today there would be 74 distressed investors circling around it. So would we do the deal? We'd certainly do the same deal over again. But the market has moved, which means we've had to. And one of the challenges of being contrarian is as soon as you're successful at it you have to do something different because it will no longer be contrarian.

If you think about our history, it's expressed itself over and over again. We were among the first people to do tech buyouts. And we did that because David and I were in a meeting and someone asked us what we didn't do, and our answer was technology. And we walked out of that meeting, looked at each other, and said, "That didn't seem right." So we started our efforts in technology. We went to Asia when people hadn't. It's an intellectual and business problem-solving ethos. We viewed Continental Airlines as a problem that had to be solved. We viewed the question of "How would you do tech buyouts?" as a problem to be solved. We view the moment we have in the unicorn investing world as a problem to be solved.

JK: What was the conversation between you and David that helped you realize this was going to be a distinct firm—that you were going to raise outside money and build a business?

JC: The buyout business in 1993 was about simplicity and stability. It was all about buying steady cash flows and franchise businesses and adding leverage. The idea of changing management or strategy was not widely embraced. We built the business from the beginning to invest in change because we thought if we could intellectually sort out change, we could have differential returns.

JK: You were working for this family office down in Texas. You were 32, 33 years old. Bonderman was an ex-bankruptcy lawyer who saved Grand Central and prevented a highway from being built in downtown Fort Worth. How much did you play on the idea that we're not KKR, we're not Wall Street "barbarians at the gate"?

JC: We were either visionary or naive. And at the moment you're never sure which one. So we set up in Texas and San Francisco. We basically started out doing airline investing and health care during the Clinton health-care initiative. That strategy continues—today we're doing gene and cell therapy deals because that's a change in the economy.

Image: I knew this firm as a client for a period of time obviously from my days at Goldman. I always knew TPG to be slightly different. First of all, they were on the West Coast, so they weren't part of that financial community in New York. And so their perspective was a little different. I also knew the firm because I had been an adviser to Alan Waxman, who built our credit business here. Alan is not a very conventional thinker. When I was first contacted by Jim, I was immediately intrigued because of: one, what my perception was of what they had done and how they had done it; and two, the fact that it was not a New York-based firm. Most people are surprised to hear that I might not have taken this job if it was in New York because I was actually looking for something that was different. Here [in San Francisco] investing is very important, but it is actually the second act. Because tech and innovation is kind of what this place is about.

JK: OK, Jim, so what prompted that call?

JC: We had this moment where David was going to be stepping back from the business. We needed a set of skills and leadership that probably didn't exist within the firm because the firm had been about investing and probably hadn't established itself as a merchant bank, as some of our competitors had. When I looked at Jon's career and how he got to his position at Goldman Sachs, he had gone into different parts of the business and he had been successful in every one. That is really hard to do. He had led investment organizations and managed huge balance sheets. So he had the investment ethos,

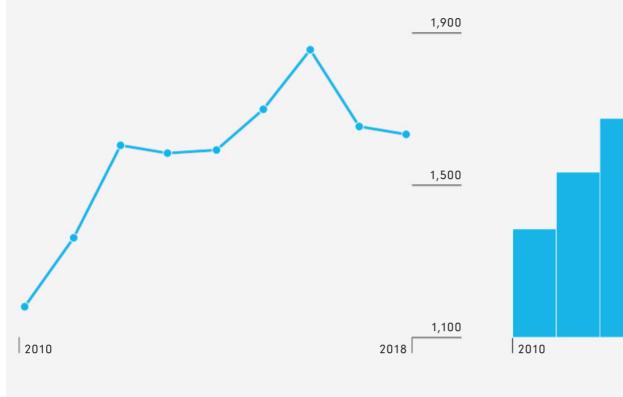
BLOOMBERG MARKETS

Nonpublic War Chests Grow

Unlisted private capital funds

Number of funds, by vintage year

Aggregate reported capital closed



<figure>

but he had a set of management skills. And we wanted a leader who is curious and interested. So I was fascinated that in New York he was spending his time with a venture capital firm. Every hedge fund in the world had been interested in having him be part of it—he had been approached for every position. But he was choosing to spend his time [in venture capital] because it was interesting to him. And so that type of ethos, management skill, continual success, and then curiosity were all one package.

JK: Jim, you've lived most of your adult life in this partnership. Jon, that would present some challenges for anyone coming in as a co-chief executive. How much did you worry about that?

JW: I wouldn't say worried. I would say it was a very important element of the decision: I've got to feel like this partnership can work. So it led to about a five-month process of meeting people here and spending time with Jim. We had a series of meetings, mostly in Jim's office here, in this conference room, and we talked about the firm, we talked about some of the challenges. But that doesn't answer the question of "Can the partnership work?" So I called Jim, and I said, "Listen, let's do something out of the office." I suggested that he come visit my ranch in Colorado. And for me that was an interesting turning point. Because he came out, we spent about four hours or whatever it was in the afternoon in a river on my ranch, basically fly fishing. He got to see me in a different environment, in a different light, with people that worked for me there around me. People have this image of people who've gotten to very senior levels at Goldman Sachs. I do think [it helps to] take that context and get rid of it for a second and sort of look at one another as people. What do we talk about when we're not talking about deals? How do we engage with people that work for us? How do we engage with our significant others? We got connected at a slightly different level. And I had a lot more confidence coming out of that. We're not going to see the world the same all the time, which is actually a valuable thing, but it would be a good partnership. My wife and I talked about it, and she said, "I think you're actually going to do this." And I said, "You know what? I might."

JC: In the early decisions about building this firm, it was not only about being in San Francisco but it also was about not being in New York. And so the non-New York part of Jon was important to me also. But ultimately I think the whole thing turned on fish and horses. (*Laughs.*) You know, as an investor you learn to observe things. I love to watch investors in casinos. I don't gamble personally, but watching how people deal with risk is sort of interesting. For managing a private equity firm, fly fishing is good. You have to have a lot of patience. You have to constantly be changing what you're doing and figuring out the situation. Jon is a much better fisherman than I am. So watching him work the problem was interesting.

And you want to find ways that you overlap with people. Jon had chosen to use a fair amount of his time after Goldman to become a very accomplished amateur cutting horse rider. My daughters rode competitively in the national and international circuit. So horses were in my life also. In horse competitions, it's never quite all your fault and never quite all the horse's fault if things don't go well. So you have to learn to fail as a team. And win as a team. That's the culture of TPG. We fail and win as a team.

JK: So Jon, what did you see as your No. 1 mission when you walked in the door?

JW: I walked in the door, fall of 2015, and saw a rapidly evolving firm. During the financial crisis the firm [had] decided that it had an opportunity to innovate. There was the development of a credit business, a growth equity business, a real estate business that was not just buying trophy buildings. And the further buildout of our Asia franchise given what was going on with the emergence of China. Only really one business was what I would call scaled and mature, and that was [TPG] Capital. I had seen the evolution of an organization that had multiple businesses being incubated ► and driven. So to use the horse analogy, this was not my first rodeo around that. I have had a lot of experience dealing with a lot of ultramotivated A-type people that want to build businesses. And I felt like the combination of my skill set with Jim's perspective would be quite powerful in terms of taking us to that next level. But at the same time, constantly focusing on the identity of TPG. You have TPG Capital, TPG Growth, TPG Real Estate, but you have TPG—what does that represent? And we've been very focused on this element of, What are our values?

JK: Jim, how controversial was your hire inside the firm?

JC: There were a lot of questions and a lot of people who would have, at that moment, perhaps preferred other structures. But I think the certainty with which I suggested that that was the right structure, and my clear articulation of the need to do so—that it wasn't about me and it wasn't about Jon, it was what the firm needed to be successful—meant that the doors were open when Jon came in. We made the decision to not have lanes. For the first couple of years we basically said we're doing it together. That was a key decision because it would have been easy for people to split us or pigeonhole one or the other of us in a function. Co-leadership has to be a joint effort.

JK: The crisis was brutal for the industry. You had some notable and very public misses. What was it like?

If you look at the firm's history, we've been contrarian, we've JC: been innovators, we've been kind of West Coast. The only time we varied from that was 2006 to 2008. We decided to innovate in [terms of deal] size. We and a few other people in the industry said that we were going to go into larger deals. We lost our differentiation because those deals were done in consortiums. Everyone had problems. So that was the one innovation that hasn't worked for us. And once you take away the idea of ever-larger funds and ever-larger deals, the idea of growth and problem-solving begins to move into different sectors and products. Private credit took off post-crisis, so we made a big effort with Alan and his team to build private credit. It's the era of disruption, so we became the industry leaders in disruption investing. It's the era of sector funds, so within our funds we began to build sectors. What we did was basically return to the curiosity differentiation and the values we'd had since '92. Were investors receptive to that? JK:

JC: The private equity marketplace is always focused on what you've actually done. We could look at prior to 2006. And the midsize contrarian deals we did in 2006 and 2007 returned three times their money. What pulled us down were the larger deals. So we basically said that we were going to do what we've always done. And if you look at the record, it's been extremely strong. And the record, post-crisis, would be the same.

JK: There could be an argument that what made TPG great was it was a bunch of people able to do their own things. How do you institutionalize a culture that is built on anti-institutionalization? JW: It starts with not losing that sense of freedom that people have to pursue what they think is really interesting or different. We have tried to focus on using the resources that we have to promote this idea of innovation and creativity. I use an expression that I think maybe people didn't use as much here before, which is being commercial. Where are there opportunities or seams in the market where we see interesting things? Figure out a way of bringing that to our clients and develop pools of capital, in some cases, that didn't exist before. We were seeing really interesting opportunities to do "If you are an incumbent, you are more at risk than anytime in my career and probably anytime in the last 100 years"





some things first. Employees selling secondary common [stock] is an example. We knew these companies; we had relationships with the CEOs. And so we developed a pool of capital that actually can help prosecute those opportunities. It's an opportunity that our investors like, and so we raised \$1.6 billion in a tech adjacencies fund. And in the world we live in today, people care about what you stand for. People don't want to be forced into some kind of a lane. But what people realize today is it helps them do their business when the overall brand that wraps around it is something that people admire, want to be partnered with, want to be connected to.

So arguably one of the biggest tests of that, and maybe of your JK: partnership, came just recently with Bill McGlashan being caught up in the admissions scandal. What does it change about the way you interact with your people and the way you interact with investors? It's clearly an unfortunate moment when external personal JC: activity reflects on anything we do the way this has. But it's also an important values and teaching moment. The message that Jon and I were very consistent upon is there are things that you run into sometimes that you cannot control, but you can control how you react to them. Our reaction has been very clear and straightforward. So, as unfortunate as it has been, it's also been important for Jon and I to have the firm know who we are with even more certainty and to illustrate for the firm how important conduct of all sorts is. My understanding is you have physically moved now to a JK:

different floor. I would imagine that sends a message to the team. JC: It took us maybe seven minutes to make a decision of what we needed to do on the personnel side and that I would step in personally. Our partnership is such that that does not leave the firm in any way uncovered for what it needs to do. For 20 years I was co-CEO of the firm and ran a piece of the firm day to day, and only in the past couple of years I've stepped out of that. So it was natural for me to step in. We in no way underestimate just how important it is to react the right way for our LPs, for our portfolio companies, for impact investing, and for our teams.

If you just have a collection of individual businesses and something like this happens, your ability to respond and recover is much more handicapped than if you have a firm where you're constantly engaging with one another and people feel that engagement. We have created as seamless a transition as you possibly can. That doesn't mean it's without its bumps. And we have more things to do, which we will be doing. But the existence of a culture, of people feeling like they're part of something bigger, to me it's just essential. IK: I asked earlier whether TPG would do the Continental deal today. A variation on that is: Does the same sort of person you recruited then show up at TPG today?

JC: As we have been building our teams we have focused on innovation. And we find that innovators are attracted to innovation. You could win a lot of money in San Francisco in a bar bet saying, "Name the people who are inside the boardroom in Spotify, Uber, and Airbnb." Because no one would think it was TPG. They would think it was some venture firm. But somehow we were willing to commit capital when our competitors weren't. If you look at our portfolio you would find many more disruptors than traditional incumbents. If you are an incumbent, you are more at risk than anytime in my career and probably anytime in the last 100 years.

Kelly is New York bureau chief and the co-host of *Bloomberg Businessweek* on TV and radio.

Stephen Schwarzman

The chairman of Blackstone Group LP was the subject of our cover Q&A in the June/July 2017 issue. Here, he divulges some of his off-duty habits and preferences to Bloomberg TV's Francine Lacqua, co-anchor of *Bloomberg Surveillance* and host of *Leaders With Lacqua.*



- How many hours of sleep do you get a night? Five.
- Are you a morning or evening person? Morning.
- What's your typical workout? About an hour and 15 minutes of cardio and weight training every day.
- What's your favorite sport or sports team? Tennis to play. The Patriots to watch.
- Which app is in heavy rotation on your phone? I'd have to say the email app, sadly.
- What's your go-to lunch spot? The Four Seasons.
- What's the best book you've read recently? Bad Blood by John Carreyrou.
- What's your favorite place to go on vacation? St-Tropez.

Which living or historical person do you truly admire?

Franklin Roosevelt.

If you had to take a year off, what would you do? I'd get on a boat and travel around the world. I love being on the water, and I love having time to think. It gives me the freedom to invent and, most importantly, to solve problems, which is a lot of what my life is these days.

What's the last thing that made you laugh?

My last meeting. I try to find and deploy humor as much as possible throughout the day. When you work as hard as we do, it's important to laugh to keep perspective.

What's your biggest fear?

I worry about the country moving away from its core values as the political environment gets more and more polarized.

What's the best advice you've gotten?

Dick Jenrette wrote me a six-page letter convincing me not to drop out of Harvard Business School. He wanted to drop out in December of the first year just like I did. He stayed and he told me to stay. It changed my life.

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NEW ENHANCEMENTS TO TRY RIGHT NOW

FIW The Fixed Income Worksheet function—which lets you analyze and compare pricing, performance, and liquidity across large lists of bonds-has been enhanced so you can share and collaborate on a single worksheet. To share a saved worksheet in FIW, click on the Worksheet button on the red toolbar, select Share, and click on Share Worksheet. After you share, your colleagues can save changes that they make so your team is working with the same view. NIMY My New Issue Monitor, which provides a central location to view and filter new bond announcements you receive from the sell side, has been enhanced with a number of new features. You can now send an order via an IB pill that the sell side can acknowledge with a single click. You can also see an issuer's curve and comparable bonds in FIW by clicking on the chart icon next to an issuer in NIMY. The New Issue Sales function, which aggregates NIS announcements sent by syndicate from the New Issue Bond Manager (NIB) function, has also been enhanced so that sales teams can specify the comparables universe they see when viewing an issuer curve in FIW. BUNI The B-Unit Enrollment function has been updated to support the B-Unit app for Android enrollment process. CPFC The Commodity Price Forecasts function has been updated to allow you to see how a firm's forecasts for a given commodity have evolved over time. Run {CPFC <GO>} and select a commodity such as Nymex WTI. To see the history of a firm's forecasts, click on the arrow to the left of its name.

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Test Your Market Knowledge

By BARRY PORTER

WHICH CHINESE BANK is the largest in terms of assets? Which of three huge mining companies has the lowest price-earnings ratio? Test your knowledge with Bloomberg's Functions for the Market quiz. Then follow the steps to see if you had the correct answer (and learn a bit about how to tap into data and analytical tools in the process). Hint: This issue's quiz draws on Bloomberg's enhanced natural language processing capabilities to answer questions.

What is the largest bank in China by assets? 1.

- Industrial & Commercial Bank of China
- China Construction Bank
- Agricultural Bank of China

Which Hong Kong investor is the biggest holder of Taiwan 3. Semiconductor Manufacturing Co. stock?

- Value Partners Group Ltd.
- Schroders Asia Ltd.
- JPMorgan Asia Equity Dividend Fund

atchlist Analytics function.

the question. Type "1" and press <GO> to see the results in the the Equity Screening (EQS) function set up with the criteria that answer For a deeper dive, click on the Equities | EQS link to open

Results page will display the answer. a Bloomberg terminal screen and press <GO>. The Search Bloomberg: Type "Largest bank in China by assets" on the command line of

Use Bloomberg's natural language processing capabilities to find the answer.

For a profile of a particular investor, click on its name.

open the search in the Investor Search (IS) function. In the Search Bloomberg: Results page, click on the Investors | IS link to

Type "TSMC holders in Hong Kong" on the command line and press <GO>.

- Which mining giant has the lowest price-earnings ratio? 2.
 - BHP Group Ltd.
 - Rio Tinto Plc
 - Vale SA

Which big car manufacturer has had the strongest earnings 4. growth in U.S. dollar terms?

- Volkswagen AG
- Toyota Motor Corp.
- General Motors Co.

In the chart that appears, you can add icons that display news or corporate events that help explain market action. Tick the box to the left of Key Events so a check mark appears.

earnings growth in dollars" and press <GO>. On the command line, type "Chart Volkswagen Toyota GM

Type "Chart BHP Rio Tinto Vale p/e" on the command line and press <GO>.

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