Bloomberg Markets

VOLUME 28 ISSUE 2 APRIL / MAY 2019

The Debt Issue

Dow Jones Industrial Average
(31 Components)

Symbol	Price OCT 26 2018	Seq All c/d Daily OCT 26 2018	Combo2b All c/d Daily OCT 26 2018
INTC UW Equity	45.69	9	10
JNJ UN Equity	136.97	9	9
JPM UN Equity	103.42		
KO UN Equity	45.92	11	7
MCD UN Equity	173.34		
MMM UN Equity	184.95		10
MRK UN Equity	70.40	10	
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		
UNH UN Equity	258.18		
UTX UN Equity	123.23		
V UN Equity	137.74	3	5
Total Up		7	9
Total Down		9	

Bloomberg
Markets

VOLUME 28
ISSUE 2
APRIL / MAY 2019

The Debt Issue

COVER ARTWORK BY
DEXTER MAURER

"When I imagined the theme of debt, I immediately thought of a burden, a kind of weight that follows us. I thought that a stormy landscape captured this feeling. We often associate the fox with cunning, and I thought he would be the perfect actor in this scene."

Contents


A STAR ALLIANCE MEMBER
SOME CHEFS
COOK THEIR BEST
AT 30.000 FEET
TURKISH AIRLINES
Products and services are subject to change depending on flight duration and aircraft.

The Debt Issue

Bloomberg Markets has a new look. After three years of covers that featured some of the most powerful people in finance and economics, we've switched to a focus on the big themes that matter in our world. In this issue we're tackling global debt, now estimated to be more than three times the size of the world economy. Contributors around the globe examine the topic from a variety of perspectives.

Djibouti, a tiny, poor country at the eastern edge of Africa, is in hock to China—creating a geostrategic challenge to the U.S. and France, reporter **Nizar Manek** finds in "China by the Red Sea" (page 62). Beijing, meanwhile, is no longer a guaranteed backstop for debt at home, forcing fixed-income investors like Chen Yang to learn credit analysis, explain Bloomberg News's **Carrie Hong** and **Christopher Anstey** in "The Man Who Bet on Chinese Debt" (page 82).

The Bank of Japan's outsize appetite for government bonds is having unintended consequences, Tokyo-based Anstey, **Yuko Takeo**, and **Toru Fujioka** report in "Bonds? Yum!" (page 72). In "Ghost Stories" (page 78), London Bureau Chief **Neil Callanan** revisits his homeland to see if Ireland is repeating mistakes made a decade ago. Natalie Jaresko managed financial calamity in war-torn Ukraine and is now at work in hurricane-ravaged Puerto Rico. In "Don't Waste a Crisis" (page 68), she speaks with municipal bond reporter **Michelle Kaske** about what she's learned.

From New York, **John Authers**, senior editor for markets, and data journalist **Lauren Leatherby** provide a *tour d'horizon* of the world's debt in "The Decade of Deleveraging That Wasn't" (page 56). And there's much more, from places as diverse as Mumbai, Rome, Warsaw, and Silverton, Texas.

We at *Bloomberg Markets* owe a debt to all our contributors, as well as to you, our readers. As always, we welcome your feedback.

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

Apr

17
Indonesian Election

Indonesia

President Joko Widodo has put economic progress at the center of his pitch for another term

Find the country's economic statistics at **{ECST ID <GO>}**; a guide to its economy at **{COUN ID ECO <GO>}**; and the 10-year bond **{GTIDR10Y <Govt> GY <GO>}**.

17–18
OPEC Meeting

Vienna

176th Extraordinary Meeting of the OPEC Conference

May

6
Sohn Investment Conference

New York

24th annual gathering of investors raising money to help end childhood cancer

7–10
SkyBridge Capital's SALT Conference

Las Vegas

Investment managers mingle with current and former government officials

Use **{PEOP <GO>}** to search for people; **{BIO <GO>}** to get the biographical details of an individual; or **{TOP WHO <GO>}** to find people-related news.

14
Platinum Week Begins

London

Annual gathering of platinum and palladium miners and traders at Guildhall

23
India's Election Results

India

Scheduled announcement of results from elections being held from April 11 to May 19

Jun

1
UEFA Champions League Final

Madrid

Real Madrid, which won the last three finals, is out of the competition this year

3–5
Bloomberg Invest

New York

Thought-provoking discussions with top asset managers and executives

Type **{TLIV <GO>}** for breaking news, commentary, and other insights on market-moving live events such as Bloomberg Invest.

10–12
Forum for Sustainable and Responsible Investment

Minneapolis

Annual conference of group advocating an ESG agenda

28–29
G-20 Summit

Osaka

Japan hosts its first Group of 20 leaders' summit, with ministerial meetings at eight other Japanese locations

By LISA ABRAMOWICZ

FOR HER CBC MASSEY LECTURES in 2008, Canadian writer Margaret Atwood chose to talk about debt. The text, written in the first half of the year (and later published as *Payback: Debt and the Shadow Side of Wealth*), described how she'd noticed a lot more ads on public transportation for debt relief services. "Why are there so many of these ads? Is it because there are unprecedented numbers of people in debt? Very possibly," she said. Today, more than 10 years after the global debt-driven financial crisis that Atwood intuited, angst remains. Central banks that bought bonds and kept interest rates low to spur economic recovery have fueled record levels of corporate and government borrowing. While Atwood's lectures considered debt from historical, theological, literary, and even ecological perspectives, we asked investors and analysts to consider a simpler question as this credit cycle ages: What could go wrong now?

What will cause the next debt crisis?

It's got to be rates that cause a problem at some point. Then it's a question of who goes first. Is it high yield? Is it loans? Is it investment grade? Because IG started to really crack more than high yield before December, because there just wasn't enough of a cushion in credit spreads.
It seems like it's all wrapped up in credit markets. Then it seems like it would be liquidity. It's hard to tell exactly where it's going to come from.
I don't think there's a particular sector that's so levered up that it's something like that. It could be everything all at once. **Valuations** are so tight there's too much risk there. I don't see it as a seizure as much as a dramatic lesson in price discovery. The idea that fixed income is no longer a safe hedge against equity volatility could create flows out of fixed income. There is this perception of safety. If you don't have any return, then what's the case for owning it?

Kathleen Gaffney

VICE PRESIDENT AND DIRECTOR OF DIVERSIFIED FIXED INCOME AT EATON VANCE MANAGEMENT

Risks are shifting to other sectors of the economy.
We sometimes call it the shadow financial system. These risks now are in parts of the financial system that are less regulated, less monitored, and we have a less good idea of what those risks are and how they're evolving.
It could be the **leveraged loan** market, for example. Those are the sectors of the economy that I'm most worried about right now.

Kristin Forbes

PROFESSOR AT MIT'S SLOAN SCHOOL OF MANAGEMENT AND A FORMER BANK OF ENGLAND POLICYMAKER

I actually don't think it's necessarily going to be the U.S. that's in the epicenter.
I think it's going to be overseas. Clearly growth is a lot slower in Europe right now, and you're seeing a number of countries in recession. Could you see defaults and increasing problems in Europe that ultimately cycle back to the U.S.? And what about **China**? If China cannot reinvigorate growth with its current stimulus program, then we could start to see problems coming out of China.

Michael Temple

DIRECTOR OF CORPORATE CREDIT RESEARCH FOR THE U.S. AT AMUNDI PIONEER ASSET MANAGEMENT

We think we're on the front end of a potential shift in the credit cycle. It's going to show differently this time. We think it's going to be expressed in the public markets through leveraged loans. One of the telltale signs is structured securities. Issuance is up, **CLOs** [collateralized loan obligations] are up. We're seeing covenant-lite loans that are coming to market. These are all signs; 2017, 2018, and 2019 vintage structured securities could be problematic.

Greg Hahn

PRESIDENT AND CIO OF WINTHROP CAPITAL MANAGEMENT

Partly because of the last financial crisis, the system is safer. The chance of another systemic crisis is very low. What we're looking at is something more like **2002** in terms of the leverage built up.

Adam Richmond

HEAD OF U.S. CREDIT STRATEGY AT MORGAN STANLEY

I always say you follow the money, because that is where you really start to see excess risk build. Where is the money going now? Private credit. There's quite a bit of money that's flowing in that direction, whether through institutional managers or BDCs [business development companies]. Investors didn't necessarily need the liquidity that you get in the syndicated bond or syndicated loan market. If in exchange for that **illiquidity** risk, you could get better return on capital through higher yield—that made a lot of sense. There has been a tremendous amount of demand for private credit. But investors knowingly went into private credit understanding that there was real illiquidity there. The mark-to-market could be pretty painful when things do turn, but in terms of how they have these assets allocated, they fall within an illiquid bucket. That's one factor that could prevent it from becoming a systemic crisis.

Michael Buchanan

DEPUTY CHIEF INVESTMENT OFFICER AT WESTERN ASSET MANAGEMENT

I don't think there's going to be another credit crisis because I don't see the leverage in the trading system. In the financial crisis, everything was kind of interconnected. As soon as one part of the capital structure started getting in trouble, everything had to get sold. There was a lot of mark-to-market risk. I do think we can get bouts like we saw in December, where the **ETFs** in particular drive prices lower, but they can rebound quickly. There's just not liquidity. But I don't see people being forced out of the market.

Peter Tchir

HEAD OF MACRO STRATEGY AT ACADEMY SECURITIES INC.

If you do have people worried about the deficit plus a downturn, you could see an increase in real rates. You're seeing this in Canada. Because their mortgage market is much more floating-rate, you're seeing the impact on the consumer. A lot of people attribute the risk-off in the fourth quarter to the Fed's shrinking balance sheet. I attribute it to the increase in **real rates**. When real rates rise, people move out of credit into Treasuries. If we get inflation, we can handle higher rates. If we don't, that's more damaging.

Priya Misra

GLOBAL HEAD OF RATES STRATEGY AT TD SECURITIES

What would cause creditworthiness to get devalued would be a recession or economic slowdown. We're seeing that to some extent in **Europe**. The next question is what would cause rates to go higher. And that would be inflation. We don't really understand inflation. Whenever you're in year 10 of a recovery and a bull market obviously there are excesses, and I don't think we all know where they are.

Jim Bianco

PRESIDENT AND FOUNDER OF BIANCO RESEARCH LLC

The one significant catalyst would be quickly rising rates, and I don't see that happening anytime soon. If anything, what we've seen is central bank after central bank accept the fact that they need to get more dovish, even though they're very interested in normalizing to prepare for the next crisis. We all worry about the triple-B [credit rating] space, just because there's been such an increase in that space and because it hangs on the precipice of being knocked over. And of course there's a lot in the way of **refinancings** to expect. Not this year but really next year, 2020, we should see about 10 percent of those bonds needing to be refinanced. That is probably the first area that we'd want to look to. I also worry about specific places like auto loans, where we've just seen defaults go up quite significantly. Is it going to cause the kind of crisis that we saw during the GFC [global financial crisis]? No. But that suggests weakness in pockets, and we want to follow that closely.

Kristina Hooper

CHIEF GLOBAL MARKET STRATEGIST AT INVESCO LTD.

Abramowicz is co-host of Bloomberg Markets AM *on Bloomberg Radio in New York.*

Europe Needs a New Italian Renaissance

By FERDINANDO GIUGLIANO

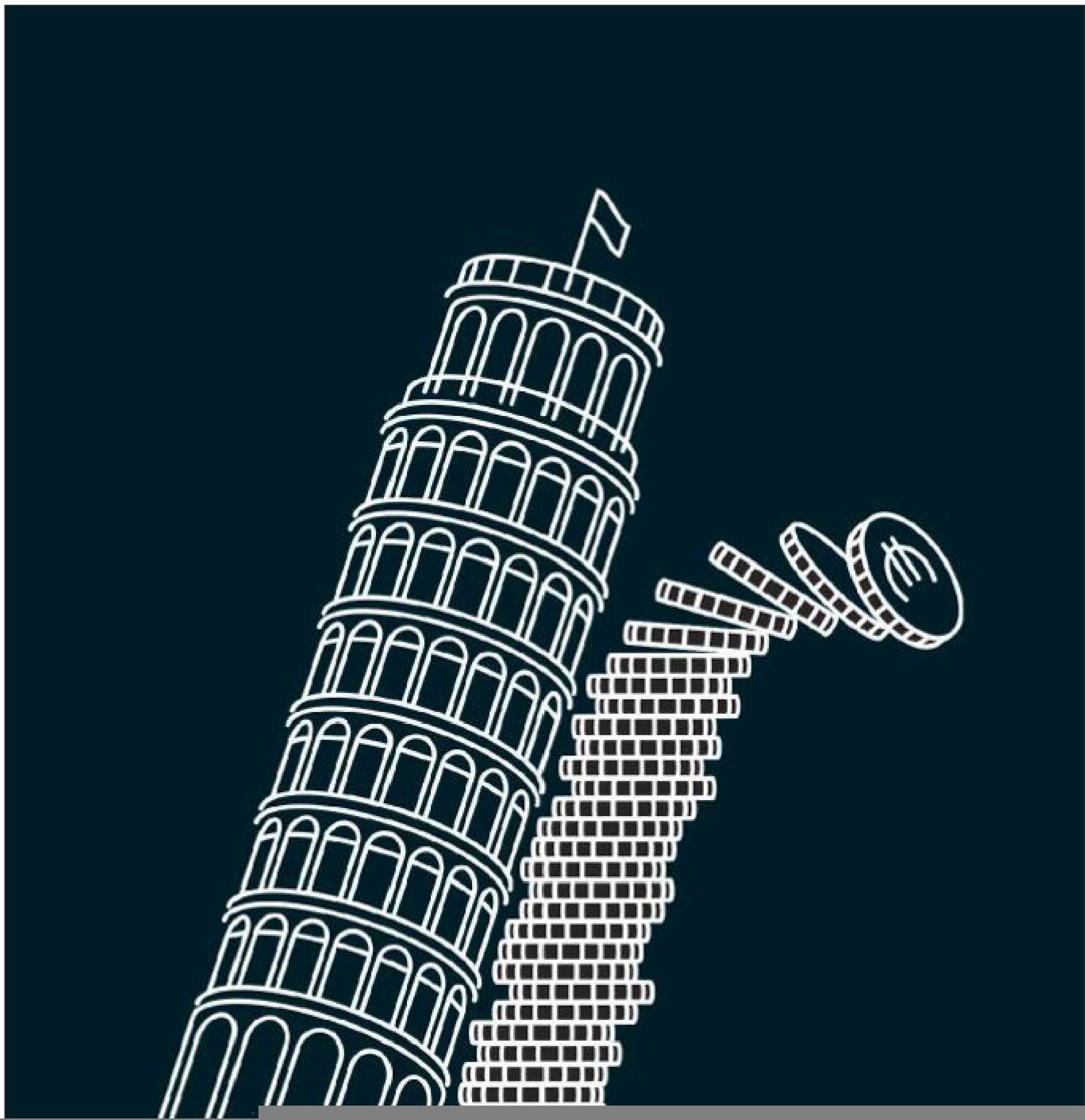
ILLUSTRATION BY MATT CHASE

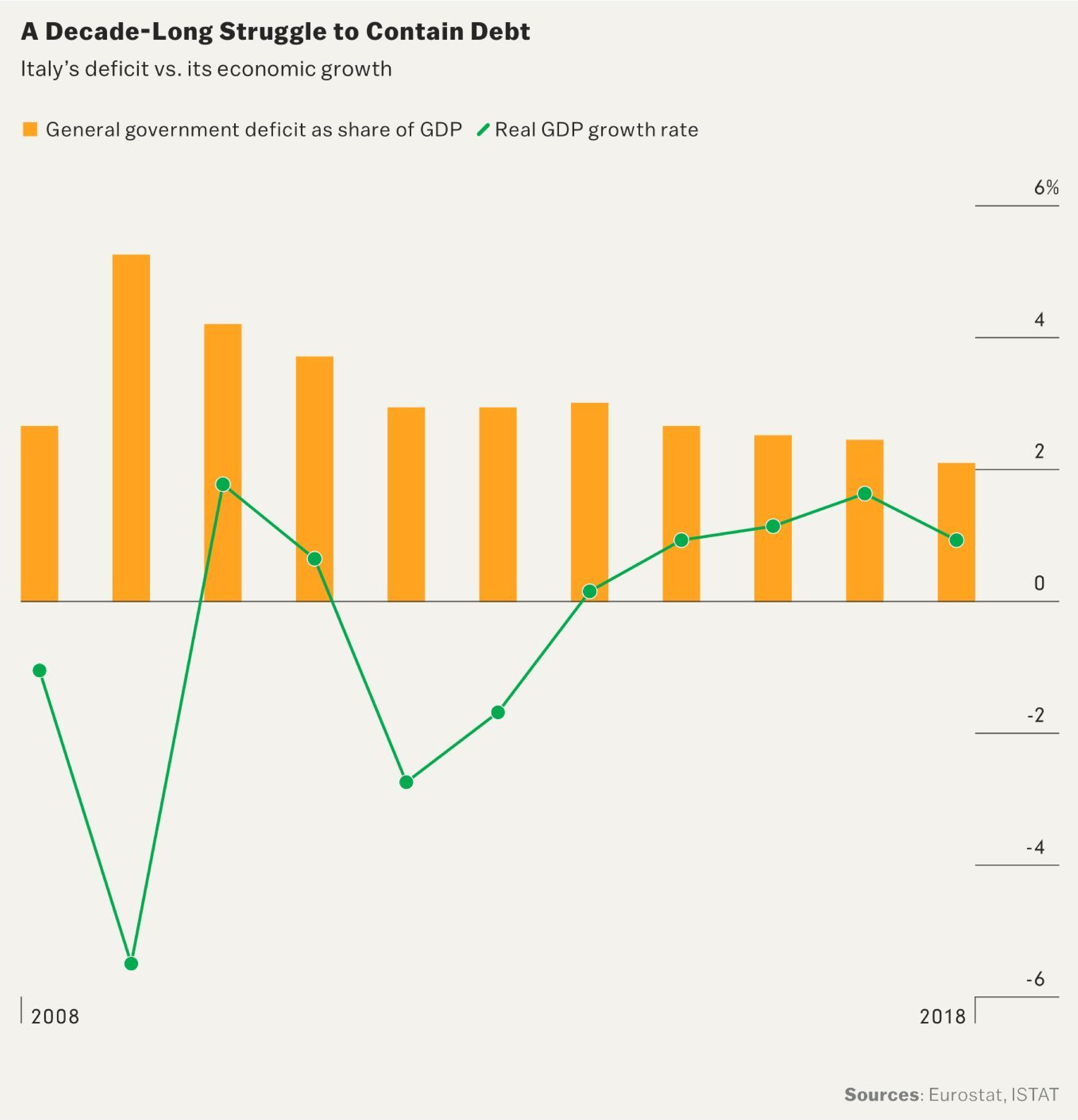
IF YOU'RE SEEKING the key to the euro zone's economic outlook, all roads lead to Rome.

Italy's public debt of €2.4 trillion ($2.7 trillion) is significantly bigger than its economy and among the largest in the currency union, making it the most dangerous. This debt mountain threatens the financial stability of Italy and the future of the euro: Any plans to strengthen the single currency must solve the question of who will bear this burden.

For centuries, it was bankers from the Italian peninsula who helped foreign states handle their finances. Luca Pacioli, a Tuscan-born Franciscan friar, is widely considered the father of modern bookkeeping thanks to his work on the double-entry system. The Medici lent extensively to royalty across Europe, including the French and the English. In 1340, King Edward III of England defaulted on loans received from Italy to fight France in the Hundred Years' War, bankrupting the Bardi and Peruzzi banking families.

Fast-forward to the late 20th century, and Italy became the borrower rather than the lender. In the 1970s and '80s, the country's public debt





worse, this borrowing binge failed to spur any exceptional growth.

In the past quarter century, Italy has struggled to reduce its debt. After a string of administrations managed to shrink it to about 100 percent of GDP by 2007, the Great Recession, the euro zone sovereign debt crisis, and the ensuing phase of very sluggish recovery drove Italy's liabilities to more than 130 percent of GDP.

The contrast with Belgium is striking: In 1993 public debt there stood at 138 percent of GDP, higher than Italy's. In 2017 it had fallen to 103 percent, below Italy's 131 percent. Politicians in Brussels ran bigger primary surpluses—that is, budget surpluses before interest payments—than Italy while producing higher growth rates, notes André Sapir, an economist at Brussels-based economic think tank Bruegel. When the euro zone crisis struck in the early 2010s, Belgium had sufficient credibility in the bond market to borrow more cheaply than Italy.

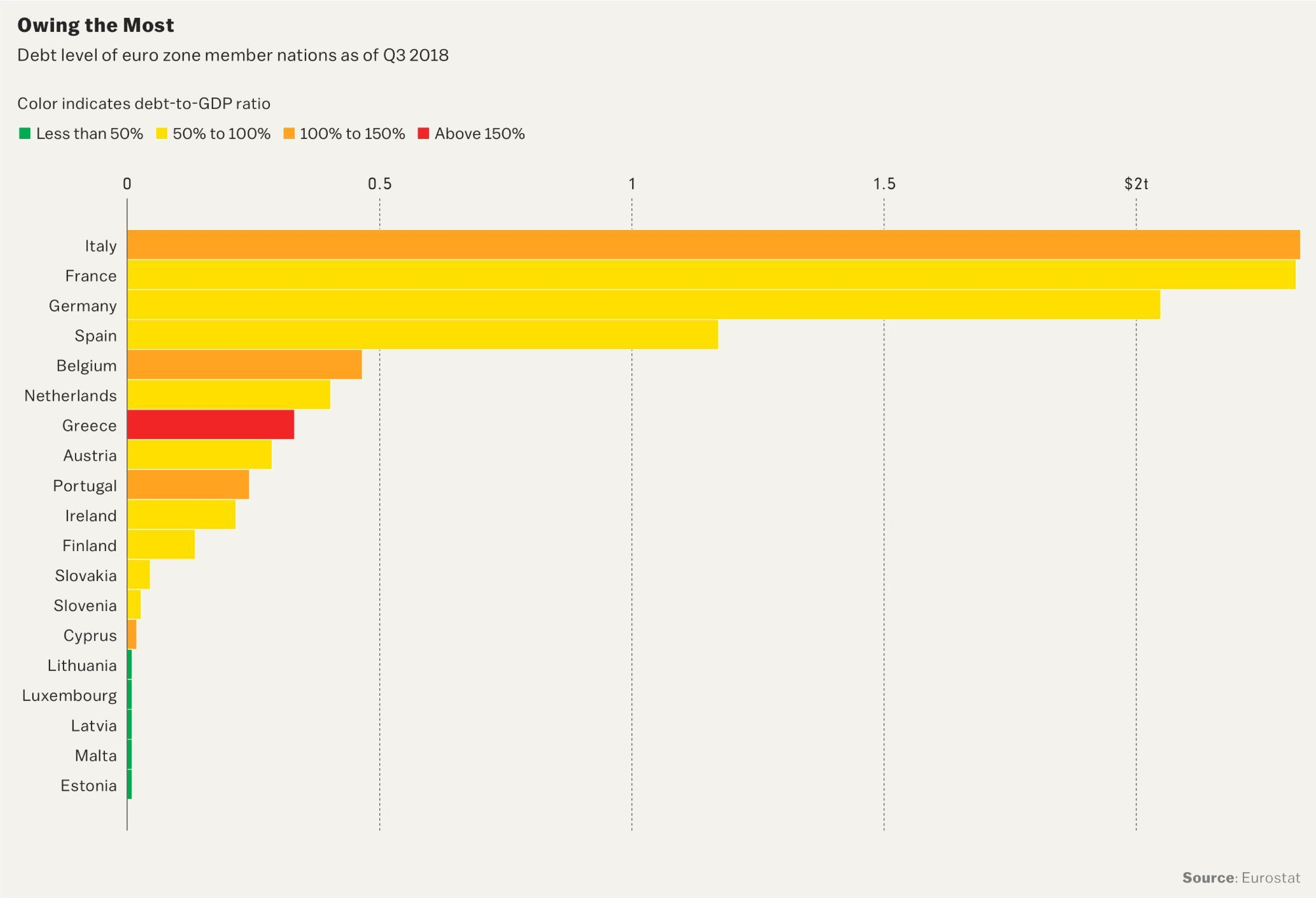
Under the leadership of Rome native Mario Draghi, the European Central Bank introduced a program of quantitative easing in 2015 that's helped Italy substantially. Yields fell steeply, producing enormous savings for the government. Public debt stabilized, but once again, politicians missed the chance to reduce it, preferring to cut taxes instead.

June's formation of a populist administration has renewed concerns about Italy's debt. During the electoral campaign, the right-wing League and the anti-establishment Five Star Movement flirted with the idea of leaving the single currency altogether. After forming a government, they agreed on a plan that included steep tax cuts, a reduction in the retirement age, and an income support program. In the fall the European Commission rejected the government's initial budget, forcing it to submit a new draft. Italy's 10-year bond yields climbed to the highest in four and a half years, exceeding 3.5 percent.

The government backed down, partially reassuring investors and sending bond yields well below 3 percent. But investors in Italian debt are still demanding a substantial premium over the yields on Spanish or Portuguese obligations, which have traditionally paid more. Italy entered a recession in the second half of 2018, making it almost certain that Rome will miss its 2019 fiscal targets. The country faces the prospect of a contractionary budget in the fall, which could further slow growth.

A new wave of turmoil around Italian sovereign debt remains a distinct possibility. Any fresh crisis would hit Italian banks, which have resumed loading up on their country's debt. If bond yields were to rise sharply, weaker banks could be forced to raise new equity. Alternatively, they may decide to shed assets to preserve their capital ratios. This would squeeze lending and harm the economy, feeding a vicious circle.

The rest of the euro zone has made it clear that if Italy falls into a crisis alone, the country would need to apply for a rescue before it could receive any help. This would impose a strict set of conditions, including budget austerity and structural reforms. Some within Italy's populist ruling coalition hope the



size of the country's debt will force the ECB to intervene to appease markets. They hope they can de facto kidnap the central bank and form some kind of alliance with it. Stockholm syndrome becomes Rome syndrome.

This is unlikely. The ECB has rules it must obey before rescuing any member state, including requiring a program of fiscal consolidation and reform. The Italian economy would be hit hard in a crisis, which would likely prompt politicians to take action before the central bank.

Still, it would be delusional to imagine that the euro zone can simply brush aside Italy's public debt as it tries to steady the economy. The ECB has already delayed normalizing its monetary policy, which has been accommodative since 2011. A crisis in Italy, the currency union's third-largest economy, would affect confidence across the region, limiting the central bank's ability to hit its inflation target. Ultimately, the sustainability of Italy's public debt could be a crucial constraining factor when central bankers decide how much and how quickly they want to raise interest rates.

Italy's public debt will also affect the euro zone's ability to become more resilient against any crisis. The currency union needs to complete its banking union, setting up a joint deposit guarantee scheme. It must develop some form of common budget, which can redirect money to countries facing an isolated shock. Finally, it must develop a safe asset, which banks can purchase alongside traditional securities such as German bunds.

All of these debates hinge on developments in Southern Europe and in Italy in particular. Northern European countries, including Germany and the Netherlands, demand that banks reduce their exposure to domestic sovereign debt before the euro zone can agree on a common safety net for all depositors. There is no economic reason for this sequence: All banks, including Germany's, would benefit from a joint safety net now. But politically, it's hard to see any progress if Italian banks continue to hold large quantities of government bonds.

Similarly, it's illusory to imagine other countries agreeing to any form of debt mutualization unless Italy makes significant progress in reducing its own. A task group at the ECB has tried to construct a safe asset that doesn't require debt sharing, but this project has stalled. A commitment to cut Italy's debt would also appease fears that the country could abuse a joint budget—paving the way for some form of fiscal union.

The euro zone's future is therefore largely dependent on Italian politicians. If they fail to reduce the public debt, the euro area will remain a halfway house, overly vulnerable to crises. Alternatively, courageous steps from Rome would make it much harder for politicians in Berlin and other key euro zone constituents to refuse to complete the monetary union. Just as in the time of the Medici, Europe's financial future depends on Italy. Let's hope for a new Renaissance. ●

Giugliano writes about European economics for Bloomberg Opinion in Rome. This column doesn't necessarily reflect the opinion of Bloomberg LP and its owners.

Seed Capital

THE LOAN OFFICE at Happy State Bank, the only bank in Silverton, Texas, has barely changed in the 73 years it's been open. About 90 percent of the farmers in Briscoe County rely on loans to pay for each season.

"Once a year, we'll do equipment, cattle, and crop inspections," says Kyle Fuston, branch president. "After the crop is up and running, come midsummer, we'll go out and look at it just to make sure. If we go out there and there's hardly any crop out, and the farmer's still borrowing money, then we have a problem."

Lane Garvin, a local farmer, says the water level has been dropping since wells were drilled in the 1950s. "We started rotating crops and using drip irrigation so we can grow more with less water," he says. "When the water's gone, we'll figure out a way to make a living dry-land farming. We'll cross that bridge when we get there. You know, sad thing is, we won't need a bridge."

Drought, lower crop prices because of the trade war with China, and rising interest rates have hurt farmers, Fuston says. "Eventually, they'll run out of water for irrigation. Running out of farmers is our biggest fear." —*Lucas Foglia*

For agricultural commodity price forecasts, go to {**CPFC AGS <GO>**}. Run **{CFARDMND Index GP <GO>}** to graph the Federal Reserve Bank of Chicago's Index of Demand for Agricultural Loans.

PHOTOGRAPHS BY LUCAS FOGLIA

Gary Weaks, who farms about 2,000 acres in Briscoe County, says he recently began rotating wheat and cotton crops. The wheat stubble stores moisture for the newly planted cotton. His 11 wells produce 1,000 gallons of water per minute—half the water his father's three wells provided. "Yeah, it's less water, but we're getting smarter about how we use it."

Kinley Rhoderick helps her family brand cows on their farm and ranch in Silverton. Farmers in the area often use cows as collateral for the bank loans that finance each season. She holds a bag of bull testicles, known locally as calf fries, which her family will cook for supper.

New wind turbines generate electricity next to an abandoned farmhouse in Silverton. Wind farms have been installed on agricultural land across the Texas Panhandle, providing supplemental income to landowners. For some of them, the turbines provide more consistent income than crop farming.

Weaks holds cotton seeds purchased with the help of a loan from Happy State Bank. “The economy of this nation is out of kilter,” he says. “If I don’t put the nutrients in the ground for the roots, then the top green is going to die eventually. Farmers are the roots of the United States.”

Are the Bond Vigilantes Really Dead? (And Did They Ever Actually Exist?)

By CAMERON CRISE

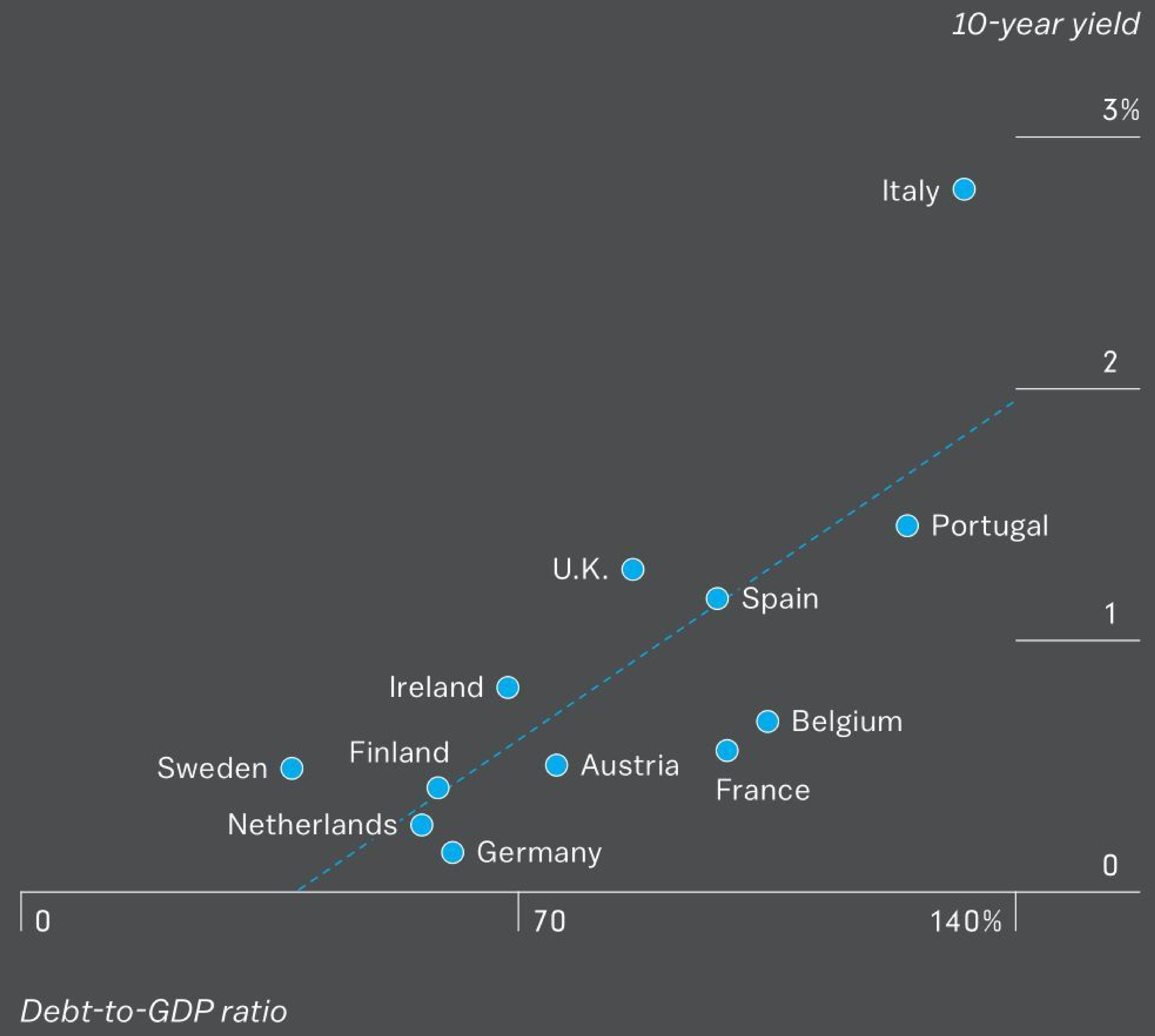
"I USED TO THINK if there was reincarnation, I wanted to come back as the president or the pope or a .400 baseball hitter. But now I want to come back as the bond market. You can intimidate everybody." That was political strategist James Carville back in 1993.

Younger readers might find the characterization of the bond market from a quarter century ago a bit bemusing. For them, the "bond market vigilantes" are little more than figures in a scary story that grizzled fixed-income investors use to keep young folks on the straight and narrow. After all, the Bloomberg terminal is full of bond quotes offering almost absurdly low yields despite elevated levels of public debt.

As the public policy debate shifts to the possibility of increased spending in many parts of the world, it's worth asking if the bond vigilantes are well and truly dead—and if so, whether they ever actually existed in the first place. After all, if governments can borrow as much as they like without repercussion, then a host of seemingly outlandish policy proposals may suddenly become more realistic.

Debt Levels and Borrowing Costs

Selected European nations



Figures as of end of February
Sources: {WCDM <GO>}, {WB <GO>}

ANYONE WHO HAS a passing familiarity with euro zone bond markets could tell you that sovereign debt levels matter. Indeed, it took European Central Bank President Mario Draghi's "whatever it takes" pledge in 2012 to break a doom loop of European sovereigns and banks. More recently, the Italian government's defiance of European Union budget prescriptions pushed Italian bond yields higher. What's that if not the bond vigilantes in action? Indeed, looking across the major economies of the euro zone we find a pretty strong relationship between public debt and the cost of borrowing.

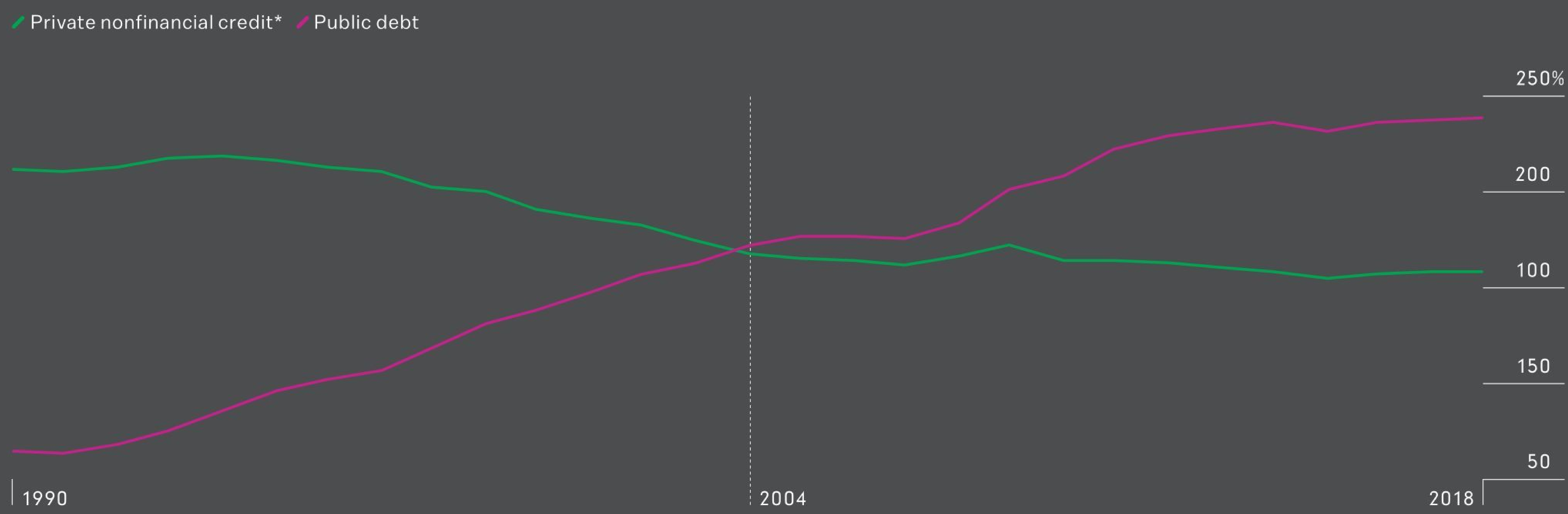
Ah, but, the "debt doesn't matter" crowd might suggest, the euro zone is a special case. None of the individual countries enjoys seigniorage: They can't simply print money to pay off their debts. For countries that do control the printing press, debt ultimately has little impact on yields. Just look at Japan: Gross government debt is more than twice gross domestic product—the Bank of Japan has monetized almost half of that debt—and 10-year yields are around zero.

If the euro zone is a special case, then so, too, is Japan, insofar as it's run a persistent current-account surplus over the past several decades. There is a high stock of domestic savings with a strong home bias, which has ensured a steady demand for Japanese government bonds despite the ostensibly shaky financial fundamentals. Regardless, it seems a bit of a stretch to suggest that Japan's high public debt level and low bond yields have created an optimal set of economic outcomes. The bloated size of the public-sector balance sheet has arguably squeezed private-sector debt out of the market.

But what about the U.S., the biggest bond market? Although a succession of Federal Reserve chairs has warned about the unsustainability of America's debt trajectory, the bond market

Crowding Out?

Japan's debt as a share of GDP



*Fourth-quarter figure

Sources: {CPNFJPPG Index}, {IGS%JPN Index}

seems notably blasé. Of course, that probably has something to do with the low policy rates and inflation, as well as the anchoring aspects of forward guidance.

Still, the past decade has seen a notable increase in federal debt even as benchmark yields are below levels that prevailed for much of the Great Recession. So, do debt levels (or more to the point, deficit levels) have any power to explain yields?

TO TEST THIS, I created a simple model using a few basic factors to see how their importance evolves over time. I regressed the 10-year Treasury yield against the federal government budget balance, core inflation, and the fed funds target rate since 1971 (when data on the latter became available) and calculated model coefficients for each of the decades. If deficits (the factor that explains much of the change in the stock of public debt) have ever mattered for yields, then it should show up in this study.

Sure enough, it does. During the 1970s and '80s (most of the period that informed Carville's bond market take), each increase in the budget deficit of 1 percent of GDP equated to a roughly 90-basis-point rise in 10-year yields. (See table, this page. Note that a negative budget balance times a negative coefficient results in a positive impact on yields.) The impact fell to 55 basis points per unit of GDP in the 1990s, but the result was still highly statistically significant. It's worth noting that core inflation had almost no bearing on yields during that decade.

In the 2000s, however, the budget balance was utterly irrelevant as a bond market determinant. If the worldview of older economists was shaped by the inflationary 1970s, then it's pretty easy to see what informed the belief of younger colleagues that debt doesn't matter.

Yet there's no guarantee that debt will never matter again. Last year funding markets saw some disruption from increased Treasury bill issuance, which crowded out some dollar borrowing from foreign banks. More generally, the coefficient between bond yields and budget deficits has risen, and though it's still modest at 15 basis points per 1 percent of GDP on the deficit, it's notable that the coefficient is once again statistically significant—despite the trillions of dollars of quantitative-easing bond buying from the Fed.

What Matters in the U.S.?

Model coefficients from regressions of the 10-year Treasury yield against the budget balance as a percentage of GDP, fed funds, and inflation

	Budget balance	*Fed funds rate*	*Core inflation*
1970s	-0.937	0.511	0.326
1980s	-0.846	0.570	0.382
1990s	-0.554	0.996	0.070
2000s	-0.032	0.257	1.865
2010s	-0.150	0.365	0.850

Sources: {USGG10YR Index}, {EHBBUS Index}, {FDTR Index}, {PCE CYOY Index}

MARKETS HAVE a funny way of proving investors and policymakers wrong just when they think something doesn't matter. It's true that the dollar occupies a special place in the global financial system, but such primacy isn't always a permanent feature of the landscape: Just look at the fortunes of sterling in the first half of the 20th century.

It's probably not a coincidence that the sensitivity of Treasuries to deficit and debt levels has declined as the role of foreign-exchange-reserve managers has increased in recent decades. Yet it seems reasonable to posit that the growth in FX reserves should moderate in the future as mercantilist policies become less acceptable around the world. The implication is that just because debt hasn't tripped up markets lately doesn't mean it won't in the future. ●

Crise is a macro strategist who writes the Macro Man column for Bloomberg and blogs for Markets Live.

Here's Some AI Help With Tracking Debt Buybacks on Your Bonds

By ERICA SPADA

Bloomberg News is using artificial intelligence to serve up stories on debt tender and exchange offers.

IF YOU NEED help keeping up on debt tender and exchange offers, you're in luck. Bloomberg News is using artificial intelligence to produce fully automated news stories on a variety of corporate actions. And debt tender and exchange offers are among the first.

Bloomberg's AI and content engineers joined forces to bring machine intelligence to news stories you rely on. Leveraging natural-language processing and machine learning, they developed a model that recognizes a corporate action in a press release. The model then extracts pertinent information: the applicable bonds, expiration date of the offer, and the dealer-managers involved. The result is a story within milliseconds that alerts you to the tender or exchange offer and to the data points around it. The stories follow a standard, easy-to-read format with links to the securities as well as to the original press release.

How to Find Them

These stories are integrated into Bloomberg's First Word coverage, so they can be found under the same topic codes that you're already using to find news about your bonds. To see First Word stories focused on U.S. debt capital markets, for example, go to **{FIRS <GO>}**, click on the Actions button, and then on Select Market Focus. Click on Capital Markets, select Americas Debt Capital Markets, and then click on the Update button.

For a list of automated stories on debt tender and exchange offers, run **{NI DEBTTDRBA <GO>}**. To set an alert that will notify you when a new story appears, click on the Actions button on the red toolbar and select Set Alert Delivery. ●

Spada is on the News AI and Extraction team at Bloomberg News in New York.

Analyze the Properties in a CMBS Deal Using Maps

By TOM SCHNEIDER

To map the underlying loans in a selected commercial mortgage-backed security deal, enter the ticker and run **{CMAP <GO>}** for the Company Map function.

COMMERCIAL MORTGAGE-BACKED securities are complicated beasts. Package together loans for properties with different characteristics—offices, malls, hotels, apartment buildings, mobile home parks across the U.S.—and the result can be a lot to wrap your arms around. Now you can use the Company Map (CMAP) function to visualize and dig into a CMBS.

For example, run **{CSAIL 2016-C5 XA Mtge CMAP <GO>}** to look at a deal sold by Credit Suisse in 2016. The loans in the pool are mapped to the location of the properties. By default, the size of the dots represents the loan balance. The color indicates status: green for performing, yellow for watchlist—loans that servicers have deemed to have warning signs such as refinance risk or insufficient reporting.

Say you're curious about what's going on with a particular loan. Click on it, and a pop-up window will appear with more information. What's more, the Prop Details and Loan Details buttons at the bottom of the window let you jump directly to the relevant part of the Loan Description (LDES) page for that loan.

And here's the cool part: The Zoom button lets you zero in to the location of the property so you can quickly get a sense of the area. Is it right off the interstate? Next to an Applebee's? Or a Sears? If you set the Basemap to Satellite, you can even see how many cars are parked at an apartment complex. ●

Schneider is a charts, technical analysis, and data visualization market specialist at Bloomberg in New York.

Issuers Trying to Mask Distress Can't Hide From Matt Fabian

By ROMY VARGHESE

PHOTOGRAPH BY ADRIENNE GRUNWALD

THE $3.8 TRILLION U.S. municipal bond market is home to more than 50,000 individual issuers. That's almost 10 times the number of corporations that sell debt. Yet muni issuers, which range from a tiny California school district to an economic powerhouse such as New York City, aren't beholden to the same reporting requirements that companies must follow. Matt Fabian, a partner at Concord, Mass.-based research firm Municipal Market Analytics Inc., scours their often haphazard filings for signs of troubled borrowers. His database tracks events such as issuers dipping into reserves or skipping payments, informing his weekly reports to clients.

This labor-intensive undertaking has yielded surprising insights into where defaults cluster and may offer investors a road map. Fabian, based in Westport, Conn., joined MMA in 2006 after working at a ratings company, bond insurer, and investment bank. Here, he talks about his process, his bleak outlook for the U.S., and the implications for investors.

ROMY VARGHESE: You started your database in 2009, when the Municipal Securities Rulemaking Board rolled out the Electronic Municipal Market Access [EMMA] service for disclosures that could affect the value of bonds. Describe your process.

MATT FABIAN: Every two weeks, we look at every event notice that has been posted to EMMA. Usually there are 2,000 to 3,000 event notices. Any notice that's not a bond call or rating change, we'll open and read. To the extent that the PDF file has information about some kind of trouble, we'll enter that into our database. It takes a couple days. It's a serious time commitment. The issuers and their attorneys who do these filings don't necessarily make it easy for you.

We keep one database of unique borrowers that are in trouble and a linked page that has all the Cusips. It's a combination of hand-punched data fields and data fields extracted from Bloomberg that go to either the borrower tab or Cusip tab.

RV: How large is the database?

MF: We have 2,020 individual borrowers that have filed some sort of trouble since the summer of 2009. There's just over 20,000 Cusips.

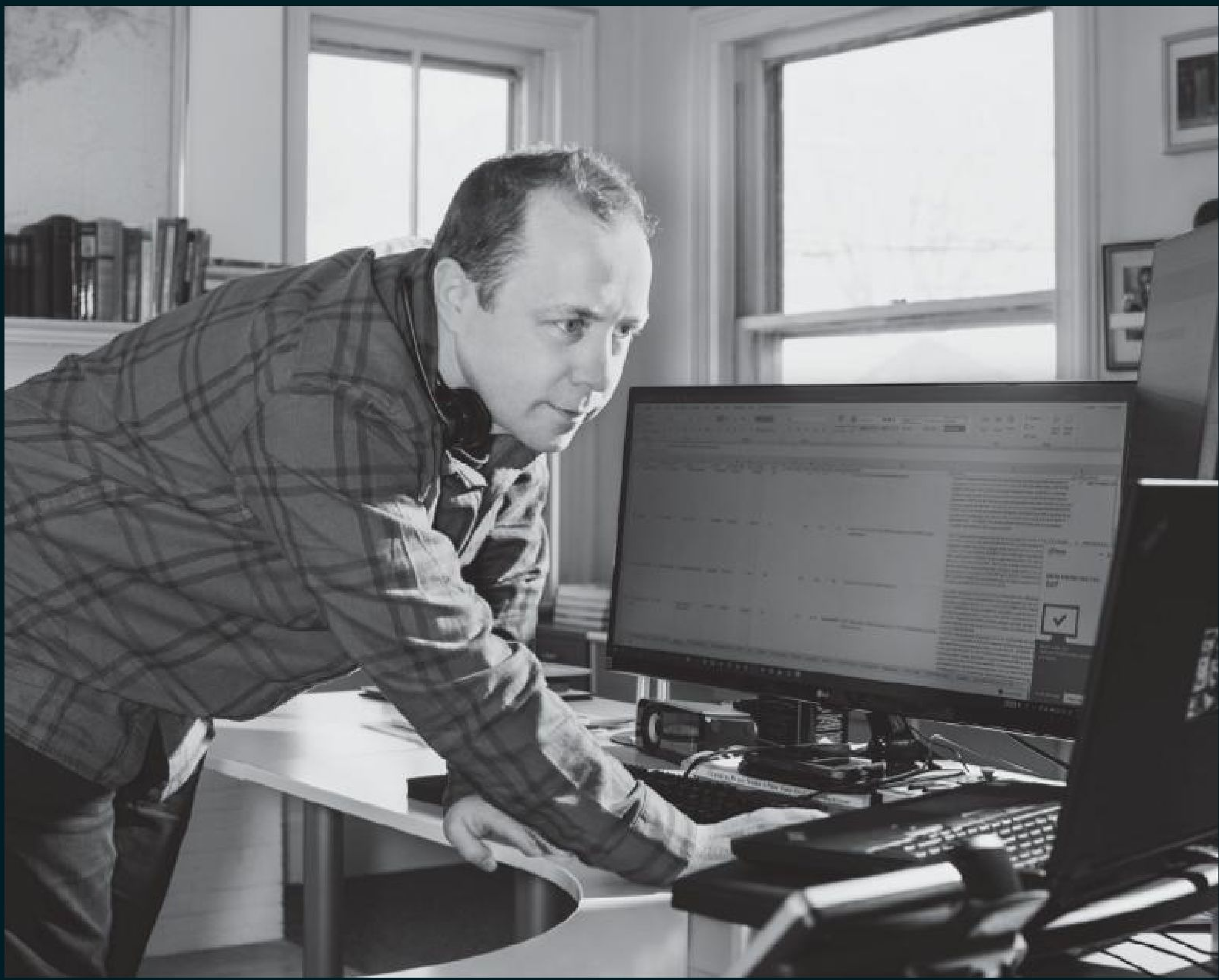
RV: You recently analyzed the data by county level. Did you uncover any surprising trends?

MF: Traditional credit metrics would argue that the weaker the economy in an area, the more likely there will be impairments and defaults. That is true. The thing I didn't expect was that from the traditional debt analysis, you would think there would be more defaults the more debt outstanding there was in an area. But that's not true. At least on the county level, the less debt outstanding, the more likely a large portion of that debt is impaired.

RV: You've shown that defaults and impairments tend to cluster in metropolitan areas that are smaller and poorer than average. Why is it that entirely rural counties are home to about 5 percent of impaired bonds and account for just 2 percent of all outstanding debt?

MF: To the extent that you're in an urban area or on the coasts or close to a growth area in the country, there should be more investors willing to support a Plan B. But the more rural the area gets, the more the projects reflect the interests of just one party. So when it fails, that takeout interest is harder to come by. If you finance a jail in rural Texas [in an effort to create jobs and support the local economy], and the jail doesn't work, there aren't many other ways to reuse that project. If you're financing a jail in Manhattan, there would be plenty

Fabian



of alternate buyers willing to refinance that debt and take it over.

RV: Your analysis found that counties in the Midwest and Southeast are home to about 37 percent and 22 percent, respectively, of outstanding bonds that are in default. Excluding bankrupt Puerto Rico, about $19 billion of the $31.8 billion in defaulted and impaired bonds are in those two regions. What does that show?

MF: The kinds of munis that default are often the kinds that are financing economic speculation. And areas in the Southeast and in the Midwest have accounted for more disappointment as far as economic speculation than other areas in the country.

Speculative capital attracts more speculative capital. In the Southeast, where there has been growth, governments and borrowers will be more prone to overborrowing.

RV: Considering that defaults are rarer than in corporate bonds, why should muni bond investors care where they are clustered?

MF: Most muni investors are not looking to profit off of municipal distress, they're looking to avoid it. Investors should underweight areas most prone to defaults. To reduce your portfolio's overall exposure to risk, you should be thinking about its regional exposure, how exposed it is to rural as opposed to urban, or the kinds of economies that underlie the bonds even if the sector isn't explicitly tied to the economy—like a charter school or a senior living project or a hospital. The economic effects from that credit being located in an urban or a rural area are going to be increasingly important in the America of the next few decades.

RV: Do you expect more defaults?

MF: Because our sector is so lumpy, we have so many tiny credits and so many extremely large credits, it's hard to know. The default data in the database do suggest that the default rates are going to rise in the near term. For the number of bonds coming into the database and staying there, the number of bonds defaulting is too low right now.

RV: Why is it important to keep this database going?

MF: Things are going to get worse. The credit cycle will turn. As the economy softens, we will see the effects in muni credit in real time and we'll be able to provide context on just how bad it is and where things are likely to go.

RV: Why should people other than muni bond investors care about the trends you've unearthed?

MF: It's one more reason to rethink how we spend our economic development dollars nationwide. And long term, the level of the concern we have for these communities, where speculative financings tend to fail, are areas that are likely going to need more help going forward. It's part of the long-term America-in-decline trend.

RV: Which is ...?

MF: The idea that long-term federal budget deficits combined with slow growth and large legacy spending obligations on the part of the states together mean less money trickling down to the local level. Local governments will be faced with either rolling out increasingly severe austerity in their spending or raising tax rates. Either one will slow the economy further.

RV: And income inequality will worsen.

MF: As local governments are forced to go their own way as federal and state aid is reduced, affluent communities will increasingly outperform poorer communities. Affluent communities are best able to navigate a future where communities are left on their own. And poorer communities are not. ●

Varghese covers state and local finances for Bloomberg News in San Francisco.

Using the Fixed Income Worksheet in Your Analysis: An Introduction

By STEVEN GEE

THE MOST ROBUST tool for analyzing the relative value of corporate bonds on the Bloomberg terminal is the Fixed Income Worksheet. When I worked in credit sales at banks, I would've relished using the platform to help me deal with traders, credit analysts, and portfolio managers.

Here's a quick introduction:

1. To start, run **{FIW <GO>}**. If you haven't already selected an index, portfolio, or other list, then FIW by default will open loaded with corporate, government, and municipal bonds from the Bloomberg Barclays US Aggregate Statistics Index (ticker: LBUSSTAT Index). (The statistics universe, which represents the changing risk profile of the market, reweights each day by applying the benchmark's eligibility rules. It captures new issues, removes ineligible securities, and incorporates changing valuations ahead of the monthly rebalancing of the Bloomberg Barclays US Aggregate Bond Index [LBUSTRUU Index], the so-called returns index.)

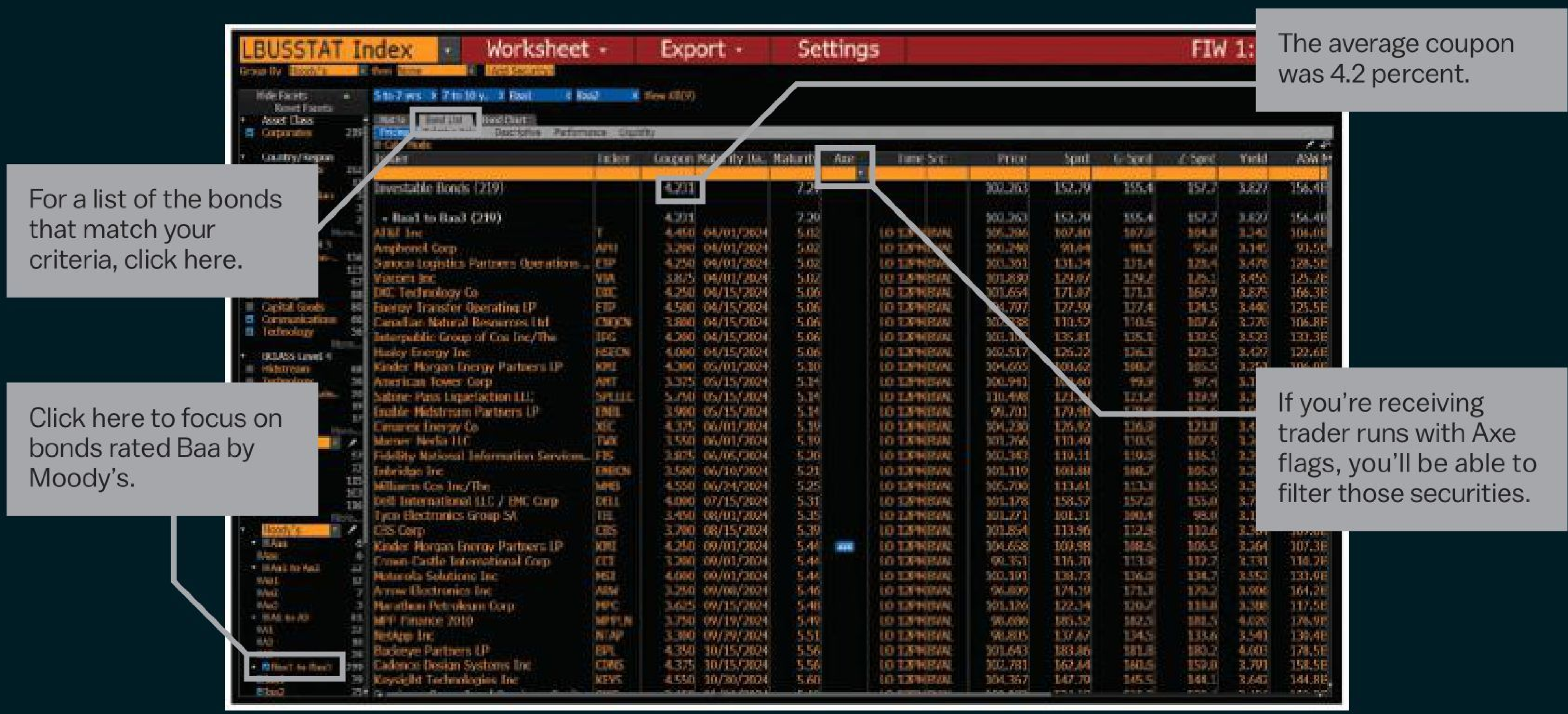
The drop-down menu in the upper left corner of the screen enables you to select from saved indexes, portfolios, RUNZ workbooks, searches, IMGR searches, monitors, and security workbooks, as well as exchange-traded funds or other funds. To find other lists or portfolios, scroll to the bottom of the drop-down menu and click on [More Lists…]. In the window that appears, you can then search for lists of bonds and select them so they'll show up in the menu. (Pro tip: By maintaining focus lists of credits in discrete portfolios or monitors, you'll be able to easily load them into other Bloomberg functions, allowing you to become more efficient in your analysis.)

Run **{FIW <GO>}** for the Fixed Income Worksheet. This worksheet, labeled FIW 1: US IG, is a standard template for investment-grade credits.

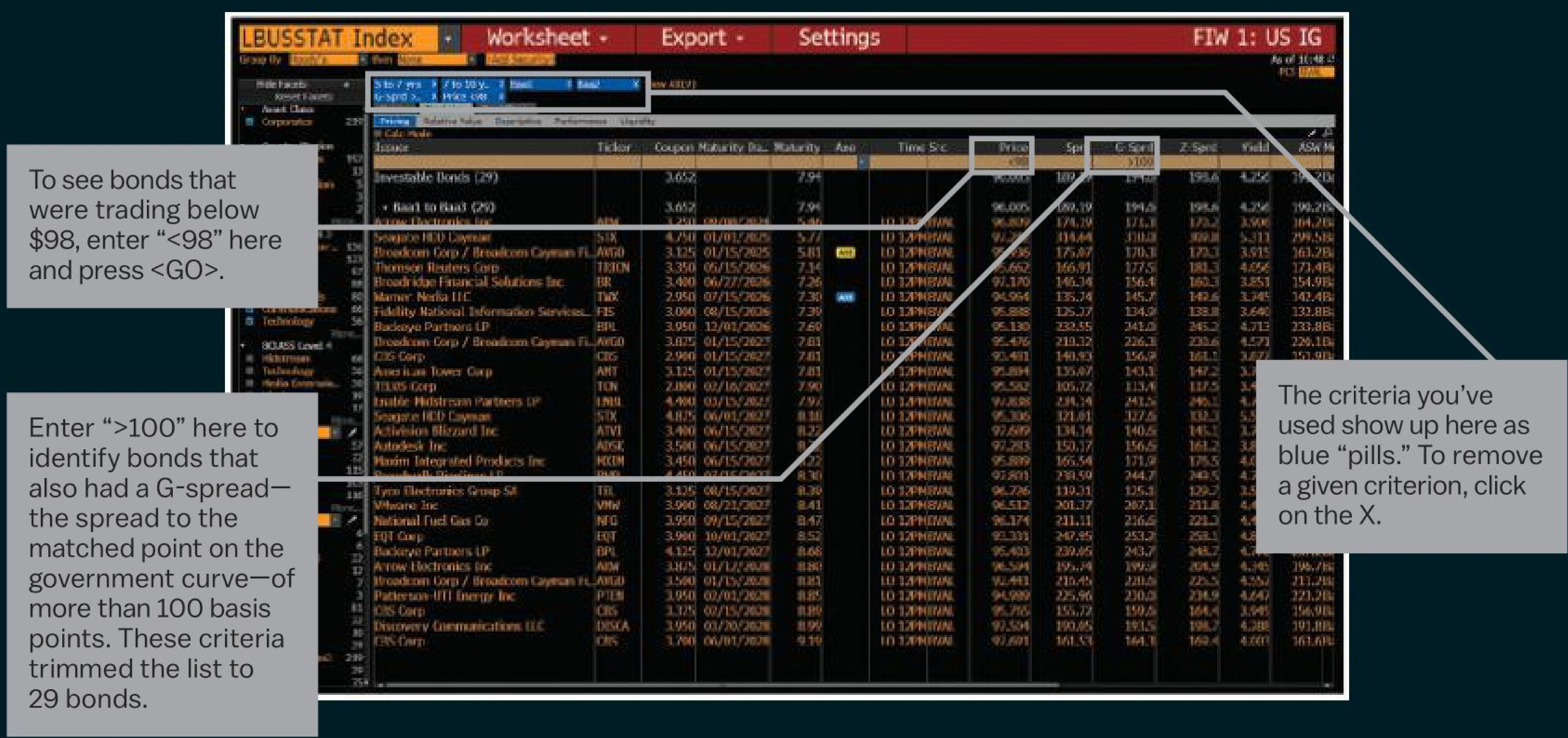
2. Let's say you want to focus on particular types of bonds. You can use filters in the Facets side panel to drill down to the instruments that match criteria you select. The U.S. Statistics index includes corporates, U.S. Treasuries, agencies, and other government-related debt—10,363 bonds altogether. To focus on corporates, tick the box to the left of Corporates under Asset Class. That trimmed the list to 6,181 instruments. To see them, click the Bond List tab and the Pricing subtab. Next, select United States under Country/Region. That brought the list down to 5,083 bonds.

Now say you want to find debt issued by companies in the energy, communications, and technology sectors. In addition, the securities should have a remaining maturity of 5 to 10 years and a Baa rating—the lowest tier of investment grade—from Moody's Investors Service.

To winnow the list down to those bonds, select Energy under BCLASS Level 3. Click on the gray More... button and in the window that appears select Communications and Technology, then click Update. And for Years to Maturity, tick the boxes next to 5 to 7 yrs and 7 to 10 yrs. Finally, under Moody's (which you can select from a drop-down in the sidebar) select Baa1 to Baa3. Those criteria—which are also shown as blue "pills" in the upper section of the screen—narrowed the list of investable bonds to 192 securities.



3. If you expect to revisit this worksheet and the bonds it contains, save your work at any time by clicking on the Worksheet button and selecting Save as. Give the sheet a name and click on the Save button, and you can access it or share the analysis with a colleague or customer via IB Chat or message.



▶

4. For a deeper dive into these securities, select the Relative Value subtab. As in Bloomberg's other relative value tools, you can choose the metrics you want to focus on—price, yield, and spreads—in the amber drop-down. And you can specify the time period you want to analyze.

5. The Relative Value tab lets you analyze the richness or cheapness of securities in your target universe relative to its own history. The two gray radio buttons next to each bond provide more information, letting you chart the performance of multiple bonds on a selected metric or compare the descriptive data for more than one instrument.

6. The Liquidity subtab shows available liquidity or market indications that you're receiving on these securities through Bloomberg bond runs from dealers.

7. Next, click on the Bond Chart tab to view a graphic of the bonds' variables.

You can select a variety of metrics, including spread to benchmark; G-, I-, and Z-spreads; asset swap spread; OAS; yield; price; discount margin; and the change in these variables over multiple time periods.

Here, each bond is plotted by G-spread vs. years to maturity. If you find interesting outliers, you could then drill down to see how spreads have changed over time.

8. Finally, this introduction touches on only a few of the features of FIW. Stay tuned for more. ●

Gee is a fixed-income market specialist at Bloomberg in New York.

The Bloomberg Barclays Global Agg Is Adding China Bonds

By JON ASMUNDSSON

To compare returns across Bloomberg's indexes, go to **{IN <GO>}** for the Bloomberg Index Browser.

A SLUG OF CHINESE yuan-denominated bonds is being added to Bloomberg Barclays Global Aggregate Bond Index, starting in April.

Why? Zoom out to the big picture for a moment. China's economy, despite slowing growth, is still increasing 2.5 times faster than that of the U.S. By simple extrapolation, the country will be the world's largest economy in about 10 years. China's bond market, meanwhile, is already huge and growing fast. With more than $12 trillion outstanding, it's the third largest in the world. China's equity market is the second biggest. Yet both Chinese bonds and stocks, for a variety of historical and regulatory reasons, remain underowned by nondomestic investors. Adding onshore bonds to the Bloomberg Barclays benchmarks and MSCI Inc.'s plan to boost the weight of China A shares in its indexes are important signs that a watershed event in global capital flows is in the offing.

SINCE CHINA'S INCLUSION in the Global Agg represents a major change, it will be phased in gradually. The bonds to be added are from four issuers: China's Treasury (Chinese government bonds, or CGBs) and three so-called policy banks. They're the China Development Bank, a key financer of the "Belt and Road" initiative; the Agricultural Development Bank of China; and the Export-Import Bank of China. All three report to China's State Council, and their bonds are generally rated the same as government bonds.

As of March 25 there were 356 bonds from these issuers slated to join the Global Agg. To see the list, run **{I32561CN Index MEMB <GO>}**. If you add up the market value of those bonds, you get 22.5 trillion yuan, or $3.3 trillion, that ultimately will be included in the Global Agg.

Here's another way to look at it: The market value of the Global Agg was $52.3 trillion, so that $3.3 trillion of China bonds amounts to more than 6 percent of the index. It's substantial.

And that's why the bonds will be included in stages. When the index rebalanced on March 29, it added 5 percent of the total weight of the market value of the yuan bonds. To be clear, it was 5 percent of the market value of each of the 356 bonds. At the end of April an additional 5 percent of each will be added. Such incremental steps will proceed for 20 months until November 2020, when 100 percent will be included.

Go to **{I32561CN Index DES <GO>}** for a description of the Bloomberg Barclays China Treasury + Policy Bank Statistics Index, which is made up of the bonds slated for inclusion in the Global Agg.

OK, HOW CAN YOU dig into this? You can start with the Bloomberg Index Browser function. Run **{IN <GO>}**.

(A word of background: The indexes have two versions, a returns universe and a projected universe. The projected one is like a moving-target version of what the returns index will end up looking like when it rebalances at the end of each month. Each day, the projected universe–also known as the statistics index–applies the index inclusion rules, adding newly issued securities and removing ineligible securities. For the Global Agg, the ticker for the returns index is **{LEGATRUU Index}**. The ticker for the projected, or statistics, version is **{LEGASTAT Index}**.)

In the IN screen, click on the Bloomberg Barclays tab. The Key Indices subtab shows a list of the major Bloomberg Barclays benchmarks, including the Global Aggregate. For more detail, click on the Global subtab. In the Returns view, you can see returns data for the index—2.5 percent this year through March 25—and its total number of member bonds: 22,971. Click on Projected, and you can see some key metrics for the index. Yield to worst was 1.77 percent, and modified duration, a measure of the sensitivity of price to yield, was 7.13. Also, at the far right is the total market value: $52.3 trillion.

For more details on the China bonds, scroll down to the section titled China-Related. Here you can find a tickerized pro forma version of what the Global Agg will look like when the CNY bonds are fully included. Its market value was $55.5 trillion (that is, the $52.3 trillion plus the $3.3 trillion, plus or minus some rounding). Importantly, you can also find a version of the Global Agg that excludes yuan debt here as well; its ticker is **{I34556US Index}**.

QUALIFIED INVESTORS can access China's interbank bond market to trade onshore bonds via the Bloomberg terminal. For more information, go to **{RMB <GO>}**.

Adding China offers opportunities for investors. This year through March 15, the U.S.-dollar China Treasury + Policy Banks Index **{I32561US Index}** returned 3.55 percent. Including those 356 yuan-denominated bonds pro forma in the Global Agg added 7 basis points to its return. ●

Asmundsson is <GO> editor of *Bloomberg Markets*.

How ‘Baby Bonds’ Might Help Address The U.S. Wealth Gap

By MATTHEW BOESLER

PHOTOGRAPHS BY JEREMY M. LANGE

WEALTH INEQUALITY—and specifically the yawning racial wealth gap (the median black family has about one-tenth the net worth of a white household)—is a thorny challenge for U.S. policymakers. One solution increasingly discussed by progressive politicians but seen as lacking popular support would be for the government to pay reparations to black Americans for the wealth lost during generations of slavery and discrimination. Duke University professor William “Sandy” Darity and his onetime student Darrick Hamilton, currently serving as director of Ohio State University’s Kirwan Institute for the Study of Race and Ethnicity, have proposed an interim step dubbed “baby bonds.” The bonds, averaging $25,000 but rising to as much as $60,000 for the poorest children, would be federally managed to increase by a guaranteed annual rate of 2 percent. The cost of up to $100 billion would be less than 3 percent of the U.S. budget. As they explain to Bloomberg News’s Matthew Boesler, the bonds would seek to minimize the wealth disparity between the richest and the poorest, regardless of race.

MATTHEW BOESLER: What are baby bonds, and how would they work?

SANDY DARITY: The language “baby bonds” is kind of a cute touch that was inspired for us by the late [Columbia University professor] Manning Marable. But really what we’re talking about is a trust account—a federally funded trust account—for each young person that they could access when they reach young adulthood.

DARRICK HAMILTON: It basically is about setting up an account at birth, seeded with an endowment, based on the wealth position one is born into. That can be used when you become a young adult toward some asset-enhancing endeavor, like a debt-free education, or as capital to purchase a home or start a business. The source of inequality is, especially at the median, determined by the fact that some Americans have access to some seed capital to put into an asset that will passively appreciate over their life. And I think the key word is passive. It has very little to do with something behavioral. They have some capital with which they can take part in the financial markets.

MB: How does race play into this?

SD: Well, it doesn’t necessarily have to play into this at all. You could have a policy that’s race-neutral, or universal, but it might be race-conscious in the sense that it could disproportionately benefit a group that’s more significantly deprived of the resource. It might go some way toward mitigating the racial wealth gap, but it’s not going to close the racial wealth gap.

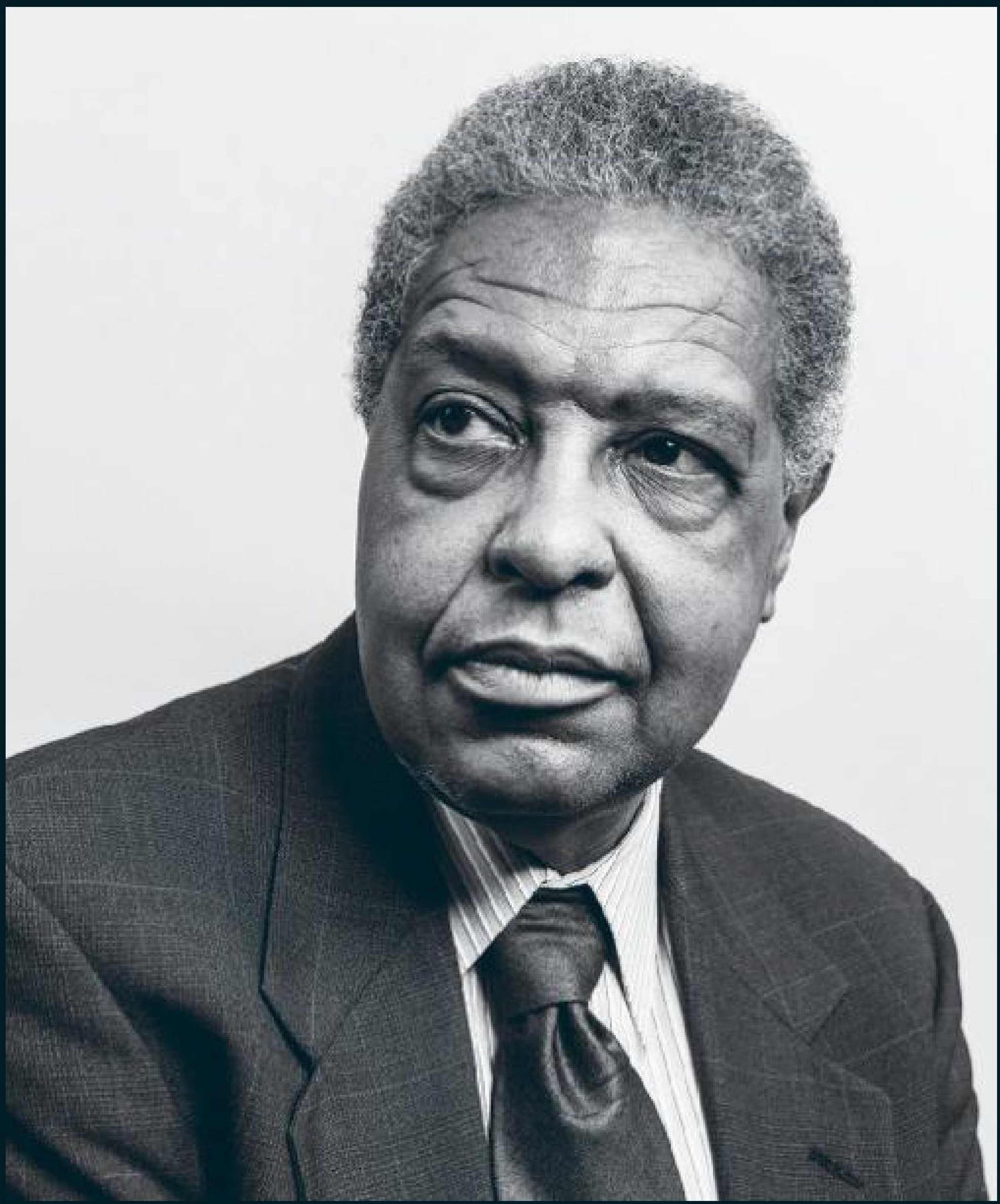
DH: Usually, when we talk about the racial wealth gap, it’s examining the median position of a group. Now, it is the case that wealth is so unevenly distributed in America that, at the mean, we would definitely need something specific and even more dramatic than baby bonds if we were to close the racial wealth gap at the mean.

SD: And that’s where I think a program of reparations comes into play, that if your target is the overall wealth gap between blacks and whites, then you need a reparations program. The baby bonds program would not be sufficient.

MB: The Federal Reserve and other institutions have been publishing more and more data on racial disparities in economic outcomes. Is this feeding into the conversation?

DH: It’s a combination of the quality of data and the specificity of certain types of data: Simply having a data point like $8 in net worth in Boston for the typical black household [vs. $247,500 for the median white household there, according to a 2015 report from Duke, the New School, and the Federal Reserve Bank of

Darity



Hamilton

Boston] can reverberate in many settings, including the halls of Congress. So, when Elizabeth Warren cites that statistic, I'd say that that is an indicator of success.

MB: Where did the idea for the baby bonds proposal come from?

DH: I focused exclusively on middle-income blacks and found that poverty in the family was a drain on their ability to acquire wealth relative to white families. We both went to elite environments but were in networks of poverty. Our peers were receiving support from their families, whereas we'd have conversations around all of the checks we'd have to write, the issues in our families. The resources were going the other way. So rather than receiving support, we were offering support. It led to the work that Sandy and I have been doing around the role of one's birth position in the ability to generate assets, which is a big source of economic security. If we really want to address racial wealth gaps, it really is tied to the family position into which an individual is born.

SD: Racial wealth inequality is actually far more pronounced than general inequality, but general inequality in wealth is atrocious as well in the U.S. What's the figure? A tenth of a percent of the persons in the overall wealth distribution own 40 percent of the nation's wealth? I think that's absolutely outrageous. So in a way you could argue that the baby bonds proposal is a dramatic change from the status quo, but it's not going to dramatically overturn the wealth distribution. What it will do is create a different floor for the resources every young person has.

MB: How would it be paid for?

SD: I am somewhat of an enthusiast for the MMT [Modern Monetary Theory] perspective. From that standpoint, the real barrier to expanded government spending isn't tax revenue [because the U.S. government can print more money]. It's the inflation risk. A carefully designed program would take into account the potential dimensions of inflation risk, and I think that risk is lower to the degree that the focus is on asset-building as opposed to designing the funds so they're utilized for immediate expenditure.

As the MMTers see it, the companion argument is that the expenditures could ultimately generate the taxes to support the activity. So they do the flip: Instead of pay-as-you-go, you go, and you pay.

MB: How has the African American community been affected by economic policy relative to the white community in America over the last 50 years?

SD: On virtually any indicator of relative position, there really has not been any significant change, particularly if it's an economic indicator. And over that 50-year period, I think our best estimates of the wealth gap indicate that it actually has worsened.

MB: Baby bonds are a debt instrument. Do you connect the idea of baby bonds to the idea that it's literally and figuratively an obligation of society to a specific group of people based on what came before?

DH: Given that America is not ready for race-specific policies politically, what can we do about the racial wealth gap? Like Sandy, I'm an advocate of reparations, and I think that it will happen. But there's actually stuff you can do that is race-neutral but will have disparate racial impact. And I would say that it is very much couched in a lot of the policies that came about from the New Deal, as well as post-World War II, including assistance in homeownership, etc. We need to be race-conscious in a way that's the opposite of what those policies were. They were exclusionary toward blacks. ●

Boesler is an economics reporter at Bloomberg News in New York.

Anatomy of a CLO: A Look Inside the Deals Financing Corporate America

By SALLY BAKEWELL and KRISTINA D'ALESSIO

SOME OF THE BEST-KNOWN, everyday companies in the U.S. get their funding in a perhaps surprising venue—the market for complex securities called collateralized loan obligations. In fact, these days CLOs are the biggest buyers of loans to non-investment-grade businesses. They hold about 60 percent of the debt of companies including American Airlines, Burger King, and Charter Communications.

How do they work? A CLO buys loans using money raised by selling debt in tranches of varying risk and return and a piece of equity. Interest from the loans goes in turn to pay the coupon on its different classes of debt. Buyers of CLOs include hedge funds, insurers, pension systems, and other big investors.

Let's take a look inside three CLOs: a plain-vanilla deal, a more exotic one, and one that holds a loan to a cake baker.

1. The Long Point Park CLO is run by New York-based GSO Capital Partners, the $128 billion alternative-credit arm of Blackstone Group. This CLO priced at $610.8 million in November 2017. (Fun fact: GSO names its CLO deals after New York state parks.)

"I think of CLOs as being 'alive,' as they have a life cycle and are complex organisms," says Rob Zable, senior managing director at GSO and manager of the deal. "In managing CLOs, every investment action, every trade, has multiple implications to the structure that must be carefully considered." (OK, so let's run with the "anatomy" metaphor.)

Type Long Point Park on a Bloomberg screen and select the LNGPT Mtge item in the list of autocomplete matches. Then click on Series 2017-1A …

There are eight tranches in the Long Point Park CLO.

Click here to load the $367.5 million A1A tranche of the deal.

The various classes pay coupons ranging from 3.843 percent for the highest-rated tranche to 8.373 percent for the riskiest. There's also a $58.8 million equity piece, at the bottom.

2. Run **{CLC <GO>}** to use the Collateral Composition function, which shows a breakdown of the characteristics of the CLO. As of March, the Long Point Park CLO owned 366 loans across a range of industries.

3. For details on the loans the CLO holds, go to **{LLD <GO>}**.

▶

4. To track the performance of the loans, run **{CLP <GO>}**.

The weighted average coupon of the loans in March was 6.07 percent. Individual loan coupons ranged from 1 percent to 12 percent.

The share of loans rated very high risk by Moody's and S&P was 4.74 percent in March. (Note: This figure is based on ratings of the underlying assets. Data on **{TRIG <GO>}** taken from trustee reports may differ.)

5. Some of the loans in the CLO haven't performed that well. For example, you can see on **{LLD <GO>}** that the CLO held about $1.7 million of debt sold by mattress firm Serta Simmons Bedding LLC. The loan was quoted in March at about 77¢ on the dollar, well below the average trading level of 97¢ for similar loans.

OK, that's the plain-vanilla deal. The CLO universe is diverse, though. Deals range from a few hundred million dollars to more than $2 billion. Also diverse are the loans they hold, which ultimately affect the returns individual CLO securities pay.

6. To see an example of a deal that's on the other end of the spectrum of vanilla-ness, type ECLO, hit the Mtge key, and press <GO>. Click on the 2018-3A series and then on the A1 tranche.

This is the $402 million Ellington CLO, run by Ellington Management Group LLC, a Greenwich, Conn.-based hedge fund founded by Mike Vranos. Run **{CLP <GO>}** on this security. "We focus on our loan collateral first and liability structure second," says Rob Kinderman, head of credit strategies at Ellington. "This allows our loan team to invest our loan portfolio for the best risk-adjusted returns, rather than manage our CLO liabilities for the best ratings-adjusted returns."

Check out the share of loans rated triple C or below: 41 percent. That's intentional. Ellington's CLOs are designed with more flexibility to buy lower-rated debt.

The lower-rated debt poses more risk, but it also offers significantly greater reward. Here, the weighted average coupon on the deal's loans was 8.74 percent. Individual loan coupons ranged from 3.3 percent to 15.5 percent.

7. CLOs typically have a reinvestment period of two to five years. During that time the CLO managers can sell loans, which trade on the secondary market like bonds and stocks. They can use the proceeds, as well as proceeds from interest payments, to buy new loans. The ability to reinvest, seen by the industry as the key feature of the deals, is what distinguishes them from collateralized debt obligations, or CDOs, which were tarnished by their role in the financial crisis. Those CDOs owned static pools of subprime mortgage bonds. That meant the fortunes of a CDO were tied to the assets it began with. By contrast, a CLO manager can move in and out of a loan because the financing, in the form of the CLO bonds, has a longer maturity than the underlying loans.

Consider this J.Crew loan, which a number of CLOs owned.

8. There are risks to the strategy. In a downturn, more companies could default than expected. And loan documents are weaker, raising concerns that a loan buyer such as a CLO could be more vulnerable. But post-crisis, CLOs are restricted in what they can buy and have more diverse portfolios, among other structural improvements.

The payment structure is known as a waterfall because the highest-ranking notes are paid out first from cash collected from the loans. Those bonds are also protected from losses by the lower-ranked bonds and equity, the unrated residual first-loss tranche. CLOs have self-correcting mechanisms to make sure they can meet interest and principal payments. If internal tests come up short, the CLO manager must divert equity payments back into the deal to make sure senior tranches are repaid. That credit enhancement gives the bonds their triple-A ratings. Still, all CLOs slice and dice lower-rated assets to create securities with the highest ratings.

9. Finally, just in case it seems as if CLOs only buy chunks of big loans to big companies—check out this middle-market CLO managed by Newstar Financial, which rebranded last year to use the name of its parent, New York-based First Eagle Investment Management. Run **{NWSTR 2017-1A ATN Mtge LLD <GO>}** to see the loans in the deal.

Bakewell covers corporate finance at Bloomberg News in New York. D'Alessio is on the mortgage data team in Princeton.

Use This Quantitative Tool To Measure and Track Corporate Credit Quality

By DAVID CROEN and HARVEY STEIN

CONSIDER Kraft Heinz Co.

The Pittsburgh-based food giant on Feb. 21 reported adjusted earnings per share of 84¢, missing the consensus forecast by more than 10 percent—and coming in lower than even the lowest estimate from analysts. The company, which is 26 percent owned by Warren Buffett's Berkshire Hathaway Inc., took a $15.4 billion noncash charge to write down the value of assets including U.S. refrigerated, Canada retail, Kraft, and Oscar Meyer. It slashed its dividend to 40¢ a share, from 62.5¢, to help pay down debt and also disclosed that the U.S. Securities and Exchange Commission was investigating the company's accounting practices.

Kraft Heinz shares plunged 27.5 percent the next day.

If you were looking for warning signs, credit ratings wouldn't have been much help. The most recent change by a major rating agency was an upgrade to BBB in March 2018, almost a year previously.

One tool that could have provided an inkling of what was in store, though, is the Bloomberg Default Risk (DRSK) function. Updated each day based on fundamental and market data, DRSK provides transparent and standardized estimates of an issuer's default risk, probability of default, and credit default swap spreads.

Run **{KHC US Equity DRSK <GO>}** to load Kraft Heinz in the function. As of March 25, Kraft Heinz's default risk grade was IG9, the second-lowest level of the investment-grade bucket.

Click on 1-Yr Default Risk in the upper left corner of the screen to add a line to the chart showing how the risk has evolved over time. For much of 2018, Kraft Heinz's default risk grade was IG1, the highest level of investment grade. Then, in September, DRSK started to show degradations in credit quality. By November the default risk grade had slipped four notches, to IG4. Noticing that may have led you to examine what was driving the deterioration—and let you quickly see that the company's interest expense was climbing while its adjusted operating cash flow dropped in the second quarter.

Company Coverage

DRSK covers more than 360,000 companies globally, including some 290,000 private and 74,000 public companies. For each, DRSK supports a standardized and clear view of credit health. It's objective and transparent, enabling you to gain a clearer understanding of the key drivers of credit risk. In addition, DRSK is flexible: You can overwrite the fundamental and market data inputs to evaluate scenarios and see how they may affect credit risk. DRSK is updated daily with changes in market and fundamental data.

How Does it Work?

DRSK is based on the Bloomberg Credit Risk Model, which estimates default probabilities and credit grades. A CDS spread intrinsic model estimates what a CDS may be theoretically worth, based on the quantitative credit analysis, and compares that model CDS with how the derivatives are priced in the market. (Credit default swaps are contracts based on bonds or loans that are used to hedge against losses on the debt or to speculate on an issuer's ability to repay.)

The Sector Comparison section at the bottom of the screen lets you compare the selected company against others in the same industry. A distribution of default risk grades across this sector is displayed at bottom right. Click on Sector Comparison | DRAM to compare the company against peers in the Bloomberg Default Risk Monitor.

To analyze the credit health of a selected company, run **{DRSK <GO>}**.

Click here to chart how the estimated credit risk has evolved over time.

For Kraft Heinz, the first signs of deterioration in credit quality showed up in September 2018.

To test scenarios, you can enter your own assumptions about market and fundamental data.

Kraft Heinz's ratio of total liabilities to earnings before interest, taxes, depreciation, and amortization exceeded that of industry peers.

On the DRSK screen, you can click on the Sector Comparison | DRAM link to open the Bloomberg Default Risk Monitor function. The shortcut is **{DRAM <GO>}**.

Click on a column heading to sort the list. Kraft Heinz's drop is among the biggest in the food and beverage industry.

A Bit More Technical Info

The DRSK model uses information from a calibrated hybrid Merton/Black-Cox model as the primary explanatory variable for estimating real-world default probabilities. Using a default barrier calculated on the basis of a company's financials such as short-term and long-term debt, the Black-Cox model is calibrated to observed market capitalizations to back out the company's asset value and asset volatility.

The Merton and Black-Cox models can't be used directly for credit risk modeling, because they produce risk-neutral default probabilities. These estimates are polluted by market considerations such as liquidity and the market price of risk. So to estimate real-world default probabilities, we use our hybrid Merton/Black-Cox model to calculate the company's distance-to-default (*dd*, which is d_2 in the Black-Scholes formula that's used in the Merton model) and then regress the calculated *dd*'s for each public company in each month in history (along with additional relevant accounting ratios) against actual observed default events to estimate the default probability for each company.

Private companies are modeled similarly, except that market caps are unavailable, so individual *dd*'s can't be computed. Instead, we regress sector average *dd*'s along with additional accounting ratios to estimate private company default rates. That yields an objective view of each company's default risk based entirely on available financial statements and observed market data, without relying on analyst judgments. For more info, go to **{DOCS 2079487 <GO>}**. ●

Croen is the business manager for credit risk, and Stein leads the Quantitative Risk Analytics group at Bloomberg in New York.

How Poland's Private-Debt Pioneer Made It Through the Country's Latest Crisis

By MACIEJ ONOSZKO

PHOTOGRAPH BY PIOTR MALECKI

RAFAL LIS ALMOST single-handedly created Poland's private-debt market. In seven years he built his company, CVI Dom Maklerski sp. z o.o., into a 5.9 billion zloty ($1.5billion) boutique asset manager.

Then, late last year, he feared it would all come crashing down.

The worst day, he says, was Nov. 20. "My knees buckled as I saw the redemption requests," Lis recalls in an interview at CVI's Warsaw headquarters.

The flood of requests from investors, which eventually totaled about 20 percent of CVI's assets, came as a corruption scandal involving a regulator shook Polish markets still reeling from the nation's biggest corporate default. Lis was forced to put on hold plans to raise hundreds of millions of euros from new global investors and instead raced to sell liquid holdings. The sale of domestic and euro-denominated bonds and exchange-traded funds enabled Lis to meet the redemptions without holding a fire sale of the financial instruments that make up the bulk of his funds—small private-debt securities, specifically tailored by, and for, his firm.

By the next day, the deluge of redemptions started to slow. "I knew we would survive a month," Lis says. "And by the beginning of December it was all fine."

LIS'S NOVEMBER SCARE was a rare setback for the holder of the second investment-adviser license issued in Poland after the fall of communism. Returns from the closed-end funds that hold the bulk of CVI's assets under management aren't made public, keeping with the norm in Poland. The company's first open-end mutual fund returned 14.9 percent from inception in April 2016 to the end of 2018. In March, *Private Debt Investor* magazine in its 2018 awards named CVI the Lower Mid-Market Lender of the Year, Europe, the first time a lender in the Central and Eastern European region had won.

CVI focuses on private debt—financing provided by nonbank lenders—mainly because corporate bonds remain scarce in Eastern European markets. Bank lending dominates in the region. Since CVI's founding in 2012, the company has taken part in more than 500 private-debt transactions in Poland and other Eastern European countries. Most of its funds are co-managed by Noble Funds TFI SA.

"Rafal is a legend of the Polish capital market," says Miroslaw Dudzinski, head of Fitch Ratings for Central and Eastern Europe, who first met Lis more than 30 years ago, when they studied economics together at Warsaw University. "He is an absolute pioneer in Poland in terms of investing in high-yield and distressed debt."

Lis's private deals, usually from 10 million zloty to 100 million zloty, are made to small and medium-size companies snubbed by banks. Typical examples include €25 million ($28.1million) for Romanian poultry producer Aaylex Group; co-financing for a mall in Pruszkow, a town near Warsaw; and helping finance a management buyout of Krosno Glass, a Krosno, Poland-based maker of glassware. CVI's team attempts to control risk by preparing the legal documentation for its deals, which enables the firm to keep close tabs on them. "What I do is outside of banks' comfort zone," Lis

Lis

says. “We are more flexible and have much more appetite for risk.”

Having put the November turmoil behind him, Lis, who turns 48 in April, has resumed efforts to find new investors. The push has taken him to Western Europe and back to Asia, where he worked for Citigroup Inc. and Legg Mason Inc. A native of Poland, he’d started his career in the country in the early 1990s—including a stint building investment-grade credit portfolios for affluent clients at Citi’s Polish arm—and then returned to the country in 2006 to be a managing director at Legg Mason’s local unit.

Lis’s pitch to potential investors highlights the fund’s unique experience in Central and Eastern European corporate debt and the region’s economic growth. Eastern Europe’s economy is expected to grow 2.1 percent this year and 2.5 percent next year, outpacing projected expansion of 1.4 percent and 1.5 percent in Western Europe, according to economist forecasts compiled by Bloomberg.

For overseas investors, the market is relatively limited and little known. Credit market growth has been constrained by the small size of most companies, the dominance of bank loans, and low yields, says Richard Segal, a senior credit analyst at Manulife Asset Management in London. “Lack of investable supply” is the main constraint, he says. More Polish debt would be a “welcome” complement to markets such as Russia, Turkey, and the Gulf, Segal says.

LIS’S NOVEMBER UPHEAVAL came after a week of market turmoil triggered by the resignation and subsequent arrest of Marek Chrzanowski, head of Poland’s financial regulator. Chrzanowski stepped down after local newspaper *Gazeta Wyborcza* reported that he offered favorable treatment to lenders controlled by businessman Leszek Czarnecki on the condition that Czarnecki employed a particular lawyer. Czarnecki secretly recorded the conversation.

The scandal almost toppled Czarnecki’s Getin Noble Bank SA and Idea Bank SA, which were already undergoing restructuring. Lis was hit because Getin offers CVI funds, and investors were dumping anything even vaguely associated with the lender. “We became the victim of a bank run at our main distribution partner,” Lis says. In the end, both banks survived after the central bank lent them a total of 5.8 billion zloty.

The episode reignited concerns about Poland, the biggest capital market in the European Union’s east, first sparked in early 2018 by the collapse of debt collector GetBack SA. The default eroded trust in Polish financial institutions, triggering outflows from mutual funds and halting corporate issuance. “GetBack had a devastating effect on the sector,” Lis says. “It has affected risk perception in the whole market.”

Still, whatever risks the market throws up, Lis can draw on the experience of having emerged from 2018’s sell-off largely unscathed.

“We went through a liquidity stress and made it,” he says. ●

Onoszko covers credit at Bloomberg News in Warsaw.

More and More Banks Are Jumping Into the $23 Trillion Market For Doing Good

By JACQUELINE POH

WHEN BRITISH HOUSING association London & Quadrant needed a £100 million ($131 million) loan last year, its bank offered something unusually generous: a discount on interest. The catch? The discount would kick in only if L&Q met an annual target of helping 600 unemployed residents find work.

Eight months later, L&Q, which builds and rents out affordable housing in London, is already more than 75 percent of the way there, putting it on course to unlock savings from its lender, BNP Paribas SA.

It may be hard to imagine profit-driven banks offering incentives for doing good. Yet issuance of so-called sustainability-linked loans surged almost 600 percent last year, to $34.7 billion, according to BloombergNEF. By contrast, this kind of corporate lending tied to such measurable metrics as cutting emissions or reducing food waste totaled only $5.1 billion in 2017.

What's behind the surge? For banks, it's something like FOMO, or fear of missing out. People are now investing $23 trillion in socially responsible ways, according to the Global Sustainability Investment Alliance. Lenders can't ignore those people if they want to stay relevant. "If this catches on, it is going to be the next big investment opportunity," says Kajetan Czyz, program director for sustainable finance at the University of Cambridge's Institute for Sustainability Leadership. "Banks need to adapt to this new suite of opportunities this shift creates."

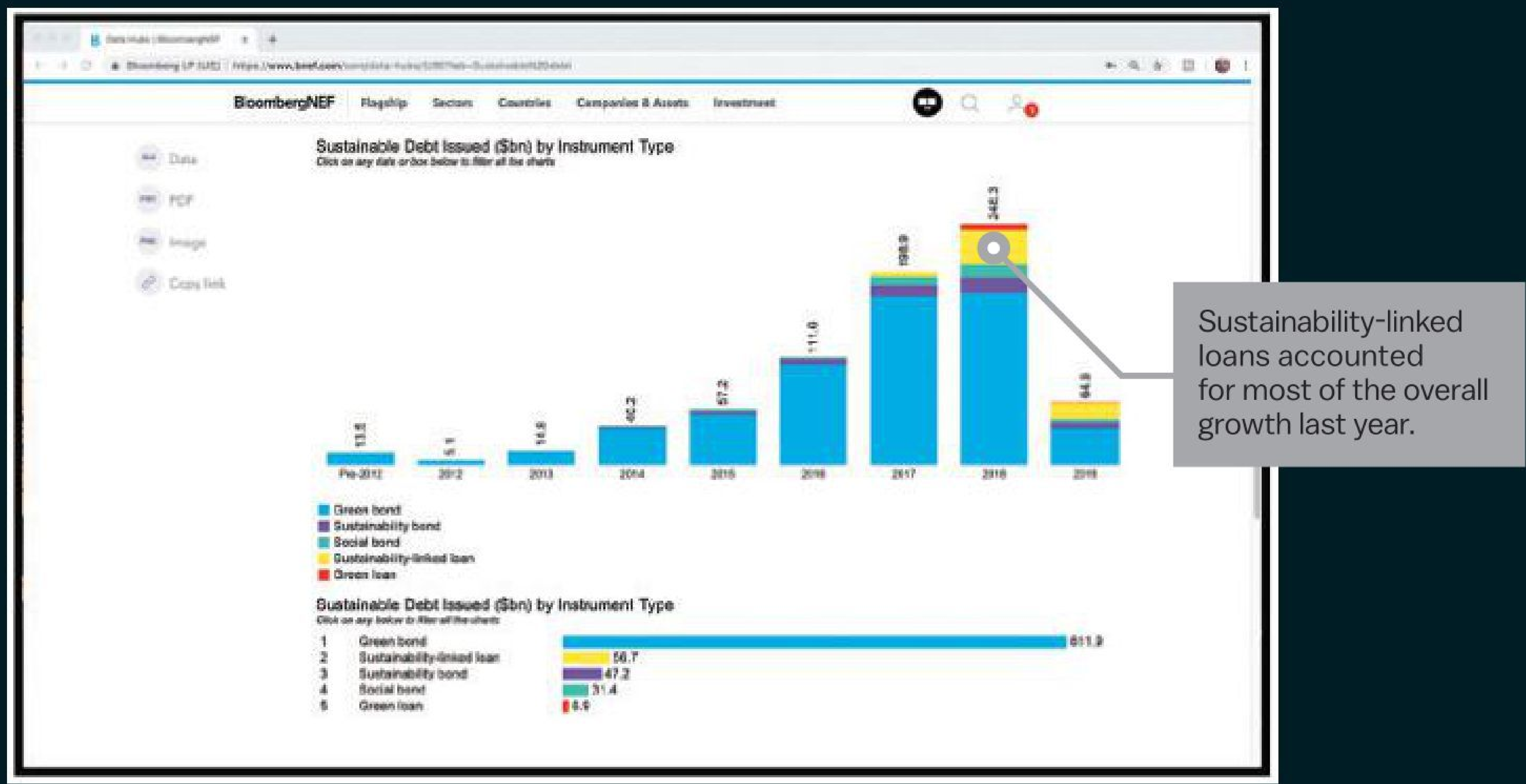
Banks that fill their loan books with so-called positive-incentive deals could in a few years' time be better placed to not only attract clients, such as sustainability-conscious millennials, but also lower funding costs. That's because loans tied to ESG—environmental, social, and governance—usually go to companies that have track records of profitability and debt repayment. L&Q, for instance, has an A3 rating from Moody's Investors Service. Other green-loan borrowers, such as Belgian chemicals giant Solvay, London utility Thames Water, and French food company Danone are also investment-grade.

"Sustainability topics are increasingly included in conversations with clients," says Cecile Moitry, the Paris-based sustainable-finance director at BNP Paribas, which was involved in at least 10 such deals last year, according to data compiled by Bloomberg. For more than a decade, banks have dabbled in "socially responsible banking"—but mostly symbolically. They've arranged green bonds and green loans, used by companies to raise cash for environmental projects. Yet even last year's $182 billion of green-debt sales pales in comparison with the more than $6 trillion in global bond issuance.

That said, the new style of ESG lending could be a game changer, according to Dan Shurey, who leads BNEF's green and sustainable finance research. In just one year, the overall sustainable finance market—which includes green debt, social bonds, sustainability bonds, and sustainability-linked loans—rose 25 percent, to a record $248 billion. Loans drove most of that jump.

By allowing companies to use the cash raised for anything they want, ESG lending resolves one of the key issues preventing broader adoption of green bonds and loans. It's the pricing of the

BloombergNEF's sustainable-debt tool lets you track issuance by type. For a comprehensive report on the segment, search for "Sustainable Finance Outlook" on the BNEF site.



facility, not the money itself, that's tied to a socially responsible objective. "An explicit price advantage was always the missing piece for green bonds," says Shurey, who predicts volumes of ESG loans in 2019 will vastly surpass those from 2018. "Incentives for corporate borrowers are key for scaling the market."

At the start, the interest rates on ESG loans look a lot like those for standard loans. The rate then changes depending on how well the company performs against its annual sustainability target. Meet the goal, and interest rates drop. But miss the target, and they go up. Pricing details of these loans aren't usually disclosed, so it's hard to gauge the size of the incentives they offer to companies.

Still, Xylem Inc., a U.S. maker of water equipment, said on March 5 that it got an incentive of as much as five basis points on an $800 million revolving facility tied to a sustainability rating from Sustainalytics, an ESG research company.

SUSTAINABLE LENDING accounts for only 7 percent of the $507 billion of company loans in Europe last year. Its share is even smaller in the $1.2 trillion U.S. corporate loan market, though some big deals—such as the $3.5 billion ESG financing deal San Francisco-based warehouse developer Prologis Inc. signed in January—are putting ESG on the map.

Hurdles to more mainstream adoption include the lack of agreement on how to objectively measure a company's social responsibility. While some loans are tied to a metric, or key performance indicator (such as carbon dioxide emissions), others rely on ratings from one of more than a dozen agencies, including MSCI, Sustainalytics, RepRisk, and ISS Environmental & Social QualityScore.

Problem is, the scoring methods aren't consistent. In July, the American Council for Capital Formation, a Washington think tank that describes its mission as pursuing a pro-growth policy agenda, released a critical report that found a correlation of 0.32 between the sustainability ratings of MSCI and Sustainalytics on companies in the S&P Global 1200 Index. By comparison, credit ratings of Moody's and S&P Global Ratings are 0.90 aligned, the report said.

"This is a new world for most financiers and treasury teams," says Peter Elleman, managing director for loan markets at ABN Amro NV in London, which is now lending in this space. He says having proof of a company's social responsibility is "a good indicator of good governance, and hence likely lower credit risk."

Whether ESG lending ends up being a breakthrough in sustainable finance or just a fad, companies like the idea of extra cash. Thames Water in December raised a £1.4 billion five-year loan tied to its Global Real Estate Sustainability Benchmark rating. Any interest savings will go to its charitable fund, which donates to causes related to water and the environment.

While L&Q wouldn't say how much it expects to save when its five-year loan is repriced, its director of treasury, Martin Watts, called the discount significant. "It will make a material difference to our funding costs," he says. ●

Poh covers syndicated loans at Bloomberg News in London.

Investors Are Getting Swept Into a U.S. Government Debt Supercycle

By EMILY BARRETT

THE U.S. GOVERNMENT'S debt boom seems to be creating a self-perpetuating cycle of demand, even before March's surge in buying. That cycle is delaying any comeuppance for the U.S. Department of the Treasury as it contemplates its next trillion dollars of annual borrowing. But how?

As Treasury issuance outstrips crisis-era records, the rising share of government bonds in market-weighted fixed-income indexes is pulling in more global investors. The benchmark Bloomberg Barclays U.S. Aggregate Index is skewed increasingly toward government securities, with Treasuries now accounting for 39 percent, up from 25 percent a decade ago. (The index is owned by Bloomberg LP, the parent of *Bloomberg Markets*.)

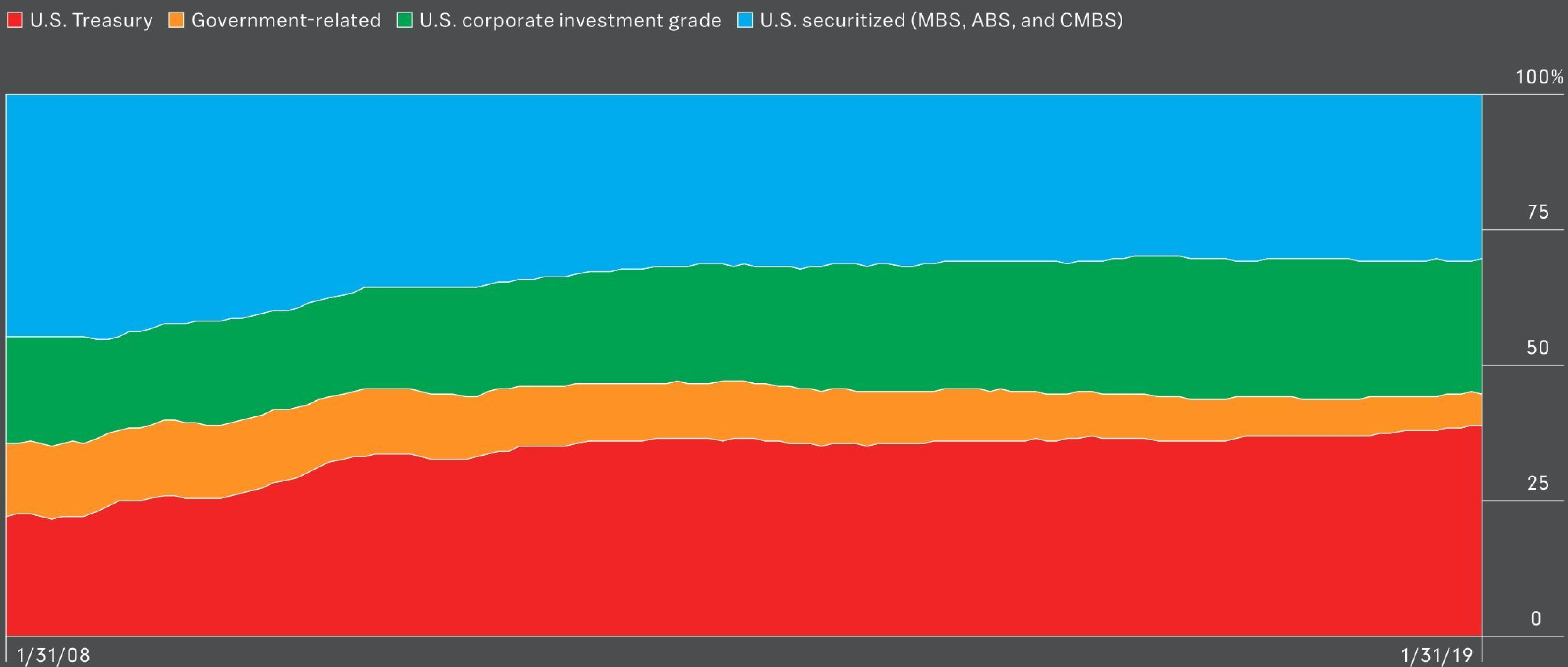
That's a notable increase in global exposure to U.S. government debt. Whether or not investors agree about the risks of the U.S. pursuing looser fiscal policy, certainly a lot of their money is on the line. Global assets under management tracking that index alone totaled close to $3 trillion at the end of 2018, according to Evestment data. Roughly $325 billion of that was passively invested, an almost 150 percent increase over the decade. More Treasuries in the index, plus more investors tracking the index, equals more demand for Treasuries.

"An increased weight of Treasuries in the benchmark causes benchmark-centric investors to buy more Treasuries at the expense of other riskier sectors, which leads to a crowding out effect," says Christopher Brown, who co-heads the total return fixed-income fund at T. Rowe Price.

He attributes the slide in credit markets last year to this gravitational pull toward government securities. As a result, he

Treasuries Now Make Up More of a Benchmark Bond Index ...

Weighting of asset classes in the Bloomberg Barclays U.S. Aggregate Index



Source: {LBUSTRUU Index}

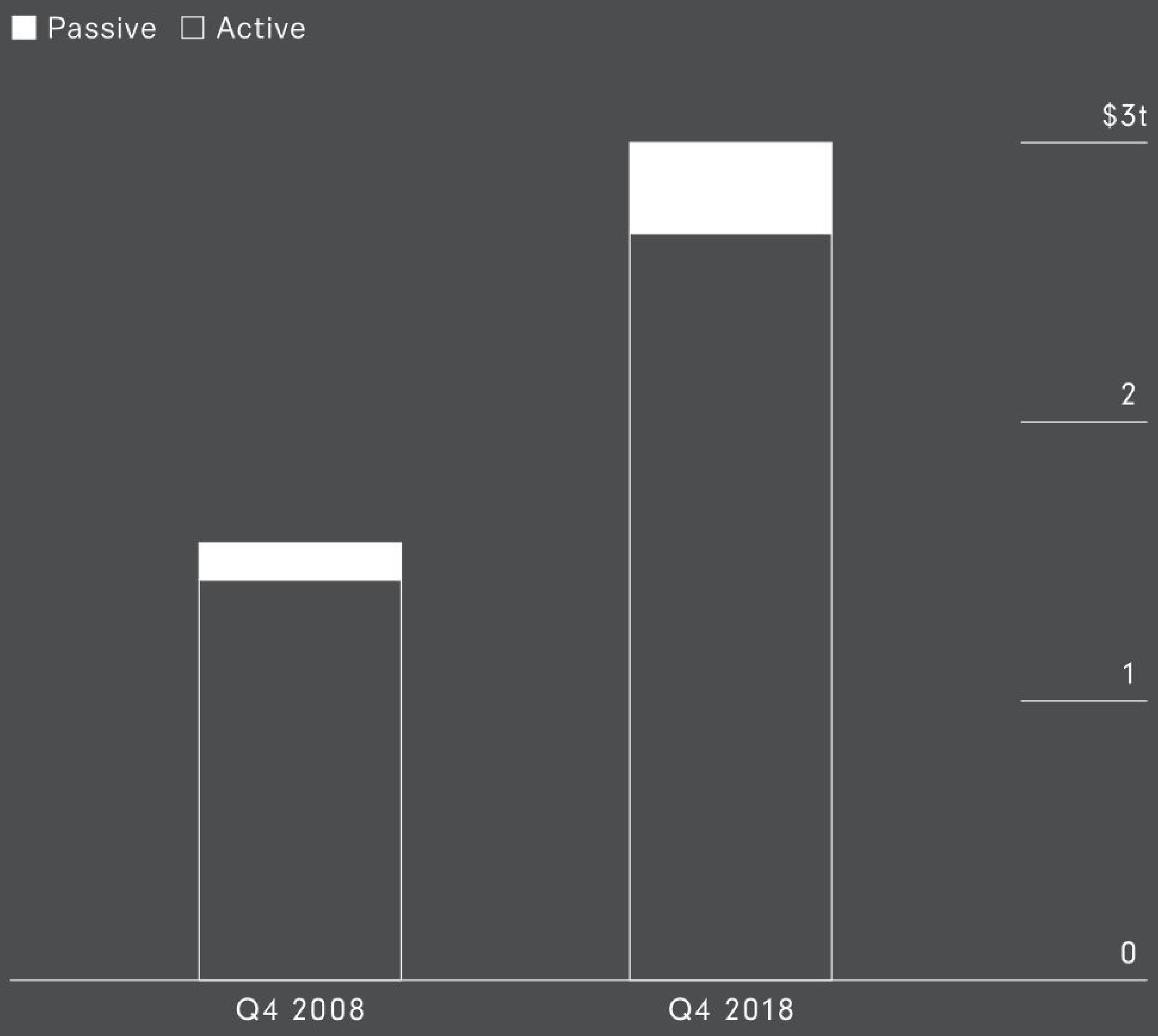
says, investors tracking today's benchmark may be unwittingly exposed to more interest-rate risk than is good for them.

As the proportion of Treasuries increases in the index, so does its sensitivity to interest-rate movements, Brown says. "You're getting less exposure to other spread sectors that could help offset some of that sensitivity," he says.

THIS RISK OF CROWDING OUT is debatable. While the share of the U.S. Aggregate index devoted to government agency debt and securitized debt has fallen since the 2008 financial crisis, that of corporate bonds has risen as companies stepped up issuance to lock in historically low interest rates. But the pace has lagged Treasuries. Corporate bonds account for about a quarter of the index now, up from 18 percent a decade ago. That leverage has come at a cost: The quality of corporate debt has slipped a couple of notches on the ratings scale. Corporate borrowers may feel the pinch before long if investors start demanding more compensation for the widening gap in credit quality over risk-free government bonds.

...And More Assets Are Tracking It

Assets under management benchmarked to the U.S. Aggregate Index



Source: Evestment

By contrast, the feedback loop of fund investments into Treasuries has helped curb the cost of the government's borrowing by stoking demand just as some foreign governments and central banks were scaling back their own purchases. The 10-year yield held below 3 percent for much of the past year, even though solid economic growth and the lowest unemployment rate in a generation was spurring the Federal Reserve to raise short-term borrowing costs. The 10-year rate fell below 2.4 percent once renewed global growth concerns led to a pause in the Fed's tightening cycle this year.

"People intuitively understand that there's not going to be a financial crisis associated with government debt in the U.S., but then they take the leap that therefore there's nothing to worry about," says William Gale, a senior fellow at the Brookings Institution and former staffer on the Council of Economic Advisers under President George H.W. Bush.

While he's not predicting a shock, Gale is troubled by the long-term trajectory and implications of today's expansive U.S. fiscal policy. He's focused on how the debt burden could displace government spending that would do more to benefit U.S. growth and households. The Congressional Budget Office estimates that net interest payments could outstrip spending on Medicaid next year and surpass defense spending in 2025.

In Gale's view, the U.S. is squandering an opportunity to make its finances more resilient. "I'm not talking about imposing austerity on the current economy," he says. "I'm talking about building in structural reforms over the next 5, 10 years now, while we can do it from a position of relative strength."

Specifically, he adds, "we've got deficits as far as the eye can see, and right now the economy's going gangbusters. So imagine what happens when the economy turns down." ● —*With Michael Andrew*

Barrett reports on the foreign exchange and interest-rate markets for Bloomberg News in New York.

‘India Is Always a Drama’

By ANTO ANTONY and RAVIL SHIRODKAR

PHOTOGRAPH BY PRARTHNA SINGH

From a small office in downtown Mumbai to an imposing steel-and-glass building overlooking the city’s Bandra-Kurla Complex financial hub, Rashesh Shah, 55, has come a long way. Shah, armed with an MBA from India’s top business school and expertise gleaned from his time at one of the nation’s largest banks, partnered with a colleague in 1995 to set up Edelweiss Financial Services.

Named after the Alpine flower that grows in harsh terrain, the firm took root in the stock market and blossomed into a $1 billion group built around credit, insurance, and wealth management. But it’s Edelweiss’s status as India’s top buyer of bad loans that’s attracted funds such as Caisse de Dépôt et Placement du Québec.

Since a national crisis sparked by last year’s near-collapse of Infrastructure Leasing & Financial Services Ltd., Edelweiss has tripled its liquidity, awaiting opportunities, Shah told Bloomberg Markets *in an interview, a lightly edited version of which appears here. Shah, a recreational triathlete, says running a business is like running a marathon: Maintain a measured pace and resist the urge to start too fast. “You need to run one kilometer 42 times, not all at once,” he says.*

I WAS THE FIRST ONE from my family to go to an English-medium school [where English is the medium of instruction]. It was much cheaper to go to a Gujarati-medium school. My mom was very aspirational, so she said, “He will go to an English-medium school.”

My father ran a business making stationery products, exercise books, diaries—a very small-time business. Getting a loan from the bank or a small overdraft was so much trouble. I saw that part, and I said it’s not worth it. I wanted to do something classier.

I went to the Indian Institute of Management and got an MBA. Straight out of college in 1989, I started investing in equities in a small way. The petrochemical cycle had been going down for two, three years. I did a lot of research and came to the conclusion that prices were going up. I bought a lot of Indian Petrochemicals Corp. Ltd. and in one year more than quadrupled the money.

The other was Tata Motors in 1993, called Telco at the time. Same thing. They had a huge inventory, as it was a recession in India. I knew interest costs were very high, and their inventory was falling every month. I calculated that just the falling inventory interest savings [would mean] their profit would double from the year before. So I bought that.

Then again, there have been a lot of bets that went wrong. So you never bet the house on one trade. If you back it up with analysis and a good hypothesis, then your probability of being right goes up. But the probability is never 100 percent. Have a view, have a hypothesis, and then make an affordable bet.

After graduation from IIM, Shah went to work briefly for Prime Securities Ltd. in Mumbai and moved on to ICICI Bank, one of India’s largest lenders.

I LEARNED TWO THINGS at ICICI. One was analyzing companies, projects, profitability, and profit drivers. It was the best job; as an analyst, you can analyze a lot! The other thing—which in hindsight has been more important—was the ability to understand and appreciate the qualities of an entrepreneur. The main quality determining whether any project is successful or not is the entrepreneur.

I was in the export group of ICICI. We had all the new-age entrepreneurs [as clients]: Infosys, United Phosphorus, Bharat Forge. They were all expanding exports at that time. They had to scale up their competencies and governance to compete on the world stage. Working with a company like Infosys taught me a lot.

When Shah co-founded Edelweiss with Venkatchalam Ramaswamy, a colleague from ICICI, they wanted an iconic name, like Apple. They settled on a flower known for its hardiness.

I QUIT MY JOB with ICICI in May 1995. I had savings of 30 lakh [3 million rupees, $95,600 at the exchange rate at the time], and by mortgaging our house I put in another 20 lakh. The rest came from Venkat and other investors. I promised my parents we would never lose money. We haven’t lost money in any of the last 22 years.

When we started the business, [Infosys co-founder] Narayana Murthy told me, “Don’t build a business; build an organization.” That has always stayed with me. Your organization is like your soul.

Most of the large financial-services groups were founded by big business groups in India. They had access to capital, equity, debt. We came without anything. So I said we ought to be very careful with the capital. For the first five years we gave ourselves a salary of only 3 lakh; we could have gotten more than 25 lakh in the market.

We were the first to do employee stock options in financial services. This was unheard of in India outside of software companies. It has helped us in creating this culture of partnership.

When we started the bad-loan business, we said, "OK, we will give it four or five years. We'll spend about 20 crores [200 million rupees] over four or five years—about 4 or 5 crores a year as operating costs. That's our investment." Today, that business makes a profit of 400 crores a year.

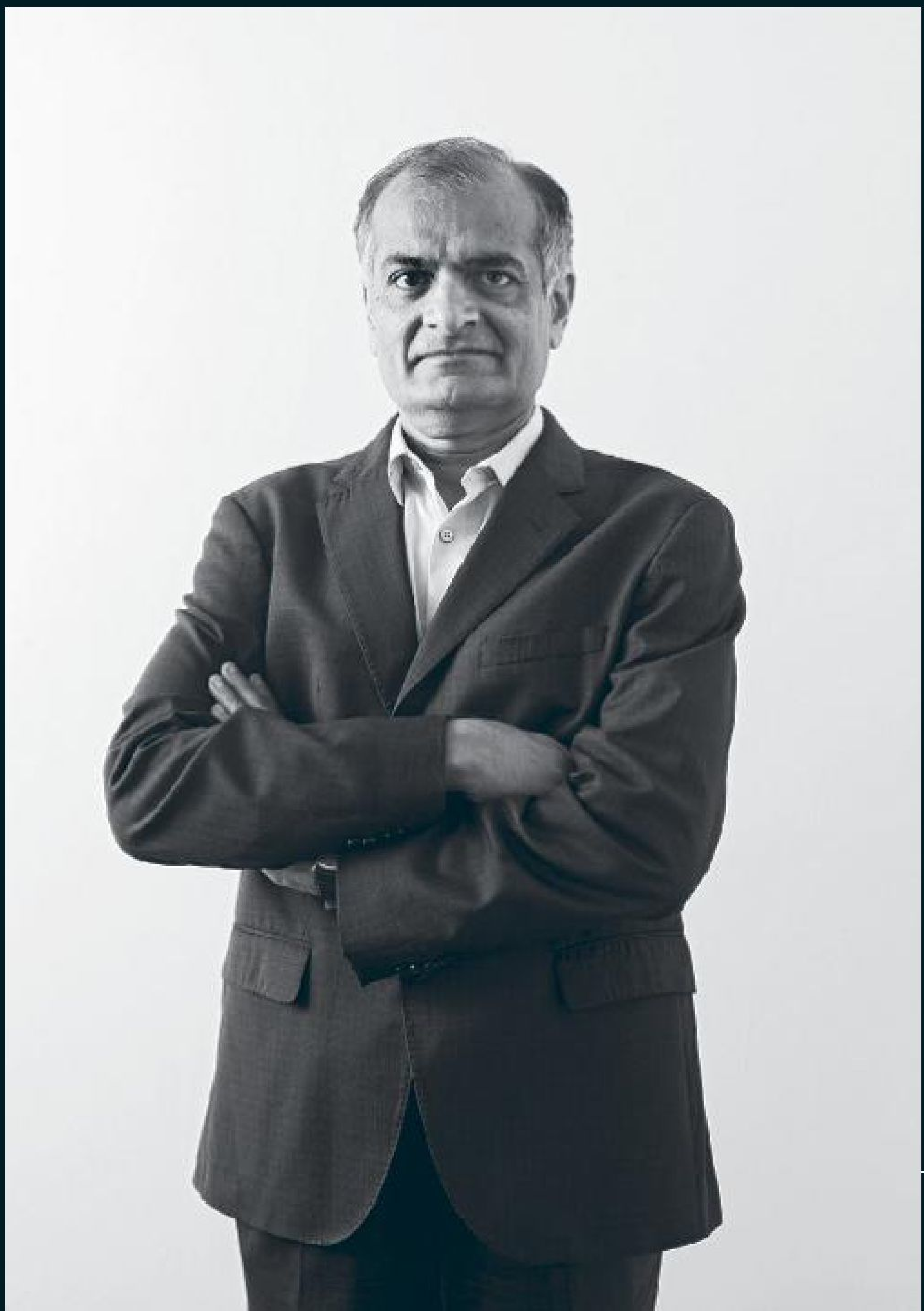
You have to take the profit and invest it back in the business, building scale in capability and competency. Every year, whatever profit we make, about 20 percent has to be invested back in the business, either trying out new businesses or new products.

We are truly long-term. We used all this upheaval [in the Indian economy] as countercyclical opportunities. In 2008, 2009, when the markets were bad, we started our ARC [asset reconstruction] business. Our entries into asset and wealth management were made in similar environments. The key is being countercyclical because in India things are available when everybody is giving up hope. In our ARC we hired people in 2009, when the world was on fire. We went from four people in 2009 to 40 people by 2012.

We look at challenging times as a great opportunity because we think the long-term trend in India is still up. As for risk management, we always ask ourselves only two questions: Is it worth it? Can we afford it?

There is no USP [unique selling point] in financial services. It's a really strange thing. It's ultimately a commoditized market. If you look at a credit card of one bank vs. other banks, a savings bank account of one bank vs. another, or maybe a mutual fund of one manager vs. another, the parameters will be very similar. The two areas where you can make a difference are at a customer experience level and with the organization's culture.

Shah



The other strength we have is that we are diversified. We are a nonbank lender; we have a housing finance company; we have a capital markets business; we have an asset management business, wealth management, ARC, and brokerage and so on. We experiment a lot. So when the experiment works, it looks very smart. But there are a lot of failures. A good photographer takes a hundred pictures, right? And he throws away 99. But the one that is left is fabulous. But we don't think of the failed ones.

Looking ahead, Shah sees more opportunities than challenges in the Indian economy. "You can't exactly say how the river will flow, at what pace it will flow," he says. "But the river will flow."

INDIA IS ON A VERY good long-term trend. But it's highly volatile. Now, you can either say volatility is a problem or an opportunity. I think we look at it as an opportunity. But you need to be confident of the long-term assessment. So when we acquired JPMorgan AMC [JPMorgan Chase & Co.'s onshore mutual fund business] in 2016, we said OK, maybe it will scale up in one year, maybe it will scale up in three years. That's OK because of the price at which we are buying we can have holding power. It scaled up very well.

In India, household wealth is going to grow, and you will need advisers and wealth managers. It's happening in every other country. Why not in India? It's early days for private credit in India. But then I would say that 20 years ago, private equity was also very small. Over 10 years, things evolve a lot. Everything currently looks very small and raw. The [liquidity] crisis that happened in the last quarter [of 2018] I think is a turning point.

India is a very self-correcting country. Look at what has happened in the credit market: the bankruptcies, the way credit is evolving, nonperforming loans. The bad-loan crisis we had has resulted in a new insolvency and bankruptcy code, which has brought in a big change in the credit market. The recent upheaval will also bring a lot more focus on ALM [asset-liability management], liquidity management, governance structure for NBFCs [nonbanking financial companies], and so on.

Credit research needs to improve if you want to have diversified providers of credit—banks, mutual funds, bond markets, insurance companies, foreign players, NBFCs, private credit funds. We are where the U.S. credit market was a few decades back. The need for India in the next 10 years is to reform the credit market. The cost of funding will come down; growth will get a big boost.

Over the next year or so, [India's] growth rate may come down due to the crisis at nonbank lenders. People will focus more on liquidity liability, and a lot of people are unhappy about that.

When I say India is always a drama, it's because we are a vibrant young country. Just like an adolescent. They have mood swings. We have a population that loves drama.

This is the big thing about India. Our nominal GDP for the last 20 years has grown at 13 to 14 percent [a year]. Growth in financial services is about 4 to 5 percentage points higher than that. That means you are doubling every four years. The economy is getting more financialized. We call this India's golden age of compounding.

I'm very confident that 10, 20, 30 years down the line, India will be calmer. You see, everything can't be drama. ●

Antony and Shirodkar are editors for Bloomberg News in Mumbai.

The Birth and Death of Covenants

By SALLY BAKEWELL and LISA LEE

ONE NIGHT IN 1982, a group of bankers from Drexel Burnham Lambert gathered at the Quilted Giraffe, a nouvelle cuisine restaurant in New York frequented by Warren Beatty and Jackie Onassis.

The financiers were there to celebrate a junk-bond deal that got away. They'd worked with Sparkman Energy Corp. for months, but the natural gas pipeline company had stopped returning their calls. Contractual terms that Drexel was proposing for the bond, particularly investor protections known as covenants, had been deemed too strict, says Vince Pisano, an attorney who worked on the deal.

At the dinner, Pisano recalls, some bankers wore custom-made belt buckles that featured Sparkman's logo—crossed out with a slash. They were luckier than they realized at the time. Five years later, Chairman Wallace Sparkman would reach a settlement with the U.S. Securities and Exchange Commission, neither confirming nor denying participating in an alleged kickback scheme.

Few at the dinner recognized that Sparkman's decision to insist on looser bond terms was a sign of what would come decades later. The legal framework that Pisano and his colleagues were creating in the 1980s helped fortify what would become a more than $2 trillion market in junk bonds and loans. But in the last few years, that framework of covenants, once routine for the riskiest borrowers, has come under severe attack.

Private equity firms such as Apollo Global Management and KKR & Co. have fought to make it easier for the companies they own to take on more debt soon after borrowing, and for debtors to sell off assets and pay the proceeds to shareholders. For a decade they had already chipped away at other provisions in loans known as "maintenance covenants"—requirements that a corporate borrower meet specific performance hurdles or else be forced to renegotiate terms or even repay debt.

Private equity firms "began to select their investment banks based in part on who could get the loosest high-yield covenants," says Kirk Davenport, a former partner at law firm Latham & Watkins who also worked for Drexel on early junk-bond deals. "And once they figured that out, the race to the bottom was on."

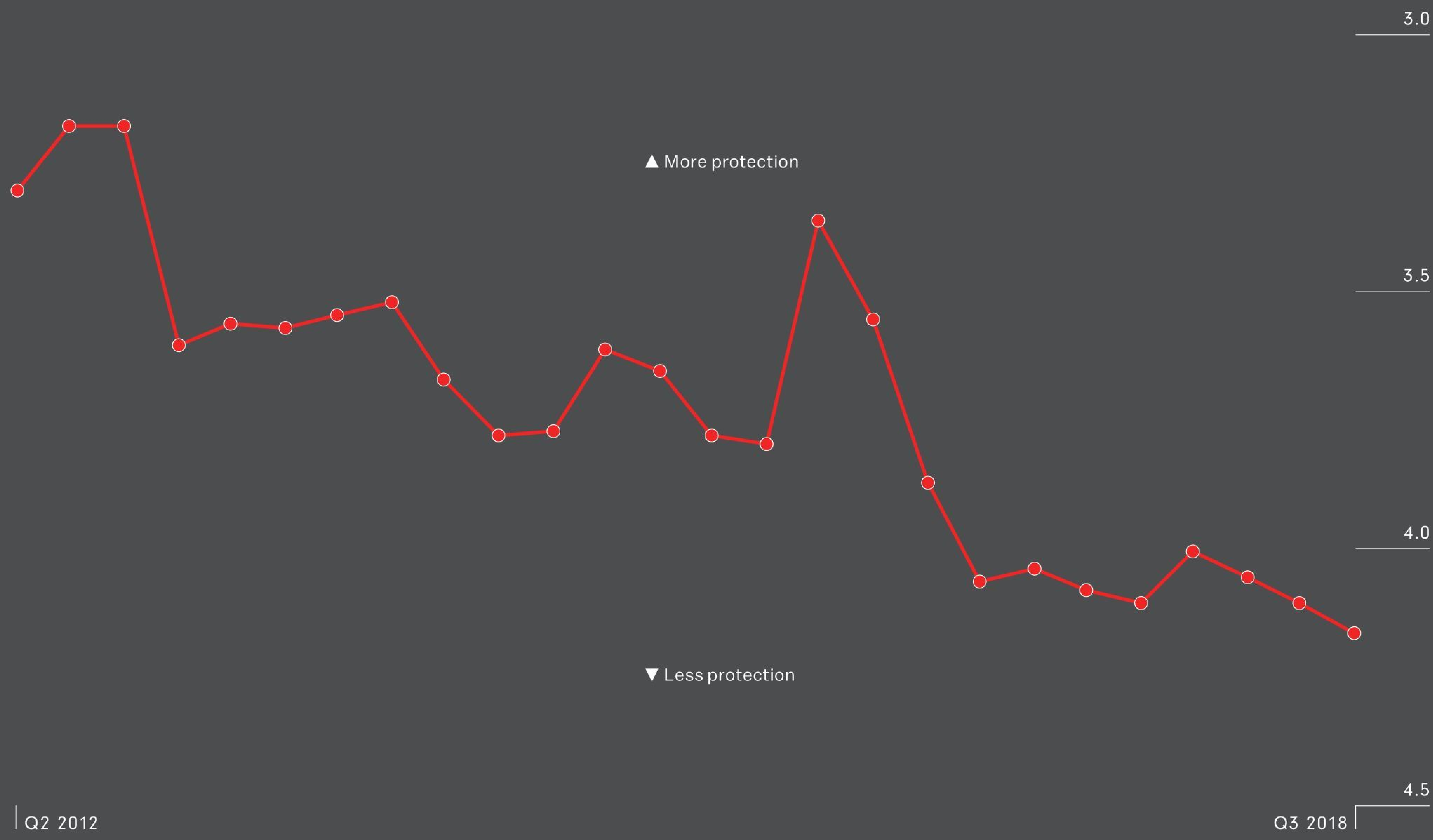
Moody's Investors Service says covenants for bonds and loans generally are at or near their weakest levels since the ratings firm started tracking them nearly a decade ago. When the economy slows, lenders could suffer much bigger losses than in previous downturns, say strategists at UBS Group AG, who estimate that lenders might recover less than half their money instead of 75 percent to 80 percent because of eroded protections.

Lenders to Caesars Entertainment Operating Co., the casino company that filed for bankruptcy in 2015, are familiar with this problem. The company changed its covenants in 2014 when it took out a $1.75 billion loan, raising the limit on how much debt it could take on that would give lenders a first claim on assets if the company went under. The new covenants helped allow Apollo and

Lenders Lose Some Security

Moody's Loan Covenant Quality Indicator

Average strength of covenants on loans tracked by Moody's are rated on a scale of 1 (the highest level of lender protection) to 5 (the weakest level).



Source: Moody's Investors Service

TPG Capital LP, the private equity firms that bought Caesars in 2008, to strip assets from creditors' reach before the casino company went under, a court-appointed bankruptcy firm found in 2016. A spokesman for Apollo declined to comment.

Investors complained about the terms on a series of bond and loan sales last year, but they still bought the debt. In one September sale, KKR & Co. helped finance its buyout of Envision Healthcare Corp. with debt that contained provisions making it easy for KKR to sell the most profitable portion of the company's business, leaving lenders with the less attractive part. KKR declined to comment.

Private equity firms and their lawyers often note that not having maintenance covenants gives a company more leeway to survive a stumble. Otherwise lenders, entitled to demand higher interest at the first sign of weakness, might push the borrower into bankruptcy in the rush to recover their money.

"A number of companies have gone from being a high-yield issuer and back to investment grade because they have been allowed to operate their business in a way that an inflexible covenant package would have prohibited them from doing," says William Hartnett, a partner at law firm Cahill Gordon & Reindel LLP who also represented Drexel on its early deals.

Covenants were once required mainly by banks' loan departments, which were armed with workout teams that specialized in squeezing more money out of troubled companies to ensure the lenders got paid back as much as possible. Strong covenants can be a real advantage in those situations. Institutional investors, which today account for most of the loan market, are more likely to sell out fast instead of sticking with a distressed borrower. According to S&P Global Market Intelligence's LCD unit, almost 80 percent of the outstanding loans in the market lack maintenance covenants, in deals dubbed "covenant lite."

"No one wants a company to default," says Thomas Majewski, managing partner and founder of Eagle Point Credit Management, which manages $2.6 billion. "With covenant lite, we believe there will be fewer defaults and we expect those to happen later, so we will still receive our interest."

Still, weaker covenants have emboldened companies to take steps that aren't purely about survival. Some strip away collateral before a default to benefit equity investors at the expense of lenders. In 2017, preppy clothing retailer J.Crew Group Inc. moved its valuable trademarks out of the reach of creditors when it restructured debt. As decades-long norms that were once spelled out in contracts are eroded, lenders and equity investors increasingly find themselves clashing in courts. "Lenders may need to resort to the courts more and more in the next downturn," says Michael Nechamkin of Octagon Credit Investors. ● —*With Davide Scigliuzzo*

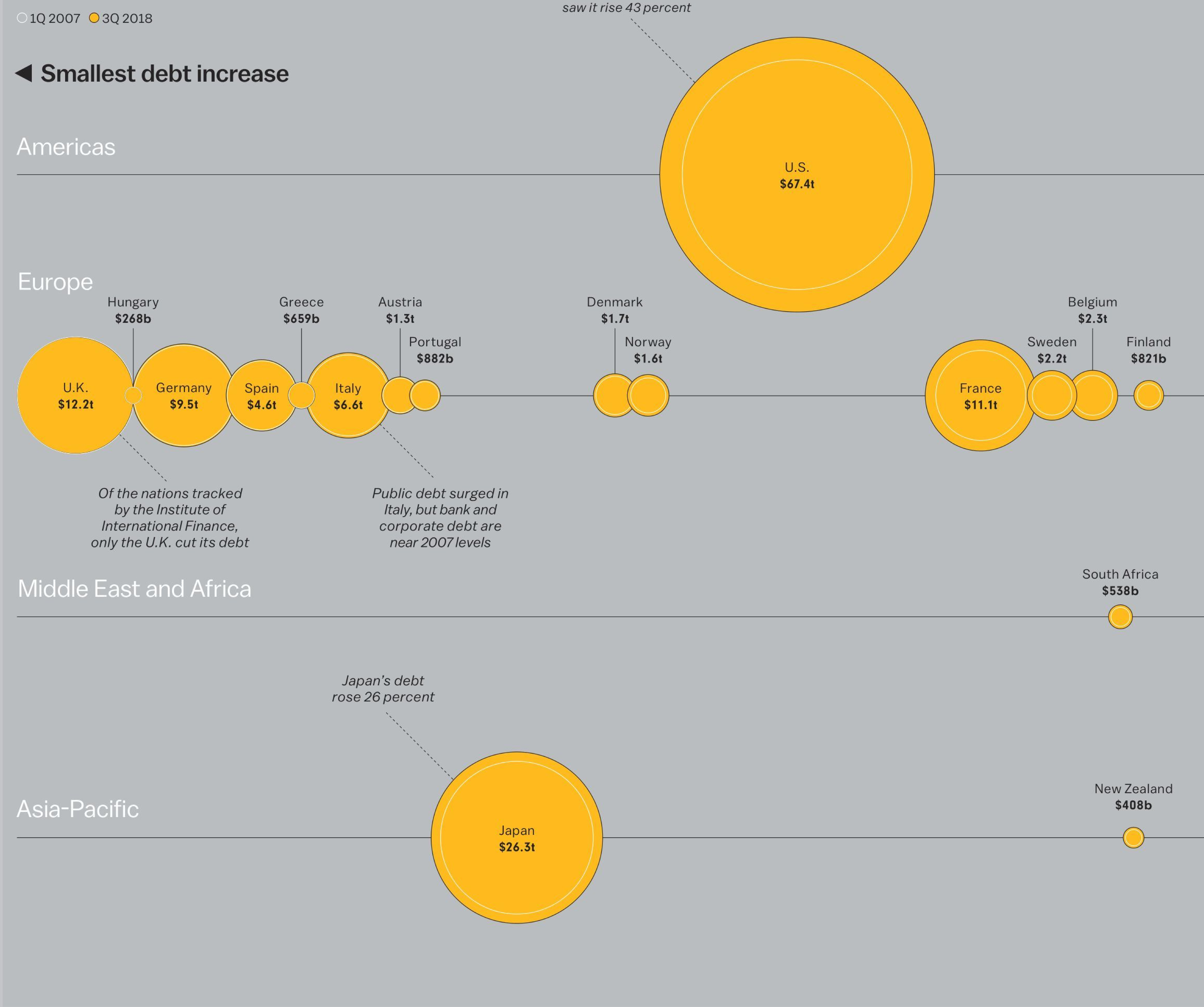
Bakewell and Lee cover corporate finance and leveraged lending for Bloomberg News in New York.


YOU STOPPED SMOKING
NOW START SCREENING
EVA-MARIE
QUIT AFTER SMOKING 12,000 PACKS OF CIGARETTES OVER 15 YEARS

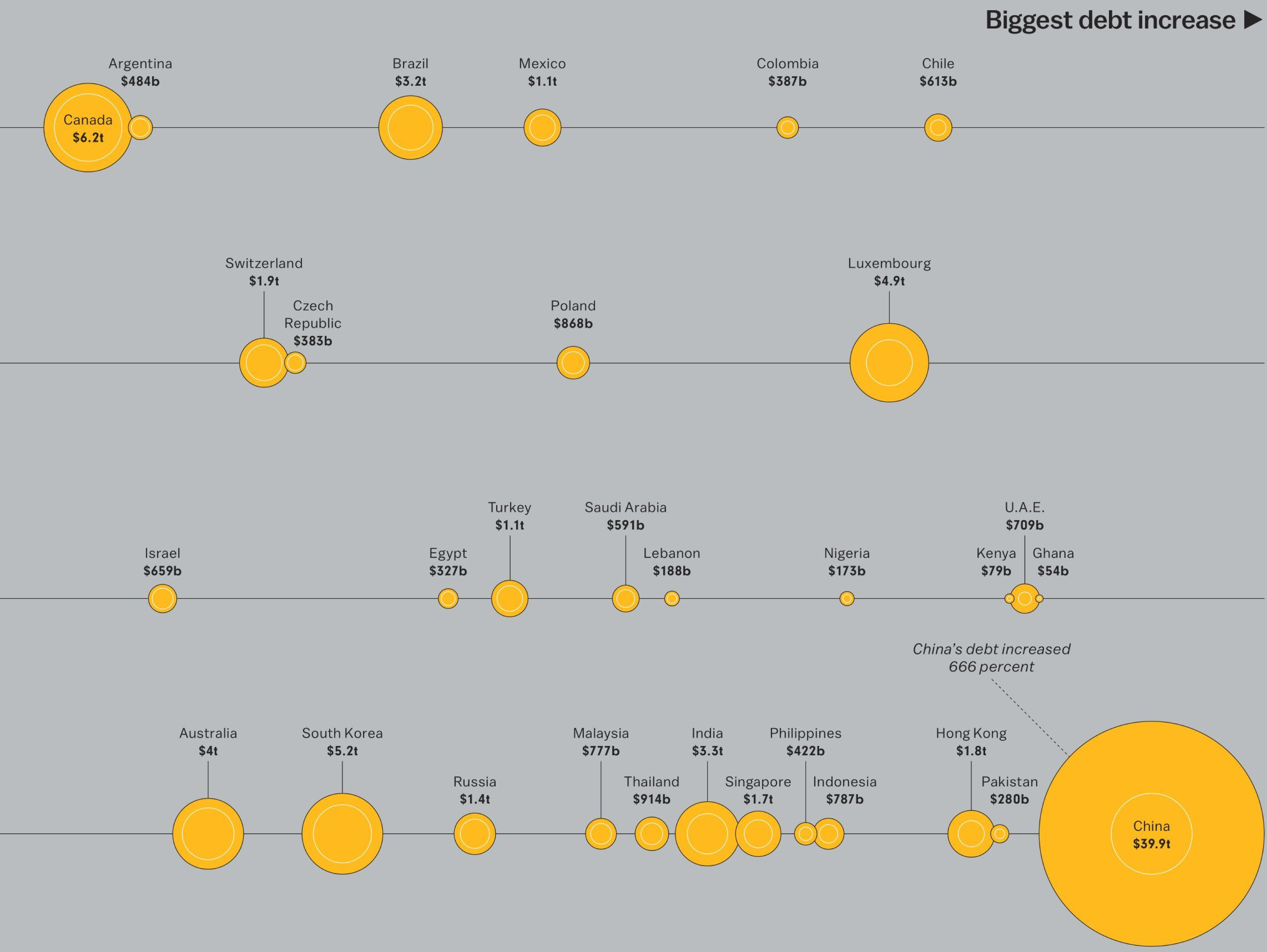
The Decade of Deleveraging That Wasn't

Total Debt Around the World

The nations are ordered by percentage increase in their debt since 1Q 2007. Circle sizes represent debt levels, and figures are debt totals in 3Q 2018.



A decade ago, as the world began to piece the financial system back together after an epic credit crisis, there was agreement on one thing: Too much leverage had caused the crisis, so there must be a huge deleveraging. It hasn't worked out like that. —*John Authers, with Lauren Leatherby*



Ireland, the Netherlands, and Ukraine have been omitted because 2007 financial sector data aren't available
Source: Institute of International Finance

The Consumer Binge That Made the Crisis Inevitable

■ Everyone knew that leverage was too high. In 2007, as subprime lenders went bankrupt and the crisis took hold, a sinister X-shaped chart circulated around Wall Street. Shooting upward on one axis was U.S. household debt as a proportion of total gross domestic product. Shooting downward on the other axis was the U.S. savings rate, which by some measures actually went negative—Americans spent more in total than they earned.

Overleveraged at Home

U.S. household debt as a share of GDP

Sources: Bank for International Settlements, U.S. Bureau of Economic Analysis

Consumers had grown overleveraged because the financial sector bombarded them with cheap credit, funded on absurdly generous terms by the markets. European banks, often the ultimate lenders, suffered terrible losses.

Prolonged and painful deleveraging seemed inevitable. Debt would have to be paid down or written off. Economic growth would be difficult if not impossible. Central bankers, trying to minimize the pain, cut interest rates to zero or below.

Behold the result of their labors: Leverage has increased. U.S. consumers and the Western banking system have cut back somewhat, but leverage has just moved elsewhere.

What went wrong? Money is fungible. Companies, particularly in the U.S., took advantage of the rock-bottom interest rates meant to bail out banks to go on their own borrowing spree.

And the world found a new borrower of last resort. China's debt has ballooned, transforming the geography of global debt in the process. It's now bipolar, revolving around the U.S. and China.

The global economy suffered a difficult decade. It might have been far worse without desperate measures from central banks and China's debt-fueled spending splurge. But while their intervention averted a painful deleveraging, it created an alarming set of problems.

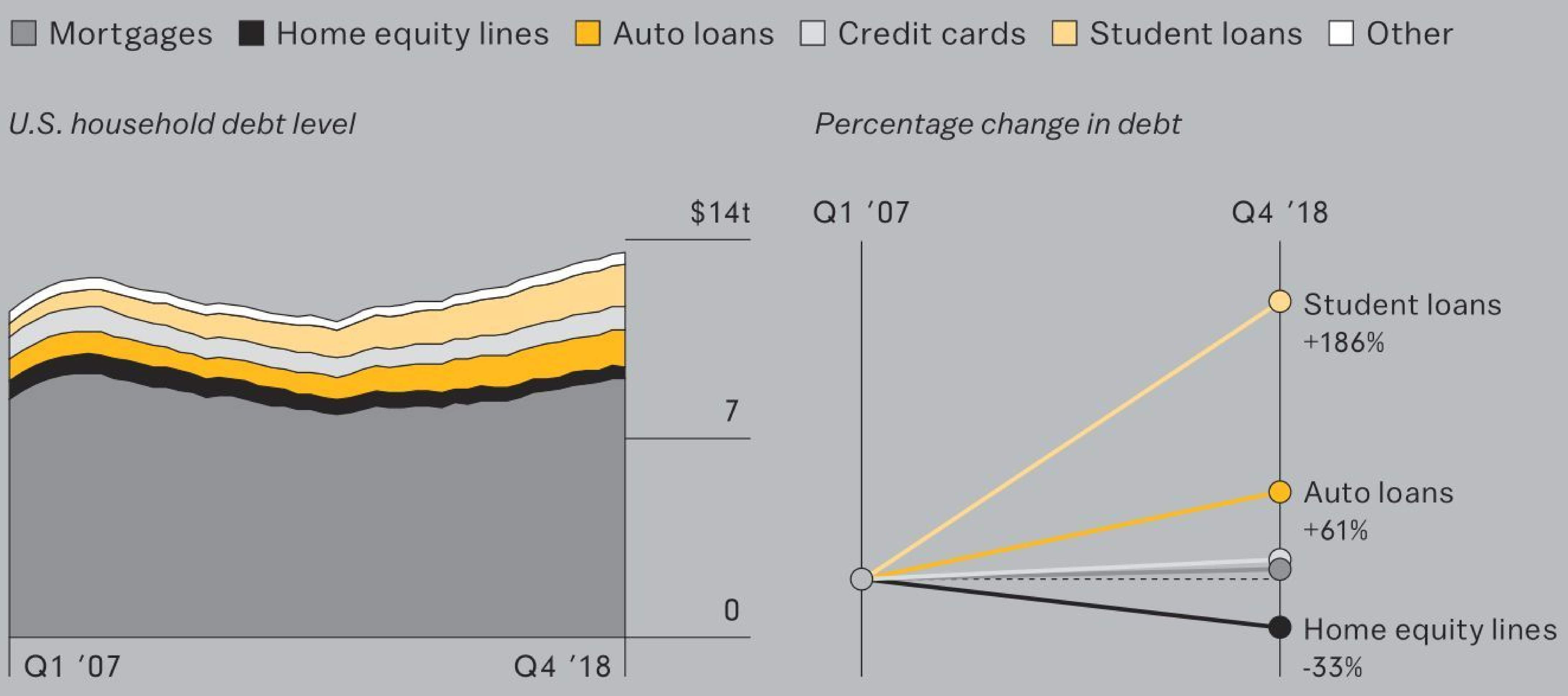
The Changing Face of American Debt

■ By 2008 household debt had reached 98 percent of U.S. GDP. Americans were spending and borrowing far beyond their means. A decade later, Americans' behavior has changed profoundly.

The deleveraging was vitiated by sluggish and unequal economic growth. You need money to clear a debt. Middle-class Americans didn't have it and soon borrowed anew to acquire such basics of their lifestyle as a college education and a car. They couldn't pay down debts. Outstanding auto and student loans have doubled since the eve of the crisis, from $1.36 trillion to $2.73 trillion.

Even so, lessons were learned from the crisis. Housing debt, even in nominal terms, is lower than it was a decade ago. Home equity lines of credit have declined sharply. Banks are offering more credit card debt than ever, yet their clients are staying within their credit limits.

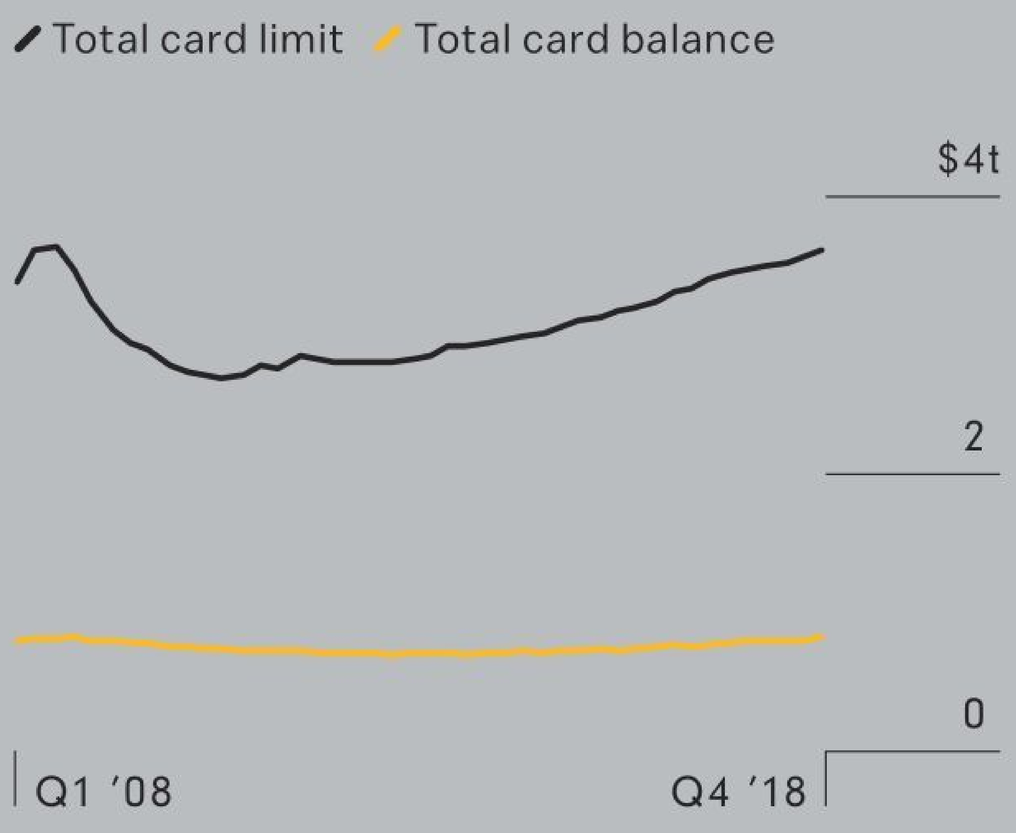
How Household Debt Changed



Source: Federal Reserve Bank of New York

Card Limits Rise, But Charges Hold

U.S. credit card activity



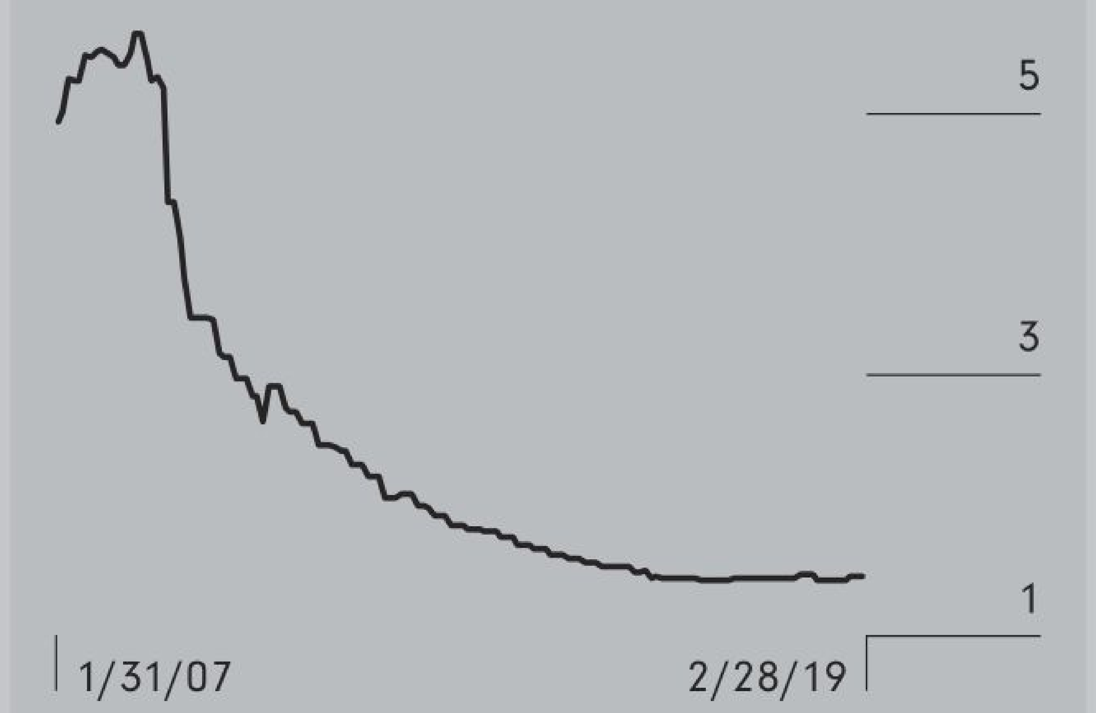
Source: Federal Reserve Bank of New York

Banks: Drastic Deleveraging in the U.S., Miles to Go in Europe

■ Banks in the U.S. and Western Europe teetered on the edge of failure a decade ago. Only massive government bailouts tided them through. Since then they've been reregulated, and they've used low interest rates to put their houses in order. They are unquestionably healthier than they were a decade ago. The debts of the biggest U.S. financial companies are smaller compared with their equity than they were even in the 1970s.

U.S. Banks Did Their Part

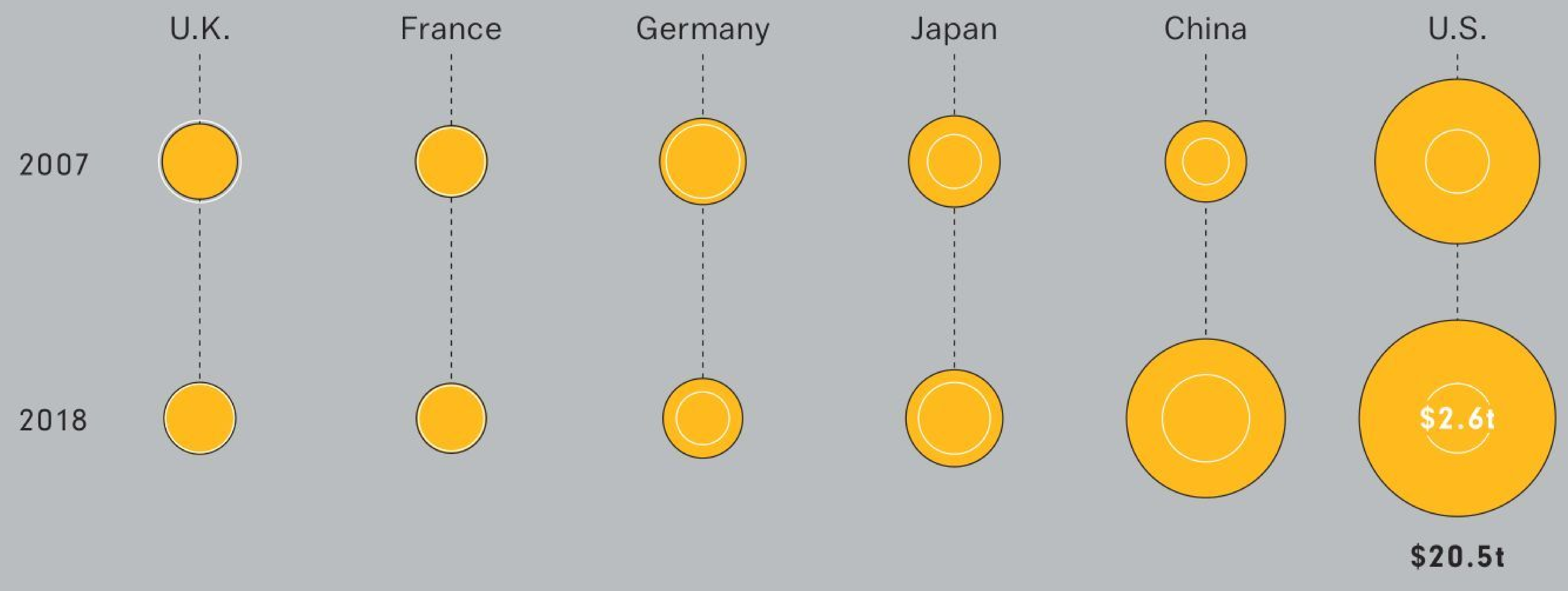
Total debt-equity ratio of S&P 500 Financials



Sources: Compustat, Deutsche Bank U.S. Equity Strategy

Banks Deleveraged, But Some Remain Larger Than Their Country's GDP

○ Assets of country's largest bank ● GDP



Sources: Company filings, International Monetary Fund

Europe's banking sector has also deleveraged, but it still has a long way to go. Germany's banking assets were three times larger than GDP a decade ago; they're now equivalent to more than 200 percent of GDP. The biggest banks from many of the largest European countries are far too big for their home governments ever to rescue them.

If you want to explain the grinding economy of the euro zone over the past decade, look no further than the banks. They cut back their assets by an amount equivalent to the region's entire GDP, but the process is barely even halfway through. With profits hard to come by, a long road lies ahead.

Corporate Borrowing Soared, But Quality Fell

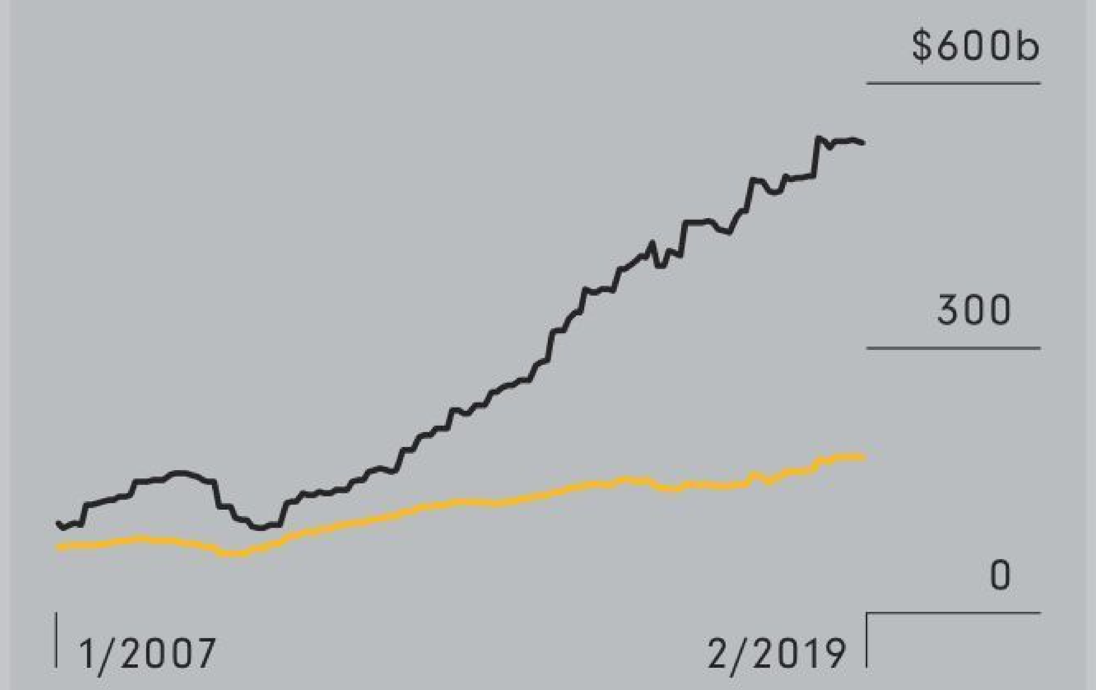
■ Nonbank corporations entered the 2008 crisis far less leveraged than they'd been at the beginning of the decade. But since then new debt has far outstripped the free cash they generate. This is most true of the smaller companies in the Russell 2000 Index. That suggests vulnerability.

Big companies have enjoyed big profits, fattened by widening margins as wages stagnate. That's allowed them to sustain a huge debt load. But drilling down shows that credit quality, as viewed by ratings companies, has tumbled. According to S&P Global Ratings, the companies rated BBB+, BBB, or BBB- (the three lowest investment grades before they would hit "junk" status and face much higher interest payments) now outnumber all of the companies with some level of A-rated debt. It looks as though companies are "gaming" the ratings companies, borrowing as much as they can get away with.

U.S. Small-Cap Debt Builds Up

Russell 2000 nonfinancials

Net debt Ebitda

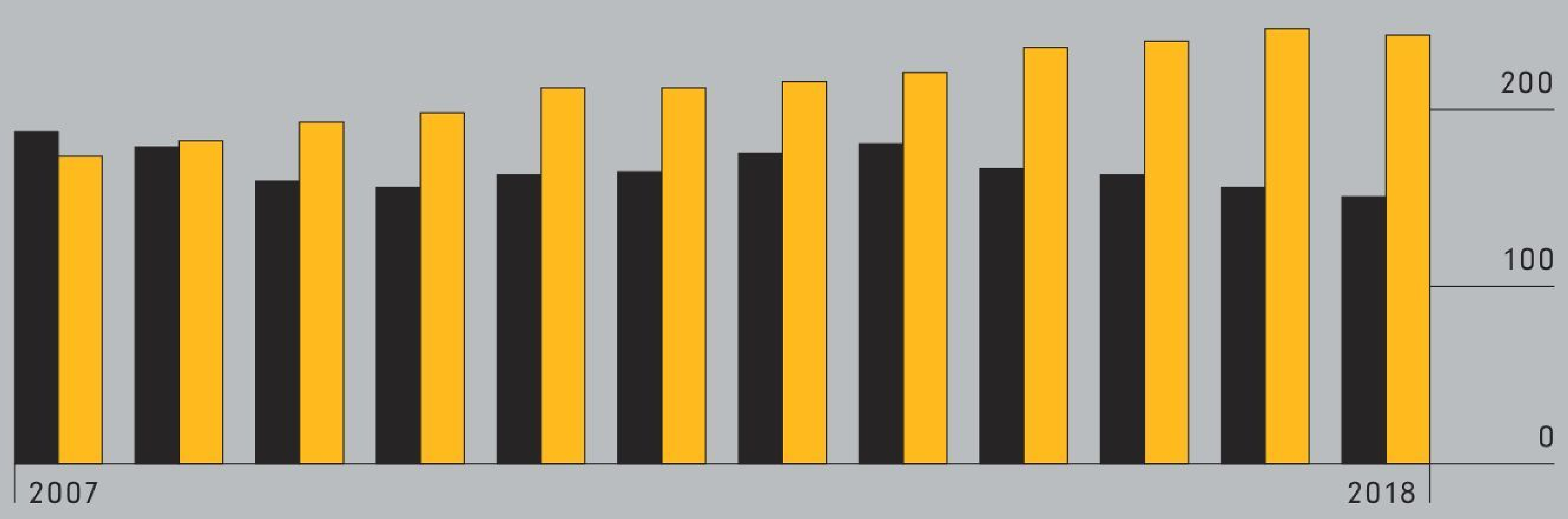


Source: Société Générale Cross Asset Research/Equity Quant

Rise of the BBB Company

S&P 500 members by rating

■ All A-level ■ All BBB-level



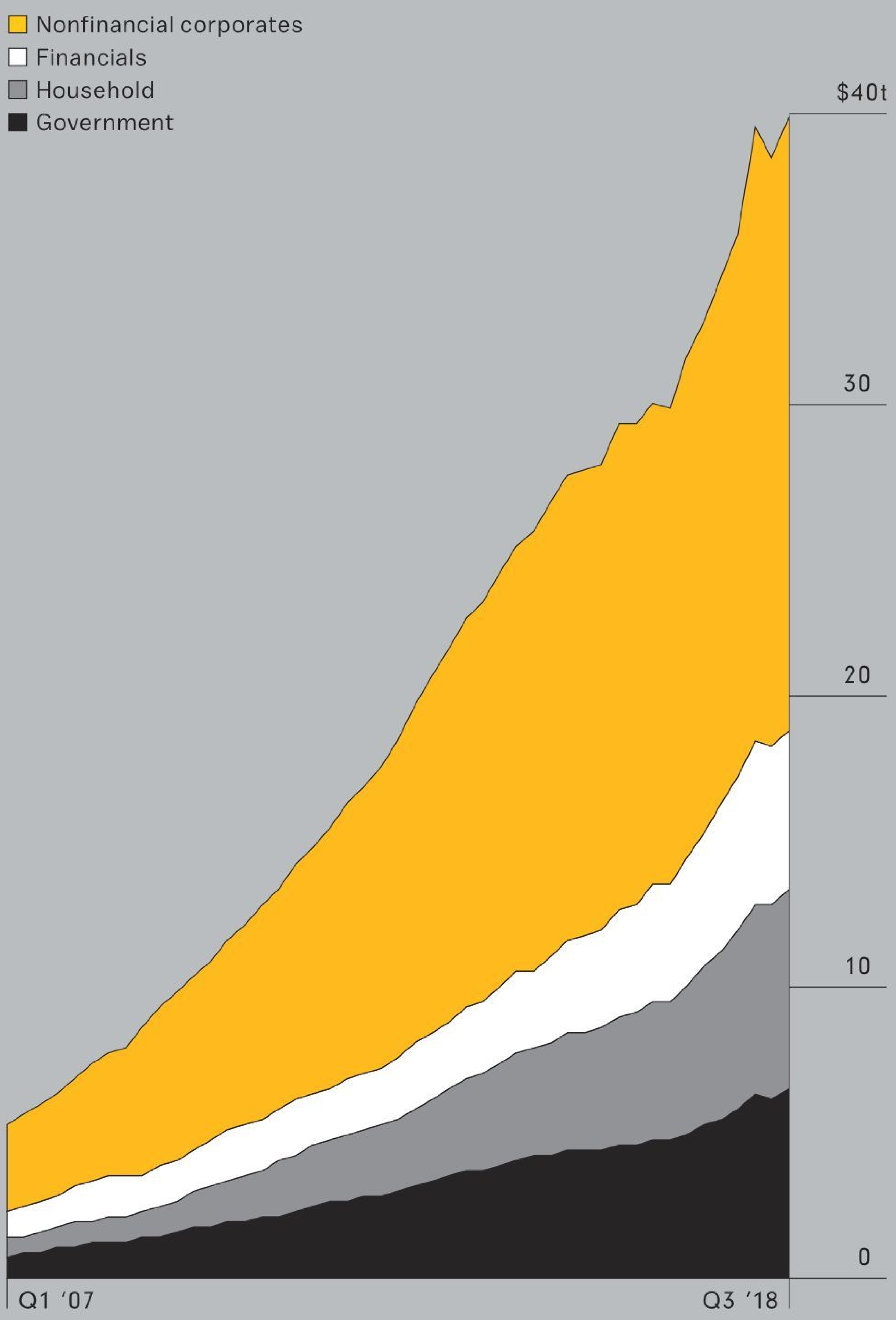
Source: S&P Global Ratings

China's Debt Binge Is Buying Less

None of these debt splurges compare to the borrowing binge that China sanctioned in late 2008 in a bid to ward off an alarming slowdown in its own economic progress. Before the crisis, China had largely managed to finance its growth without recourse to much debt. Huge flows of income from exports had done the job. The population, fast reaching middle-class living standards, still tended to fund itself conservatively. Household debt was equal to only 18.8 percent of China's GDP. That number has since almost tripled, to 51 percent.

Corporates Leading the Way in China

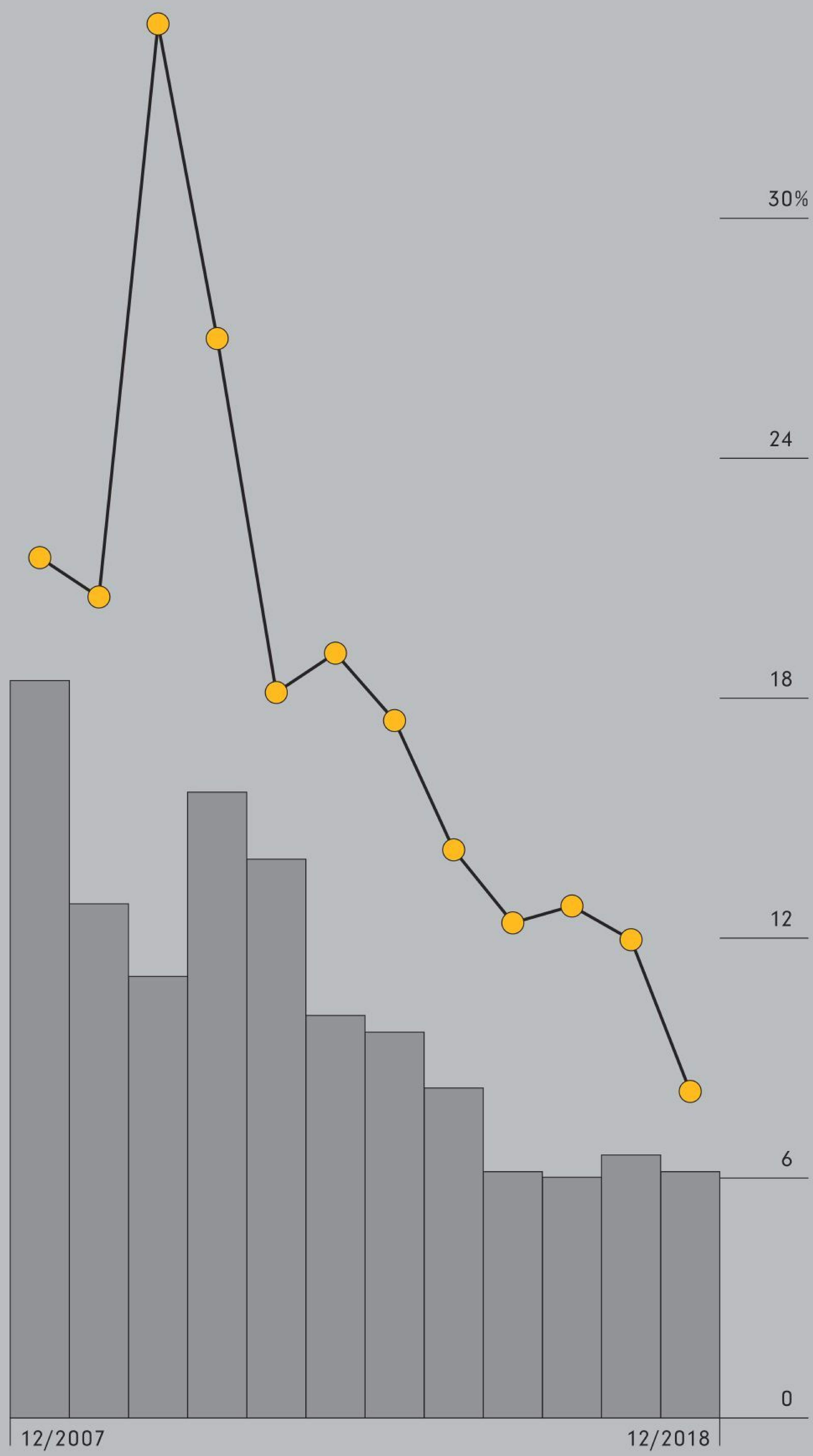
Chinese debt



Source: IIF

Output Fails to Reward Borrowing

Year-over-year change



*Excluding local government bonds

Sources: {CHVAICY Index}, {CNFGSFG Index}

Overall, China's total debt has increased sevenfold since the crisis. It accounts for more than half the outstanding debt of the entire emerging world, while its private sector has accounted for 70 percent of all new debt taken on anywhere in the world since the crisis.

This splurge kept China's economy throbbing and generated demand for Western goods. Without it, Western banks and consumers probably could not have deleveraged as much as they have. But the stimulus from credit in China is weakening—ever-greater doses are leading to dwindling growth in output.

Is this rate of borrowing sustainable? Chinese officials want to deleverage. But they don't want to let economic growth drop below 6 percent per year. On several occasions, the country has started to rein in lending by banks and local governments, only to reverse course when growth begins to fall.

Much of China's debt is ultimately controlled by the government, which has greater powers to enforce debt workouts than Western governments enjoy. But China has replaced the U.S. as the source of greatest anxiety over debt.

The Biggest Corporate Borrowers

By MOLLY SMITH

AT&T

Total debt: $177b

AT&T Inc.'s mega-acquisitions of DirecTV in 2015 and Time Warner in 2018 were largely responsible for making it the world's biggest nonfinancial corporate borrower. The Dallas-based telecommunications carrier, which made debt reduction its "top priority" this year, plans to pay down about $20 billion with internally generated cash flow and proceeds from asset sales.

SoftBank

$154b

Masayoshi Son's SoftBank Group Corp. almost quadrupled its debt, to more than $150 billion, over five years with investments in hot startups such as Uber Technologies Inc. and its purchase of the U.K.'s ARM Holdings. The Tokyo-based telecommunication company-turned-fund manager says investment gains offset the leverage and that near-term liquidity is adequate to handle bond maturities.

Apple

$115b

Rather than funding acquisitions, Apple Inc. began building its 12-digit debt load in 2013 to finance dividends and stock buybacks. The Cupertino, Calif.-based tech giant also used its multibillion-dollar cash pile overseas to invest in corporate debt. A change in the tax law limited the benefit to keeping money outside the U.S., cutting Apple's appetite for issuing or buying debt.

Verizon

$113b

Verizon Communications Inc. completed the largest corporate bond sale in history, $49 billion, to pay for Vodafone Group Plc's stake in Verizon Wireless in 2013. While competitor AT&T has recently prioritized debt reduction, New York-based Verizon has spent years shoring up its balance sheet through debt buybacks and exchanges. It aims to regain a single-A rating.

Comcast

$112b

The Philadelphia-based cable company joined the top borrowers because of its $39 billion winning bid for British broadcaster Sky last year. While the price tag drew scorn, credit raters gave Comcast Corp. the benefit of the doubt regarding its ability to deleverage quickly. The company is holding off on buying back stock this year to prioritize debt reduction.

AB InBev

$110b

The world's largest brewer of beer has also amassed one of the world's largest balance sheets, mostly because of its $100 billion acquisition of SABMiller in 2016. Facing pressure from credit raters, Anheuser-Busch InBev NV cut its dividend in half last year and has started to refinance some of the debt it took on for the deal.

General Electric

$110b

While much of General Electric Co.'s debt is left over from the heyday of GE Capital, Chief Executive Officer Larry Culp aims to reduce the industrial business's leverage. GE won't need to issue new debt until 2021, management said this year, comforting bondholders and shareholders alike. It also recently sold its biopharmaceutical business for more than $21 billion to help pay down debt.

China Evergrande

$98b

The Guangzhou-based property company has accumulated the largest land bank among Chinese developers—and also one of the biggest balance sheets. China Evergrande Group has prioritized debt reduction in recent years, but tighter liquidity and rising funding costs still present challenges to a heavy maturity schedule in 2019.

Shell

$77b

Royal Dutch Shell Plc, Europe's largest oil company, took on a mountain of debt when it bought BG Group for more than $50 billion in 2016. Since then the company has divested $30 billion in assets. Shell said in January it has "ample capacity" for additional debt reduction and share buybacks from free cash flow in the next two years.

Microsoft

$73b

Of the world's biggest corporate borrowers, Microsoft Corp. is the only one with a pristine AAA rating. In fact, it's one of only two U.S. companies—the other is Johnson & Johnson—with that status. Microsoft had been a serial issuer of debt, including about $20 billion in 2016 to pay for LinkedIn. The software giant's appetite for debt, like Apple's, changed with the U.S. tax law.

To identify the biggest corporate borrowers, use the Equity Screening function {EQS <GO>}. Start with securities with an active-trading status and limit the universe to the primary security. Then add Short and Long Term Debt from the latest filing to the search criteria and display a ranking of the top 15, using U.S. dollars as the criteria currency.

In our screen, we excluded all finance sectors except real estate. We also excluded automotive manufacturing within consumer discretionary because of the active financing arms of companies within the sector. We discarded borrowers that are government-owned or -backed, such as Brazil's Petróleo Brasileiro SA and Italy's Enel SpA. In some cases we excluded leases and other types of debt that were included in the EQS figure.

**All figures as of the end of December 2018, except China Evergrande, which was as of the end of June 2018*

Source: {EQS <GO>}

Djibouti needed help. China had money. This is what happened next

China by the Red Sea

By NIZAR MANEK

PHOTOGRAPHS BY SARAH WAISWA

The Doraleh Multi-Purpose Port

An unfinished rail line near the Chinese People's Liberation Army support base

INSIDE THE CARRIAGES on the 10-hour rail journey through land-locked Ethiopia into the tiny Red Sea state of Djibouti, the chirping of mobile phones mingles with a mashup of regional languages and the murmur of the devout at prayer. A woman in a yellow frock trundles past maroon-upholstered seats with her cart: "Coffee! Bunna! Tea! Chai!"

At first glance, there's nothing conspicuously Chinese about the Addis Ababa-Djibouti Railway, but then you spot the train's Chinese driver and a few Chinese passengers huddled on a bunkbed. In fact, says Ilyas Moussa Dawaleh, Djibouti's good-humored finance minister, "It's all about the 'C.'" The railway wouldn't exist in its current form without a massive infusion of Chinese loans—indeed, most of Djibouti's economy relies on Chinese credit. And the Chinese might not have shown as much interest if it hadn't been for Djibouti's geostrategic location: About a third of all the world's shipping steams past this barren land on the northeast edge of Africa en route to and from the Suez Canal, the Red Sea, and the Indian Ocean.

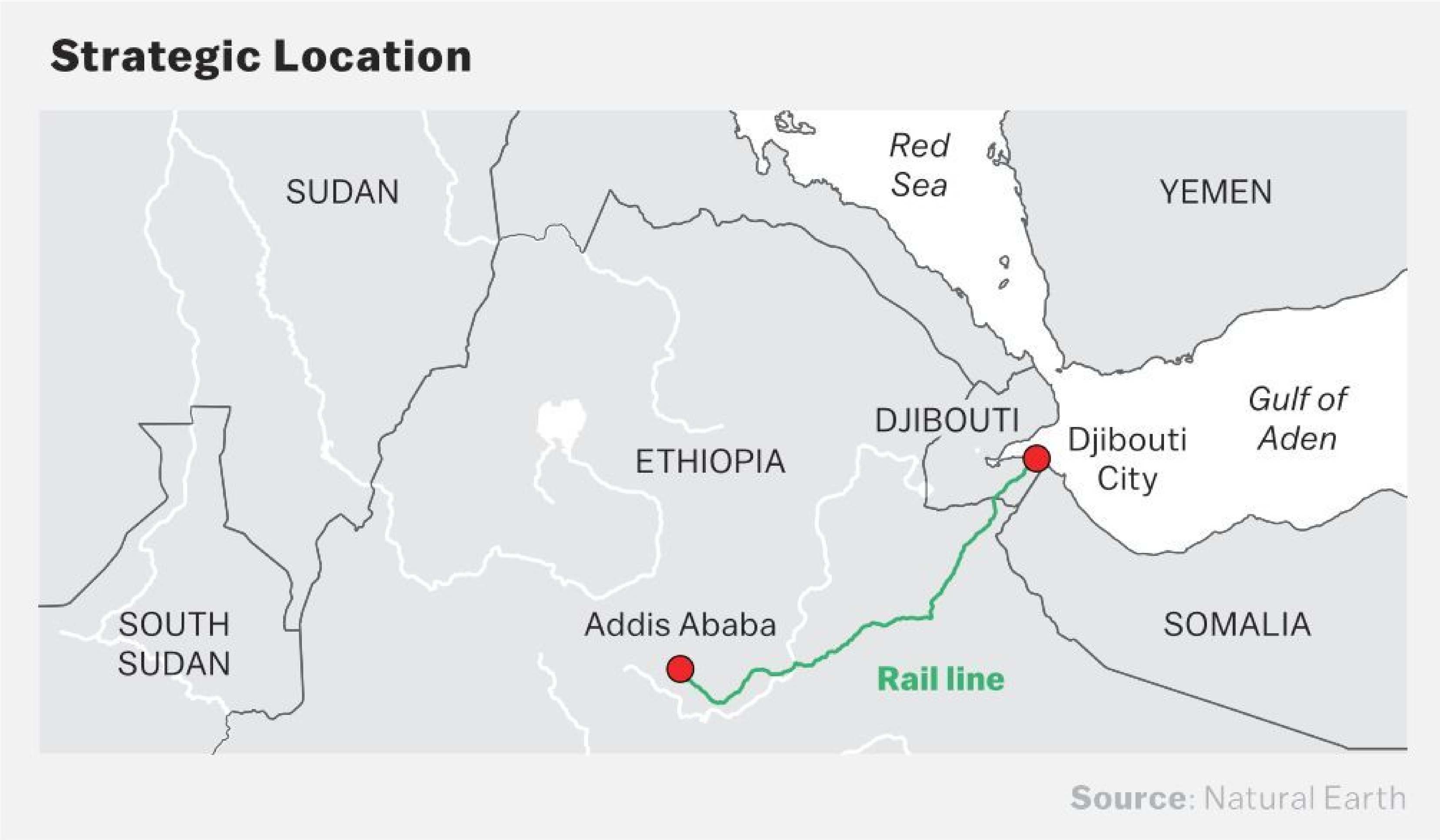
China's bridgehead here is part of its globe-girding "Belt and Road" initiative, an amalgam of economic strategy, foreign policy, and charm offensive that's fueled by a torrent of Chinese money and is designed to rebalance global alliances. And as with dozens of other way stations along this new Silk Road, Djibouti's dalliance with China is raising hackles from Paris to Washington. China has no qualms. "China-Africa cooperation is yielding fruitful results all across Africa, bringing tangible benefits to every aspect of local people's lives," Foreign Ministry spokesperson Geng Shuang said at a press briefing on March 18. "It is these people who are in the best position to judge the effects of China-Africa cooperation projects."

The railway will eventually string together a necklace of big Djibouti infrastructure projects in which the Chinese, through state-owned companies, have substantial interests: the Doraleh Multi-Purpose Port, the Doraleh Container Terminal, and the Djibouti International Industrial Parks Operation, a sprawling manufacturing hub. At one point, the railway skirts within a mile of the two-year-old Chinese People's Liberation Army support base, which was China's first overseas naval station.

China Merchants Port Holdings Co., a state-owned corporation, wants to turn Djibouti into "the Shekou of East Africa," Dawaleh says, referring to the free-trade zone across Shenzhen Bay from Hong Kong. Djibouti, whose gross domestic product was $1.85 billion in 2017, can use the help. According to the World Food Programme, 79 percent of Djiboutians live in poverty and 42 percent in extreme poverty. Barely larger than Wales, the nation has a population of about 1 million people. Livestock represents the main livelihood of a third of the population, but the country, whose meager natural resources include salt and gypsum, has to import 90 percent of the food it needs.

As clanking machinery and the rising dust of construction activity along the coast attest, Djibouti is making progress of a

“What can look good in the short term can often end up being bad over the medium to long term”



sort, but it’s coming at a steep price. Under President Ismail Omar Guelleh, the one-party state is partway through what started out as a $12.4 billion infrastructure development program, much of it funded through loans from the Export-Import Bank of China.

China has taken major stakes in some of those projects. Take the sprawling International Industrial Parks Operation, where red lanterns left over from Chinese New Year celebrations were still hanging in March. Ten percent of this free-trade zone is owned by the Port of Dalian Authority, China; 30 percent by China Merchants, which owns about one-fifth of Dalian port; and the rest by Great Horn Investment Holding, a wholly owned subsidiary of the Djibouti Ports and Free Zones Authority. ►

Chinese and Djiboutian flags at the Djibouti International Free Trade Zone

China Merchants owns 23.5 percent of a Djiboutian holding company that in turn owns the Doraleh Container Terminal, Djibouti Dry Port, and the Doraleh Multi-Purpose Port. The latter's been operational since last year, built on $580 million in loans from the Chinese EximBank that Dawaleh describes as "almost concessional."

China's grip was tightening as Djibouti's debts were soaring. In a 2017 report, the International Monetary Fund said Djibouti's public debt—the lion's share of it owed to China—rose from 50 percent to 85 percent of GDP over the previous two years. In December the IMF criticized the government for falling deeper and deeper into debt.

"The Djiboutian authorities' strategy of investing in infrastructure to transform the economy and position the country as a logistics and commercial hub offers great opportunities for economic growth and development," the IMF said. "However, the financing of this strategy through a buildup of debt has resulted in debt distress, which poses significant risks. Public and publicly guaranteed debt is expected to be around 104 percent of GDP at end-2018."

The government here takes a different view. Dawaleh says the IMF shouldn't include the debts of Djiboutian state enterprises in its assessment because those enterprises "are overperforming or have the capacity to overperform." "This should not harm us," he says in his office in Djibouti City, having just returned from meetings with Vice President Wang Qishan and other Chinese officials in Beijing, where he sought to restructure Djibouti's EximBank loans.

Dawaleh was there to talk about two loans in particular—$460 million for Djibouti's share of the railway and $340 million for a water pipeline. (The 750-kilometer [466-mile] railway is a joint project of Ethiopia and Djibouti, built with more than $4 billion in EximBank loans; 656 kilometers of track run through Ethiopia, providing it with a valuable trade link to the sea.) Djibouti wants to refinance the loans because neither project is generating the revenue it should at this stage. The railway began operations last year, a year and a half behind schedule, and is running one freight train a day instead of three as planned. Power supply problems have prevented the pipeline from operating at all. Djibouti's grand expectations, Dawaleh says, do "not always match the reality."

■■

AT SUNSET ONE DAY in March, a dozen schoolchildren are playing along the tracks on the outskirts of Djibouti City. They've got a great view of the city, the port area, and, in the distance, the Gulf of Tadjoura. The most fun to be had on the tracks, says Hamza Mahamad Osman, 14, is when a slow-moving train from Ethiopia rolls by with empty containers. "You can jump on it and hide away," he says. "But you have to jump off before ending up in the port and in a ship!"

Farther along the tracks, from the train station at the Doraleh Multi-Purpose Port, you can see the high walls that hide much of

A discarded Chinese newspaper serves as a place mat at a Yemeni restaurant

the Chinese People's Liberation Army support base from view. The roofs of several large three- and four-story buildings look like something vaguely out of the Forbidden City in Beijing. "Yes, it's very nice," says the port's commercial director, Habon Abdourahman Cher. "But don't take a picture."

China is hardly the only country with a military presence in Djibouti. The U.S. Africa Command is headquartered at Camp Lemonnier, a naval expeditionary facility that's the only permanent American base in Africa. The Japanese, Italians, and Spanish are also here. The Saudis are planning a base. France has had a foothold since at least 1894; what is now Djibouti was French Somaliland, a colony, until 1977.

When French President Emmanuel Macron visited in March, he did more than highlight France's intention to spread its influence in East Africa and beyond. He also chided Djibouti for its overreliance on Chinese largesse. "What can look good in the short term," he said, "can often end up being bad over the medium to long term." Paris, he said, "wouldn't want a new generation of international investments to encroach on our historical partners' sovereignty or weaken their economies."

The U.S. has been beating this drum even more loudly than the French. "China uses bribes, opaque agreements, and the strategic use of debt to hold states in Africa captive to Beijing's wishes and demands," John Bolton, President Trump's national security adviser, said in a speech in Washington in December. Geng, the Chinese Foreign Ministry spokesperson, dismissed such talk as "groundless accusations filled with cold war mentality."

Bolton warned of the consequences if, as has been rumored, China Merchants were to gain control of the Doraleh Container Terminal via a debt-for-equity swap. "Should this occur," he said, "the balance of power in the Horn of Africa—astride major arteries of maritime trade between Europe, the Middle East, and South Asia—would shift in favor of China." Aboubaker Omar Hadi, chairman of the Djibouti Ports and Free Zones Authority, described Bolton's assertion as "propaganda." "We have local expertise," he says. "Why would we look at importing other entities to operate our ports?"

Near the shores of the Gulf of Tadjoura, meanwhile, an office tower, a hotel, and warehouses are rising at the Djibouti International Industrial Parks Operation. The vast free-trade zone sits beside an array of key commercial operations: the Doraleh Container Terminal and the Doraleh Multi-Purpose Port.

Neima Abdillahi Ahmed is the industrial park's commercial manager. She says she's seen photos of Shekou, the Chinese free-trade zone, from the last century—and recognizes the changes she's living through. "Thirty years ago, Shekou was like Djibouti," she says. "There was nothing." ● —*With Han Miao*

Manek covers Ethiopia and the Horn of Africa for Bloomberg in Addis Ababa.

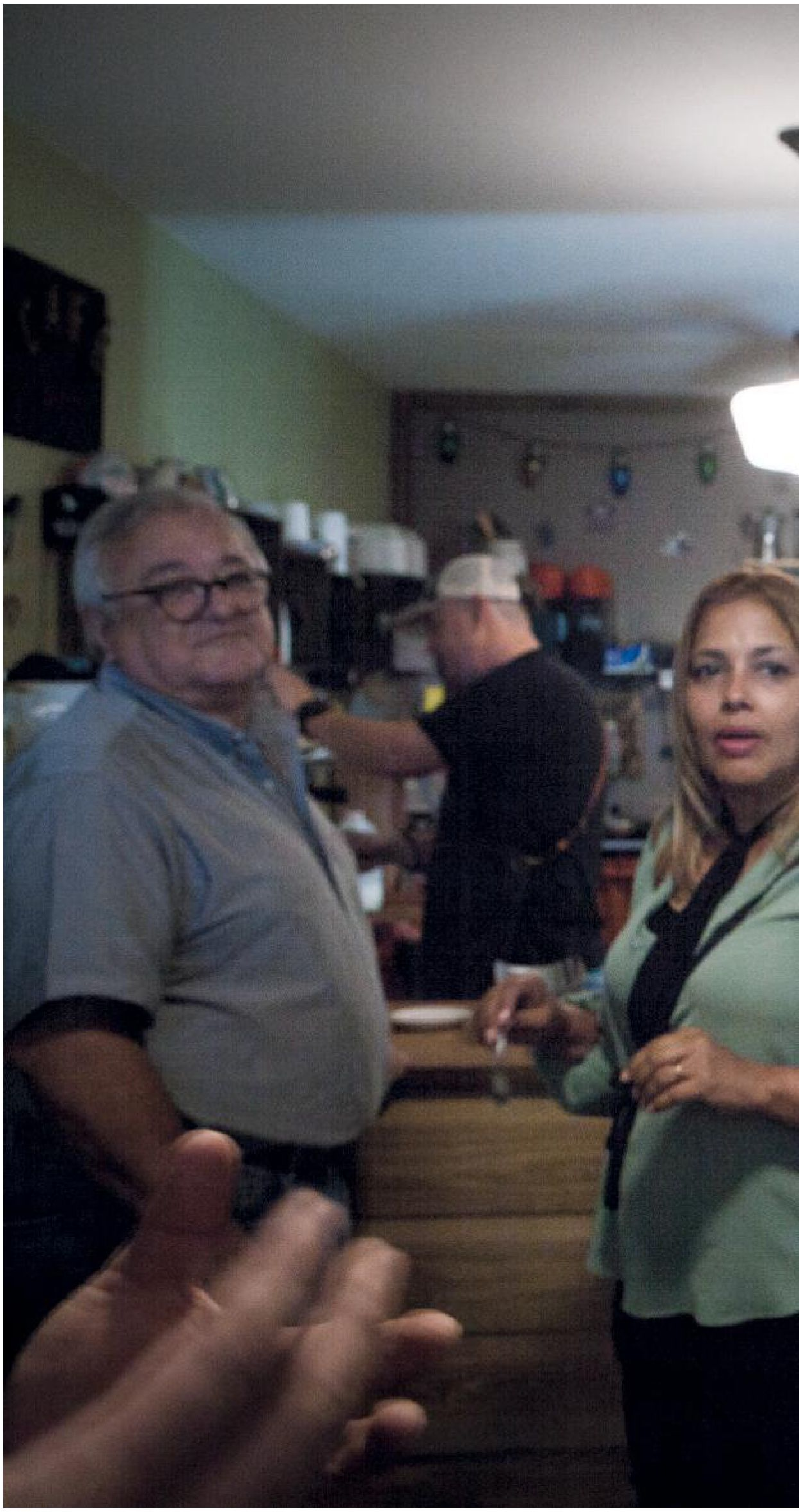
Money-changers await customers in Djibouti City

NATALIE JARESKO:

‘Don’t Waste a Crisis’

By MICHELLE KASKE

PHOTOGRAPH BY DOUGLAS HOOK



Jaresko enjoys a coffee at Café 2150 in Bayamón, Puerto Rico

NATALIE JARESKO, who's helping manage Puerto Rico's bankruptcy process, knows more than most about the risks government borrowers can face. The Chicago-area native lived in Ukraine for 25 years, where she co-founded a private equity firm and then served as minister of finance, overseeing the country's debt restructuring and its International Monetary Fund program as war drained its resources. ¶ In early 2017 she agreed to move to Puerto Rico to lead the federal oversight board tasked with reducing the commonwealth's $74 billion in debt and $50 billion of pension liabilities. Months later, Hurricane Maria slammed the island, ripping apart its electrical grid and killing thousands. ¶ Jaresko, who turns 54 in April, talked with Bloomberg News's Michelle Kaske about how governments and investors should think about debt and risk. ▸

MICHELLE KASKE: How do you compare the financial crises in Ukraine and Puerto Rico?

NATALIE JARESKO: Despite the fact that Ukraine has 10 times the population of Puerto Rico, or more, the two economies are about $100 billion each. The debt stack was very similar, $74 billion, $70 billion, each. So the size of the problem was very similar. The nature of the debt is very, very different.

Sovereign debt restructuring is a little more flexible, a little more dependent on the sovereign itself, whereas in Puerto Rico there are a wide variety of rules, regulations, and laws that need to be abided by in each of the debt restructurings. Puerto Rico is just more complex in the debt stack itself. There's secured debt, there's unsecured debt, and there are major differences with regard to priority.

MK: And they each had catastrophes: In Puerto Rico it was a hurricane, and in Ukraine there's the war.

NJ: Those added to the debt crisis. In the case of the war, 20 percent of GDP literally just went away. It was physically in the occupied territories, the 7 percent of the geography that was occupied. In Puerto Rico's case the entire electricity system goes down. It's a very, very weak fiscal situation then made a hundred times worse by war in Ukraine and a hurricane in Puerto Rico.

MK: Even if you take away Puerto Rico's debt and its pension obligations, it's still a structure that's faulty. For years they've borrowed to fill budget gaps.

NJ: That's the case in both. I would argue that that's the case in many of the other sovereigns as well, like Greece. So you have a fiscal set of challenges, which is the nature of your spending and the fact that you have access to debt and you never really make the difficult choices. Puerto Rico did that for a decade or more. Ukraine was doing that.

MK: You grew up in the Chicago area but lived most of your adult life in Ukraine. What was it like moving to a Caribbean island and living through Hurricane Maria?

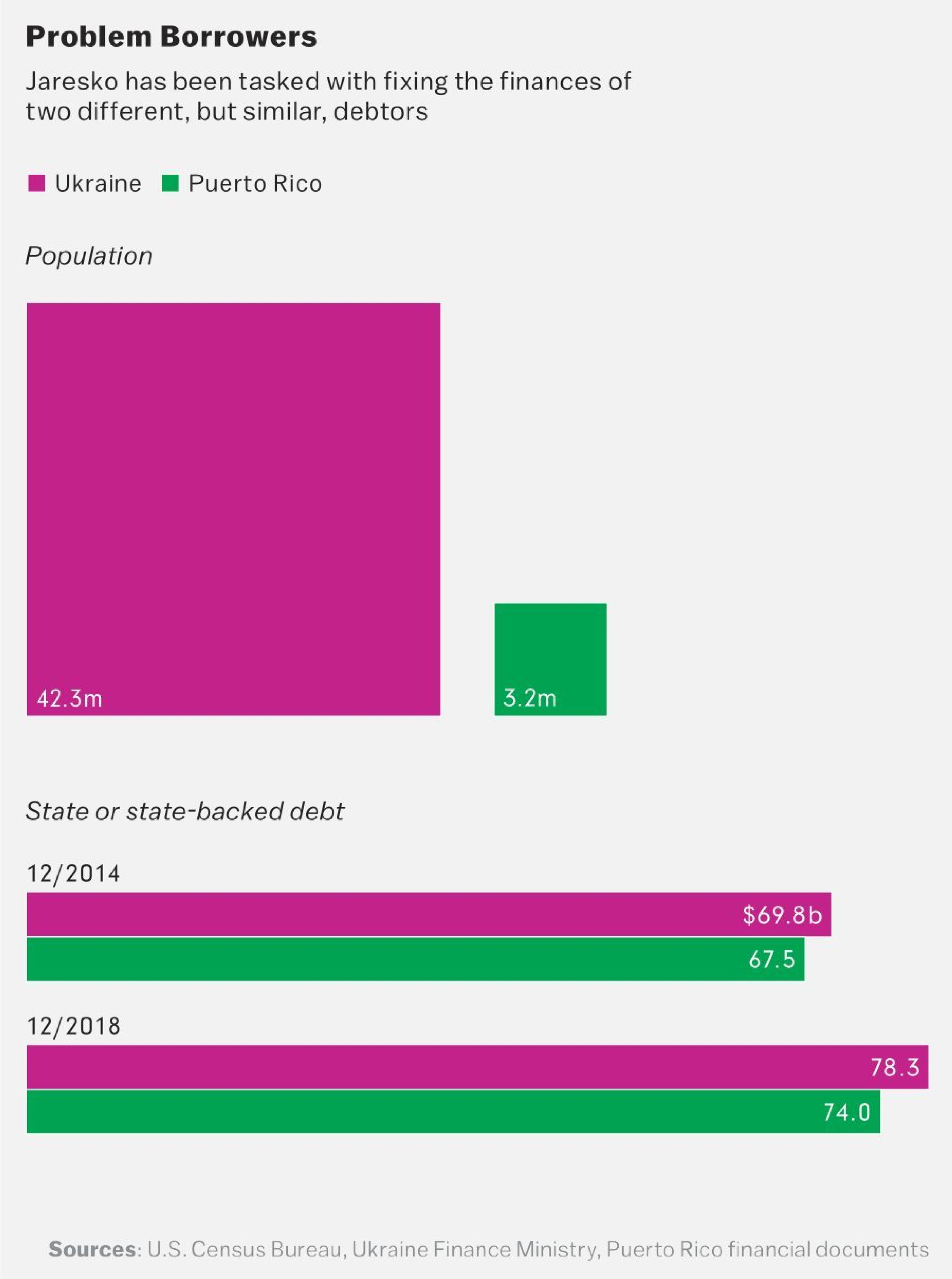
NJ: What drew me to Puerto Rico was the ability to use the skills and the experience that I had in Ukraine, having accomplished both the debt restructuring but also the fiscal rebalancing, even at a time of war when we had to spend more on national security.

I grew up as the child of immigrants that came out of the Soviet-World War II-Nazi experience and really had a great deal of confidence in the U.S. system. That you can come on a boat with nothing and work hard—both of my grandmothers were illiterate, signed their names with Xs—yet I went to Harvard graduate school. That story of being able to build a life, a middle-class life, and that the U.S. gave people that opportunity, at least at that time, really lingered with me. It's why I went to the Kennedy School of Government. I believed in JFK's "Ask not what your country can do for you but what you can do for your country." And I also believe that the model works, that a strong middle class is the pillar of democracy and the pillar of a strong budget.

MK: What are some of the lessons from Ukraine that could help Puerto Rico?

NJ: Don't waste a crisis. The political will to take difficult steps and to make change is most available when the political class feels that there's a crisis. The second big lesson is that you need champions. Each of these reforms is extremely difficult. You need someone

**"People get up and move.
Once you've lost the confidence of the population,
it's very hard to bring them back"**



to inspire and to infuse people with this sense of "we've got to do it now, there's no time to wait."

MK: Is anyone on the island doing that?

NJ: When you look at where we've come with the reform of the electricity sector, the Puerto Rico Electric Power Authority, I think Governor Ricardo Rosselló, Christian Sobrino [executive director of Puerto Rico's Fiscal Agency and Financial Advisory Authority], Omar Marrero [executive director of the island's Public-Private Partnerships Authority], and others at Prepa itself are infused with "this is a singular opportunity to do massive change in the electricity sector." We need more private-sector involvement. It's a big mind-change. A big societal change.

MK: Corruption is an issue for many places, including Ukraine. What about Puerto Rico?

NJ: It is a major issue in Ukraine. It is an issue in Puerto Rico. Ukraine still suffers from, unfortunately, a lack of rule of law and a court system that is not free and fair, therefore there's not a system of retribution for your actions. In Puerto Rico we have a court system and we have rule of law. What we have in Puerto Rico is a history of nontransparency in certain contracts. It's not unlike cities in the U.S. You don't have the same visibility with regard to how contracts come to be. What is the process for procurement?

MK: After restructuring $17.6 billion of Puerto Rico's sales-tax bonds in February, the focus now is on reducing $17.8 billion of general obligations and commonwealth-guaranteed debt. What are some of the challenges?

NJ: The challenges for the commonwealth debt will be assuring debt sustainability is maintained throughout this process. It's in no one's interest for Puerto Rico to be bankrupt or to face a default 7 years from now or 10 years from now. We've always approached it as a once-and-done debt restructuring. You also have a big issue with pensions, a $50 billion pension hole. That's another difference with Ukraine. Pensions were not looked at as debt in a sovereign situation but they are in a U.S. bankruptcy. It will be complex.

MK: The board earlier this year asked the court to declare debt sold in 2012 and 2014 as invalid, as it believes those bonds violated constitutional debt limits. How has that affected negotiations?

NJ: It makes it more complicated. Many holders hold some of each and so it's not like we have a clear division between them and the others. Many of them hold cross holdings in different vintages.

MK: How does Puerto Rico regain the market's trust?

NJ: The academic answer is to issue bonds that are well traded, well priced. To be able to provide timely and accurate financial data, including audits. The practical answer is that markets tend to trust actually too soon after restructurings, in my opinion. If liquidity is available in the marketplace, triple tax-exempt bonds will attract buyers. And so I'm not as worried about when can we issue new debt—although that is critical and part of our mandate. What I want is to be able to have access, to be rated to have access, but not necessarily to be borrowing more.

MK: Were the investors at fault for helping to create such a huge debt load?

NJ: You could argue both sides are responsible. In the case of Ukraine, there were no audits. In Puerto Rico, they were behind in their audits. Why didn't financial investors demand them before issuance? In Ukraine, corruption was a big issue for a long time, and everyone was well aware of it. In Puerto Rico, I think everyone was well aware of deficit spending. To some extent they all knew what they were buying.

MK: How should countries avoid piling on debt during economic downturns and becoming the next Ukraine or Puerto Rico or Greece?

NJ: The first thing is not to use debt as the sole solution. Debt used to cover operating expenses is always dangerous. Capital borrowings ought to be used primarily for capital investments, long-term investments that have an economic payback. The world is extraordinarily competitive. Businesses get up and move. People get up and move. Once you've lost the confidence of the population, it's very hard to bring them back.

MK: Does the island need federal tax breaks to come back to help the economy grow?

NJ: A tax system is most competitive if you have low rates, very simple administration. I tried to do a major tax reform in Ukraine, but only parts of it got adopted. Countries like Georgia, Estonia, Slovakia that moved to very, very low rates without the complications of deductions, preferences, privileges, and credits tend to be the easiest for doing business and the most competitive.

If the federal government goes ahead and restores some tax privileges, no one's going to say no to that. But I don't think we should rely on them, because we fail to develop the other parts of the economy, and over time it won't be enough. If you don't have a qualified, well-educated, well-suited labor force, there's a limit to what tax privileges will accomplish over time. ●

Kaske is a municipal-bond reporter for Bloomberg in New York who's been covering the Puerto Rico bankruptcy.

By
CHRISTOPHER ANSTEY,
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BONDS? YUM!

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FOOD STYLING BY
MICHELLE GATTON

Japan's **Ministry of Finance** went to the trouble of creating a cute little mascot to sell government bonds. But there's only one buyer that counts: The **Bank of Japan.** That's not about to change—despite rising criticism of current stimulus policies

IN THE LAND THAT gave us Hello Kitty, it's no surprise the Japanese government employs an endearing mascot to sell its bonds. His name is Kokusai-sensei. A pint-size rendition of him welcomes visitors to the investor relations office at the Ministry of Finance. Pudgy and professorial, he's got his own Twitter account and stars in an online *manga*.

Yet this whole publicity campaign seems rather unnecessary. There's just not much for Kokusai-sensei to do these days, thanks to the existence of a single, massive buyer of Japanese government bonds: the Bank of Japan. Why bother to encourage private investors to buy JGBs when the BOJ has been devouring enough of them to finance the bulk of the government budget deficit since Prime Minister Shinzo Abe took office in December 2012?

Japan's central bank has clamped a tight grip on the bond market in an effort to pull down borrowing costs and inject massive liquidity—all to propel the nation out of the deflation and stagnation that took hold in the 1990s. It's worked, up to a point. In recent years, BOJ Governor Haruhiko Kuroda's policy, backed by Abe, has helped boost growth and incomes in the world's third-largest economy.

But the negative side effects of the Abe-Kuroda strategy are starting to pile up as investors and lenders increasingly struggle to cope with zero interest rates. Rock-bottom rates help sustain unproductive companies by shielding them from market forces. They also diminish the capacity of weak banks to absorb losses, especially regional institutions without nationwide networks.

Kuroda, even as he presides over the most extreme phase of a two-decade monetary campaign, seems to recognize this. Sort of. "I would like to pay careful attention," he told Japan's parliament on Feb. 13. But then he reiterated his commitment to the current stimulus program: "I believe it is my duty to stably achieve our 2 percent price target by continuing monetary easing persistently."

The BOJ has a 43 percent share of the entire JGB market, compared with a Federal Reserve share of U.S. Treasuries of just 14 percent. Japan's policy enforces a yield curve that's incredibly flat, ranging from a negative 0.1 percent on some very short-term cash reserves to about zero percent for 10-year JGBs.

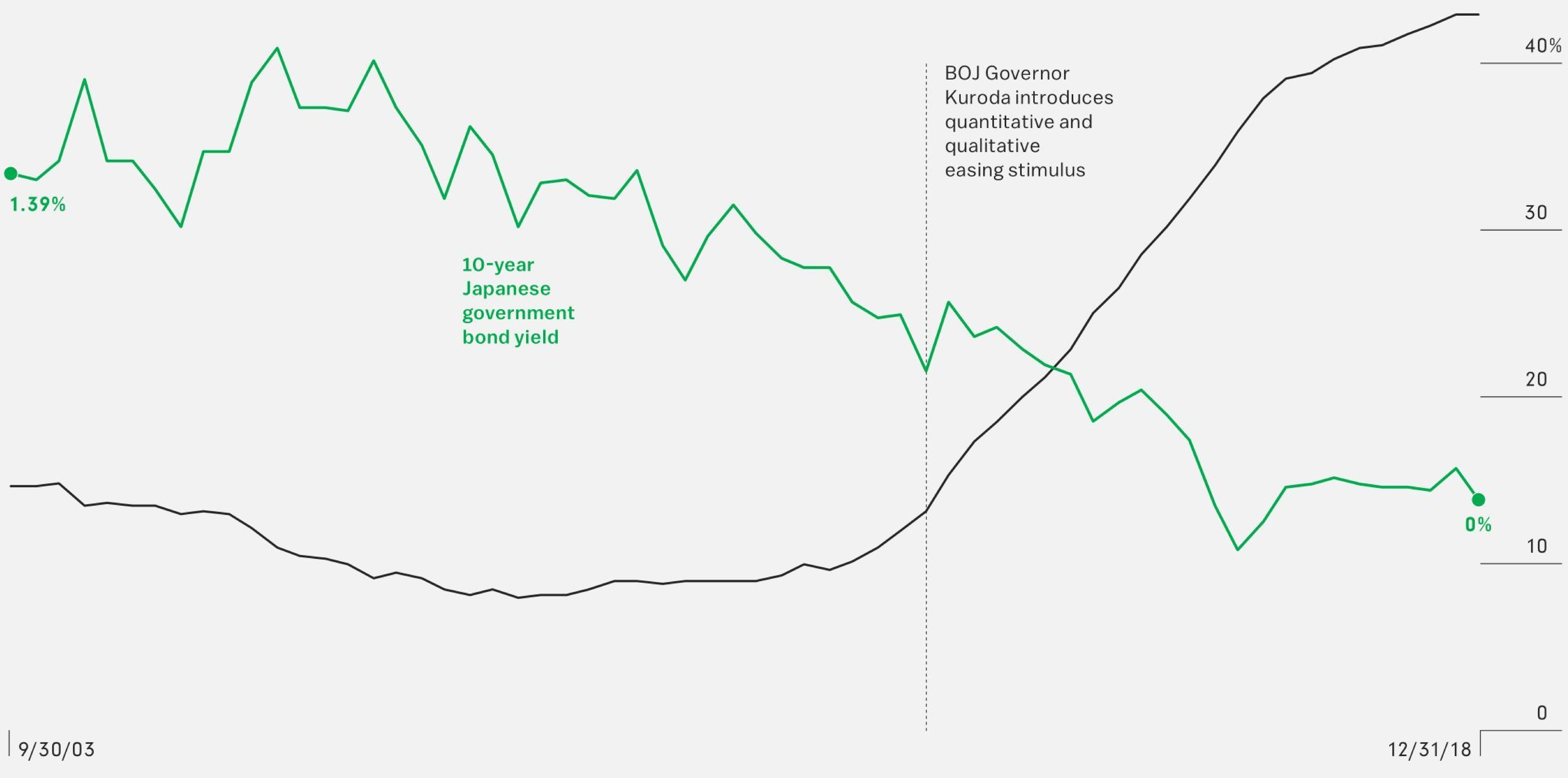
The market is starting to show signs of worry. "There are huge risks to the banks from these kinds of policies," says Heather Montgomery, an economics professor at International Christian University in Tokyo. Mizuho Financial Group Inc., Japan's third-largest bank, went overseas to look for assets with higher returns. It didn't go well. In its quarterly earnings announcement on March 6, Mizuho disclosed 150 billion yen ($1.4 billion) in losses on overseas bonds.

Other analysts and practitioners agonize over the notion that the BOJ has neutered the bond vigilantes who are supposed to safeguard the economy when governments and central banks act irresponsibly. If the central bank has a monopoly on JGB purchases, the bond market can't punish the government for running up the world's largest public debt load—more than 230 percent of gross domestic product—or force politicians to pare back borrowing. "For fiscal policy to be properly implemented, we need market discipline to fully function," says Kazumasa Oguro, a Hosei University economics professor who previously worked at the Ministry of Finance. "But because the BOJ is flattening yields, that function is constrained."

Japan's policies are a kind of in vivo experiment for other advanced economies that only more recently began to confront

Japan's Central Bank Pushes Others Out of the Bond Market

BOJ's share of Japanese government bonds outstanding



Sources: {JGBHCBRT Index}, {GJGB10 Index}

“We need market discipline to fully function. But because the BOJ is flattening yields, that function is constrained”

deflation and an aging, shrinking population. So the rising voices of concern about its unorthodox remedies could hold lessons for policymakers considering prolonged asset-purchase programs in any future downturn.

■■

BOND 350 began life in March 2018 as a 10-year JGB, the benchmark for long-term borrowing costs in Japan. It's a direct descendant of Bond 1, which was sold in 1972. As of Feb. 20, the BOJ owned 88 percent of the 10 trillion yen of Bond 350 outstanding. It's likely other public Japanese institutions—such as Japan Post Holdings Co., the country's second-largest holder of deposits—own slivers of the remainder of Bond 350. Those stakes aren't disclosed, but those investors typically hold such bonds for regulatory reasons. That leaves precious little for other investors.

Montgomery has been observing the financial and economic challenges for more than two decades. During a 1997 internship at Long-Term Credit Bank of Japan, she was surprised to find the state-backed lender embroiled in a battle with bad loans. LTCB, which collapsed the following year, was symptomatic of Japan's financial and economic demise, which forced the BOJ into unprecedented action. It drove interest rates down to zero and after that provided liquidity by buying assets.

With little progress to show by 2013, when Kuroda took the helm, the central bank doubled down. Literally. The gamble was to double the supply of money in two years through bond purchases, generating an inflationary jolt that would set the economy on a sustained and faster path of growth.

“It is too bad they didn't do it more aggressively, earlier,” Montgomery says. After all, Japan had been more forceful in the past. In November 1932, legendary Finance Minister Korekiyo Takahashi oversaw sales of government bonds to the BOJ to boost liquidity and pull the economy out of the Great Depression. Which it did—years before President Franklin D. Roosevelt oversaw reflationary policies in the U.S.

Takahashi's experiment ended badly despite its early success. Once the economy was on the mend, he attempted to restore fiscal discipline. But the country's ascendant military was determined to keep boosting BOJ-financed spending. Extremist officers assassinated him.

After World War II, the BOJ was banned from buying JGBs directly, except in extraordinary circumstances and with parliamentary approval. That's because some economists regard direct purchases as debt “monetization,” which could undermine confidence in the stability of the yen. Today the BOJ buys bonds only in the secondary market, not directly from the Ministry of Finance.

Even so, it doesn't wait long. By the end of the first month of Bond 350's existence, the central bank had consumed 11 percent of the amount outstanding. By late May 2018, it had taken up about half—another step toward completing its mission.

■■

OVER THE COURSE of three decades, Susumu Kato has been watching the bond market up close. Now a consultant, he's held roles including chief Japan fixed-income strategist at the former Lehman Brothers and chief Japan economist at Goldman Sachs Group Inc. With ►

the BOJ hoovering up so much of the government's new issuance over the past several years, he says, bond dealers have been left with little to do. "They just go to the JGB auction and bid as the primary dealers are required to do, and then turn around and sell to the BOJ," he says.

Kato says some of his bond-dealer contacts have lost their jobs because of diminished volatility. There's just not that much demand anymore for experienced, highly compensated dealers who can arbitrage anomalies across the yield curve and trade futures and interest-rate derivatives.

Since long before Kuroda became governor, traders have griped about the BOJ big-footing the market. But the noise level soared as Kuroda boosted bond purchases to an annual target of 80 trillion yen a year. As the industry has repeatedly made clear in meetings with the central bank, according to minutes of those sessions, nothing seemed to matter anymore: Whether the economy was strong or weak, whether stocks were tumbling or soaring—these factors have had little bearing on Japan's bond market. Economic indicators can come in hot or cold; yields won't move. The so-called price discovery function has been lost.

By last year, Kuroda himself was expressing concerns about the moribund state of trading. "It has been pointed out that with a great narrowing of long-term yield movements, trade volumes are in a declining trend," he said in July. He made those remarks after the BOJ board agreed to allow 10-year bond yields to fluctuate as much as 20 basis points either side of its targeted zero percent rate. The move, he said, "will improve the flexibility of yield price formation and ease some of the effects on market functioning."

The central bank has also dramatically slowed the pace of its bond purchases, nowadays focusing on just keeping yields within their target zone. Partly because of its mammoth buying in the past, it doesn't take much of an effort to prevent yields from rising. The annual pace of purchases was running at about 25 trillion yen as of mid-February, much less than half the official objective.

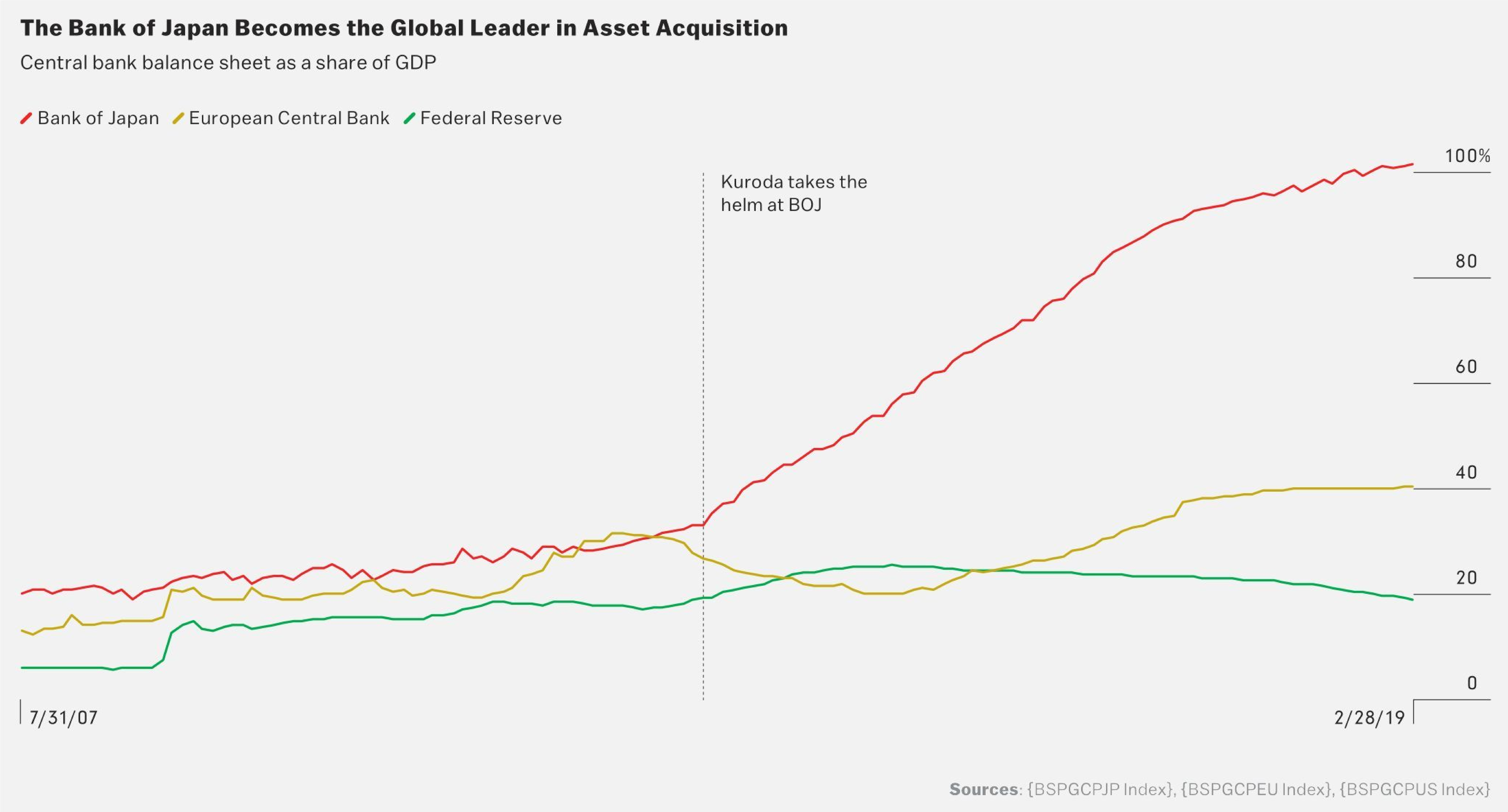
Even so, trading volumes remain subdued. In 2017, according to minutes of one meeting with the BOJ, industry representatives said that unless things changed, a large share of players will be so young that they will "have never seen the JGB market being volatile." Even after the 2018 adjustments, a group of more than 60 market participants warned, some market orders just couldn't be executed. Kato, the ex-Goldman economist, says the lack of veteran dealers and depressed trading volumes mean there would be "huge turmoil" if the bank ever shifted to tighten policy.

■■

ONE TRADER who saw the writing on the wall was Xinyi Lu. Originally from China, he studied in Japan in the 1980s. In 1994, drawing on his advanced studies in options pricing at the University of Chicago, he jumped into the Japanese bond market with a job at Credit Suisse First Boston. Back then, 10-year JGBs yielded substantially more than those with shorter terms, and Lu would devise trading strategies by analyzing the structure of the yield curve. "People were very dynamic and took on risk," he says.

By 1999 he reckoned he needed to switch focus. Amid deepening financial and economic woes, the central bank had

"We'll see a lot of problems with the regional banks—maybe something extreme like failures"



lowered its benchmark rate to near zero. Believing the policy "would continue forever," Lu concluded that Japanese companies just didn't have the appetite to ramp up borrowing as they once had. The JGB market, he remembers thinking, "was dead, and there was no chance for it to come back."

By the following year, he'd moved on to a job at Tokai Bank, focusing more on U.S. Treasuries. Despite all the misgivings about today's policies, Lu says the example of the 1930s failure to cut off BOJ funding of the national debt still looms large, and he predicts that the stimulus will be similarly difficult to curtail because of political pressure.

Montgomery, who's held visiting research positions at the BOJ and the Federal Reserve, worries about more than the upending of the bond industry. She and Ulrich Volz, an economist at SOAS University of London, sifted through 15 years of data from more than 100 banks before concluding in a paper presented to the American Economic Association annual meeting in January that prolonged BOJ stimulus has had only a "quantitatively small" impact on boosting bank lending. Worse, they reported, "the lending stimulated by providing banks with higher liquidity was mostly lending by sick, undercapitalized banks."

In time, Montgomery says, there will be consolidation among smaller lenders. "We'll see a lot of problems with the regional banks—maybe something extreme like failures, maybe mergers where healthier banks are pressured or encouraged" to take on their debilitated counterparts. Japan's Financial Services Agency is increasingly concerned; it's stepping up scrutiny of regional banks and plans stress tests as soon as this summer.

In addition, says Shigeto Nagai, who previously worked at the central bank and is now head of Japan economics at the research group Oxford Economics, "extremely low interest rates have contributed to the low rate of metabolism among businesses. Unprofitable companies have survived and are dragging each other down by causing stiff competition on prices."

What's more, wafer-thin returns have forced big investment funds to look outside of Japan. Japan Post, the big nationwide lender that likely owns a slice of Bond 350, has seen its holdings of JGBs tumble by 95 trillion yen from 2009 to 2018, according to records compiled by Michael Makdad, a Morningstar Inc. analyst in Tokyo; by contrast, the value of Japan Post's stockpile of foreign bonds soared to 62 trillion yen from just 1 trillion yen during that period, even though those bonds incur foreign exchange risk unless the bank hedges its bets.

Japan's Government Pension Investment Fund, the world's largest investor of its type, has also moved decisively away from JGBs since Abe took office and ushered in reflationary policies. Against this backdrop, it's only natural that giant national banks such as Mizuho and Mitsubishi UFJ Financial Group Inc. would venture overseas in search of assets with higher returns. "These challenges for Japanese banks are structural and will continue as long as interest rates remain near zero," Moody's Investors Service Inc. said after the Mizuho mishap.

But don't look for the stimulus policy to change anytime soon, says Makdad, who previously worked at Moody's: "The bottom line is that the current situation can go on for a long time—as long as the global economy continues to expand marginally." If the BOJ continues to buy bonds at the pace it did during the early months of this year, he says, it can probably keep the purchases going for another nine or 10 years, barring some major external shock. In the meantime, Kokusai-sensei will grow older and wiser, but he's not likely to have much to do unless he's tasked with a new challenge—like encouraging strong companies to invest more at home. ●

Anstey is managing editor for Asia cross assets at Bloomberg in Tokyo. Takeo and Fujioka cover the Japanese economy in Tokyo.

GHOST

It’s been a decade since a property crash laid waste to the Irish economy, crippling banks and littering the landscape with unsold

By NEIL CALLANAN
PHOTOGRAPH BY AIDAN CRAWLEY

STORIES

or abandoned housing developments. A *Bloomberg Markets* writer returns to his homeland to see if it could happen again

IT WAS THE TIE that gave it away. I was near the headquarters of Anglo Irish Bank in 2008 when I bumped into Paddy Kelly, one of Ireland's biggest developers, and his son Simon. The Irish property market was in meltdown, but it wasn't clear yet that we were heading into Western Europe's biggest real estate crash.

"Things must be bad if you're wearing a tie," I joked to Paddy, who was famous for avoiding them.

"We're f---ed," Simon said, his typically blunt reply.

The Kellys had just been to Anglo to get an extra credit line. In the space of 12 months, their Redquartz group saw net assets of €300 million ($341 million) become net debts of €200 million. Their fate was emblematic of Ireland's. The crash toppled the economy into recession and led to a €67.5 billion bailout by the International Monetary Fund and the European Union.

And that was just the beginning of the story.

It's been 10 years since the Irish government nationalized now-defunct Anglo, the bank of choice for Irish developers such as the Kellys because of the speed and laxity with which it handed out money. I've been catching up with some of the most prominent players in the property industry collapse to find out whether another one could happen. The answer is yes. What's more, the culprit is soaring residential land prices, which were a cause the last time around, leaving half-completed housing developments dotted across the country like tombstones.

Paddy and Simon were the first people I met on my journey. On the plane over from London, I'd seen an ad in an in-flight magazine for the sale of Clonmore, the family home. Paddy had built the six-bedroom house, with its pond and flood-lit tennis court, on Dublin's priciest street, Shrewsbury Road. With the market imploding, Paddy rented it to the Chinese ambassador. Now he was asking €10 million for it. Only one serious bidder came forward, and Clonmore sold for almost 20 percent below that in December.

Ten years after Paddy told the courts he was effectively bankrupt, the Kelly family is still working out their loans. They were the first of Ireland's major developers to admit they'd lost everything.

"The party ended at midnight, and now it's 2 a.m. and there are still some stragglers hanging around"

Instead of taking cash off the table during the boom, they'd reinvested the profits: a hotel at Sawgrass Golf Resort & Spa in Florida; Dublin office buildings (since leased to companies including Amazon.com Inc.); the former athletes' village for the 2006 Turin Winter Olympics (now a Club Med ski resort). They lost them all.

"We totally bought into Ireland's growth story," Simon says. In Dublin, sleek bars and restaurants proliferated. Helicopters, yachts, mansions in Spain—these became almost everyday accouterments to the lifestyles of the rich and Irish. "That's why we didn't get out. You believe the local narrative, and then the story whips you in the ass." As the economy buckled, Simon ended up writing a newspaper column for me at Ireland's *Sunday Tribune* in which he apologized for the "damage" the developers had caused.

Paddy is a serious believer in reincarnation. Which is good, because he says he's ready to start again. The family's debts are now owed to U.S. real estate investment group Colony Capital, and he'd like to see if he and Colony can build a business together. Buying residential land won't be on the agenda, though; instead, he was considering shorting Irish homebuilder stocks because of the eye-watering prices the companies have been paying for land. "You have to get your timing right," he says. "The property market quickly becomes sour bread." He switches metaphors, clinging to hope: "The party ended at midnight, and now it's 2 a.m. and there are still some stragglers hanging around."

■■

FROM THE EARLY 1990s through the early 2000s, rapid economic growth, propelled by an influx of tech companies and a burgeoning young workforce, changed Ireland from a grim place of emigration to one of immigration and virtually full employment. A property boom followed: The country's population rose almost 20 percent in the decade through 2008, boosting demand for homes, stores, and offices. Successive governments used taxes from property sales to fund long-term spending, much of which went into wage increases that, in turn, were plowed into ever more expensive real estate.

Ireland became addicted to construction, which made up a quarter of gross domestic product in 2007, so when the bubble popped, the economy sank like a stone. From 2007 to 2010, unemployment trebled, to 15 percent; home prices fell by almost half.

When you're looking for a bubble in property markets, you keep an eye on land prices. They're based on "hope value." The amount of money developers bid is based on what they think the homes will sell for when they're built. That speculation was at the root of Ireland's property crisis. In the two years through June 2007, land prices in Dublin's high-end Ballsbridge neighborhood rose as much as 150 percent. When the bust came, land values plummeted more than 90 percent in some cases, because nobody wanted to risk building homes in a downturn. Most of the developers who spent big money on land in Ballsbridge lost control of it, and it sat idle for years.

So it's no wonder nerves started jangling again a few years ago. Thanks to a weak euro and expansion by tech companies such as Facebook Inc. and Alphabet Inc. that were attracted to Ireland's favorable tax regime, the economy began recovering in 2013. Ever since, home values have been roaring back as if the last crash never happened. House prices rose almost 80 percent between their trough in 2013 and the middle of last year, according to government statistics. There's been a corresponding surge in urban land prices: Despite the eerie presence of hundreds of unsold or abandoned "ghost estates" dotting the Irish countryside, shortages of homes in cities such as Dublin or Cork have spurred demand for land on which to build rental housing.

This worries Brendan McDonagh. He's the head of the National Asset Management Agency, the so-called bad bank created by the government to work out property loans that aren't being paid back. When NAMA put up land for sale last year, he says, it received bids that were in some cases 60 percent higher than expected. "Land values are stratospheric," he says. "But good luck to the people who bought it, because they will have to work hard with that land to generate a return."

McDonagh—former director of finance, technology, and risk at the National Treasury Management Agency, the government's debt office—should know. In May 2009 he was on loan to the Department of Finance, working on bank bailouts, when he took a call from then-Minister for Finance Brian Lenihan, who asked him to head up NAMA. "I asked him if I had a choice," McDonagh says. "And he said no."

NAMA took on 11,500 property-related loans from five crippled Irish banks, including Anglo, in an effort to clean up their balance sheets and get them lending to the "real" economy again. Was a soft-spoken civil servant like McDonagh the natural person to do this? "Personally, I would have probably had thought not," he says. But he had plenty going for him: "I had no link to the construction industry. So, you know, you get on with the job. Somebody's got to do it, and the country was in a hard place."

McDonagh also understands credit, and he's scathing about the corporate governance and lending standards that passed for rigor at Irish lenders before the crash. "Everyone was championing the banks and so proud of them," he says. "It was all a fiction. Nobody was looking after the housekeeping, including the regulators at the time."

By 2005, Irish bank assets exceeded GDP. Two years later, Anglo's assets hit €97 billion, having increased 22-fold since 1998. The disproportionate size of the banking industry in a country with a population of 4.5 million at the time meant that during the financial crisis Ireland was disproportionately clobbered compared with other countries. "But then Ireland was the bravest in terms of being one of the first countries to sit down and tackle the problem," says McDonagh. "If you look at other countries that had banking problems, some of them still haven't resolved them."

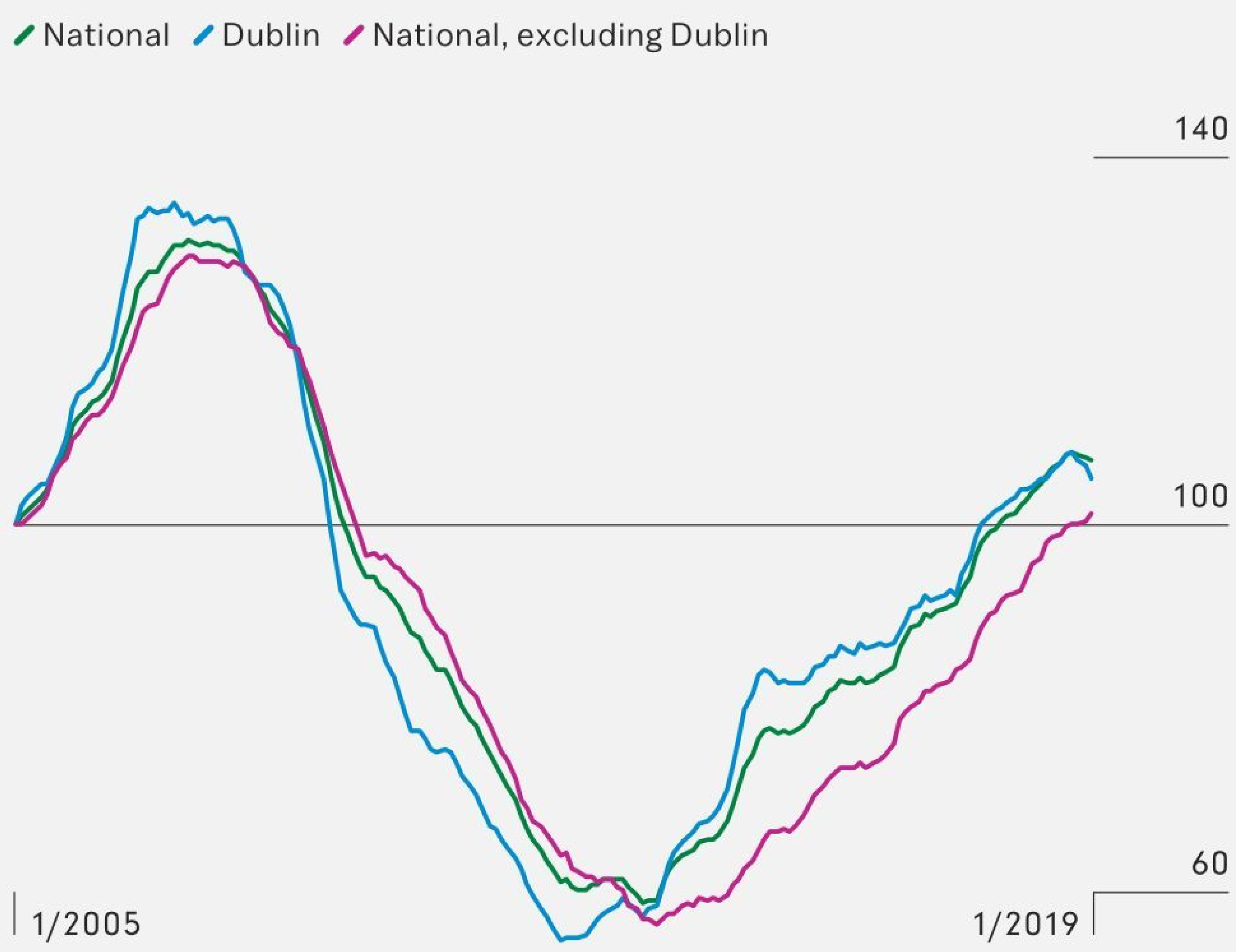
At the height of the crisis, McDonagh says, "the country was febrile." He basically stopped socializing for a year and a half, weary of being lambasted about the state of the economy by people when he went to the pub. "I often had to remind myself that you can't take it personally," he says. "But of course you do."

■■

PAT GUNNE and I are catching up in an office building a short walk from London's Berkeley Square. All around us are private equity firms and hedge funds that made billions of euros buying distressed properties in Ireland. Gunne—in town for business, as he often is—is chief executive officer of Green REIT Ltd., a Dublin-based real estate investment trust with properties worth €1.5 billion in its portfolio, including Barclays Plc's EU headquarters in Dublin.

Is It Time to Worry?

Ireland Residential Property Price Index*



*January 2005 = 100

Source: Ireland's Central Statistics Office

Gunne emerged as one of the property downturn's winners, but he had his struggles along the way. Always a private person, he visibly winces when asked to discuss his personal experiences of the crash. The loan-to-value ratio of the mortgage on a home he bought in 2006 rose from 50 percent to 200 percent as prices collapsed. Then, when the bubble burst, so did his idea to set up a real estate-focused investment fund. "The level of value decline took us all by surprise," he says.

And yet Gunne spotted an opportunity. He started by setting up a venture with Stephen Vernon, one of the few developers who sold off assets before the crash, to manage troubled loans and assets on behalf of the banks. The company, Green Property Ventures, ended up overseeing about €7.5 billion of assets in partnerships with Irish and U.K. banks and U.S. private equity groups. Green REIT was born after the government introduced legislation allowing the creation of real estate investment trusts.

The property crash. The financial crisis. And now Brexit, which is certain to have an adverse effect on Ireland as the U.K., its largest trading partner, works out what its commercial arrangements are going to be with the rest of the world. As part of a small island on the edge of Europe, the republic doesn't have much choice when it comes to charting a future economic course. "Ireland," says Gunne, "has to be open because it's incredibly over-reliant on foreign direct investment and inward talent migration."

Looking back at the bubble across a decade of uneasy times, Gunne found it surprising how "very poor" risk controls were at some property companies that held assets valued in the billions of euros before the crash. "Hindsight's a wonderful thing, and I've made my own screw-ups," he says, "but you learn from your mistakes. There is still opportunity, but, when you step back from it, rents are high, yields are low." Which means one thing: "It's a time to be very focused on risk management." ●

Callanan is bureau chief at Bloomberg in London.

THE MAN WHO BET ON CHINESE DEBT

By CARRIE HONG
and CHRISTOPHER ANSTEY

When Chen Yang was fresh out of university, China's government rarely failed to protect lenders and borrowers. Today, Beijing is allowing the bond market to grow up, forcing Chen and others like him to become experts in credit analysis

PHOTOGRAPH BY XYZA CRUZ BACANI

IT WAS 2007, and China's economy was expanding at a blistering 14 percent a year. At Nanjing University in eastern China, Chen Yang, a finance major, was a year away from graduation. Most of his classmates were streaming into banks and brokerages to take jobs tied to a stock market that was on fire. But at a campus recruitment presentation, an American fixed-income trader pointed Chen in a different direction: bonds.

He took the advice—and went on to ride a wave of debt growth that's proved far bigger than he'd anticipated. From the equivalent of $1.7 trillion at the end of 2007, China's bond market surged toward $13 trillion by the end of last year.

Now 37, Chen heads fixed-income investment at Shanghai Securities Co. "During the first few years of my trading career," he says, "I would need my boss's permission to do a trade over 30 million yuan [$4.5 million]. Now we very often do transactions of hundreds of millions of yuan."

The boom in demand for borrowing came from all quarters, including state-owned enterprises, government authorities, and private-sector companies. And along the way, foreign investors have piled in: Since mid-2015 policymakers have steadily lowered barriers to entry in an effort to relieve pressure on the yuan's exchange rate caused by wealthy Chinese moving money out of the country.

Recently the market has been hit by record defaults, which are starting to reshape how debt is priced. In developed nations, it's taken for granted that borrowers pay different rates based on their creditworthiness. In China, there was for years an implicit government guarantee on almost all borrowing, lest corporate failures trigger social unrest and endanger the stability of the whole system.

A decade ago bets on bonds were therefore bets on macroeconomics in China. If you thought the central bank was going to raise interest rates, you demanded higher yields and vice versa. Now, when it comes to corporate bonds, Chen says, "We really need to dig deep to reveal individual credit risks."

The problem with the old template was massive moral hazard. After China unleashed a record wave of credit in late 2008 to combat the impact of the global crisis, policymakers grew alarmed at capital flowing to projects that proved to be of little economic use.

The shift in their attitudes became apparent over time, with a limited number of defaults starting in 2014. The authorities imposed increasingly stringent guidelines for the shadow banking industry. In 2018 borrowers reneged on a record 119.6 billion yuan—more than quadruple the tally for the previous year.

Unproductive, old-line industrial borrowers such as Dongbei Special Steel Group Co. have been among the casualties. Dongbei struggled in an industry hit by overcapacity and China's slowing growth. The company started defaulting on a series of bonds in March 2016, not long after its chairman was found dead by hanging. The following year, when Dongbei agreed to a workout plan with creditors, it became the first Chinese company to make a deal to reduce principal owed. The haircut: up to 78 percent.

Dongbei was just one of dozens of companies to default on debts as President Xi Jinping and his government championed a reduction in leverage across the economy. When China's regulators issued a joint statement in December calling for expedited debt disposals among so-called zombie borrowers, it was clear the campaign was far from over. Even so, it came as a surprise in February when Qinghai Provincial Investment Group Co., an aluminum producer, failed to make a coupon payment on a dollar bond on time despite being solidly backed by local authorities.

The message: Get ready for more stress this year.

■■

AFTER UNIVERSITY, Chen figured joining a local company rather than a foreign bank would afford him greater opportunities for growth. He started out as one of four fixed-income traders at Bank of Communications Co., one of China's big state-owned lenders.

Those were the days of near-universal government guarantees. Change came slowly. Even today, local and central government officials sometimes go out of their way to help some borrowers avoid default. But increasingly investors are on the hook. "This is for real," Chen says. "It's not just mark-to-market losses, which you can probably mark back up later. It is a cut in your investment principal."

Chen's office at Shanghai Securities, which has about 40 billion yuan under management, isn't far from the Bund district that dates to the turn of the 20th century, when Shanghai was China's main financial hub. Chen and the firm have both had to adapt to the new realities of the bond business. Some of the time he once spent trading is now devoted to assessing risk. "I also need to travel to visit some of the companies, to do due diligence myself," he says.

In another market, a strong credit ratings industry might support the risk analysis done by Chen and his team. Yet the ratings put out by the handful of major local companies bear little resemblance to those in developed markets: More than 40 percent of domestic corporate bonds are rated AAA by the top four local companies, compared with just 2 percent in the U.S., according to data compiled by Bloomberg as of Feb. 13.

Take the case of China Minsheng Investment Group, one of the country's largest private-sector borrowers. The group, whose interests span real estate to renewable energy, failed to make payments to bondholders at the start of February. Shanghai Brilliance Credit Rating & Investors Service Co. had the group's bonds at AAA before the missed payment—and kept them there after China Minsheng entered talks with creditors to maintain solvency, according to local reports. (Shanghai Brilliance declined to comment on the rating.)

So it's no surprise that many investors do their own analysis—just as international fund managers do their own work to supplement the research from the three major global ratings companies, which have their own records of fallibility. Chen's firm hired its first dedicated credit analyst in 2017, added another last year, and recruited two more in January. He says the goal is to hire a fifth analyst by yearend. Shanghai Securities also introduced a new risk management system. Now, Chen says, "even if my fixed-income department is OK with taking the risk of buying certain issuers' bonds, if it's not good enough for the firm's risk assessment, we won't be able to invest."

In this environment, defaults can exercise a healthy constraint on bond issuers and investors alike, People's Bank of China Deputy Governor Pan Gongsheng said at an investment forum in Beijing in January. "These things are good for the long-term and healthy development of China's bond market," he said.

The idea of bond vigilantes (as they're known in other markets) imposing discipline on profligate borrowers appeals to Chen. "Rising defaults among privately owned enterprises are a reflection of the market vigilante," he says.

In that spirit, the government in 2017 said it would allow foreign credit-rating companies to establish wholly owned units on the mainland. S&P Global Ratings got the regulatory go-ahead at the start of the year and had hired 30 analysts for its Beijing office by late January.

But how effective will the foreign competition be? Local authorities have a history of pulling out the stops to aid distressed corporate debtors deemed important to the economy. It's hard to imagine they'd put up with a foreign ratings company downgrade that could make refinancing difficult for a troubled borrower.

"Before 2018, we never thought of issuing bonds as a difficult task, particularly for industry leaders like us"

Still, Simon Jin, chief executive officer of S&P's new China unit, told Bloomberg News in February that "there is genuine demand for objective and reliable ratings in China" and that his firm plans to adhere to "the same standards of transparency and independent analysis as we do anywhere else in the world." At the same time, Jin says the company is tailoring its ratings scale to the local market. S&P doesn't plan to spell out how that scale would compare with those in developed markets.

It will take time for S&P and its competitors to get established in China, says Jean-Charles Sambor, the London-based deputy head of emerging-market fixed income at BNP Paribas Asset Management. If they go into China, he says, the major international ratings companies may find it difficult to analyze the finances of borrowers when they don't know what kind of state support those borrowers might get. So for money managers, he says, "there is no other solution than doing our own credit research."

Foreign investment in China's bond market, which comes mostly from central banks and sovereign wealth funds, has swelled from $63 billion at the start of 2014 to roughly $260 billion in January, making up a little more than 2 percent of the market. Overseas funds have stuck mainly to government bonds and securities sold by three so-called policy banks (state-owned lenders that carry out central government objectives); those categories made up more than 83 percent of their holdings of Chinese domestic debt as of January.

Private-sector institutional investors have been more wary. A test of their appetite looms, with the inclusion of Chinese bonds in global indexes followed by fund managers. The first major world benchmark to add China is the Bloomberg Barclays Global Aggregate Index, scheduled to begin in April, with an initial focus on government and policy bank bonds. (Bloomberg LP, which operates the index, is the parent of *Bloomberg Markets*.)

Foreign investors who venture beyond that, into credit, will need to grapple with idiosyncrasies that, as in any emerging market, are quite unlike those in developed markets. Because China's financial system has been dominated for so long by the state sector, private companies often have gotten creative to secure funding. Their workarounds, including cross guarantees and issuers buying their own bonds, haven't always been clear to investors.

Meanwhile, China's economic slowdown and the deleveraging campaign have made it more difficult for private companies to get funding. Such was the case last year for Beijing OriginWater Technology Co., which specializes in wastewater treatment and related technologies. "Before 2018," says Chief Financial Officer Kan Wei, "we never thought of issuing bonds as a difficult task, particularly for industry leaders like us."

Yet last year OriginWater sat on the sidelines for months waiting to tap the bond market at a reasonable cost. It finally managed to do so in November, after it got a hand from a local PBOC branch, which worked with underwriters to attach an insurance warrant to the bonds. OriginWater got another boost in January, when a state-owned investment group agreed to take a stake in the company.

As market discipline takes root, however tentatively, in the Chinese bond landscape, Chen tries to strike a balance between the demands of business and his outside interests. He says he enjoys reading books on world history (Neil MacGregor's *A History of the World in 100 Objects*) and philosophy (Ray Monk's *Ludwig Wittgenstein: The Duty of Genius*). His success in bonds has afforded him plenty of international travel: He says he's visited more than 40 countries since 2008. A particular interest is Roman ruins, and he's ventured from Northern England to the Middle East to view them.

Perhaps he would have made more money if he'd gone into stocks, he says, but then he slips into the sort of language that makes it plain where his heart is: "I couldn't have known the dynamics across assets better if I'd picked the other path. I'm glad about that." ● *—With Yuling Yang, Charlie Zhu, Lianting Tu, and Yinan Zhao*

Hong is a China credit reporter at Bloomberg in Hong Kong. Anstey is managing editor for Asia cross assets at Bloomberg in Tokyo.

Tidjane Thiam

The chief executive officer of Credit Suisse Group AG since 2015 was the subject of our cover Q&A in the September / October 2016 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?
Between five and six.

Are you a morning or evening person?
Evening. But I have always had jobs where I have to start early.

What's your typical workout?
Rowing every other day.

What's your favorite sport or sports team?
Sadly, Arsenal Football Club.

Which app is in heavy rotation on your phone?
Apple News. It's fantastic.

What's your go-to lunch spot?
An Italian restaurant in Zurich.

What's the best book you've read recently?
Grant by Ron Chernow.

Printed book, e-book, or audiobook?
E-book.

What's your favorite place to go on vacation?
Florida, by the seaside. I love the sea and going out on it.

Do you have a strategy for fighting jet lag?
Drink a lot of water. Set your watch to your destination time zone on takeoff.

What living or historical person do you truly admire?
How about a few? Abraham Lincoln, Nelson Mandela, Louis Pasteur.

What's the last thing that made you laugh?
A GIF one of my sons sent me. He is brilliant at finding to-the-point hysterical ones.

What's the best advice you've gotten?
A professor gave me this advice: "Work hard to always raise your minimum. Your long-term potential is more determined by how low you can go than by how high you can go." In other words, what we do when everything is going against us matters very much.

If you were 20, what business would you get into?
Biotechnology, life sciences—they have the capacity to change our collective future.

Do you ever expect to retire?
I hope not to.

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FEATURED IN THIS ISSUE

NEW ENHANCEMENTS TO TRY RIGHT NOW

FIW Fixed Income Worksheet, which lets you compare pricing, performance, and liquidity across lists of as many as 20,000 bonds, has been enhanced with some features for analyzing contingent convertibles, or CoCos. Run {FIW <GO>}. Click on the Worksheet button on the red toolbar, select Switch Worksheets, and click on EUR G-SIB CoCos for a new template that loads with the bonds in the Bloomberg Barclays EURO Banks CoCo Index. CoCos, bonds issued by banks to meet Basel III capital requirements, are designed to shift losses to investors in the event of stress. They convert to equity or are written down if the issuing bank hits a trigger such as dropping below a certain capital ratio. For CoCo-specific metrics, such as trigger levels, click on the Bond List tab and then the Pricing subtab.

QMGR Quotes Manager, which aggregates your pricing and liquidity, now lets you view current axes for securities that are similar to the bond you're analyzing.

TSOX You can add a new Alert (Axe) column to your staging blotter in the Fixed Income Execution Management function so you can find counterparties who are motivated to trade.

WFOR The Weather Forecasts function has been expanding to enable you to find weather forecasts for countries and regions around the globe. Go to {WFOR <GO>} and click on the Browse button on the red toolbar for a menu of regions that lets you drill down to the location that interests you.

MLRT Market Alerts has been enhanced to make it easier to create and share alerts that will notify you when the difference between two securities' prices or yields crosses a specified level.

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April/May 2019, volume 28, issue 2, BLOOMBERG MARKETS (ISSN 1531-5061) (USPS 008-897) is published six times a year with issues in March, May, July, September, November and December by Bloomberg Finance L.P., 731 Lexington Avenue, New York, NY 10022, and distributed free to subscribers of the BLOOMBERG PROFESSIONAL service. POSTMASTER: Send address changes to Circulation, BLOOMBERG MARKETS, P.O. Box 1583, New York, NY 10150-1583. Periodicals postage paid in New York and at additional mailing offices.

Credit Monitor

By JOE WEISENTHAL

DRAM <GO>

WHEN PEOPLE think about possible causes of the next big downturn or bout of financial instability, a frequent source of concern is corporate credit. Household finances have improved quite a bit since the financial crisis. Banks appear to be in a better position than they were. And demand for government debt around the world is voracious. Corporations, however, have levered up significantly amid the long bull run in risky assets.

So how can an investor spot the weak links and the opportunities? {DRAM <GO>} is Bloomberg's Default Risk Monitor, a dashboard that makes it possible to examine thousands of companies and rank them by risk of default, as measured by the terminal's proprietary {DRSK <GO>} function. DRAM allows a user to drill down into a set of companies, starting with a sector and refining the list by the borrowers' size and region. So, for example, I can bring up homebuilders all around the world. Then I can winnow the list to those with a market cap greater than $1 billion. Three of the 10 riskiest companies ranked by current default likelihood are in China. The higher the score, the greater the risk.

If I want, I can look at only U.S. companies in this category, which gives me a list of 13 homebuilders. In addition to ranking them by default risk, the screen shows where they are relative to their recent range, alongside model estimates of credit-default-swap spreads and CDS pricing in the market. Because DRAM is linked to DRSK, you can click on a company to learn more about its risks (typically some combination of financial fundamentals, plus the stock price).

If financial conditions tighten significantly—a prospect the Federal Reserve may or may not be able to avoid—then there's going to be a lot of action in the corporate credit space. This will be the screen to watch. ●

Weisenthal co-hosts *What'd You Miss?* on Bloomberg TV and is news director for the Americas at Bloomberg.


FUTURES