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The back story to today's bear market in nearly everything was the decade-long boom in credit. Excesses in lending and borrowing impaired the economy's immune system long before the arrival of Covid-19.

Please accept this sampler of our pre-crisis articles on corporate credit, ultra-low interest rates, structured finance, private equity and other features of these over-encumbered times. Say what the Fed will, our recent financial convulsions weren't all sourced in the wet markets of the People's Republic of China.

—James Grant

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## Grand tour of junk

Grant's February 7, 2020—The lowest interest rates, the most accommodating Fed, the shortest junk-bond durations, the highest corporate leverage and the longest business expansion frame the value proposition for junk bonds and the speculative-grade, tradable bank debt styled "leveraged loans." "Hold on to your hats!" is the investment conclusion of the analysis to follow.

We write to connect fact with perception, perception with valuation and valuation with risk. The conclusion, a truism, is foregone: Bubbles end with televised congressional hearings. What turns a truism into capital gains for the alert speculator is the correct answer to the question beginning "When?"

We don't know when. Nor does history shine a bright light on the future in this particular cycle, given that so much is new, even unprecedented, in today's markets. Here's what the past does teach:

- 1. Ultra-low interest rates distort investment judgment, prolong the lives of profitless companies and inflate the present value of future cash flows.
- 2. Desperately searching for yield, investors often find trouble.
- Technological innovation threatens established businesses, heavily leveraged established businesses most of all.

Community Health Systems, Inc., one of America's largest hospital operators, "overleveraged and stressed for a long time," as Brian Horey, paid-up subscriber and president of Aurelian Management, reminds colleague Fabiano Santin, could be the avatar of those three lessons.

Rated Caa/B-minus, the company owes \$13.4 billion (its securities constitute the fifth-largest holding of HYG, the iShares iBoxx High Yield Corporate Bond exchange-traded fund). It generates, or over the past three years has generated, no free cash flow, rather a net cash loss. Since 2015, it has cut capital spending in half. Since 2014, to finance an aggressive acquisitions strategy, it has increased its indebtedness by 50%. Fewer patients are seeking admission to its mostly smaller, mostly rural hospitals, at which operating costs are rising faster than Medicare and Medicaid reimbursement rates and thus pressuring margins.

Even so, on Jan. 23, Community Health was able to issue \$1.46 billion of five-year, first-lien notes bearing a coupon of  $6^5/8\%$ . The issue refinanced \$1 billion of  $5^1/8\%$ , first-lien notes of 2021 as well as \$426 million of  $6^1/4\%$  first-lien securities of 2023.

Time will tell if Caa2/B-minus are reasonable ratings, if 6%-plus is adequate compensation for the creditors and if management can juggle the new,

higher interest costs it's just contracted. Income-seeking investors are perhaps less concerned about those questions than they are captivated by the figure 6%. Then, too, the refinancing has bought Community Health three more years of corporate life.

It can't be said that Mr. Market is oblivious to such businesses and the risks they pose. Anomalously last year, triple-C-rated bonds, situated near the bottom of the junk pile, underperformed double-Bs, which rank near the top of that stack. The record of the past 30 years is that, in a strong market for high-yield debt, the more speculative stuff outshines the better stuff. Not this time.

In the second half of 2019, Standard & Poor's three-month trailing ratio of loan downgrades to upgrades topped 3:1. It was the most elevated reading since the dark second quarter of 2009.

If bubbles are their own worst enemies, it's because investors and promoters reasonably act on the incentives that the cyclical gods dangle before them. Thus leverage builds, valuations stretch and loan covenants disappear as borrowers and lenders internalize the message (especially persistent since 2008) that the aftertax cost of borrowing will remain low indefinitely, if not for longer. In Da-

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vos last month, boldface Wall Street names claimed that boom-and-bust is history.

The junk-bond eminence Ed Altman, emeritus professor of finance at the Stern School of Business at New York University, writing last year on the CFA Institute's website, called the 10-year-old credit expansion a "bubble." Unburst, it continues to exhibit the characteristics that promote growth in lending and borrowing, he noted, e.g., low default rates, OK recovery rates on actual defaults, small yields, liquid markets.

Since the dawn of the modern junk market in the late 1970s, such "benign" cycles, he calculates, have lasted for six years on average. If you classify the downside rip in 2016 as a localized energy crisis, not as a full-fledged contraction, today's debt expansion is closing in on its 11<sup>th</sup> birthday. "[O]nce such a cycle ends," Altman writes, "the subsequent spike in high-yield bond default rates and decline in recovery rates have been dramatic, with default rates reaching at least 10% for one or two years and recovery rates dropping below 40% and sometimes even below 30%."

Altman hazards no guess about when this granddaddy of benign cycles will turn malicious: "When both macro and micro market forces point to an unmistakably negative outlook, I expect the next stressed credit cycle to produce default amounts that will be higher than any in the past due to the enormous bond, bank and nonbank buildup, and the crisis may last longer than the previous one."

Or it just might be, as Santin suggests, that this time around, the credit tail wags the macroeconomic dog. The Jan. 23 bankruptcy filing of McDermott International, Inc. highlights the possibilities for microeconomic, credit-led trouble.

The former J. Ray McDermott & Co., founded in 1923, survived many an oil-and-gas slump but came a cropper following its particularly leveraged, especially ill-founded merger with CB&I, the old Chicago Bridge & Iron, in December 2017. A year later, McDermott featured in these pages in an analysis of the games that managements can play when accounting for merger-related business difficulties (see "Really, it's just IOUs" in the Dec. 14, 2018 issue of *Grant's*).

So it was no state secret that something was amiss at McDermott. Yet as recently as the end of July 2019, the then-B3/CCC-plus-rated McDermott 10<sup>5</sup>/ss of 2024 traded at 96. Two months later, the bonds, suffering a two-notch downgrade, dropped to 68 before plunging to 16.5 (it took just two days) at the end of September.

"The price of McDermott's first-lien loan largely followed the price movement of the bonds," Santin observes, "perhaps because CLO managers were slow to realize that the loans were indeed in danger of losing their B-ish rating, which would

jeopardize CLOs' typical 7.5% exposure limit to CCC debt." Post-bankruptcy, the bonds change hands at 13 cents on the dollar, the loans at 65.

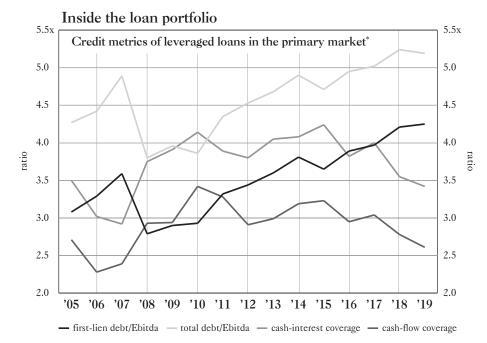
Certainly to the readers of *Grant's*, the generalized deterioration in corporate-credit quality is old news. Thus, issuers of leveraged loans last year carried leverage of 5.2 times adjusted Ebitda, matching the all-time record set in 2018 and up from 3.8 times in 2008 and 4.9 times in 2007, according to S&P's LCD unit, though it was very likely that even the "all-time record" was greatly understated.

With respect to Ebitda—earnings before interest, taxes, depreciation and amortization-it's the promoters who make the adjustments, and the "adjusted" Ebitda level at which they borrow is seldom the Ebitda level that they subsequently earn. From 2016 to 2018, S&P has found, most loan issuers missed their published Ebitda targets by 25%, suggesting that actual leverage is meaningfully higher than that to which the dealdoers admit. "The implication is that the loan market is riskier than that implied by credit ratings," the analyst team led by Matthew Mish, head of credit strategy at UBS, justly concludes.

The ratings agencies, not customarily the market's thought leaders, have themselves noticed the signs of termites in the house of credit. "Thus," Santin relates, "at the end of 2019, 65.1% of U.S. leveraged loans rated by S&P received a single-B or lower rating versus 37.4% at the end of 2007. It's the worst ratings distribution for the S&P historical series going back to 2006. Given that leveraged loans were much safer and better-rated until the last economic cycle, it's likely that this is the highest proportion of lower-rated loans ever.

"A broader data set from Moody's Investors Service's annual default study, dated Jan. 30," Santin continues, "showed that issuers rated triple-C and lower represented 43.6% of the global speculative-grade issuers rated by the agency in the beginning of 2019, compared with 19.7% in 2007. Here, at least, no new dubious record was set: The all-time high of 44.5% is from the beginning of 2016."

What might truly define this cycle in lending and borrowing, a veteran credit investor remarks, is the systematic removal of the covenant language that prevented borrowers from spiriting away the assets that the lenders had assumed would protect them in bankruptcy.



\* Analysis based on pro forma adjusted Ebitda.

source: LCD, an offering of S&P Global Market Intelligence

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"That to me is the existential threat in the [leveraged loan and high-yield bond markets]," our source says. "There are issuers who on day one have tremendous financial flexibility to pay out dividends or dividend out assets, which goes right against the efficacy of a creditor's fundamental protection of assets and cash flow."

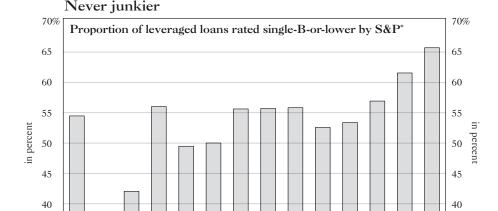
Far from resisting these insults to financial safety and soundness, the creditors appear to have succumbed to a kind of Stockholm syndrome. It's fallen to S&P, for instance, not the Society for the Defense of American Savings (which organization happens not to exist) to observe that the growing frequency of loan-only capital structures is jeopardizing the safety of first-lien lenders. It stands to reason: Without a loss-absorbing layer of subordinated debt, senior creditors bear greater risk. And yet, S&P reports (via LCD News, on Feb. 3) that the market has been pricing "loan-only" obligations at just a slight discount to the better-protected ones.

In line with recent history, but contrary to the accumulating evidence that this cycle is, in fact, something new and different, Moody's projects smooth sailing in 2020. It forecasts that the speculative-grade default rate will shrink to 3.5% by the end of the year, down from 4.2% in December 2019. For context, since the beginning of 1970, the trailing 12-month default rate has averaged 3.9%.

Maybe Moody's is correct, and perhaps the simplicity of its three-factor default-rate forecasting model is a source of analytical strength, not short-sightedness. Anyway, to arrive at the near-term default rate, Moody's weighs the spread of junk yields to Treasury yields, the national unemployment rate and the history of ratings migrations (of which more in a moment).

Forecasting simplicity may have reached its apogee last year in a model devised by a former Fed economist. The Claudia Sahm Recession Indicator holds that when the three-month average rate of unemployment increases at least one-half a percentage point above its low from the previous year, the economy is effectively in a recession. Back-testing since 1970 rings up a perfect score with no false positives.

Although the consensus of prognosticators anticipates that joblessness will more or less hold steady at 3.7%



\* Based on S&P Facility Ratings only.

'09 '10 '11

'07 '08

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sources: LCD, an offering of S&P Global Market Intelligence; S&P/LSTA Leveraged Loan Index

'12 '13 '14 '15 '16

over the next year, Moody's projects a bump up in the three-month average rate to 4.1% by June 2021, exactly half a percentage point above the 3.6% rate one year earlier. This would indicate a 97% probability of a recession by the middle of next year, according to Sahm's indicator.

Santin asked Moody's whether a 4.1% jobless rate wouldn't imply a surge in defaults just beyond the temporal horizon of its own default forecast. The agency declined to say more than that 12 months is the outer limit of its default-prediction range. At that, it's further than ours. All we think we know about the next default cycle, in bonds and, especially, in leveraged loans, is that it's going to be a doozy.

Although ratings are backward-looking, Moody's incorporates the history of ratings changes—the so-called ratings-transition matrix—into its default prediction model.

Thus, for instance, based on the record between 1987 and 2017, a previously downgraded double-Brated U.S. issuer has a 30% probability of being moved down another notch within the next six quarters. In contrast, a new issuer has only a 7% chance of being downgraded in the same time frame. It makes no difference whether the particular borrower drills for oil, sells sheets and towels at shopping malls or manages a water utility.

"What Moody's and S&P want to show people is a smooth transition," Christopher Whalen, publisher of *The Institutional Risk Analyst*, tells Santin. "They want people to believe that you can predict the future in terms of defaults. I would tell you that if you look at their own historical numbers, defaults are a little more idiosyncratic than they would have you believe."

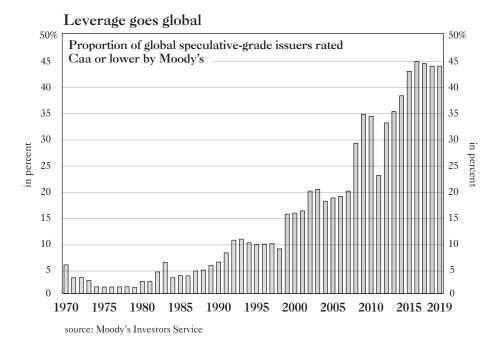
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With the understanding that we will stick to journalism and let Moody's assign its ratings, we wonder what will become of the vintage businesses, encumbered by cheap debt to finance private-equity-sponsored buyouts and dividend distributions, come the next credit comeuppance. Testament to the instability of business models in this time of ultra-low bond yields and up-tempo technological change is that even some of the top disrupters—Uber Technologies, Inc., The We Co., Inc.—have wound up on the back foot.

Consumer taste is perhaps no more fickle than it ever was, and government regulation no more capricious, but the restaurant business is struggling more than you'd expect in the current economy. "It shouldn't be in this shape because the consumer is supposed to be in pretty good shape—still spending, still wanting to eat out," says John Hamburger, founder and CEO of *Franchise Times*. But, Hamburger adds, consumers are picky, wage costs are rising, "and then this movement towards digi-

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tal and mobile ordering, it is starting to accelerate right now."

According to the Moody's oneyear ratings migration table (1983 to 2018), there was a more than 70% probability that the leveraged loan of restaurant chain Steak 'n Shake, Inc. would retain its B3-rating, or even be upgraded, through October 2018only consider the chain's "strong brand awareness" and "relentless focus on value." Instead came an April 2018 demotion to Caa1—only consider the "challenging operating environment with higher costs, including commodities and labor, alongside reductions in traffic...and weakened credit protection measures."

Now, according to the agency's protocols, there was a 70% probability that the loan would retain the Caa1 rating for at least another year. But April 2019 brought another downgrade, to Caa2, along with a shift in the ratings outlook to "negative." As for the loan itself, it changes hands today at less than 71, down from par in October 2017.

It will be said that migration-table probabilities apply not to any single issuer but to a statistically significant cohort of issuers. Granted. Yet the "Industry Sector Outlook" report of Jan. 30 from Moody's underscores how broad-based is the deterioration in credit fundamentals (there's been nothing like it since 2008–09, Moody's says). And the investors? Income is

the prize, and they hunger for it, as they seem not to hunger, for instance, for conservative leverage ratios.

"Another potential overhang to leveraged loans and high-yield credit in general is if CLO equity returns continue to deteriorate," Santin observes. "This could make it more difficult for new CLOs to raise equity and consequently throw a spanner in Wall Street's structured-financing machine. On Jan. 27, S&P's LCD reported that CLO managers are 'struggling to convince past LPs...to stick around because of equity underperformance.' An unnamed lawyer explained to LCD that equity returns have just not 'turned out as well as envisioned.'

"An interruption in the issuance of leveraged loans could increase debt costs as borrowers turn to the bond market instead," Santin continues. "Given that high-yield bonds and loans are outstanding in roughly equal measure—\$1.2 trillion—and given that CLOs hold 70% of leveraged loans, a 30% shrinkage in the CLO market could require a meaningful jump in bond financing. By the numbers, it could, in fact, call forth a jump of 21%, or \$252 billion, in new issuance.

"It would be rash to attempt to predict the denouement of these various trends and forces, both macro and micro, as they bear on leveraged finance," Santin winds up, "but on the face of it, it doesn't sound bullish."

#### Hold the condiments

Grant's February 21, 2020—"Consumption softness in the quarter first emerged in the foodservice industry, with holiday restaurant traffic weaker than last year," said the Conagra Brands, Inc. press release on Presidents' Day. "While we planned for tougher year-over-year comparable results in the third quarter, we did not plan for this level of category softness."

Now in progress is the sequel—or what may prove only the first of several sequels—to "Attack of the killer BBBs" (*Grant's*, Oct. 20, 2017). Two-and-a-half years ago, we marked the immensity of the bottom layer of the investment-grade corporate-bond market. Only imagine if some malign force knocked a substantial portion of that low-rated IG cohort into the speculative-grade market.

The urgency of the question has grown with the size of the market. Of the \$7 trillion in investment-grade corporate bonds outstanding, nearly \$4 trillion are triple-B-rated, compared with \$1.2 trillion in junk. As of last Thursday, the fallen-angel subset of the speculative-grade universe amounted to less than 9% of the high-yield market. It was the lowest such percentage since 1999, according to Deutsche Bank.

Curious is the sag in the fortunes of consumer staples and cyclical businesses in month 128 of President Trump's fabulous, unprecedented, unbelievable and very great business expansion. If this is prosperity, you wonder what recession will look like.

At least the market still affords the benefit of the doubt to the house of Orville Redenbacher, poor guidance and relatively heavy leverage (i.e., more than five times debt to earnings before interest, taxes, depreciation and amortization) notwithstanding. The Conagra 5.4s of 2048 (rated Baa3/triple-B-minus) change hands at 129 (for a 3.7% yield, or 168 basis points over Treasurys), up from 90 cents at the end of 2018 (314 basis points over Treasurys). They've never been quoted higher.

Quicker on the trigger are creditors of the Kraft Heinz Co. (*Grant's*, Aug. 24, 2016). Following S&P's validation one week ago of the speculative-grade rating previously affixed by Fitch, the

Kraft Heinz 4<sup>7</sup>/ss of 2049 plunged to 94.6 from as high as 110, well into double-B-plus territory. Kraft Heinz thus became the third-largest fallen angel ever with \$21.8 billion of indexeligible debt outstanding—behind only the General Motors Co. and Ford Motor Credit downgrades in 2005 and 2006, respectively.

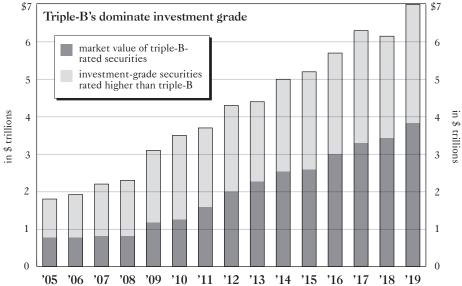
The ketchup maker's demotion followed the disclosure of a 2.2% slump in organic sales for the quarter ended Dec. 28, led by a 5.8% drop in U.S. volumes. Adjusted Ebitda declined by 6.6% to \$1.56 billion, marginally reducing leverage to 4.8 times trailing Ebitda (the adjusted kind, of course). "Our turnaround will take time, but we expect to make significant progress in 2020, laying a strong foundation for future growth," CEO Miguel Patricio was quoted as saying in the press release that failed to mollify the bondholders. More informative was the S&P release: "[Kraft Heinz's] financial policy has become more aggressive given its unwillingness to cut its high payout dividend at a time that leverage is elevated because of underperformance."

"Aggressive" financial policy is par for the course in a bull market, but miniature interest rates have arguably provoked more aggression this time—as recently as September, Kraft Heinz issued 10-year senior unsecured notes with a 3.75% coupon. Equity's where the money is.

Does the corruption of credit—the subversion of accounting standards, the evisceration of covenant language, the tossing away of investment rules of thumb in the frantic rush for yieldrender history a less certain guide to the future than it's been in previous cycles? Not embracing the idea, Moody's analysts speculated in January: "Historical fallen angel rates have not been highly correlated with macroeconomic cycles but instead have been mainly driven by industry-specific considerations." They wrote under the headline, "Credit strengths of Baa-rated companies mitigate risks of higher leverage.'

Less sanguine is Edward I. Altman, emeritus professor of finance at the Stern School of Business at New York University, whose work figured prominently in these pages two weeks ago. In an unpublished paper entitled "The BBB bond explosion and the next credit cycle downturn," Altman reckons that more than 50% of today's triple-B population





source: S&P Dow Jones Indices

is substantively speculative-grade—junk in all but name—and ventures that the next recession could transform \$500 billion—\$1 trillion of such issues into junk-in-fact.

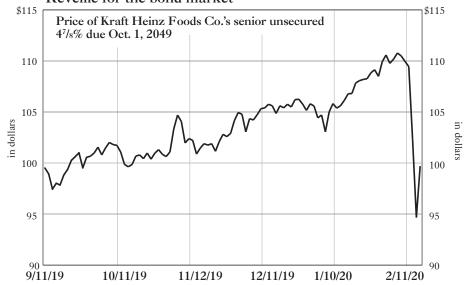
The oft-heard, lower estimate of \$300 billion, "in my opinion," says Altman, "is based on a backward-looking methodology, which ignores current reality. In particular, the migration estimates of rating agencies are based on previous downturn experience and do not assess the existing quality of BBBs and their inherent fundamentals."

"If," colleague Fabiano Santin adds, "Kraft Heinz is indeed the precursor

to squadrons of fallen angels, passive investors could be in for a jolt. The iShares iBoxx investment-grade corporate bond ETF (LQD on NYSE Arca) is the largest ETF of such kind, carrying net assets of \$35.8 billion. Its investment objective is not to generate good returns, but to track the Markit iBoxx USD Liquid Investment Grade Index, which holds bonds whose 'average rating' is investment-grade. Thus, Kraft Heinz's bonds will leave the index in the next monthly rebalancing—and LQD will eventually dump the \$200

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#### Reveille for the bond market



source: The Bloomberg

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million of those securities it now owns. Other ETF and passive funds are likely to confront the same dilemma that LQD faces, namely, buying high and selling low."

Depending on how you see things, Ford Motor Co. is one rating upgrade away from solidifying its claim to investment-grade status or one downgrade away from joining Kraft Heinz in junkland. Including Ford Motor Credit Co. LLC, Ford owed \$152 billion at year-end. Moody's grades it Ba1, S&P triple-B-minus, Fitch triple-B (with a negative outlook).

Low interest rates are losing their power to ring the cash register, to judge by the 3% drop in Ford's 2019 sales (cars down 28.3%, SUVs down 4.8%, trucks up 9.1%). There was no net income in 2019, either, down from \$3.7 billion in 2018. Last weekend, *The Wall Street Journal* described how dealerships inflate borrowers' income on loan applications and tell the customers to stop paying the auto loan tied to the trade-in vehicle—after they pass muster for a new one, of course. It's hard to see how this is bullish for the institution of credit.

Then, again, it's an ill wind that blows no portfolio good. Altman notes that a proliferation of fallen angels could crowd profitless zombie firms right out of the bond market, thus suffocating them and cleansing the system of "these inefficient and economic debilitating entities." Then, too, the chaos would surely provide more of the rarity called "income opportunities" (remember them?).

#### Just call it the 'bizzle'

Grant's May 17, 2019-Undetected embezzlement is an unconventional kind of stimulus. For one thing, it's not government-directed (no carping just now about the Social Security "Trust" Fund). For another, it's a boomtime boost, not, as is usually the case with stimuli, a palliative for recessions. Until the victim discovers his loss, the stolen funds constitute a credit for the thief but no debit to the property owner. John Kenneth Galbraith, who first called this form of single-entry bookkeeping to the attention of the reading public, called it the "bezzle."

We write to introduce the bezzle's first cousin. The "bizzle," a concept from the fecund mind of investor Paul Isaac, is the stimulus thrown off by venture capitalists and private-equity titans during cyclical upswings. The financiers seed startups. The startups spend money on rent, office furniture, talent, customer acquisition, investment banking, legal services, etc. It's the bizzle booster.

Of course, the financiers do not invest alone. The central bankers are their silent partners (and never so much as in the past 10 years). It's the low cost of capital that sets the minds of the investors at ease. They invest in hope of profits, and minuscule interest rates afford them the luxury of waiting for those anticipated earnings. Then, too, in a bull market, expected profits constitute a kind of scrip. In the highend ZIP codes, it passes for near cash.

"The monetized equity appreciation and stock-based compensation they throw off fuel the renovation of Maui, Pacific Heights, Tribeca and the Hamptons," Isaac advises by email. "On a broader basis, we might also include the reduced savings or pension contributions on the part of investors who are comfortably relying on the higher projected returns of [venturecapital] activity in planning their financial affairs, as well as some broader multiplier effects on economic activity from the sum of the foregoing. Unlike the bezzle, the bizzle is not (necessarily) fraudulent, but it is a pronounced cyclical enhancement of aggregate economic activity and ebullience, and it is unusually concentrated in particular geographic areas. Hard to imagine what NYC would have looked like in the last five years without an appreciable bizzle effect for the local economy."

The bizzle can't grow indefinitely. What checks it in normal times are normal rates of interest. Today's abnormal rates, with attendant tight credit spreads, foster risk-taking, both well-considered and otherwise. And they afford the luxury of planning that stretches the limits of whatever used to define the concept "long-term."

It's a testament to easy money as much as it is to the vision of the entrepreneurs that WeWork Cos., Inc., after burning \$2.3 billion in cash last year, is coolly planning an initial public offering later this year. It is likewise a sign of the times that Bernstein Research an-

ticipates that the new-age landlord will need an additional \$19.7 billion of cash before it breaks even—an event it says it is able to project for the year 2026.

History may remember these times as a golden age of invention and entrepreneurship, but those flattering descriptors should come with an asterisk. The seemingly limitless patience of the backers of loss-making startups would surely be tested if Treasury bills fetched 5% rather than 2.4%.

To listen to the voices of the C-suite of Compass, Inc., founded in 2012, capital might as well be free. The would-be disruptor of the residential real-estate brokerage industry boasts a hypothetical valuation of \$4.4 billion on the strength of a \$400 million VC investment last September by SoftBank's Vision Fund and Qatar Investment Authority. For comparison, Realogy Holdings Corp., the largest American residential real-estate broker by sales volume, commands an equity market cap of just \$940 million.

Compass is fast-growing, free-spending and unprofitable—characteristics not customarily found under the same corporate roof, at least not for very long. Around Labor Day last year, according to TheRealDeal.com, a real-estate news outlet, Compass "had 6,400 agents and 150-plus offices, up from just 2,100 agents and 42 offices nine months ago. In less than a year's time, the company has also quadrupled its non-agent count to 1,080 (from 265)."

Compass is turning heads through the sheer volume of its spending, or what we now know to be bizzling. The outlays take the form of "hefty marketing budgets, slick technology and stock options as [management] dangles the prospect of an initial public offering," The Wall Street Journal reports. There's a bridge-loan program, too, to tide over a seller while waiting for a buyer, and heretofore unheard-of blandishments to attract prospective hires: "Some agents received all the sales commission, with nothing going to Compass, on as many as eight of their first deals, according to offer letters." An agent in Compass's Boston office tells the Journal she feels like she's "a realtor at the Ritz."

Robert Reffkin, a Compass co-founder, has run a marathon in each of the 50 states to raise money for charity. He was named to *Fortune*'s roster of "Forty under Forty" in 2014. He is a father of

three who hired his mother, herself a real-estate broker, to work at Compass. He has also lured Leonard Steinberg, whom REAL Trends named as the most productive real-estate agent of 2016, away from Douglas Elliman.

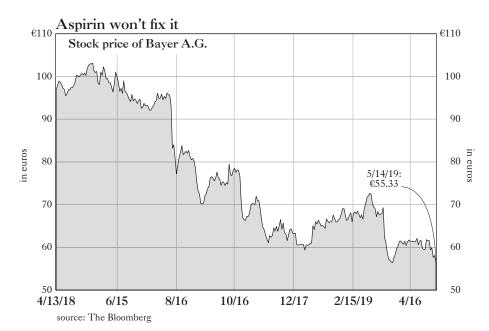
Reffkin and his fellow co-founder, Ori Allon, an Australian computer scientist who sold a business to Twitter, Inc., have raised venture capital from Founders Fund, Wellington Management Co., Institutional Venture Partners, Fidelity Investments, Qatar Investment Authority and, as mentioned, SoftBank's Vision Fund.

In the afore-cited *Journal* story, Bess Freedman, chief executive of the New York brokerage firm of Brown Harris Stevens, LLC, offered a competitor's view of Compass's bizzling: "It doesn't make sense," she said. "Are you a charity or are you a real-estate company?"

On the subject of earning more than you spend, Reffkin was quoted as saying this: "Short-term profitability is something that many of the more modern companies are not as focused on." To which Chief Operating Officer Maëlle Gavet was quoted as adding: "We're not yet at a stage where I have a very clear monetization strategy because we haven't really talked about it."

The indulgent state of the debt markets may explain part of this expressed lack of urgency in making corporate ends meet. The yield famine of the past 10 years has loosened the customary strictures on borrowing. "Thus," observes colleague Fabiano Santin, "in the fourth quarter of 2007 leveraged-loan issuers in the primary market carried leverage of 4.7 times adjusted earnings before interest, tax, depreciation and amortization and generated enough funds to cover interest payments by 2.7 times, according to data from LCD.

"In a world of seemingly infinite liquidity," Santin goes on, "the decision to extend credit perhaps hinges on the thinly constructed perception of one's ability to refinance. Today, leveraged borrowers operate with debt of 5.4 times Ebitda and interest coverage of 3.1 times. Given that more Ebitda reaches the bottom line despite the higher debt load, this stronger interest cushion may lower the threshold for new investments. Of course, falling Ebitda or rising rates would make short work of that source of financial strength."



Vice Media, LLC, a global digital-media enterprise with offices in more than 30 countries, is another profitless bizzler. Vice has subsisted for a quarter-century on hundreds of millions of dollars in investments from the likes of 21st Century Fox, Disney and private-equity firm TPG. It achieved a reported \$5.7 billion valuation in 2017, a sum representing more than nine times its revenues, not quite three times richer than the corresponding Disney valuation in the same year.

Now Vice is cutting staff and Disney is writing down its cumulative \$510 million investment in Vice to zero. Even so, SoftBank's Fortress Investment Group, LLC and Soros Fund Management, LLC just saw fit to lend \$250 million in order to "accelerate" the growth of Vice's miscellaneous portfolio of businesses. That portfolio includes a subscription-based print magazine, podcasts, video content for HBO, a cable channel called Viceland, a multifeature website, a YouTube channel, an ad agency, a record label, a film studio, a London bar. There must be a corporate bizzling department, too.

How big is the macro bizzle? There's a hint in the quoted words of Chamath Palihapitiya, CEO and founder of Social Capital, L.P. and a former Facebook, Inc. vice president, in the March 8 issue of *Grant's*: "Startups spend almost 40 cents of every VC dollar on Google, Facebook and Amazon. . . . Advertising spend in tech has become an arms race: Fresh tactics go stale in months, and customer acquisition costs keep

rising."

As ever, the kneebone is connected to the thighbone. It's the low cost of capital—the artificially low cost, say we—that's sustained the bizzle boom. Some cheer it. They defend the funds lavished on big-spending startups as the rational search for the next great business disruptor. Others bemoan the tendency of the same low rates to muddle decision-making and misdirect capital.

Count the shareholders of Bayer A.G. among the aggrieved. On April 26, at the annual company meeting, the owners voted a motion of noconfidence in the management that, in 2018, spent \$66 billion to acquire the manufacturer of Roundup. Few then appreciated that Monsanto Company's best-selling weedkiller would prove a suspect in tens of thousands of American cancer cases (13,400 herbicide claims have been lodged in U.S. courts). S&P did not so much as mention Roundup or the threat of such litigation in its published rationale for conferring a triple-B rating on the bonds that Bayer issued to complete the transaction.

The European Central Bank supported that project. The corporate-bond portfolio of the ECB, in the grand total of €178 billion, holds portions of a half-dozen Bayer issues, with coupons ranging from five-eighths of 1% to 2¹/s% (the portions are undisclosed). One such security is the 2¹/ss of 2029, which changes hands at 102 to

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yield 1.9% to maturity. The Bayer debt has been impervious to the Roundup-induced collapse in Bayer's equity capitalization—down by 42% in the stock market, the venerable aspirin maker is today worth less than the \$66 billion that it paid for Monsanto.

The sang-froid of the debt market is surely testament to something. Perhaps to the unflappability of the senior creditors in the face of a scandal that may not exact a significant financial toll on its manufacturer. Or perhaps—more likely, we think—to the heavy thumb of the ECB on the scales of interest rates.

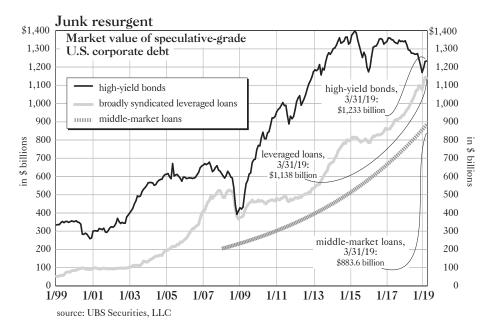
Capital is cheap and the bizzle goes on—each subject to Mr. Market's own kind of disruption, of course.

#### Lifting the veil

Grant's April 19, 2019—"Dear Chair Mnuchin," Sen. Sherrod Brown (D., Ohio) began a stiff missive, dated April 11, to the secretary of the Treasury in his capacity as head of the Treasury's Financial Stability Oversight Council, "I write with growing concern about the risks in the leveraged loan market."

Trouble starts with the definite article. *The* market does exist, all right. It encompasses \$1.1 trillion of tradable, speculative-grade bank loans. But within this one market are two distinct segments.

The first comprises the loans issued by public companies—they make up



15% of the total. The second comprises the loans issued by infrequently or non-reporting private companies, often the ones involved in private-equity transactions; they constitute 85% of the market.

The segmentation wouldn't matter except that the public-company part is the one that most investors know about. Companies filing to the Securities and Exchange Commission give the analysts the data to analyze. Half of the moon is dark, but 85% of the leveraged-loan market is shrouded.

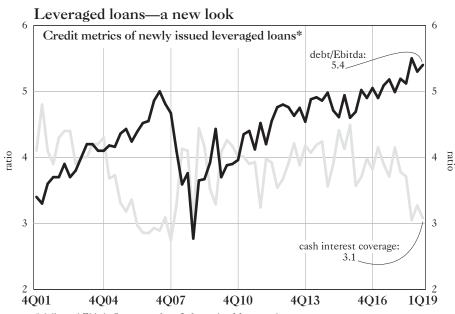
That fact wouldn't matter if the private companies and the public companies were equally creditworthy. They are not—the private segment is nota-

bly weaker, as we'll see in a moment. Yet it's the public-company debt profile that passes for the face of leveraged lending. If Sen. Brown is worried by those public-company credit metrics, perhaps he isn't worried enough.

"And the junkier the issue," observes colleague Fabiano Santin, "the less likely it is to be included in the public-company data. Thus, as of March 31, SEC-filing companies issued only 29% of triple-B-rated leveraged loans, according to estimates by analysts at UBS Securities, LLC. As we go down the ratings scale, the percentages shrink to 27% for double-B, 7% for single-B and 3% for triple-C and below."

The nearby graph, courtesy of the LCD unit of Standard & Poor's, combines public and private borrowers to provide a rare, aggregated glimpse of leveraged lending. The figures describe newly issued loans, public and private alike, over the five years ended in the fourth quarter of 2018.

Note the divergence between, on the one hand, the ratio of debt to earnings before interest, taxes, depreciation and amortization, and, on the other, interest coverage. Note, too, the generous measure of Ebitda employed. Featuring lots of "addbacks" and bullish assumptions about projected cost savings and sure-fire synergies, it's the measure that the private-equity promoters calculate to assuage the anxieties of prospective investors. Understatement wasn't the way that the p.e. titans got where they are in the world.



\* Adjusted Ebitda figures are from Information Memorandum. source: LCD, an offering of S&P Global Market Intelligence

The differences between SEC-filers and non-SEC filers stack up as follows: The filers showed a decline in their ratio of debt to Ebitda (to 4.1 times from 4.7 times) and a rise in their interest coverage (to 3.0 times from 2.4 times). Looking at those numbers alone, you could make the case that the credit metrics of "the leveraged-loan market" were improving. However, the sum of filers and nonfilers showed a jump in their ratio of debt to Ebitda (to 5.4 times from 4.5 times) and a deterioration in their interest coverage (to 3.1 times from 4.2 times)—a glance at the combined data shows that the market has been disimproving.

As for that 85% of privately issued leveraged loans, Matthew Mish, credit strategist at UBS, tells Santin: "The disclosure is weaker, the average [analyst's] ability to cover those companies is challenged; the [cost-synergies Ebitda] add-backs are large. A similar debt boom to that we observed in high-yield energy earlier this cycle, except that information asymmetry is a lot worse than it was then because [the high-yield issuers] filed public financials quarterly, people knew what they were looking at, or at least could better quantify the risk."

Taking one thing with another, Democrat Brown and Republican Mnuchin might have a lot to talk about on the topic of financial stability.

#### Standing on a box

Grant's April 5, 2019—A little-known fact about unicorns is that they feed on interest rates. They like low, little rates—the tinier, the better. It's a preference they share with the humans of private equity and the bulls of Wall Street. How the ultra-low rates of the past 10 years have nourished the venture-capital and p.e. businesses is one topic at hand. How the past prosperity of private investing will crimp the future returns of private investing is another. Skipping down to the bottom line, we judge that loss-making unicorns are queuing up to go public for no better reason than it's now or never.

History says that busts are the time for deleveraging. It was different in the wake of this bust. While households paid down debt, expressed as a percentage of GDP, from 97% to 75% between year-end 2007

and year-end 2018, corporations and the federal government slathered on more of it. Overall, America's nonfinancial debt, also expressed as a percentage of GDP over the same span of years, jumped from 227% to 248%.

Granted, one man's liability is another man's asset, but the borrowers appear more disadvantaged than the lenders are advantaged. Observe—with a tip of the hat to Stephanie Pomboy of MacroMavens, LLC and Ben Breitholtz of Arbor Research & Trading, LLC—how the mighty U.S. economy seems to shudder when 10-year Treasury yields rise to only 100 basis points above the inflation rate. This phobic reaction to slightly positive real rates may either be a symptom of overleverage or a kind of bull-market hypochondria. We impartially conclude that it's both.

Overleverage is the private-equity business model in one five-syllable word. According to Bain & Co., the average p.e. purchase multiple came to 10.9 times earnings before interest, taxes, depreciation and amortization last year, considerably higher than 9.9 times, recorded in the 2007 peak, and only a hair below the all-time high of 11 times set in 2017. To pay higher prices, the p.e. promoters borrow more money. Thus, for 2018-vintage buyouts, again according to Bain, net debt averaged slightly more than six times Ebitda, up from 4.9 times in 2007.

"By the way, that is on pro forma adjusted Ebitda numbers, which probably overstates Ebitda by about 15%," Daniel Rasmussen, founder and portfolio manager of Verdad Advisers, L.P., reminds colleague Evan Lorenz. "So, you're probably in reality looking at a 13 or 14 times purchase price with seven or eights turns of net debt to Ebitda on a GAAP basis. I think the question is not how did private equity do historically during times of recession, but how did companies that traded at those multiples and with those amounts of leverage do. And, the answer is: Companies with seven or eight turns of net debt go bankrupt at very disproportionately high rates when there is a recession."

Private equity's gain is all the more striking when contrasted with the hedge funds' loss—and the abolition through regulatory fiat of bank proprietary trading. In their success, not a few private-style investors have chosen to try their hand at public money management. You can recognize the newcomers by their easygoing attitude toward debt and by their acronyms and buzz phrases—TAM for

"total addressable market" and LTV for "lifetime customer value."

"I've been interviewing analyst candidates for a long time, and I feel like there's been a sea change in the last two years in 'investment pitches' from MBAs and junior analysts looking to move to the buy side," writes an investment manager we know on a locked Twitter account. "Pre-'08 I mostly got 'cheap vs. comps, misunderstood, deep value' ideas. . . . Last two years, I've rarely received either—it's almost all growth-y names. 'TAM is huge, earnings accelerating, LTV is strong, cheap four years out.'"

"It's due to the influx of ex-p.e. guys," our source elaborates to Lorenz. "The buy side used to be ex-bankers, prop traders and [more] esoteric backgrounds." Now there's a generation of investors who started their careers valuing leveraged companies measured on adjusted multiples of Ebitda.

"I'm 5 feet, 8 inches," Jonathan Lavine, co-managing partner at Bain Capital, told the *Financial Times* the other day. "But I change the scale and make myself 6 feet, 2 on a pro forma basis. I'm not actually 6 feet, 2 on a pro forma basis, but I can make adjustments like standing on a box, maybe trying to stretch." Once upon a time, lenders would give 10% credit for the promoters' projections of post-deal cost savings and "synergies," Lavine said. Now they're granting 30% and up.

Venture capitalists customarily use little or no leverage, but here, too, EZ money spreads its bullish balm. The lower the interest rate you pick to discount future cash flows to the present, the fatter those cash flows appear. And in the absence of past or present positive cash flow, such projections take center stage.

Quite apart from the mathematics of discounted future earnings, declining yields and a "flexible" Fed have supported a stock market that might otherwise have taken its cue from the flat yield curve or forecasts for a down first quarter in S&P earnings—or the hole in the P&L of a certain celebrity IPO where you ordinarily find profits.

Lyft, Inc. came to market last week holding the dubious record of largest loss registered by an American startup in the 12 months preceding its IPO (\$911 million is that bell-ringing number; the runner-up, \$687 million, belongs to the 2011-era Groupon, Inc.). But records are made to be broken, and if Uber Technologies, Inc. follows Lyft to Wall Street

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this year, it will claim pre-IPO bragging rights with net losses of \$800 million a quarter. Whether or not digital technology is good for profits, it is certainly good for the consumers whom venture capitalists generously subsidize.

Home-buyers and home-sellers may soon find themselves similarly blessed, assuming that the money holds out. VCfunded startups like OpenDoor Labs, Inc. (a unicorn with a \$3.8 billion valuation; SoftBank Group Corp. is an investor), Knockaway, Inc. and Ribbon Home, Inc. propose to take the hassle out of moving. Want to sell your house? The startups will buy it from you. They will clean it, repair the fixtures, even replace the appliances. They will hire a broker and list it for sale, making a profit in the bargain. Or such is the plan-Zillow Group, Inc.'s plan, for instance, as the real-estate valuation and listing company (Z on the Nasdaq) is itself all-in on the idea.

"Fundamentally," Richard Barton, CEO and co-founder of Zillow, told listeners-in on the Feb. 21 earnings call, "we are following consumers who have been Uberized and have grown to expect magic to happen with a simple push of a button. We've seen this in travel, ride hailing, car buying, shopping, streaming video and more. And the time for real estate is now."

In 2018, Zillow bought and resold 177 houses for \$52.4 million. The average purchase price was \$278,305; the average sales price, \$295,847. Yet the pre-tax loss was \$62.4 million, or \$352,316 a house. Undaunted, Zillow says it intends to build the business to \$20 billion in revenues by 2024, by which time it will be selling 5,000 houses a month. Even at full scale, though, as management itself concedes, the new subsidiary—Offers is the name—will generate Ebitda margins of just 2% to 3%, inadequate to cover depreciation, operating expenses and interest expense, let alone to produce a competitive return. Then what might produce respectable earnings? Why, receipts from the sale of ancillary products-mortgages, for instance.

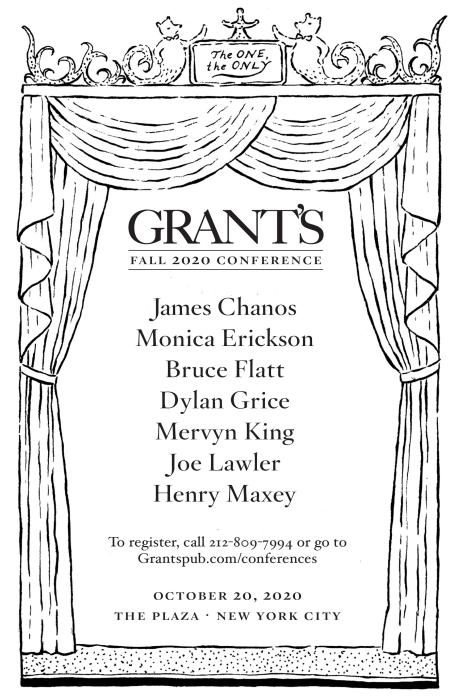
In 2018, WeWork Cos., Inc.'s net loss amounted to 104% of revenues. In 2018, Offers's pre-tax loss amounted to 119% of revenues. A March 25 *Wall Street Journal* story on the looming wave of IPOs from profitless startups quoted the former chief financial officer of Webvan, Inc., the infamous dot-com-era online-grocery flame-out. Commenting on the crush of lossmaking IPO candidates, Kevin Czinger seemed to shake his head at what the world has come to. "It would have been

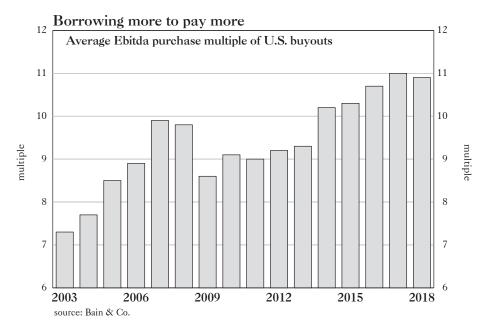
totally impossible to have these types of business plans," he said.

Even so, they proliferate. A February research paper by Cambridge Associates found that investment success depends on the size of one's allocation to private assets, with the top 10% of investors earmarking an average of 40% to venture capital and p.e. "With proper diversification, the risk of permanent loss of capital is low...less than 1% when we randomly selected nine funds from a database of more than 3,000 funds," the analysts contended, apparently not finding the space

to mention such trifles as valuation and leverage. The piece ran out under the headline, "Life can be better after 40(%)."

Borrowing more for the purpose of paying more seems a counterintuitive way to succeed in business. And, indeed, 10-year pooled returns of all p.e. operators only just topped the returns on the S&P 500 through 2018 (*Grant's*, March 8). Still and all, nobody doubts the intelligence of endowment managers. What makes them write the checks? Some managers invoke the superlative multidecade track record of private equity





(most of it compiled before prices paid and money borrowed reached today's elevated levels). Others allude to the fact that the prices of one's p.e. and venture holdings are not splattered all over *The Wall Street Journal* for just anyone to notice and disapprove of. Private marks come intermittently and subjectively.

"So, if I could give you a one-line exact summary of this entire presentation, it would be: We need private equity, we need more of it and we need it now," Ben Meng, CIO of the California Public Employees' Retirement System, said at the pension plans' Feb. 19 investment committee. "So, let's talk about the first question, Why do we need private equity? And the answer is very simple, to increase our chance of achieving the seven-percent rate of return. . . . Private equity has outperformed over multiple economic cycles, has outperformed all the other major asset classes. And, with our own experience in the past 20 years, our own private-equity portfolio delivered a 10.5 percent annualized return."

"To give CalPERS its due," Lorenz points out, "public equity is not exactly on the bargain counter itself. The S&P 500 is trading at 30.7 times its cyclically adjusted p/e ratio, meaning that the current price to the average, inflation-adjusted earnings of the past 10 years is 30.7 times vs. a long-term average of 17 times. The only periods where the market was more expensive by this measure was in 1929 and during the dot-com boom. This may make forward returns meager—asset manager GMO, LLC estimates that U.S. large-cap stocks are priced to yield a negative 4% per year

over the next seven years if profit margins and multiples revert to their means."

What's a fiduciary to do? You can hardly meet a 7% investment hurdle with a 10-year Treasury yielding 2.5%, much less with a 10-year bund yielding negative 0.05%. The same low rates, of course, have decreased the cost of leverage and flattered the size of projected future cash flows—well and good for private equity's cosmetic appeal. But future returns are not about good looks. Elevated valuations and outsize leverage mathematically reduce tomorrow's dividends.

"I think private equity is about to face the scrutiny that hedge funds started receiving 5 to 10 years ago," James S. Chanos, founder and managing partner of Kynikos Associates, L.P., tells Lorenz. "That is for all the money they raised and all the allocation that has occurred, the returns on private equity have been not much greater, if at all, than public-market benchmarks. Increasingly, I think the allocators will begin to wonder, as they did with hedge funds 5-10 years ago, why exactly are we pouring more money into an asset class that over the long run seems to be matching at best public-market indexes with reduced liquidity, higher fees after a monstrous rise in corporate valuations and a once-in-a-generation drop in interest rates. Why isn't private equity returning two times the S&P 500?

"It really begs a question," Chanos continues. "If after all we've seen with valuations and the drop in rates and corporate activism and everybody pulling in the same direction, to have private-equity returns—I know some are greater than

others, that was the case in hedge funds as well—as an asset class not outperform public-market indexes by very much has to have people wonder, why indeed am I continuing to pour more and more dollars into this asset class? That's a question I think will be increasingly asked."

Our friend Daniel Rasmussen has written extensively and—certainly, to us, persuasively—about private equity. Never mind the highfalutin label, he advises his readers. See the thing for what it is the levering up of high-priced micro-cap growth companies. "Why would you, in aggregate, buy disproportionately levered companies at disproportionately high prices in a very late stage of a bull market?" he poses to Lorenz, and he answers: "That doesn't seem like a very good idea. But when you call it private equity and take away the mark to market, suddenly it is a thing that everybody wants. It is that disconnect that either I don't understand or can't explain and find so intellectually frustrating because it seems, to me, so obvious that this is a bad idea and yet so many people think it is a good idea."

One might say the same about the interest rates that, in the post-crisis era, have sustained the bidding up of asset prices and the layering on of debt. They don't seem like the right rates to us. And yet, to so many people, they are manna.

#### 'Really, just IOUs'

Grant's December 14, 2018—On the authority of Leon Black himself, the credit markets have achieved a state of bubbliness, the next-to-last stop in the expansion phase of the credit cycle. "The amount of covenant-less debt is more than in 2007," the co-founder of Apollo Global Management told the Goldman Sachs Financial Services Conference last week. "You have a thirst for yield that exists on a global basis. So there is true excess."

Amen to that, we say. Suppressed interest rates and their crowd-pleasing corollaries, low default rates and high bond prices, have set the stage for panic, the final cyclical stop (after which, following an interlude of penitence, begins a new expansion). If the free-and-easy portion of the credit cycle is behind us, better days—at least, for the intrepid, value-seeking readers of *Grant's*—may be at hand.

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Credit is broadly at risk, we think, from investment-grade debentures to junk bonds to emerging-market debt to leveraged loans—perhaps especially loans, and still more particularly the exchange-traded funds that house those illiquid claims. Collateralized loan obligations, a.k.a. CLOs, are likewise in the cyclical cross hairs. Facts, figures and stratagems to follow.

Not the least of the troubles with floating-rate, senior, secured bank-like loans (the tradable kind incurred by speculative-grade business borrowers) is their appealing record. They shone in 2008 and led the credit pack in 2018. In a year when nothing seems to go up, leveraged loans have returned 2.5% to date, compared with -0.3% for junk bonds, -3.1% for emerging-market corporate bonds and -3.2% for U.S. investment-grade corporates.

Yet even that meager edge appears to be slipping away. On Dec. 11, the S&P/LSTA Leveraged Loan Index hit 953/4, a two-year low. The downtick may look inconsequential—the decline from the October reading of 98.7 is hardly a crash. Then, again, the well-informed leveraged-loan market usually doesn't move without reason. Public companies report quarterly. Leveraged-loan borrowers report monthly-and those monthly reports, addressed to the creditors alone, are rich in detail, including internal financial projections. It's to gain access to such fancy information that leveraged-loan asset managers have become sought-after acquisition targets for non-specialist money managers, Bloomberg reports; the acquirers want a peek at what the loan insiders are seeing. More likely, then, we judge, the recent softness in loan prices is an augury of something not bullish.

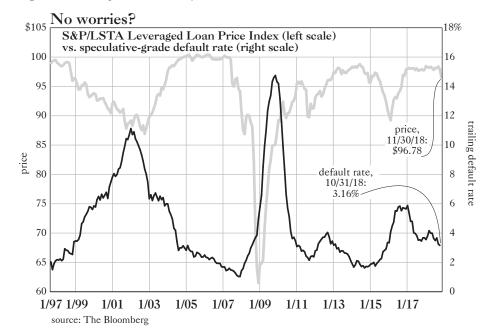
It's nobody's secret that the evisceration of covenant protection is among the loan market's top risks (Grant's, July 13). In the absence of the customary legal language forbidding the borrower from slathering on more debt, or from running up its fixed charges in relation to its earnings, creditors face a heightened likelihood of disappointment. Gone, in the cases of "covenantlite" or-as Black put it-"covenantless" loans, are the opportunities for mid-course corrections that covenant violations provided the creditors of yesteryear (and still provide the holders of fully armored loans today). You can hardly trip a covenant if none exists; and without the tripping, creditors are powerless to demand concessions from a borrower who's running afoul of the interests of the senior claimants. "I'd like to say," Peter Washkowitz, covenant analyst at Reorg Research, Inc., tells colleague Fabiano Santin, "that these debt documents are really kind of turning into IOUs at this point."

In November, the percentage of credits showing a bare minimum of covenant protection, taken as a percentage of all leveraged loans issued by American borrowers, reached the unprecedented level of 79%. However, in view of persistently good credit experience, investors let the fact roll off their backs. In November, the loan-default

rate reached a 13-month low of 1.61% on the afore-cited S&P/LSTA index. Including bonds, Moody's calculates, the speculative-grade default rate for the 12 months ended Oct. 30 stood at 3.2% vs. a long-term average of 4.7% and a projected forward rate for the 12 months ending Oct. 30, 2019 of 2.3%. Then why worry?

We know a few reasons, including an interesting interest-rate wrinkle. CLOs, which hold 52% of broadly syndicated loans, are coming under margin pressure (Grant's, Sept. 7). As you know, a CLO is a business on a balance sheet. To generate income, it holds leveraged loans. To finance those loans, it issues debt. Such debt rests on a thin wedge of equity. Both the interest it earns and the interest it pays reference the London interbank offered rate, though not identical maturities of that rate. A typical CLO earns interest based on onemonth Libor; it pays interest based on three-month Libor. The difference is of no importance when the two rates align. But they don't align today, as the threemonth rate is quoted 35 basis points over the one-month rate. Hence the pressure on the margins of the CLO managers: Instead of a 178 basis-point net interest margin, the average CLO is looking at a 140 basis-point margin, near a post-2008 low, according to Wells Fargo Securities, LLC. Things have come to such a pass that, in October, the Loan Syndication and Trading Association (LSTA) prayed for relief from the Volcker Rule to allow a CLO to diversify away from loans to bonds. All of which intensifies the frictions surrounding the regulatory push to drop Libor in place of a new rate (which is another story for another time). Suffice it to say that, because CLOs are not so prosperous as they used to be, they are not such eager bidders for loans as they formerly were.

Late credit-cycle sightings abound. Thus, October brought a \$540 million three-year-note issue from HC2 Holdings, Inc., a conglomerate with interests in undersea-cable servicing, structural steel, broadcasting, telecom, life sciences, insurance, energy and—to complete the corporate theme of miscellany—"other." Led by Philip A. Falcone, HC2 is chronically unprofitable, with a share price (\$3) and debt ratings (Caa1/single-B-minus) to match that record. "Only 1% of HC2's assets are available to support the notes," Santin observes. "As to the ratio of debt to earnings be-



fore interest, tax, depreciation and amortization, it stands at 15.5 times as conventionally calculated, and at half that much for any who would play the game of 'EBITDA add-backs'—inflating that already dubious, non-GAAP metric with so-called pro forma cost savings, projected synergies, etc."

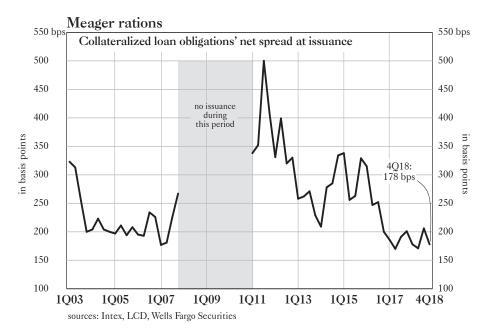
Give HC2 this much: Its notes scored the highest in covenant protection on the Moody's scale of any leveraged loan in the past five years. Mr. Market, however, weighing weak business fundamentals against strong legal language, has rendered his verdict: The 2021 notes, which came to market only two months ago with an 11½% coupon at 98¾, now change hands at 94¾.

The truth of it is that corporate creditors constitute an abused class of persons. The Federal Reserve debases them, and corporate managements outsmart them. Perhaps an enterprising politician could adopt them as a new grievance community.

To illustrate, consider the \$2.26 billion, first-lien, senior secured loan of engineering and construction firm McDermott International, Inc., due May 2025. It debuted in May to finance McDermott's acquisition of Chicago Bridge & Iron Co. The McDermott credit boasts maintenance covenants requiring minimum liquidity of \$200 million, a minimum interest coverage ratio of 1.5 times and a maximum leverage ratio of 4.25 times debt to EBITDA. So far, so good.

However, in 2017, before its Mc-Dermott tie-up, CB&I incurred charges of \$870 million related to immense cost overruns on a pair of gas-turbine projects and on another pair of LNG-terminal projects. How to account for these financial and operational bruises? Here the narrative takes a slightly technical turn (readers impatient for the how-to-short-credit discussion will find it at the bottom of this article).

Before the McDermott purchase, CB&I would have expensed the charges, lowering adjusted EBITDA. But after the purchase, in the quarter ended Oct. 30, McDermott announced extra costs of \$744 million related to the projects. Dan Nicolich and Stephen Opper, covenant analyst and distressed debt analyst, respectively, at Reorg Research, Inc., describe what happened:



Following the acquisition of CB&I, Mc-Dermott has accounted for the increased costs by adjusting its CB&I purchase price allocation. Changes in purchase price allocation driven by the increased cost estimates only affect the company's balance sheet and do not flow through the income statement. Since the increased costs do not flow through the company's income statement, they potentially inflate the company's covenant EBITDA-which builds off of GAAP net income-while also allowing the company to avoid credit agreement caps on addbacks for charges on the [relevant] projects. In addition to influencing the company's covenant compliance, the use of purchase price accounting distorts the ability to use McDermott's reported EBITDA as a proxy for its cash flow.

Had that mammoth \$744 million charge coursed through the income statement, rather than being redirected to the balance sheet, Reorg estimates, McDermott's leverage ratio would have spiked to 6.28 times adjusted EBITDA, easily crossing the 4.25 times threshold and technically signaling default under the credit agreement. Whatever the accounting niceties, the loan price has tumbled to 96 from more than par. So much for apparently strong covenant protection.

To be sure, the book is not closed on McDermott—observe, the Reorg analysts remind Santin, that 18 months passed before aggrieved lenders to closely held Neiman Marcus Group Ltd. put up their dukes. The department-

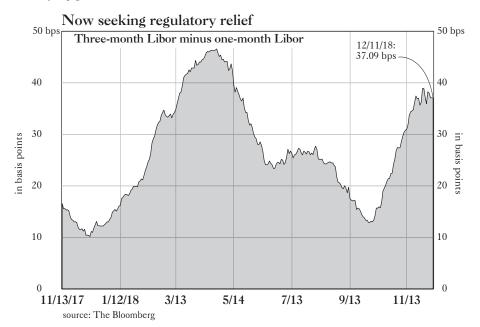
store controversy started in March 2017 when Neiman redesignated its prized online business MyTheresa and other properties as unrestricted subsidiaries, meaning they were out of the creditors' reach. On Sept. 18, management presented them to the equity owners, Ares Management L.P. and Canadian Pension Plan Investment Board. Such slick dealing has become commonplace in the private-equity world—see the unedifying sagas of retailers J. Crew Group, Inc. and PetSmart, Inc. (Grant's, July 13 and Sept. 21).

On Sept. 18, Marble Ridge Capital, the creditor with the boxing gloves, wrote to Neiman's board of directors alleging that the distributions may have constituted "intentional and constructive fraudulent transfers," triggering a default under the indentures of senior notes due 2021. Marble Ridge further contended that, prior to the transfers, the borrower was nearly 10 times leveraged, which is to say, insolvent.

Neiman Marcus, snubbing Marble Ridge, has started to restructure negotiations with a select group of lenders owning a "material portion" of the senior notes due 2021 and the secured credit facility. To the secured lenders, in return for their assent, management is offering additional liens, seniority on unencumbered ground leases, a 25 basispoint boost in their interest rate. To the unsecured lenders, management is dangling the offer to repurchase, at par, \$250 million of senior notes (trading at 50 cents on the dollar), in exchange

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for which the creditors would allow a three-year extension on the maturity of the debt they continue to hold. They would, in addition, be expected to affirm the legality of the dubious payout. As for more truculent and less privileged lenders—Marble Ridge, for instance—they would get nothing, not even the recourse to which they were entitled under the (for now) functionally deadletter debt agreements.

"Perhaps," Santin speculates, "Marble Ridge—as well as other less 'material' creditors of Neiman Marcus-will finally be shut out of the clubby restructuring group. If so, they will surely not be the last to be so marginalized. Passive investors, too, may one day find themselves on the outside looking in. And if disaster ever did strike the passive investing vehicles, the less liquid kind would not be the last to feel it. Retail funds and ETFs make up 16% of the leveraged-loan investor base, while they represent close to 40% of the highyield bond market, according to Bank of America Merrill Lynch. The Invesco Senior Loan ETF (BKLN on NYSE Arca), with \$6 billion of assets, and the iShares iBoxx High Yield Corporate Bond ETF (HYG on NYSE Arca), holding \$13.8 billion, constitute Exhibits A and B."

Adam Schwartz, paid-up subscriber and founder and chief investment officer of Black Bear Value Partners, L.P., a two-year-old fund managing mainly his own money, is using long-dated put options to short ETFs holding speculative-grade debt. "The primary thing," Schwartz tells Santin, "is that you have a

lot more debt, a lot lower expectations for defaults because that has been the case for the last five years with rates being low. You have spreads near all-time tights, and you have covenants that are nonexistent. Lenders don't really totally understand that they have very little in the way of protection."

The work of redeeming and creating shares in ETFs is performed by so-called authorized participants—the APs exchange ETF shares for the underlying securities, and securities for shares; it is their arbitrage that's intended to keep share price and asset value aligned. What puzzles Schwartz is the contradiction between the liquidity of the ETF shares, on the one hand, and the substantive illiquidity of the ETF assets, on the other. Junk bonds do trade, even if by appointment. Loans, too, trade by appointment, though even less frequently than bonds, and settlement routinely takes a week or more. Bond ETFs, at least, can count on APs to try to keep asset values and share prices in sync. No such mechanism exists for loans-the market isn't deep enough to allow it.

"I can't understand for the life of me, and no one has explained to me, where [the APs] are going to sell those cash bonds and what happens if the liquidity in the cash bond market gets strained," says Schwartz. "What I can see happening is this: People think that they have a very liquid instrument that is backed by very illiquid assets, and for the time being it is fine and works okay and the markets usually

work. But if there is a large amount of selling at the ETF level which requires a large amount of unit redemptions at the issuer AP level, the APs are going to require a larger and larger discount to NAV and that in turn is going to create more panic and selling by the investors. Which, in turn, leads to more selling and the need for liquidity by the AP." Schwartz is saying that he's short across the spectrum from high yield to leveraged loans, emerging markets and investment grade.

A bearish bet against emerging-market bonds may also be worth consideration. You can implement it against the iShares J.P. Morgan USD Emerging Markets Bond ETF (EMB on the Nasdaq), which holds \$14.9 billion of the kind of assets you wouldn't choose for your mother's portfolio. "If you look at the holdings list for EMB, in the top 11 you have 1MDB, which is caught up in the middle of all this fraud stuff; you have Iraq, which is a war-torn nation; you have Ecuador, which in 2015 paid a bond on time for the first time in its 180-year history," Zach Truesdell, co-founder and portfolio manager of Matador Global, tells Santin. "And the yield on the EMB is 4.8%, and its spread to Treasurys is at its narrowest ever." Like Schwartz, Truesdell says he prefers to operate with long-dated puts rather than shorting the stock outright.

At-the-money puts dated Jan. 21, 2021 against BKLN (quoted at \$22.37) at the strike price of \$22.00 are offered at \$2.45. Out-of-the-money puts against the HYG at a strike price of \$80 (quoted at \$83.04) ending on Jan. 17, 2020 are offered at \$4.30. Puts on EMB (trading at \$104.14), with a strike price of \$96.00 and an expiration of Dec. 20, 2019, can be had at \$2.25.

"I don't know if this happens," says Schwartz. "This is a bet where if I think I'm right, then I want to make a lot and if I'm wrong, then I lose a little. It is very hard to predict what has been virtually a 25-year cycle of easy money. What that means when the government stops buying bonds, when the ECB stops buying bonds, when China stops buying our bonds, I don't know. Anyone who says they know, please give them my phone number, because I don't know. It is very uncertain."

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#### Pigs in blankets

Grant's September 7, 2018—On Wall Street, success begets failure. Take a good idea, emulate it and embellish it, drive it into the ground like a tomato stake. Voilà: It's a bad idea. Which brings us to collateralized loan obligations, a great idea of the last recession and a potential disaster for the next one.

A CLO consists of loans and a manager. It exists to generate fees for the promoters and income for the investors. It's not quite true that a CLO is only as good as its loans. What is true is that a portion of a CLO is only as good as its loans, that portion being the junior one, equity and mezzanine debt. Deterioration in the quality of lateboom debt puts those segments at risk.

The assets of a CLO consist of syndicated (i.e., tradable) bank loans: the senior, floating-rate, secured kind. They're called leveraged loans because the borrowers are leveraged. The liabilities, too, consist of loans. The loans come in many segments, or "tranches," from senior (triple- and double-A) to mezzanine (single-A and triple-B) to junk (double-B). A sliver of equity—about 10% of the liabilities—lies under the debt.

Imagine a company that, in raising senior debt, was bound to raise junior debt and equity at the same time. Imagine having to please, simultaneously, the many separate investor constituencies. You have just stepped into the shoes of the would-be CLO builder.

Without the equity and lower-rated debt, there would be no triple-A tranches—as you will appreciate by and by. Without triple-A tranches, there would be no CLOs. Without CLOs, there would be many fewer private-equity transactions. And without lots of private-equity deal-making, there would be a very different kind of stock market.

CLOs hold about half of the \$1 trillion in leveraged loans outstanding. The difference between the yield on their assets and the cost of their liabilities is what generates their income. On assets, a typical CLO earns 330 basis points over the London interbank offered rate. On liabilities, it pays 150 basis points over the same rate. Leverage magnifies the 180 basis-point net return.

#### Typical capital structure of a CLO

	percentage of CLO liabilities	coupon (spread over Libor <u>in basis points)</u>
triple-A	62.0%	115
double-A	12.0	160
single-A	6.0	195
triple-B	5.5	300
double-B	4.5	585
equity	10.0	_

weighted average coupon: 145

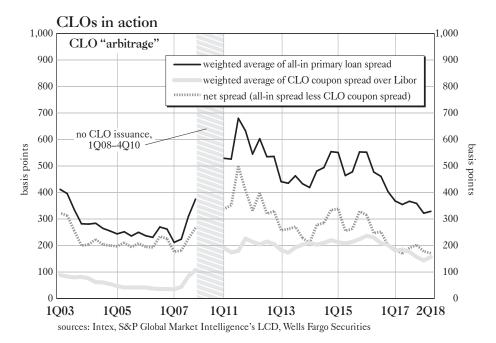
sources: Grant's, Wells Fargo Securities

CLOs are complex structures, but the problems they face are simple. The absence or evisceration of covenants in recent issues of leveraged loans is one (a covenant, as you recall, is the fine print that holds the corporate borrower to a certain standard of financial good housekeeping). The deterioration of the ratings of those loans is another problem (Grant's, July 13). Thus, in the second quarter, 45% of newly issued leveraged loans were spotted single-B, i.e., junk, up from 38% in 2017 and 28% in 2006. So far, the downshift in credit quality has roiled commentators more than investors. Trouble starts when defaults do. Moody's predicts that recovery rates in bankruptcy on first-lien loans will drop to 60% of par value in the next recession, from an average of 77% between 2007 and 2016. "Real bank loans are good instruments," says Michael Lewitt, publisher of *The Credit Strategist*, in conversation with colleague Fabiano Santin. "The problem is they're really bonds now."

Unsecured bonds lay a much weaker claim on corporate assets than do old-fashioned, covenant-laden, first-lien bank loans. Once upon a time there were CBOs—collateralized bond obligations. They walked the Earth at the turn of the 21st century but became extinct on account of the debilitating losses they bore in and around the 2001 recession (see the issue dated Aug. 17, 2001). Contrariwise, in and after the 2007–09 recession, CLOs prospered. We doubt they will prosper next time.

The accompanying table fleshes out the details of a representative CLO structure. Senior lenders, who fund most of the balance sheet, hold

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first call on cash flows; mezzanine and equity holders get what remains. The subdivision of the liabilities into tranches allows investors to pick their poison—to play it safe at the top, or seek out higher returns, with commensurate risk, in the middle or at the bottom.

There are protocols in place to mitigate risk. Thus, if a CLO does not generate sufficient cash flow to pay the senior lenders, or if it flunks the tests to assure adequate collateralization and borrower diversification, the manager must take corrective action. "Robust and opportunity-rich," the proud promoters call their creations.

And if past were prologue, a CLO critic would have nothing to complain about. Moody's reports that, among the 9,181 CLO debt tranches issued between 1993 and 2017, only 1.6% defaulted, and that not one default touched a tranche rated double-A or higher.

Endowments and regulated financial institutions find much to like in the triple-A-rated tranches, both for the safety they afford and the yields they deliver. Quoted at about 115 basis points over the Libor curve, they fetch on the order of 4%. "Compare that," as Santin suggests, "to a triple-A-rated, 10-year commercial mortgage-backed security offered at a credit spread of 83 basis points over the swap curve (total yield of 3.80%). Or to a double-A-rated, fixed-rate, 10-year corporate bond pay-

ing 62 basis points over Treasurys (total yield of 3.67%)."

Which brings us to the portion of the CLO capital structure most exposed to the downshift in asset quality—and to the upside of increasing asset prices, gently rising interest rates and a benign default environment. Equity tranches in the 2005-07 CLO vintages earned annual gains of 14%-18%, calculates David Preston, senior analyst at Wells Fargo Securities LLC. Such performance speaks for itself, though a bull might add that the majority holder of a CLO's equity exercises control over decisions to call or refinance the assets after the passage of a stipulated period (the "reinvestment" period). Fans of CLO equity call it a superior kind of private equity, as they ask: Why pay fees to KKR or Blackstone when you can reap LBOstyle rewards by investing in the bottom of a CLO capital stack?

There are lots of moving parts in CLOs. Here are a few: the frequency of prepayments (like the American mortgagor, the corporate borrower can refinance its leveraged loan at any time), the pricing of credit risk in the loan market, the length of time in which a manager may reinvest cash flows in new securities, the spread between interest income and funding costs within the CLO and the variation between one-month and threemonth Libor (most borrowers have

the option of switching to the lower of the two rates).

Especially do assumptions about defaults and recoveries inform predictions about future returns, or lack thereof. Take the simplified example of a CLO that earns 330 basis points plus Libor on its assets and pays 150 basis points plus Libor on its liabilities. After subtracting 40 basis points in management fees, net spread comes to 140 basis points—before defaults.

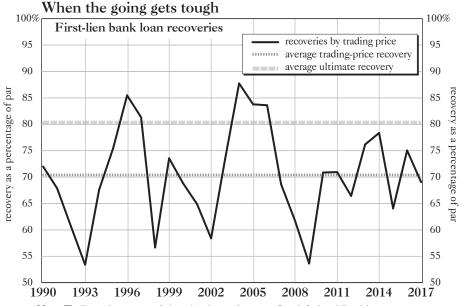
Now assume a default rate of 2%—admittedly, a generously low one. And assume a recovery rate of 80% of par on loans in bankruptcy—admittedly, a high one. The result is a default-adjusted net spread of 100 basis points. Leverage that to 10 times the equity portion, and you get 10% in net equity return.

Under more conservative (though still moderate) assumptions of a 3% default rate and a 60% recovery rate, return before leverage falls to just 20 basis points. Even 10 times 20 basis points is, in comparison with earlier CLO equity returns, a pittance. "Clearly, the economics don't look great for CLOs coming to market at today's net spread level," Santin observes.

Few differences between today's leveraged loans and the pre-Great Recession vintages are more critical than the loss of covenant protection. Current CLOs typically allow exposure to covlite in more than 65% of the portfolio compared with 10% to 15% in the past—with generous allowances for redefining certain cov-lite loans as non-cov-lite.

The principal purpose of loan covenants is to keep borrowers on the straight and narrow, just as the principal purpose of traffic lights is to prevent automobile accidents. The secondary purpose of loan covenants is to generate income for the lenders, just as the secondary purpose of traffic signals is to top up municipal coffers with the proceeds of speeding tickets. When a borrower trips a covenant, that company comes hat in hand to the lender to negotiate an amendment fee and reset the loan to a higher interest rate. No more covenants, no more tripping, no more amendments-and no more extra income to the CLOs (which goes, or rather went, to the equity investors).

What the CLO equity holder wants is time and volatility—"optionality," as the adepts say. In a sense, Santin observes, the equity tranches are call



Note: Trading-price recovery is based on loan price at or after default, while ultimate recovery is based on the value creditors realize at the resolution of a default event (typically one or two years following the initial default date). source: Moody's Investors Service. Inc.

options on credit spreads. In times of trouble, CLO managers can reinvest cash flows in cheap loans, as they so profitably did in the crisis 10 years ago when loan prices plunged from par to 70. But they can reinvest only during a stipulated reinvestment period, which used to span seven years. Today, it's typically four years. "You can imagine a case," Santin points out, "in which a credit washout occurs after the expiration of the reinvestment period. The CLO manager's hands would then be tied. Bargains might abound, but the manager would be unable to buy them."

A bull might counter, in the first place, that there's no predicting if or when another debt crisis will happen and, second, the equity tranches of the 2007 CLO class delivered the stupendous median return of 18.4% per annum. If the skies fell in 2008, so did loan prices (while the cost of borrowing for the 2007 vintage CLOs was only 50 basis points above Libor, one quarter of today's typical rate). Yes, mark-tomarket net asset values on CLOs were sawed in half, in keeping with the collapse in loan prices, but managers boldly seized the opportunity and prices recovered. Perhaps most importantly, the loans themselves, armored with covenant protection, proved money good.

Many things are different now, of course. What is no longer different is the short-lived risk retention rule of the Dodd-Frank Act. It required CLO managers to keep up to one-half of the equity value of the structures they originated, the better to align their interests with those of their investors. To the discreet applause on Wall Street, a U.S. Court of Appeals struck down the rule in February.

Naturally, the lowest interest rates in 3,000 years have made their mark on the way people lend and borrow. Corporate credit, as Preston observes, is "lower-rated and higher-levered. This is true of investment-grade corporate debt. This is true in the loan market. This is true in private credit."

So corporate debt is a soft spot, perhaps *the* soft spot of the cycle. It is vulnerable not in spite of, but because of, resurgent prosperity. The greater the prosperity (and the lower the interest rates), the weaker the vigilance. It's the vigilance deficit that crystalizes the errors that lead to a crisis of confidence. At some unpredicted moment, there's a scramble for cash, a collapse in prices

and the start of a bull market in value. You can't time the inflection point, but you can watch for the telltale signs.

The CLO market itself might send up a flare. Perhaps the issuance of leveraged loans will dry up, or the customary investors in CLO equity tranches will pull back. When all's well, CLO seed money is there for the plucking. Big banks eagerly front the senior portion of the so-called warehouse financing to give a new structure its start. CLO managers not only bankroll the warehouse equity, but also fold that initial stake into the final structure.

And for now, the funds remain pluckable. However, Jim Schaeffer, deputy chief investment officer at Aegon Asset Management, tells Santin that he recently noticed some reluctance to furnish warehouse equity. Aegon is an experienced CLO builder. "We've been able to issue a couple of CLOs this year," Schaeffer says, "which has been great. But when we went back to those who had been providing warehouses, there was just a little pause in the marketplace. It's not that there wasn't any demand. It was just a little bit of a pause." And he adds, "You can't really do a warehouse without the equity or the first loss piece."

CLOs are built from the ground up—from the equity level to the triple-A level, not the other way around. Refusal to commit to new equity investments would imperil the working of the machine that sustains American leveraged finance. Based on the 10% size of the typical CLO equity stake, there is \$50 billion at risk of impairment if default rates were to accelerate.

Schaeffer says he wouldn't make too much of this slight hesitation, and we won't, either. What we will do is keep a weather eye out for something greater than a pause. As Schaeffer himself puts it, "You have to be early, because when the market turns at the end of that cycle—given the illiquidity and volatility—it turns very quickly, and the whole market is trying to sell."

Those who track the credit cycle will naturally want to stay current with the changing values of CLO equity tranches. Alas, they are closely held. The next best approach is to monitor the quoted prices of the public vehicles that, according to Wells Fargo Securities, held \$2.6 billion in CLO equity exposure at the end of the second quarter. Two such entities may prove

especially informative.

Oxford Lane Capital Corp. (OXLC on the Nasdaq), which debuted in January 2011, buys CLO equity and mezzanine pieces and nothing else. Its market cap foots \$311 million and the shares trade at an 8% premium to NAV. Assuming reinvested dividends, the fund has returned 10.4% a year since inception, compared with 13.6% for the S&P 500 (at no premium to NAV, performance would have been 9.2% per year). The shares yield 15%.

Eagle Point Credit Co., Inc. (ECC on the Big Board) came to market in October 2014, also for the express purpose of buying junior portions of CLO capital structures. Its market cap stands at \$394 million, and the shares command a 10% premium to NAV, though traded with a 4% discount in 2016. Assuming reinvested dividends, the stock has returned 11.2% a year, compared with 13.1% for the S&P 500 (at no premium to NAV, performance would have been 8.51% a year). The shares yield 13.2%.

To enhance returns, Oxford Lane and Eagle Point both issued debt securities equal to 50% of NAV. Watch this space.

#### Buck privates

Gram's August 10, 2018—"Post-truth" is a malediction coined for politics, but Wall Street had the idea before the lexicographers sanctioned the word (in 2016, Oxford Dictionaries crowned it Word of the Year). With the coming of artificially low interest rates, dubious cash-flow metrics and conceptual marks of business value, objective investment truth has gone out the window. Into the resulting vacuum has flown private equity.

Now in progress is a critical survey of the \$3 trillion industry that will supposedly save the bacon of the country's underfunded pension plans and incomestarved endowments. In preview, we judge that it won't. Paying high valuations and employing heavy leverage, it couldn't. The disappointment will ripple far and wide.

Perhaps you, thrifty reader, who have not one dime at risk with the likes of the Carlyle Group, L.P., Bain Capital, L.P. or Clayton, Dubilier & Rice LLC, wonder why you are reading this. It is because, like the rest of

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us, you live within the private-equity force field. The fancy prices that the p.e. firms pay for listed companies (or the neglected and undermanaged subsidiaries thereof) contribute to the lift in public-market equity averages. The returns that p.e. has earned, and—it is hoped—will earn again, support an immense structure of debt. Unwarranted expectations concerning p.e. returns raise false hopes for deeply underfunded pension funds. In short, private equity is everybody's business.

Private equity was born "leveraged buyouts." Rebranding ensued when the junk-bond crackup of the late 1980s turned the word "leverage" into a kind of trigger warning. Nothing fundamental changed in the business model, however. Buy a company, employing borrowed money; improve the operations of that acquisition; extract cash from it; take it public (or, as is more and more the case, sell it to another p.e. firm); procure fees.

Just now the p.e. sponsors are in clover. "If it's possible, fundraising has been too good, with an unprecedented \$3 trillion raised over the past five years," relates Hugh MacArthur, head of global private equity for Bain & Co. According to Preqin Ltd., 3,037 p.e. funds are currently seeking \$948 billion in new capital, compared with year-ago totals of 1,998 funds looking for \$676 billion.

Getting the money turns out to be the easy part. Investing it is the rub, especially now that, again according to MacArthur, "around half of all companies acquired priced in excess of 11 times EBITDA [earnings before interest, taxes, depreciation and amortization]." (More on the acronym by and by.) Expectant limited partners force the action because they need the anticipated returns.

Perhaps you are a college investment officer. It long ago occurred to you, as it may not have occurred to the Federal Reserve authors of QE, that there are two sides to the investment pancake. If asset prices skyrocket, so will the cost of the associated liabilities. Take the great bond bull market. At 10% interest rates, \$1 million produces \$100,000 of income a year. At 2%, the same million produces \$20,000 a year. To earn \$100,000 of income, you now need \$5 million of bonds.

Mindful of these truths, you, the CIO, do what you have to do. To pay the football coach and lesser faculty, keep the lights on, etc., you draw down 4.5% per annum on your none-too-plump endowment. Because the rate of inflation particular to your institution is running at 3% per annum, you need to earn 71/2% just to keep running in place. Highgrade bonds return 4%, the stock market (using the S&P 500 over the past 20 years) delivers 6.7%. So, fingers crossed, you turn to alternatives. If you expect big, perhaps unreasonable, things from your p.e. allocation, it's because you need them. You want to believe.

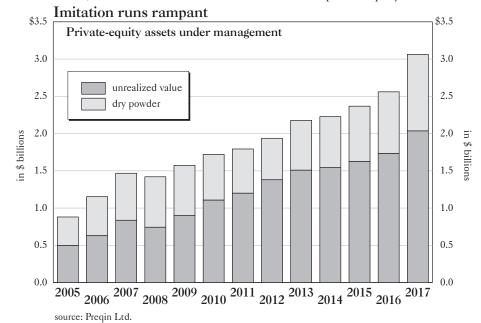
So it is that 81% of the respondents to Preqin's December 2017 investor survey predicted that private equity would beat public equity in 2018. And of this bullish super-majority, 40% said they estimated the margin of outperformance at a gaudy 410 basis points.

State pension plans are even needier than endowments, showing a combined, cumulative unfunded liability of \$1.4 trillion, according to the Pew Charitable Trusts. "Even after nine years of economic recovery," Greg Mennis, Pew's director of pension research, advises colleague Evan Lorenz, "public pensions are more vulnerable than they've ever been before to an economic downturn." Public-fund managers, needing something to stave off bankruptcy, are likewise turning to p.e. "We've seen numbers that [alternatives are] just over one-quarter of the total portfolios," says Mennis. "Private equity is one of the two biggest components of the alternatives, along with real estate, and funds have invested about 10% of their assets in private equity."

A little mind experiment shows how high are the stakes. "If, instead of outperforming the stock market by 400 basis points, assume that it underperforms by just that margin," Lorenz proposes. "In that case, the plans would face a 0.8% deficit in expected returns—the 400 extra basis points they didn't earn on top of the 400 basis-point deficit that did materialize. Multiply those hypothetical 800 basis points by a 10% p.e. allocation, and you have a material problem relative to the kind of returns—an average of 7.4%—that the pension funds are still assuming they're going to earn.

"Especially sensitive to a downward shift in p.e. performance," Lorenz goes on, "are the pension funds that only recently jumped into alternative assets. Take the Arizona Public Safety Personnel Retirement System, for instance, which, as of June 30, 2017, had a funding status of 45.3% on the assumption that the investment manager could deliver a stream of 7.4% returns. The Arizona plan jacked up its p.e. allocation to 13.88% from 0.48% in the 10 years through June 2017."

Nobody can say that private equity didn't earn its reputation. "Over a long horizon," writes Daniel Rasmussen in a must-read article in the Spring 2018 edition of *American Affairs*, "private equity has certainly had a good run." Thus, from 1990 to 2010, the industry returned 14.4% a year, compared with 8.1% a year for the S&P 500 index, net of the standard 2% management fees



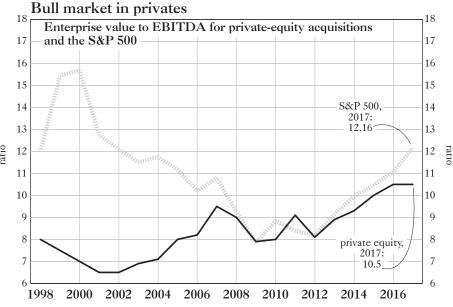
and 20% profit reallocation. "Meaning," as Rasmussen notes, "that the gross return of private equity over this period was more like 20% per year." That was then. Since 2012, p.e. has lagged the Russell 2000 by 1% a year and the S&P 500 by 1.5% a year.

The founder and portfolio manager of Verdad Advisers, L.P., Rasmussen says that, prior to 2010, the multiple attached to the average p.e. transaction was lower than the average S&P multiple. Now they're almost identical, while leverage has risen along with prices. Before 2010, the average p.e. acquisition was structured as a ratio of three to four times debt to EBITDA. Since 2010, such investments have averaged five to six times. "We are in a new world," Rasmussen tells Lorenz, "where private equity is paying the same prices as public equity but using a lot more debt. If you are leveraging up and can't beat the public markets, think about the value destruction relative to, say, a leveraged S&P 500 index fund."

If the adage is correct that good ideas turn into bad ideas when imitators succeed innovators, the LBO was, obviously, originally transformative. To Wall Street in the 1980s, it was a combination of sliced bread and the wheel. And not in a full generation of imitation have the successors to William E. Simon, Secretary of the Treasury under Presidents Nixon and Ford, and his partner Raymond Chambers, doing business in the 1980s as Wesray Capital Corp., succeeded in destroying it.

In the 1982 buyout of Gibson Greetings, Inc., an Ohio cards-for-occasions company, Simon personally turned \$330,000 into more than \$70 million over the course of 16 months. To swing the \$80 million Gibson purchase price, Wesray was somehow able to borrow \$79 million. When the partners took the card publisher public in 1983, Mr. Market was willing to pay \$290 million for it. Debt is like chocolate cake, said the late LBO pioneer, Ted Forstmann, in cautioning against excess leverage. Not anticipating that wise counsel, Simon and Chambers devoured every last crumb of Forstmann's cake and licked the mixing bowl clean.

In 1982, the LBO was a leap in the dark. In 2018, it's an asset class. A marker of this transformation is Clayton Dubilier's recent purchase of a 60% stake in closely-held American Greetings Corp. American, a kind of greeting-card



source: Daniel Rasmussen, Verdad Advisers, L.P.

roll-up, bought Gibson itself in 1999. The total consideration was \$1.1 billion, of which \$770 million was funded with debt, \$204 million with preferred equity and \$136 million in common equity that the sellers contributed to the recapitalized enterprise. (The \$340 million in total equity is 54% less than what Gibson alone commanded in 1983 dollars 35 years earlier.) Pro forma leverage weighed in at slightly more than five times debt to EBITDA, on the conservative side nowadays. In the first half of 2018, according to Fitch Ratings, the proportion of borrowings to EBITDA in private equity averaged 6.4 times, up from 6.2 in 2017 and 5.9 in 2016.

As for returns to the p.e. sponsors, time will tell (the new tax law does them no favors), but the comparatively modest leverage of 2018 will never achieve for Clayton Dubilier what a debt/equity ratio of 79:1 did for Simon and Chambers.

Which leads us back to the trillion-dollar question: What kind of returns can p.e. deliver, overburdened as it is with great expectations, rich multiples and enough debt to push a mediocre business into bankruptcy in a proper recession?

Lorenz put the question to a 20-year veteran of the p.e. business. Our informant, who asked to go nameless, said he agreed with *Grant's* that the cost of capital would likely rise—"inflation is coming, risk premia have been too low, there has been no volatility and that

has got to change. If that happens, then you have a vintage of deals starting from 2014 to today that are going to struggle to compound their equity at the levels their sponsors want and need."

He drew a breath and continued: "So I think we are set up—if the global cost of capital normalizes—for a lowish-return industry. But the public markets will also be lower-return. Then the question is, with the private-equity market earning its fee structure, is it outperforming enough? And the answer is that some will and a bunch won't."

And finally: "It is a dynamic industry. It won't look the same 10 years from now, that is for sure. The narrative of 'all the leverage, and there is widespread bankruptcy'-that is not the right narrative. By the way, if you look at the capitalization tables of buyouts these days, there is about 50% equity in most of these deals. So the issue is how you take 50% of the equity and compound it at 20% for five years when the global cost of capital is coming up and multiples are coming down. It is going to be really hard to do that. That is the narrative. You're going to have low returns at the median."

. . .

It augurs nothing good for the future of finance that the world's central banks are unrepentant about QE, shrunken yields and deflated volatility while the

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proud old accounting profession bends to the needs of corporate managements and their Wall Street handmaids. The private-equity industry is the beneficiary, if that's the word, of each blight.

Everybody knows about tiny rates and the preternatural calm of the VIX index, but almost no one questions the integrity or utility of EBITDA, the principal valuation metric of the private-equity business (and of much of the publicequity business, too). You'd suppose that EBITDA were a useful measure of debt-service capacity because that is how it's customarily presented, even in these lofty pages (and in this sophisticated article). The truth is otherwise, and Moody's performed a public service in bringing it to the fore. "Putting EBITDA in Perspective: Ten Critical Failings of EBITDA as the Principal Determinant of Cash Flow," by a team led by the excellent Pamela Stumpp, exposed EBITDA as the hoax it is and ever was. The report is dated June 2000.

If Stumpp et al. couldn't bring the market around to their way of thinking—a fair surmise 18 years after publication—it's no fault of the authors. They persuasively show how EBITDA fails, and how it was abused. It was, and remains, a bull-market construct that flatters cash flows, confuses "earnings" with cash, is blind to the quality of earnings and silent when (as sometimes happens) economic depreciation in the mine or on the factory floor exceeds book depreciation on the balance sheet.

As to the capacity to pay interest and principal on corporate borrowings, Stumpp et al. had this to say: "To the extent that EBITDA contains a high amount of depreciation and amortization, it is important to evaluate whether funds provided by such non-cash charges are truly available for debt service. To the extent that a company relies on cash from operations to finance new capital investments, then depreciation or amortization may not be entirely available for debt service."

And the *pièce de résistance*, never more relevant than in this toppy phase of the p.e. boom, says this about deal-making: "EBITDA multiples create an illusion of making acquisition prices appear smaller. For example, a 6.5 times EBITDA multiple for a company whose EBITDA consists 50% of EBITA and 50% of depreciation equates to a materially higher 13 times multiple of operating earnings plus amortization."

The report is available for the asking (ask Google for the PDF). You can find a summary in the issue of *Grant's* dated Aug. 18, 2000.

EBITDA deceives those who wish to be deceived, or at least don't mind being deceived, and the same can be said for much academic financial theory, especially the proposition that risk is volatility. Crediting that notion, allocators of billions of other people's dollars gravitate to the least volatile class of equity, that class being the private one, which isn't quoted in the glowing terminal screen.

"They say," as Rasmussen puts it to Lorenz, "private-equity volatility has been so much lower. In 2008, small caps were down from peak to trough 60%, and private equity was down 30%. 'Private equity is safe. It's not risky. The marks only move once a quarter, and we never have surprises.' They love it."

Not all love it. A *Grant's* Incisive Thinking Trophy goes to Amy Falls, chief investment officer at The Rockefeller University, for her approach to private-equity risk control. She tells Lorenz that she assigns a higher risk factor to private equity than to the public kind, because of the embedded leverage in the former. And because the p.e. funds do not mark to market as often as the public funds do, "the observed volatility is not real. We say these are . . . leveraged equities and assign a higher risk factor. It is also not great to give up liquidity."

Perhaps the private-equity investing community is not strictly post-truth. But it is post-curiosity, post-common sense—and pre-regret.

#### Tomorrow's debt hearings

Grant's July 13, 2018—The federal inquest into the credit smashup of, let us say, 2019 will not overlook leveraged loans. Testimony will uncover the facts that were as plain as day in 2018. That body of knowledge, plus a little extra, fills the essay in progress. Skipping down to the bottom line—and to allow for the odd exception to a heroic generalization—the trillion-dollar leveraged loan market is no place for the readers of Grant's.

Since the very word "loan" connotes leverage, the inquisitive congressmen may wonder, What is a "leveraged" loan? Here is a blessed case of a simple answer attached to a simple question. Lever-

aged loans are floating-rate, secured loans to speculative-grade borrowers. They earned a reputation for safety in the crucible of 2008.

The reputation flatters the nolonger-exemplary asset. As the M&A craze has ballooned the supply of leveraged loans, ultra-low (but gently rising) interest rates have pumped up the corresponding demand. In the first half of 2018, \$90 billion of new issuance pushed the volume of outstanding loans to \$1.04 trillion, up from \$554 billion in 2007, according to S&P Global Market Intelligence's LCD unit.

"You have no call protection, and you have no covenants. You don't get the upside, and you get all the downside,' says David Sherman, paid-up subscriber and principal of credit-specialist Cohanzick Management, LLC, of the leveraged loan-value proposition (he will make an all-star congressional witness). Successful borrowers call their loans before maturity to reset the interest rate lower and the covenant protection looser. The least successful borrowers default. The corporate debtorcreditor relationship has long been a onesided, almost abusive, affair. You wish that Oprah would mediate.

New in the past half-decade is the decline of the contractual protection furnished by loan covenants. Mostly, it's not there, but, increasingly, it's meager even when nominally present. At this writing, fully 77% of outstanding leveraged loans are denoted "covenant lite," up from 17% in 2007. There's no settled definition of cov-lite, only that key maintenance covenants (e.g., debt to EBITDA) are missing.

Credit quality, too, is on the wane, as it tends to be at the end of long business expansions, let alone of expansions nurtured by radical monetary policy. Fully 45% of second-quarter issuance was rated in the neighborhood of single-B, up from 38% in 2017—and only 28% in 2006. Come the next default cycle, Moody's Investors Service projects, recovery rates on first-lien secured loans will drop to 60%, from an average of 77% between 2007 and 2016.

Leveraged loans pay in the neighborhood of Libor plus 300 to 350 basis points—so 5.3% to 5.8%. Managements pay dividends gladly, interest grudgingly and, seemingly, only after counsel has exhausted every possible avenue of escape. Loan covenants are put in place to protect the creditors from the predations of

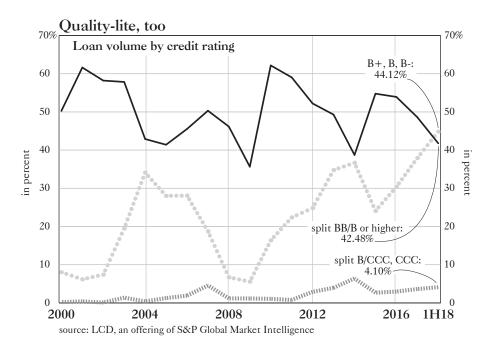
the borrowers. The fine print discourages the borrower from, among other things,

- piling on new debt;
- diverting or removing collateral;
- prepaying noncurrent, unsecured debt ahead of secured lenders;
- issuing additional first-lien debt equal in seniority to (pari passu with) the lender's claims;
  - paying imprudently large dividends;
- channeling the proceeds of asset sales to dividend payments rather than to the repayment of debt.

There's another side to the pancake, of course. You hear the loan bulls say that they invest in good companies only, that they don't bother with forecasts of recovery rates, that the covenant question is too complex a subject for journalistic discussion and that, according to none other than Moody's, forecast recovery rates are virtually identical between cov-lite and cov-heavy borrowers (which the agency does, in fact, predict). Besides, the bullish retort continues, cov-lite loans actually yield an average of 69 basis points less than the cov-heavy alternative. Better a strong credit with minimal contractual protection than a weak credit with maximum contractual protection, goes the rationale. That bit of sophistry eludes us and Sherman, too, who tells colleague Fabiano Santin, "It's sort of like a prenup. You don't really think you're going to need it, but it's always nice to have it. The problem with investing in covenant-lite loans is that you may not need [covenants] today, but you may need them in the future and you're going to really wish you had that prenup in place." So says the happily married, prenup-less credit investor.

Once upon a time, banks not only originated leveraged loans but also held them on balance sheet. Old-timers will recall the blight of "pier loans" in 1989–90. Credit intended to bridge the gap between the closing of a leveraged buyout and the funding of the associated long-term debt instead came to look permanent when the junk-bond market collapsed. Hence, the bridge loans became pier loans—bridges to nowhere.

Now the banks originate in order to syndicate. Foremost among the ultimate holders are the structures called collateralized loan obligations, which own 65% of the leveraged loans outstanding, and loan mutual funds,



which hold 23%. (More on these entities in a coming issue of *Grant's*.)

"Bankers are free to be aggressive in the originating role," comments Santin, "since the new lenders are considered sophisticated investors fit to do their own homework—save for fraudulent behavior by the bankers, of course.

"Aggressiveness takes the form of weak lending terms," Santin goes on. "Since the banks and their lawyers owe no long-term fiduciary duty to the ultimate creditors, they compete for mandates in the financing of mergers and acquisitions, leveraged buyouts, refinancing of secured loans (often just a few months after their issuance and years prior to their maturity) at ever lower credit spreads."

Cov-lite is only one feature of the not-so-new normal in secured debt. The flimsy protections afforded by seemingly cov-heavy contractual language is another. A 2015 Moody's report, "The Cov-Lite Label Can Mischaracterize Credit Risk," warned against credit agreements that protect the lender in name, the borrower (and its beloved shareholders) in fact. An example would be the stipulation of a seemingly safe ratio of cash flow to interest expense. It is safe until you delve into the borrower's definition of cash flow.

Every trainee knows that EBITDA is a slack, unrigorous, popular, non-GAAP measure of cash flow. It's defined as earnings before interest, tax-

es, depreciation and amortization. It can be—and commonly is—redefined by corporate managements, and this "adjusted" EBITDA is even slacker, less rigorous and more popular than the already debased EBITDA. (EBIT is the preferred, old-school cash-flow metric.) So Moody's sounded the alarm on "aggressive EBITDA add-backs."

What might be an example of the type? Valeant Pharmaceuticals International, Inc. (of which more below) obliges with a beauty. In calculating EBITDA, our old friend adds back "pro forma 'run rate' cost savings"the money that the company expects to save through its hallmark dexterous management. So Valeant's EBITDA is actually EBITDAH: earnings before interest, taxes, depreciation, amortization and a hunch. S&P's LCD division reports that a record 22% of M&A-related loans issued in the first half of 2018 contained add-backs to adjusted EBITDA greater than 50% of EBITDA, double the 11.3% of such loans issued in 2005, which was the pre-2008 high.

Congressional apportioners of blame in the wake of our anticipated 2019 credit event will discover that the corruption of senior corporate debt began many years ago. A crystallizing case involves J. Crew Group, Inc.'s \$1.5 billion first-lien, secured-term loan issued in 2014. Investors in that ill-begotten credit have nobly served as guinea pigs in Wall Street's

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investment-banking laboratory for compensation of just 300 basis points over three-month Libor.

The J. Crew loan, rated single-B before its demotion to triple-C, changes hands at 84 cents on the dollar, up from a 2017 low of 51 cents. By the lights of Bloomberg, L.P., the J. Crew credit is actually not cov-lite. Nor is it covheavy. Certainly, it is cov-deficient. It has, as Santin notes, "a certain key leverage-maintenance covenant that becomes effective only on November 2019 and allows for, yes, up to 15 times debt to EBITDA—the company's current leverage stands at 8 times."

"Secured," too, is a word open to interpretation in the EZ-money era. "The J. Crew Trapdoor" is the name affixed by credit-research firm Covenant Review, LLC to the retailer's transfer of intellectual property worth \$250 million into a foreign subsidiary and out of the reach of the ostensibly secured creditors. To top it all, shortly after the switch, that subsidiary issued \$250 million of 13% firstlien bonds due in 2021; the bonds were secured by the very same moveable IP. The subsidiary next offered an exchange to holders of its \$560 million of subordinated payment-in-kind bonds due in 2019—the new 13% bonds for their heavily marked-down PIK notes. Assenting, the PIK holders allowed J. Crew to reduce its leverage by lopping off \$310 million in subordinated unsecured debt. That improvement came out of the hide of the term-loan lenders, as their collateral was now someone else's.

There are winners as well as losers in the J. Crew switcheroo. The former PIK bondholders, who would have seen little recovery on their initial investment (they ranked last in the recovery line), are now in better shape than the term-loan lenders given their priority over the IP collateral. Reflecting this privileged position, the 13s of 2021 trade at 118 cents on the dollar. The bulk of J. Crew's \$1.9 billion debt matures in 2021. Even with little or no cash generation, the company could bump along for three more years, zombie-fashion, further reducing the final recovery of the term-loan investors. In the past, observes Jessica Reiss, head of leveraged loan research at Covenant Review, secured lenders had the right to get involved at an earlier stage as leverage approached maintenancecovenant thresholds. The result was timelier bankruptcies, better recoveries-and fewer zombies. We commend this line of inquiry to future congressional staff.

"Like many a great invention, the J. Crew Trapdoor was the product of a great collaboration," observes Santin. "A year before J. Crew's move, Claire's Stores, Inc., under the private-equity ownership of Apollo Global Management, LLC, shifted trademark rights to a European subsidiary, and so became beyond the grasp of the secured creditors. The retailer was even then falling short of covering interest payments, and its leverage ran over 11 times adjusted EBITDA. It finally filed for bankruptcy

this past March. Its first-lien secured notes trade at 64 cents. Creditors in trapdoor-prone instruments of other retailers are likewise behind the eightball: Revlon, Inc.'s term loan (whose 'trapdoor,' according to Brian Darsow, legal analyst at Debtwire, Inc., should probably be called a 'black hole,' given the issuer's ability to divert from secured creditors unlimited assets other than cash) trades at 77 cents."

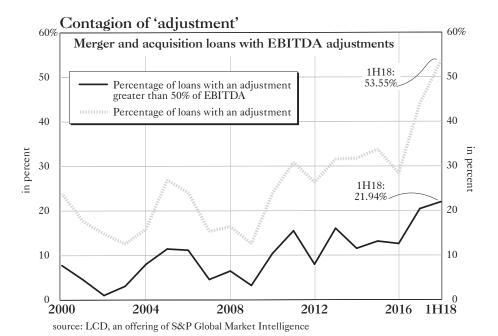
So much for the known disasters. Split-rated Party City Holdings, Inc. (Ba3/double-B-plus) is an example of a prospective one, and we offer it, too, to the government's debt-investigating committee.

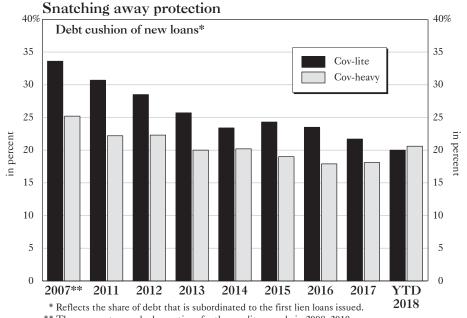
Party City's \$1.2 billion first-lien secured loan, due August 2022, quoted at 100<sup>3</sup>/<sub>8</sub> cents and paying 275 basis points over Libor for a 5.07% current yield, is the asset to watch. The borrower is a listed subsidiary of the eponymous publicly listed vendor of balloons, string-pulled piñatas, sexy Halloween costumes, superhero Halloween costumes and personalized wedding tableware in which the funds managed by Thomas H. Lee Partners, L.P. own a 47% interest. Including \$325 million in revolving bank debt and \$350 million in 61/8% unsecured notes, debt totals \$1.88 billion.

Party City is a creditworthy business. The question for the creditors is: How much and what kind of credit? Last year the company showed \$2.37 billion in revenue and \$280 million in operating income. Interest coverage, defined as operating income over interest expense, climbed to 3.2 times from 2.2 times in 2015, thanks to the retirement of debt from the proceeds of a 2015 IPO. Last year, management chose to apportion cash (\$130 million net of \$75 million for acquisitions) to the repurchase of stock.

EBITDA of \$415 million for the trailing 12 months ended March 31 includes \$40 million of add-ons. So adjusted, the ratio of debt to EBITDA stands at 4.5 times. The term loan and revolver—secured, first-lien credits—rank above the unsecured debt, while the term loan is effectively subordinated to the revolving facility.

Please bear with us, as the details not only tell the story but also describe the risks. The revolver has a senior priority lien over Party City's current assets—cash (\$55 million), accounts receivables (\$131 million) and inven-





\*\* There are not enough observations for the cov-lite sample in 2008–2010.

source: LCD, an offering of S&P Global Market Intelligence

tory (\$621 million). These represent the bulk of a retailer's tangible assets. The term loan has lien priority over long-term assets such as \$300 million in property, plant and equipment and \$570 million allocated to trade names. At the end of 2017, the company's 747 stores operated under leases.

"A first lien it may be, and 'secured,' too," Santin notes, "but the \$1.2 billion Party City loan lacks maintenance covenants, the language that limits new borrowing. Based on our estimates and a March 30 report by Ian Feng, legal analyst at Covenant Review, Party City could incur an additional \$666 million in unsecured debt to take net leverage to 6 times based on its debt-ratio carveout. The company could then take leverage all the way to 7.3 times, based on what is known as the accordion feature in the credit agreement. (Accordion clauses do just what you'd expect they would—allow management to borrow beyond a predetermined limit.) Even at 7.3 times, there'd be room for another \$315 million of unsecured borrowing, which could lift leverage to 8 times—assuming, of course, that the company could find lenders brave enough, bullish enough or uninformed enough to advance the funds."

There are potential traps in the Party City loan agreement. For instance, assuming that the company chose only to tap its secured debt capacity, it could borrow \$605 million to pay dividends or

repurchase shares, thereby boosting secured debt to 86% of its total debt, up from 81% today. That would be nothing out of the ordinary in this market, though it represents a loss of protection for senior lenders. In 2007, subordinated debt represented 35% of total debt among the cohort of leveraged corporate borrowers. It was a nice layer of insulation for the senior lenders. Today, that level of protection amounts to 22%, a less nice layer.

Besides, there are no covenants to prevent Party City from prepaying the 61/8s of 2023 ahead of the term loan that matures in 2022. The 61/8s trade at 100<sup>1</sup>/<sub>8</sub> cents for a 5.54% yield to worst on August 2020 when they are callable at par. While term-loan lenders benefit from rising rates (the current yield curve projects the loan to yield 5.47% to maturity), they are reciprocally exposed to the risk of falling ones. They are especially exposed to the risk of management deciding to pay down higher-yielding junior claims, loading more credit risk on the shoulders of the people who had thought they were free of it.

And Party City, too, has its trapdoor. According to Feng, the company could shuffle at least \$410 million of collateral away from the secured lenders. As mentioned, the asset side of the balance sheet shows \$300 million in machinery and equipment, leasehold improvements, furniture and fixtures plus \$650 million in trade names and other

such intellectual property. J. Crew showed just how mobile that IP can be.

Third and final exhibit is Valeant Pharmaceuticals's brand new \$4.6 billion first-lien, secured-term loan due May 2025. The loan is rated double-B-minus; VRX itself, B3/single-B. The credit is the refinancing of a refinancing, all to the advantage of the scandal-plagued issuer. It's not just the American homeowner who owns a wonderful, free interest-rate option. Leveraged-loan borrowers do, too.

The new Valeant loan trades at par and pays 300 basis points over Libor for a 5.3% current yield. There's no Libor floor; if the benchmark money-market rate should fall to zero, Valeant's creditors would bear the full disappointment. The company owes an additional \$5 billion in secured bonds and \$15.6 billion in senior unsecured bonds, three quarters of which mature prior to the term loan. Total leverage stands at 6.8 times trailing adjusted EBITDA, marginally down from 7 times at the end of 2016.

Patent losses in branded products and price and volume pressure in the dermatology field have continued to harry the business. Goodwill impairment knocked first-quarter operating income for a \$2.3 billion loss, compared to a positive \$211 million in the like period of 2017. Adjusted EBITDA fell to \$832 million from \$861 million a year ago. However—however—first-quarter organic revenue showed 2% growth compared to a 4% drop in 2017. Reading the news, needy lenders flung their caps into the air, and the Valeant front office prepared to refi.

The result was the \$4.6 billion loan, issued June 1. It refinanced a \$3.8 billion term loan from November, which had refinanced a \$3 billion term loan from the previous March. The company did better for itself each time it borrowed. The November loan was priced at 350 basis points over Libor, the March loan at 475 basis points over Libor. Since March 2017, Valeant has boosted indebtedness under its term loan by \$1.6 billion. It has likewise issued \$1.75 billion in secured bonds to prepay \$6 billion in unsecured bonds. The latter, which contained some restrictive covenants, would have fallen due between 2020 and 2021. Of course, liquidation of unsecured debt throws more credit risk on the secured lenders

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as they carry a bigger portion of Valeant's business: Secured debt to estimated 2018 adjusted EBITDA stands at 3 times versus 2.48 times in 2015.

Not just in pricing has Valeant improved its position through these serial refinancings. The November loan agreement had tied management's hands by imposing a limit of 3 times secured debt to adjusted EBITDA. In dollar terms, that worked out to a maximum of \$2.2 billion in additional secured borrowing, according to Dan Nicolich, senior covenant analyst at Reorg Research. By negotiating the June credit agreement and by refinancing the unsecured notes (the ones with the nettlesome covenants), Valeant has unlocked new borrowing capacity, as much as \$4.1 billion in secured debt. Suffice it to say, observes Nicolich, that Valeant could, if it wished, under the new loan agreement, prioritize the repayment of the unsecured bondholders, so reducing the cushion of subordinated debt to protect the senior credi-

Moreover, unlike the prior credit agreement that required the company to use proceeds from asset sales to prepay secured debt, the new loan allows management to use money from asset sales to make investments the creditors can't touch, according to Mark Xiong, legal analyst at Covenant Review.

We ask: Do the loan buyers realize it? Are they getting paid for it? These questions, too, we offer to the federal inquisitors of the future.

#### Here's the beef

Grant's April 20, 2018—Food is almost a sideline in the franchise restaurant business of 2018, John Hamburger, president of the Franchise Times Corp. (the excellent Restaurant Finance Monitor is one of its titles), told the Grant's assembled. Financial engineering is rather the spécialité de la maison.

The big chains don't borrow against the collateral of leasehold improvements or knives and forks or refrigerators. Cash flow and royalty streams are rather what tick the bankers' boxes. Hamburger said that franchisees "have greater access to capital than at any point in my 37 years in the restaurant business. . . . I used to joke there were two phrases bankers despised. One was 'stick 'em up' and the other

is 'I need a restaurant loan.' Not anymore. Today, restaurants have become an investable category for banks, PE funds and family offices."

"Big" and "asset-light" are the reigning ideas. The franchisors sell their stores to the franchisees. The franchisees borrow to buy them. Mom-and-pops no more, 130 franchisee conglomerations show revenues of greater than \$100 million, four of more than \$1 billion. "Many smaller franchisees," said Hamburger, "faced with mandated remodeling expenditures that easily could run into the millions of dollars, decided to sell their stores to the larger operators."

What tops a good thing? Why, a bigger and better thing: "Recently, two large Taco Bell franchisees borrowed institutionally at pro-forma leverage of seven times EBITDA [earnings before interest, taxes, depreciation and amortization] and paid a large dividend to their private-equity sponsors. Moody's assigned a B2 rating to the first-lien loans and a Caa2 rating to the secondlien loans. Moody's cited 'high leverage' but high 'brand awareness' for the ratings. The blended interest rate was 450 basis points over Libor, higher than a typical bank deal. Investors we spoke with confirmed the loan structure was covenant-light and required little amortization, yet the deal was oversubscribed."

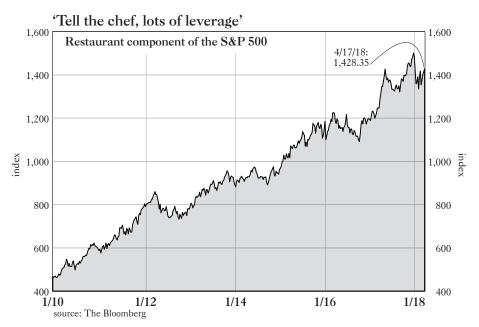
No surprise, perhaps, as Hamburger continued, that "a bit of stress" is starting to show in bank restaurantloan portfolios after a year of rising wages and weak sales. Softening sales go ill with stiffening interest rates (franchisees borrow at variable rates priced at a spread to Libor) and higher mandated wage costs (labor is the industry's biggest expense).

"When you look at the valuations Wall Street has placed on these 100%, asset-light franchisors, you'd think this is a fantastic system," our speaker said. "On one side you have a franchisor with no capital expenditures and no day-to-day street-level exposure collecting royalties and rents by the bushel basket, trading at double-digit multiples, all the while levering up to pump out cash out to shareholders like there's no tomorrow. On the other side, [you have] a franchisee, one that's actually in the trenches running these restaurants and finding out it's not a very friendly operating environment right now.

"I've heard analysts say that royalties will go up for the big franchisors when franchisees raise their prices to cover these labor-cost increases. But what if franchisees can't raise prices and instead continue to offer the 2 for \$1's, the \$5.99 pizzas, the 4 for \$4's, the \$1, \$2, \$3 [menus] and the 2 for \$6's?

Hamburger concluded:

I'm here to tell you this Shangri-La doesn't go on forever. You can't have one side of the franchise contract getting fabulously rich while the other side faces these headwinds alone. The concept of a moat around the franchisor is a myth. That somehow a brand can separate itself from



the unit-level economics of its franchisees is not grounded in reality.

Something will give. Something is giving. Look what's happening in Applebee's and Tim Hortons. At Applebee's, franchisees are defaulting on their royalty payments and the brand has had to kick money into the advertising fund. At Tim Hortons, there are lawsuits between the company and franchisees over the ad fund.

Proponents argue that an asset-light model delivers better margins and a higher return on capital. That's absolutely true. I'd much rather be a franchisor that collects royalties than a franchisee that has to pay them.

However, I think the asset-light franchisors have run out of financial engineering tricks. Refranchising is all but over and the G&A has already been cut. There's too much debt.

In my view, it can only mean one thing, and that's a lid on value for asset-light franchisors, especially the ones not growing. The fact that rates are rising may force a multiple compression sooner rather than later.

# The nine lives of the modern leveraged company

Grant's March 23, 2018—Two Tuesdays ago, not a single yen's worth of the currently issued 10-year Japanese government bond changed hands. Nobody seemed to think it was worth the bother. You've heard of stranded oil. Now come stranded bonds.

Dead bonds and living-dead companies are the topics at hand. A decade of interest-rate suppression has created an anomalous boom. Smack dab in the middle of the vibrant, Donald Trumpbranded business expansion comes the rise of corporate zombies. Maybe you yourself are unwittingly invested in companies whose operating income falls short of the borrower's debt-service requirements (concerning one such specimen, Sunrun, Inc.—RUN on the Nasdaq—more below).

The zombies didn't just climb up out of the grave by themselves. Low interest rates and tight credit spreads have sustained them in their unnatural lives. In the 10 years through 2017, the combined assets of the Federal Reserve, Bank of Japan, the European Central Bank and People's Bank of China grew

by 212%. Over the same span, nominal world GDP rose by just 36%. Whatever else the central banks' interest-rate-doctoring campaign has accomplished, it has brought about persistently cheap and accessible credit. Now companies, like cats, can have nine lives.

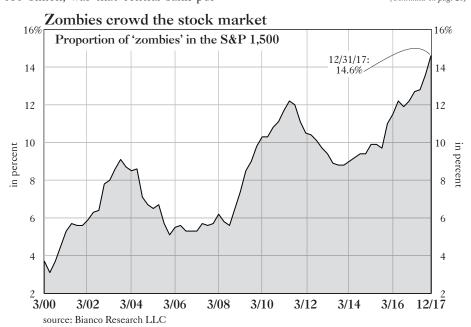
In remarks to a New York audience on Feb. 23, Benoît Cœuré, a member of the executive board of the European Central Bank, said that the world's central banks may hold as much as 90% of all German bunds. By cornering or, really, smothering the euro-denominated bond market, the ECB and its ilk have neutralized the ability of price-sensitive investors to move yields.

Cœuré was not so immodest as to name his own discovery, so we'll give the devil his due. Cœuré's Law holds that the compensation that private bondholders demand for bearing interestrate risk varies with the volume of bonds available to buy; the lower the supply, or free float, the less the remuneration the coupon-clippers require. So small today is the relevant eurodenominated supply "that investors are willing to absorb new bonds without requiring much higher compensation," he said. "Supply is effectively constraining demand. . . . In these circumstances, only very large changes in the expected supply of bonds can cause yields to rise more meaningfully."

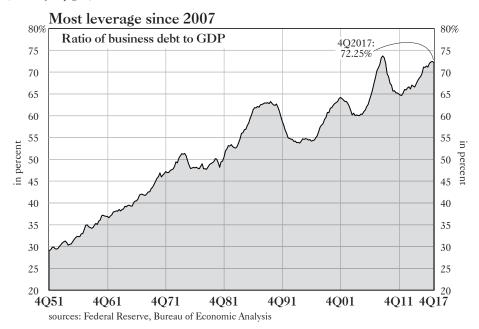
The reason that bund yields traded in so tight a range over the past year, despite the decline in the pace of ECB monthly purchases to €30 billion from €80 billion, was that central-bank purchases had achieved critical mass. That is, Cœuré posited, the monetary authorities had accumulated a bond portfolio sizable enough to snuff out price discovery. They had reached a "crossover point" beyond which a monetary manipulator could sit back and say, "We have done our work; private investors are defeated; they can do no damage to the yields that we have chosen to impose." So we characterize the gist of Cœuré's remarks. What he actually said was, "Once the 'crossover point' has been passed, additional purchases become less necessary to contain the term premium at low levels."

"Conditions are not so propitious as Cœuré would use the word propitious—on this side of the Atlantic,' Deputy Editor Evan Lorenz observes. "No such crossover point is in sight in U.S. sovereign debt. The Fed owns \$2.4 trillion of Treasury securities. The world's other central banks show dollardenominated reserve holdings (which include non-Treasury paper) of \$6.1 trillion. So the Fed and its counterparts possess, at most, 56% of the supply of Treasurys outstanding, which is roughly what they held in 2013, the year of the taper tantrum. Had the Fed anticipated the ECB by organizing the purchase of up to 90% of the free float of benchmark Treasury issues, Cœuré just about said in just about these words, there would have been no taper tantrum: no 130 basis-point leap in yields in less than three months in panicked reaction to Bernanke's broad hint that QE was

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sooner or later to end. Thus, the Fed's mistake lay in not removing enough notes and bonds from the hands of investors who actually care about price and value."

Now the proportion of Treasurys in the vaults of official monetary institutions is set for further decline. You will recall (Grant's, Feb. 9) that the U.S. government's net marketable borrowing needs are lurching higher, to \$955 billion in fiscal year 2018 from \$519 billion in fiscal 2017, and to a projected \$1,083 billion in fiscal 2019. Simultaneously, the Fed is preparing to go on a balance-sheet diet. The central bank is set to return \$300 billion to the market in the 12 months ending Sept. 30, 2018 and \$600 billion in the 12 months ending Sept. 30, 2019. Adjusting for prospective Fed sales, public investors (the pesky, price-sensitive kind) will have to absorb \$1.7 trillion worth of Treasury issuance in fiscal 2019, the equivalent of 8% of forecast GDP, the highest such percentage since 1945. It is not the way that Benoît Cœuré would run a railroad.

The dollar-denominated bond market is of two minds about this state of affairs:

- 1. Treasury yields are rising because the market is worried about inflation.
- 2. The spread between Treasury yields and junk-bond yields is closing because the market is not worried about credit risk.

Thus, from year-end 2016 to present, the yield on the 5-year Treasury has jumped by 77 basis points, to 2.7%. Over

the same interval, junk-bond yields (as reflected in the ICE BofA Merrill Lynch U.S. High Yield Index) have risen by just 10 basis points, to 6.29%. The contraction in the spread of junk yields to Treasury yields measures a full 57 basis points. While nothing says that this difference can't continue to narrow, it's already quoted at a near post-crisis low.

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In a free market, unproductive firms give way to productive ones, much to the benefit of the consuming public. In this central-bank-rigged, neurologically impaired market, unproductive firms don't necessarily give way. They survive by borrowing at low interest rates. The great question is whether the unfit could survive even a moderate rise in interest rates.

Ben Brietholtz, a data scientist on the staff of Bianco Research LLC, has some interesting things to say on this subject. He observes that the bond market, which long doubted the Fed's declared intention, or perhaps ability, to normalize interest rates, is now on board with the official tightening timeline. Since September, the 10-year Treasury has tacked on 80 basis points. According to his deconstruction, says Brietholtz, 70% of that uplift is attributable to the rise of inflation anxiety—not to the visible evidence of increasing prices and wages but to the fear of them. You wonder, of course, how the market would react if the new inflation story, like so many of its predecessors, goes poof. A 2%-21/2%

(let us say) funds rate in the context of a drooping consumer price index would likely jolt every market in which interest-rate expectations play an integral part in price-setting (we can think of few markets in which they don't).

Curiously, too, the surge in zombies coincides with high aggregate corporate profits (11.4% of GDP in the third quarter of 2017, compared with a 70year average of 9.7% of GDP), ebullient expectations for per-share profit growth in the S&P 500 this year (up by 27%, according to Wall Street consensus) and sky-high business sentiment. As to the latter, the Optimism Index of the National Federation of Independent Business stands at its highest reading since September 1983, the Consumer Confidence Index of the Conference Board has reached its loftiest level since November 2000 and the CEO Economic Outlook Index of the Business Roundtable has never been greater since scorekeeping began in 2002.

Yet zombies walk the earth. According to Bianco Research, the proportion of firms whose earnings before interest and taxes (EBIT) fail to cover interest expense is 14.6% of the nearly allencompassing S&P 1,500. That's up from 12.2% in the fourth quarter of 2016 and from 5.7% in the final quarter of 2007, the start of the Great Recession.

(Do you wonder how the Bianco firm does its figuring? It eliminates companies from the sample set with fewer than three years of data or for which the data are incomplete. It searches the remaining 1,110 entrants for cases in which interest expense is greater than the three-year average EBIT; 162 companies answer the description.)

Then, again, just four familiar names—Alphabet, Inc., Apple, Inc., Facebook, Inc. and Microsoft Corp.—account for a tenth of the S&P 500's trailing operating income, and much of this year's projected EPS growth is a result of tax cuts and buybacks financed by the repatriation of overseas cash. All well and good, but you can't pay your creditors with a lower share count.

Besides, while profits are elevated, so is business borrowing. In the fourth quarter of 2017, American company debt reached 72.2% of GDP, north of the 68.8% reading in the fourth quarter of 2007. One fertile tributary of the mighty river IOU is the private-equity business; multiples to EBIT-

DA paid in p.e. transactions reached a new all-time high of 10.6 times in 2017 (*Grant's*, Feb. 9). Typically, you don't pay fancy prices without incurring debt.

"Diving into Bianco's zombie data," Lorenz relates, "you find that oil companies dominate the list—no surprise given the post-2014 swoon in crude prices. Of the 70 energy companies with adequate data for Bianco's calculations, 43 (61% of the total) were classified as zombies.

"What is a little surprising," Lorenz goes on, "is how elevated the zombie population remains, even ex-energy. Remove the oil-and-gas 43, and the proportion of zombies in the S&P 1,500 only drops to 11.4%, exactly double the 5.7% rate in the fourth quarter of 2017."

To get a sense of how much debt is tied to less productive borrowers, this publication ran its own screen of companies listed on the Big Board or Nasdaq. We sought to identify any showing a ratio of EBIT to interest expense of less than one for two consecutive years. Our efforts brought to the surface 471 prospective zombies with total borrowings of \$412.6 billion.

Like all such nets, ours is imperfect. We did, for instance, capture Caesar Entertainment Corp., the overleveraged casino purveyor, but we also snagged Schlumberger Ltd., the very-muchliving oil-services giant which owes its presence on the list to back-to-back \$3 billion-plus asset impairment charges in 2016 and 2017. While such exactions do not enhance a company's earning power, neither, in the short to medium term, do they reduce its debt-servicing ability.

Some creatures slipped through: Netflix, Inc., for example, whose net income grew to \$559 million in 2017 from \$187 million in 2016, but whose free cash flow slumped to negative \$2 billion in 2017 vs. negative \$1.7 billion in 2016 (Grant's, Jan. 26). And Uber Technologies, Inc., the SoftBank Group Corp.-investee that reportedly lost \$4.5 billion in 2017. Having secured a \$1.15 billion B-term loan in 2016, the ride-hailing unicorn is back in the market for \$1.5 billion in new credit (upsized from \$1.25 billion just the other day). Interestingly, pricing talk on the new loan moved to Libor plus 425–450 basis points from Libor plus 400 basis points after the Uber front office met with investors on March 15 (commitments were expected to close after we went to press).

"Zombie" may not be quite the designation, but loss-making companies dominated the 2017 American IPO class. Fully 76% of the businesses that went public last year showed negative net income—the highest percentage since 2000 (when 81% of IPOs had no earnings) and well above the last cycle's peak in 2007 (55%), according to data crunched by Jay R. Ritter, the Joe B. Cordell Eminent Scholar Chair at the Warrington College of Business at the University of Florida. Solid Biosciences, Inc. has kept the ball rolling in 2018. A zero-revenue, loss-making biotech, Solid served notice in its January S-1 filing of a looming contretemps with the Food and Drug Administration. The full nature of that issue, however, came to light only when the agency put a kybosh (not a "partial hold") on continued testing of Solid's supposed in-development blockbuster, SGT-001, a treatment for Duchenne muscular dystrophy. The news sent the newly issued shares tumbling by 65% on March 15.

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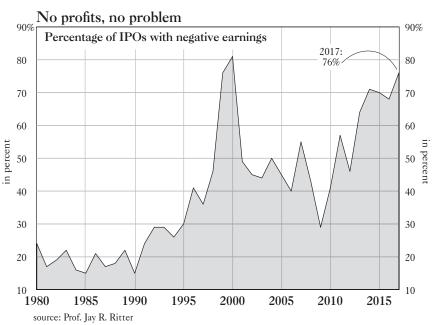
Do you wonder about the greater cost of zombie-ism? The connection between the corporate living dead, on the one hand, and productivity growth and business dynamism, on the other, is the topic of Working Paper No. 1372, published by the Organisation for Economic Co-operation and Development in Paris last year. In it, three authors (Müge Adalet McGowan, Dan Andrews and

Valentine Millot) make a persuasive case that the panoply of post-crisis economic stimuli has brought about a kind of anti-Darwinian survival of the un-fittest. Such corporate husks in times past would have had to fail, and in failing they would, in a sense, have succeeded, for society if not for themselves. Getting out of the way, they would have made room for new life. Nowadays, in surviving, they crowd out what might have been.

You don't necessarily read an essay designated Working Paper No. 1372 for pure reading pleasure, but the meaning of the prose is clear enough. Thus, for instance, "Evidence of a decline in productivity-enhancing reallocation is particularly significant in light of rising productivity dispersion, which would ordinarily imply stronger incentives for productive firms to aggressively expand and drive out less productive firms," the OECD authors write. "Instead, the productivity gap between frontier and laggard firms has risen, even while the forces bringing dynamic adjustment are waning. This tension is a red flag that something is wrong with productivity, but also points to a potential deterioration of the exit margin," i.e., firms dying (and not then walking around, blank-eyed, with their arms extended, as zombies do).

The Fed is a fine one for bewailing the seemingly inexplicably slow growth in productivity in these post-crisis years. At the Group of Thirty International

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Banking Seminar in Washington, D.C. on Oct. 15, 2017, Janet Yellen blamed the tepid rise in hourly wages on the anemic growth in productivity. It seems not to have occurred to the former chair that the OECD thesis has merit or that the Fed itself, through its asset-levitating and interest-rate-suppressing interventions, has unintentionally contributed to the downshifting of American economic dynamism.

The bizarre doings in the 2008–09 junk-bond market point up the problem. On form, as Marty Fridson told the audience at the Spring 2014 Grant's Conference, speculative-grade borrowers tend to default in multi-year waves. The 2008–09 default surge was unique in its brevity. "We actually had the situation where the default rate went from a record level to below average the very next year," said Fridson. "I would submit that is physically impossible. But, it did actually happen." What corrections correct are the errors of the boom. Cut a correction short, as the Fed arguably did in 2008-09, and the errorsthe zombies-don't die but live on (see footnote 3, page 8 of the OECD treatise for scholarly validation of this common sense).

Real estate, too, has its zombies. You can see them in the shape of vacant store fronts in the upscale Manhattan precincts of Madison Avenue or SoHo. "A lot of these buildings were financed with cap rates that were in the 4% range or low-5% range," Brian Horey, president of Aurelian Management, tells Lorenz. "They have debt yields baked into them of the low-7% range. With cap rates now moving up, if they go out and write long-term leases at 20% to 30% off of what they underwrote at the top of the market, then those loans won't be in the money when it comes time to refinance them. You've had a phenomenon of people trying to wait out the market and not sign new long-term leases.

"It is very early days, but there are a few high street retail loans in securitizations that have hit watch lists or started to default," Horey goes on. "It is too early to draw any hard conclusions, but a bunch of those loans written two to four years ago are starting to run into issues."

Which brings us to Sunrun, a zombie out of central casting and the largest installer of residential solar panels and rechargeable batteries in America. As

of year-end, the company had installed 1,202 megawatts for around 180,000 customers in 22 states. The Street loves it: Out of 10 analysts who hold an opinion, nine say "buy," none says "sell." The bears hate it: Short interest almost reaches 20% of the Sunrun float. To anticipate, *Grant's* lines up with the bears.

Installing a solar system requires a big upfront investment. The monthly lease payments Sunrun receives are comparably small. And as installations are growing rapidly—up 15% year-over-year in 2017 to 323 megawatts—Sunrun is generating large losses. Thus, in 2017, EBITDA was negative \$45.8 million vs. net debt of \$1.1 billion.

Bulls divide Sunrun's financial accounts into a development company ("devco"), which borrows to build solar systems, and a power company ("powerco"), which profits by collecting monthly lease payments. Based on Sunrun's own calculations, the net present value of the discounted future-lease income totaled \$1.2 billion as of Dec. 31, 2017, a 16% year-over-year rise. The value from the powerco is, therefore, supposedly, greater than the company's current \$862 million market cap.

"However," as Lorenz points out, "the positive net present value that Sunrun reports deserves an asterisk. Management assumes that customers will renew their contract with Sunrun for an additional 10 years after their lease expires in 20 years. It is an arbitrary, subjective and self-interested supposition. As Sunrun was founded in 2007, it has no idea what to expect in the 20th year of a lease, though a perusal of its own online reviews could provide a clue."

Thus, a representative review from the Better Business Bureau on Jan. 5, 2018: "When I purchased a house I took over an existing solar lease with Sunrun and it was one of the worst financial decisions I have ever made. I am paying more for the lease than I would if I just paid a utility company [for electricity]. I am trying to sell the house now and nobody wants to buy it because of the bad lease. The only options Sunrun provided were to prepay \$32K for the rest of the lease or pay \$52K to own the solar [panels]."

Then, too—a technical point—management uses a 6% rate to discount future cash flows, a low rate for a highly indebted, non-rated moneylosing company.

Besides, the bull case starts to fray when you pick apart Sunrun's income statement, as an anonymity-seeking short-seller proceeded to do on a telephone call with Evan Lorenz: "The most common argument is, if you stop installing new systems, you are left with a residual value that is the present value of future cash flows. But the interest expense has gotten so high [that] they are not making much profit at all. If you look at cash flow from operations before interest is paid—not even free cash flow-they are not covering interest from that, which is why they need to keep raising debt. If you look at the more common metric and take EBIT, EBIT is negative. If you take EBITDA with no sales and marketing expense and no R&D expense, you are just barely covering interest. If you then take off 50% of their general and administrative expenses, then you have two-times coverage. EBITDA with no sales and marketing, no R&D and only half the G&A because you assume a skeleton organization that is running the powerco, then you are covering it two times. That number is deteriorating as they take on more debt."

As of Dec. 31, 2017, Sunrun showed \$202.5 million in cash and \$1.3 billion in debt for the aforementioned net debt of \$1.1 billion. Interest expense of \$70.5 million last year implies a 6.4% interest rate based on average outstanding debt. Sunrun funds itself with a mixture of loans (\$1.2 billion) and notes securitizing customer payments (\$96 million). Most borrowings (\$1 billion worth) are secured by the installed base of solar panels and customer contracts and are non-recourse to the parent; the balance, \$247 million in loans, are recourse to Sunrun. The company's earliest maturity, the recourse loan, is April 1, 2020.

According to a March 9 Bloomberg dispatch, Sunrun is seeking around \$500 million in new, non-recourse loans, which would be the largest such deal in the company's history. South African bank Investec plc is reportedly leading the deal. KeyBank Capital Markets, Inc., and ING Capital LLC featured as coordinating lead arrangers on an Oct. 20, 2017 Sunrun credit.

In the past 12 months, insiders have sold 148,670 shares for net proceeds of \$1 million; there were no recorded purchases. Asked for comment by email and phone, Sunrun was mum.

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Which leaves us—the greater *Grant's* community—with a riddle. If the anticipated inflation does materialize, Treasury yields are bound to rise. In which case, junk-bond yields are likely to rise, too. If, however, inflation proves a no-show, Treasury yields are likely to fall. In that event, would junk yields fall as much? Or would they—perhaps discounting more difficult credit conditions—rise, thus widening the historically narrow government-to-junk-credit spread?

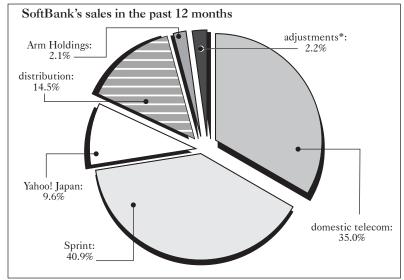
Spreads yawned wide between the second half of 2014 and the early going of 2016 (to be exact, from June 30, 2014 till Feb. 11, 2016). The market had set itself up for a reflationary uptick in rates and business activity but instead became converted, almost en masse, to the doctrine of "secular stagnation." (In February 2016, 88% of the respondents in the Bank of America Merrill Lynch Global Fund Manager Survey professed to believe the world was returned to something like the late-1930s slough of despond.) The result was a 50 basis-point decline in the 5-year Treasury yield and a blow-out of junk-bond spreads, to 887 basis points from 353 basis points. It happens that 353 basis points is approximately where spreads are quoted today.

Mindful of the burden of zombie-company supply, we judge that speculative-grade corporate yields would probably rise in the event of a renewed bout of unscripted economic weakness. In no case, we judge, is junk now a timely investment. Reviewing some of the euro-denominated speculative-grade issues we identified as picks not to click in December—e.g., the Ba/double-B-plus-rated Telecom Italia S.p.A. 1¹/ss of 2022, priced to yield all of 1.2% to worst—we judge them not merely undesirable investments. We will call them virtually stranded.

#### Epitome of the cycle

Grant's December 15, 2017—Masayoshi Son founded what is today Japan's fifth-largest listed company, SoftBank Group Corp., in 1981. By good fortune, it was the same year in which interest rates started their long, lucrative descent. We write to propose

#### Telecom pays the bills



\*Consists of other revenues and reconciliation of intersegment sales. source: company data

that Son's telecommunications-cumasset-management-cum-techno-conglomerate owes as much to the bull bond market as it does to digital invention. In this sense, SoftBank—for all its exposure to e-commerce, artificial intelligence, ride-hailing and the like—is a kind of credit instrument itself. Rates down, price up—and vice versa.

The curious and worldwise subscribers to *Grant's* need no persuading to interest themselves in the affairs of a mammoth, leveraged, complex and speculative business, albeit one headquartered in Tokyo, not New York. One of these days, perhaps when the credit markets take an unscripted header, SoftBank may make the wrong sort of headlines. If so, the consequences could ripple far and wide. It would be well, then, to know something about the structure, ethos and vulnerabilities of this boomtime institution. Consider:

SoftBank (designated 9984 on the Tokyo Stock Exchange and SFTBY in the American pink sheets) is embarked on a worldwide buying and borrowing spree at what is certainly not the bottom of the market. It's a prolific issuer of high-yield debt, including the single-B-plus-rated 6s and 67/ss subordinated perpetual notes (the payment of whose coupon management may defer at its option). It owns 83% of Sprint Corp. (*Grant's*, Dec. 23, 2016). It is the sponsor of an unorthodox \$100 billion venture-capital fund. It owns 30% of Alibaba Group

Holding, Ltd., the Chinese retail, e-commerce and technology behemoth (BABA on the Big Board; *Grant's*, April 22, 2016). On this sprawling and omnivorous enterprise—a kind of avatar of Everything Levitation—we are bearish.

Many are bullish on SoftBank and, perhaps especially, on its hyper-intelligent, ever-restless CEO. "There are very few places he can go and not be the smartest guy in the room," says Ray Klein, independent investor and paid-up subscriber. "He's truly brilliant, and he has boundless energy."

To be sure. In the late 1970s, while studying economics at the University of California, Berkeley (having completed his American high school career in two—yes, two—short weeks), the young entrepreneur invented an electronic dictionary which he sold to Sharp Corp. for \$1 million. Returning to Japan, he founded his business with the help of a friendly branch manager of the Dai-ichi Kangyo Bank who advanced him \$750,000 against no collateral and perhaps \$10,000 of annual revenue. With such persuasion as we can only imagine, Son assured the man seated across the table that the personal computer and the software inside it were the wave of the future.

In 1995, Son bought a 35% stake in Yahoo!, Inc. for \$100 million. More than that, he midwifed the creation of Yahoo! Japan Corp., in which joint

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venture SoftBank retains a 43% position now valued at \$11 billion.

Disappointed by the Japanese government's refusal to grant SoftBank the spectrum it needed to compete in wireless services, Son managed to do the seemingly impossible: In 2006 he bought Vodafone Japan for \$20 billion, borrowing \$18 billion of the purchase price. Once more, he persuaded Japanese lenders to trust him, in this case to slash prices, improve network quality and take market share from the incumbents, which he proceeded to do.

"And then," colleague Fabiano Santin relates, "there is the investment that so far outshines all others. In the year 2000, Son saw opportunity in Alibaba and invested \$20 million in it. Today, that stake in the Chinese ecommerce, retail and technology giant is worth \$134 billion. Since its 1998 debut on the Tokyo Stock Exchange, SoftBank's stock has delivered an 18% annual return in dollars (17% in ven), compared to 3% for the Nikkei (2.4% in yen) over the same span. Vitaliy Katsenelson, chief investment officer of Investment Management Associates and a SoftBank investor, in 2015 inquired of the readers of his Contrarian Edge blog, 'What would you get if you crossed Warren Buffett, Richard Branson and Steve Jobs? Answer: Masayoshi Son.' Bernstein Research echoed those words in an Oct. 19 research bulletin: SoftBank is 'the Berkshire Hathaway of Tech."

So Masa Son's track record speaks for itself, the bulls say (21 buys, 3 holds and

zero sells is the way the sell-side lines up, according to Bloomberg). Besides, the argument goes, the shares trade at a 40% to 50% discount to the sum of the corporate parts. Of this valuethemed contention, more in a moment. We would remind the enthusiasts that the price of SoftBank shares registered a 99% decline at the close of the 1990s tech bubble (to ¥276 in 2002, from the all-time high of \(\frac{\text{\frac{4}}}{20,222}\) on Feb. 18, 2000). No loss in the founder's formidable IQ explained it. Valuation, crowd psychology, illiquidity and the cycles of finance rather played their customary parts. Such forces are recurrent. They have certainly helped on the upside.

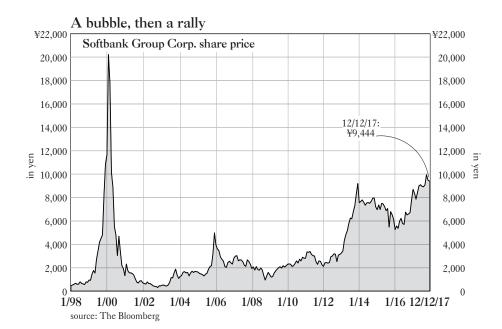
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SoftBank is a holding company with a \$92 billion market cap, \$79.6 billion in trailing 12-month revenue, \$23 billion in adjusted earnings before income, tax, depreciation and amortization (EBIT-DA), \$137.6 billion in consolidated debt and \$30.5 billion in cash. The company brings together 761 subsidiaries, such as the Japanese telecom business (34.7% of revenues), Sprint (40.7%), Yahoo! Japan (9.6%), Brightstar Global Group, Inc. (14.6%), Arm Holdings, plc (2.1%) and others (1.6%). It reports its 30% Alibaba stake along with 129 other associates as equity-method investments. It owns \$24.6 billion in minority stakes in hundreds of companies ranging from China's ride-hailing Xiaoju Kuaizhi, Inc., a.k.a. Didi (\$5 billion invested), office-rental network WeWork Companies, Inc. (\$4.4 billion), online sportsapparel retailer Fanatics Holdings, Inc. (\$1 billion), biopharmaceutical company with a bet on artificial intelligence, Roivant Sciences Ltd. (\$1.1 billion), "insuretech" firm ZhongAn Property and Casualty Insurance (\$500 million), and lots of other speculative plays.

Thus, the corporate vital signs. Now to disaggregate them. Neither debt nor revenue, as presented in the consolidated financial statements, is exactly what it seems. As to debt, some \$63.5 billion of the obligations of Sprint, Yahoo! and other subsidiaries are nonrecourse to the parent. Concerning revenue, SoftBank books 100% of the top line of Yahoo! Japan, though it owns only 43% of the equity of that subsidiary (as IFRS accounting conventions allow). There is accounting-induced misapprehension, too, with respect to Sprint. The parent consolidates the telecom subsidiary's revenues and EBITDA, again in conformity with IFRS. Reading those figures, an investor may assume that the funds are the parent's to use as it sees fit. The truth is the opposite. Sprint is an equity investment that may or may not pan out. Its revenue and cash flows (currently cash-burning) may never be available to SoftBank. The essence of SoftBank today-distinct from the dreams of tomorrow-is the Japanese telecom business, which (excluding Sprint and Yahoo!) generates 70% of revenues and 100% of EBITDA.

Even after stripping away the nonrecourse portion of the debt, SoftBank owes \$76 billion. Whether that is a little or a lot depends, of course, on the assets that furnish the cash flow which pays the interest, on the terms and conditions under which the debt was incurred, on credit spreads and interest rates. Notable is that the size of the debt has jumped to \$76 billion from \$52 billion in only the past 18 months. Amir Anvarzadeh, head of Japan equity sales at broker BGC Partners Ltd., in Singapore, tells Santin, "I think Son is not as much of a genius as some other people think he is. I think one of his genius virtues is the fact that he has access to cheap money.... I give him that. He has access to a lot of retail money where he can actually issue bonds domestically to the retail investors and raise money at fairly low rates."

To be precise, SoftBank is paying 2% on the \$31 billion which its Japanese creditors advanced. An equal-opportu-



nity borrower, the company is likewise issuing debt in euros and U.S. dollars. In July it sold \$4.5 billion of the aforementioned subordinated perpetual notes, which S&P rates single-B-plus, three notches lower than the SoftBank unsecured bonds (two notches owing to subordination and another on account of the issuer's option to defer interest payments).

As mentioned, it's the Japanese telecom operations that generate the cash that pays the bills. For the 12 months ended Sept. 30, that key division produced adjusted EBITDA of \$10.3 billion, down from \$10.7 billion in the like period a year ago, at constant exchange rates. Thus, SoftBank's leverage is a meaty 7.4 times adjusted EBITDA, up from 6.5 times a year ago. Leverage is heading higher as SoftBank invests to prepare for better network coverage and to keep up with the Joneses named NTT Docomo, Inc. and KDDI Corp.

In neither the United States nor Japan is SoftBank more than a telecom also-ran. Sprint is the fourth-largest wireless carrier in America. SoftBank's telecom business is the third-largest in Japan, where it commands a 27% share of revenue vs. 40% for Docomo and 33% for KDDI.

At last report, \$6.1 billion in trailing 12-month operating income for the Japanese telecom business covered interest expense, at the holding company, by a factor of 4:1. Squinting into next year, management projects a coverage ratio closer to 3.6:1. The dip is attributable to the rising investment required to increase network coverage and stay current with the growing demand for data transmission. Meanwhile, as Bloomberg reported on Dec. 1, the Japanese government is leaning on operators like SoftBank to reduce their customer charges.

Sprint is unlikely to prove Son's shrewdest investment, whatever the final reckoning. For its 83% portion of the wireless provider, SoftBank paid \$22 billion in 2013. At the current Sprint share price of \$5.50, that stake is worth \$18 billion—or less. Telecom specialist Craig Moffett, founder and one-half the eponym of MoffettNathanson Research, forecasts that Sprint will burn an average of \$3.5 billion for each of the next four years while facing average debt maturities of \$4.3 billion per year until 2024. So reckoning, Moffett pegs the value of the stock at \$2 a share, implying

an \$11 billion haircut to the sum-of-theparts calculations on which the bullish case for SoftBank partially rests.

"Masa Son has already stated that the United States is his most important market," Santin notes. "He has high hopes for the 'internet of things,' too, which relies on wireless services. In October, SoftBank held merger talks with T-Mobile, the third-largest American carrier. Negotiations reportedly broke down over the refusal of the famously hands-on Son to cede control of the combined entity. The failure seemed to confirm Son's intention to keep the Sprint stake at any cost instead of selling it or reaching a deal to speed up the generation of synergies to deleverage, as some investors thought he could, or should, have done. Expect, then, more cash infusions into the needy American carrier."

Yahoo! Japan, in which SoftBank owns the previously mentioned 43% stake, is suffering an operational droop of its own. For the first half of 2017, adjusted EBITDA fell by 8.4%, to \$956 million, from \$1.04 billion in the year-earlier stretch. EBITDA as a percentage of revenue has plummeted to 25% from nearly 50% in 2014, in which year the subsidiary's share price peaked.

Weaned in bull markets and imbued with entrepreneurial optimism, Masa Son doesn't mind writing big checks. He paid a 43% premium to the market price, and a 65 times earnings multiple, to secure Arm Holdings in last year's \$32 billion acquisition—the investment is said to have dumbfounded even those close to the man who made it. Arm earns royalties by licensing microprocessor designs to chip makers and reflects Son's bet on artificial intelligence, augmented reality and the internet of things. A sign of the CEO's commitment to this particular wave of the future is that R&D spending and new engineering hires are both on the upswing (head count is up by 27% in the past year, to 953 employees). Profitability will have to wait.

WeWork, at least, books revenue, as much as \$1 billion a year, even if there is no net income just yet. In August, Soft-Bank invested \$4.4 billion in the free-lance office-rental outfit at a \$20 billion valuation, according to *The Wall Street Journal*. For its part, WeWork has purchased stakes in a maker of wave pools, Wavegarden; in a fitness club, Rise by We; and in a coding academy, Flatiron

School. The unicorn is also preparing to close on the \$850 million purchase of Lord & Taylor's flagship store in New York City, space which one year earlier bore an appraisal of \$650 million.

SoftBank's purchase, in February, of Fortress Investment Group for \$3.3 billion, a 38.6% premium to the previous day's close (*Grant's*, Feb. 24), likewise fits the acquisitive, open-handed, sometimes strategically puzzling pattern. It's unclear how a private-equity/hedge-fund manager fits into Son's strategic picture, unless, as Santin suggests, the technological visionary is striving to become the Earth's largest asset manager. Which brings us to the SoftBank Vision Fund.

There has never been anything quite like it-no fund so big, none (of any remotely comparable size) so leveraged. As of Sept. 30, capital commitments were within a few trivial billion of \$100 billion—Saudi Crown Prince Mohammed bin Salman, a.k.a. MBS, reportedly circled \$45 billion. In toto, third-party investors were on board with \$65.2 billion, consisting of \$24.8 billion of equity and—this is where the leverage comes in—\$40.4 billion of 7%, payment-in-kind preferred. SoftBank is contributing \$32.5 billion in equity. There's a five-year investment period, and a minimum life of 12 years.

The general partner—that's Soft-Bank—charges a management fee of 0.7%–1% and a performance fee of 20% for returns above an 8% hurdle rate, according to the *Financial Times*. At 1% on the \$24.8 billion in third-party equity, the management fee just barely covers operating expenses (running at an annual rate of \$198 million since the fund launched on May 20).

What could hurt the limited partners more than management fees are the dynamics of the payment-in-kind structure. In a bear market, or even a blah market, it's possible for the accrued interest on the preferred shares to snowball. The longer a period of substandard performance lasted, the worse it would be for the equity holders. And substandard is the norm if you overpay for investments. Recall that Arm, which will represent about 8% of Vision's assets, did not come cheap. Its 65 times P/E multiple equates to a 1.5% earnings yield, and even that seems optimistic. The royalty-licensing company delivered a \$130 million loss in the six months to (Continued from page 31)

Sept. 30, as SoftBank reported.

Does Son have another Alibaba up his sleeve? The fund isn't wanting for boldface names that seem to think so. The roster of limited partners features Public Investment Fund of the Kingdom of Saudi Arabia, Mubadala Investment Company of the United Arab Emirates, Apple, Inc., Foxconn Technology Group, Qualcomm, Inc. and Sharp Corp.

In its 2016 annual report, SoftBank invited its stockholders to compare Vision, at nearly \$100 billion, to the \$64 billion that venture-capital promoters the world over had raised in the justcompleted 12 months. The comparison, flattering to itself, glided over one small detail. "[Vision] is not a venturecapital fund," Steven Kaplan, Neubauer Family Distinguished Service Professor of Entrepreneurship and Finance at the University of Chicago Booth School of Business, tells Santin. "It's a growth equity/buyout fund, so it's [misrepresented], and you see the deals that they've invested in are really too big to do much early-stage stuff. It's four times bigger than the biggest privateequity fund."

You can't say that Son is investing in the unknown. SoftBank's equity contributions to the Vision Fund (so far) largely consist of positions in existing Soft-Bank portfolio investments, including Arm (\$3.8 billion) and Didi (\$3.6 billion). Hence, such in-kind transfers totaled \$7.4 billion through Sept. 30, from a total of \$32.5 billion that SoftBank has committed. Might some fear that the parent could use Vision as a dumping ground for SoftBank's less inspired ideas? To allay any such concerns, Son has agreed to contribute not just some, but any, investment over \$100 million to the Vision portfolio.

"Still," Santin observes, "a SoftBank shareholder, having invested in company stock because of his confidence in Son, is now seeing his original investment being diluted on some of Soft-Bank's core bets (ride-hailing and Arm, for instance). And whatever great opportunity, if any, comes knocking on Soft-Bank's door, that investment will have to be shared with the Vision investors. If one makes the argument that the fund actually helps SoftBank shareholders by allowing Masa Son to drop his dogs into the fund, what does that say about the chairman, who has assumed a fiduciary duty to his third-party limited partners? Furthermore, will competitor companies outside the fund make it more difficult to cooperate with the fund's investees? Why should Waymo, Google's self-driving car company, make its technology more accessible to Didi, which is now partly owned by Apple through the Vision Fund? Apple, after all, is developing its own self-driving vehicles. Will this massive investing machine come back to bite SoftBank in unforeseen ways? Today's technology industry is much more competitive than it was even 15 or 20 years ago, when Son was in his glory."

There's been nothing more glorious—to date—than Alibaba. Sum-of-the-parts analyses value BABA at \$134 billion (market value), compared to \$60 billion for the second most important piece, the Japanese telecom unit, and \$18 billion for the third-largest subsidiary, Sprint. What might these parts be worth to SoftBank?

After applying the Japanese capital-gains rate, 23.4%, BABA deflates to \$103 billion. Add Japanese telecom and Sprint, and you get \$181 billion. Combine with another \$60 billion, representing the estimated value for all remaining assets. It comes to \$241 billion in assets against \$61 billion in net debt.

"Asset values are contingent, but debt is forever," was a rueful epigram that came out of the junk-bond crack-up of 1989–90. Variable and volatile, certainly, is the value of Alibaba, which appreciated by 90% in the past year. This meant \$212 billion in incremental wealth for Jack Ma's shareholders, \$64 billion for Son's (i.e., 30% of \$212 billion).

"Observe that, in the same 12 months," notes Santin, "SoftBank's stock rose by 23% in U.S. dollars, which meant 'only' \$17 billion in additional value. Looking from a different perspective, since the IPO of September 2014, BABA short sellers would have suffered the 157% surge in share price, while SoftBank short sellers would have more than survived the 5.6% SoftBank increase during the period—and that's despite SoftBank's ¥500 billion (\$4.5 billion) buyback in 2016 that retired 8.3% of shares outstanding. In the past three years, the market hasn't been generous to SoftBank's stock and now, because of BABA's meteoric rise (and thus Soft-Bank's increasing exposure to it) and the Japanese company's growing debt

levels, a fall in BABA could deal a significant blow to Masa Son."

. .

Critics of Alibaba harp on relatedparty transactions, borrowing to fund money-losing affiliates and the dissemination of potentially misleading operating metrics, such as overstated gross merchandise value. Alibaba, too, makes many seemingly random investments, sometimes in harness with SoftBank, its No. 1 shareholder; Didi and Soft-Bank's robotics business are examples. In June 2016, Alibaba and its management team ("the Alibaba Partnership," comprising 36 members of Ma's inner circle) purchased \$2.4 billion worth of BABA at a price of \$74 per share. They bought it directly from SoftBank.

A less obvious risk to SoftBank is Mr. Market's evident reluctance to afford Softy the benefit of the doubt. "First, show me the money," is the gentleman's message nowadays. The so-called singularity, the future jubilee in which artificial intelligence surpasses human intelligence, is one of Son's preoccupations. When it will come (if ever it does) is anyone's guess. Anyway, investing in millennial story stocks may not be the safest course in a late-cycle market, especially using leverage. "I'm concerned that at some point Masa Son may drink a lot of Kool-Aid and then he may leverage the company a lot more than I'd like," a skeptical Katsenelson tells Grant's.

Where are the chinks in SoftBank's armor? Not short-term funding, we think. As of Sept. 30, SoftBank Group (ex-Sprint and Yahoo! Japan) owed \$23.6 billion maturing in the next 12 months. Of that grand total, \$9 billion was a bridge loan (it financed the Arm acquisition), which, by now, if all went according to plan, has been converted to long-term bank debt. If so, SoftBank should have no pressing short-term obligations—the remaining debt, \$52.4 billion worth, takes the form of mediumterm notes and bonds.

We judge the immediate risks rather to be Sprint and, especially, Alibaba. "The market was predicting that Sprint's bankruptcy was imminent in early 2016," Santin observes, "when some of Sprint's senior unsecured bonds traded down to as low as 60 cents on the dollar and the company's five-year credit default swap traded up to 1,800 basis points (implying that Sprint had

an 80% probability of default in the next five years) from 400 basis points in mid-2015. The wireless carrier's stock plummeted to under \$3 from \$5 a share, which implied a ¥650 (per share) impact on SoftBank's stock. SoftBank traded down to less than ¥5,000 from the near-¥7,000 level during most of 2015. The market might have been anticipating that Sprint could be written down to zero or that SoftBank could have been required to infuse it with cash.

"Since then," Santin proceeds, "Sprint has gotten some added support by mortgaging anything that wasn't nailed to the ground; it raised cash by issuing debt secured by wireless spectrum. Although Sprint's stock recovered quite well and traded as high as \$9 a share earlier this year, it's quoted at less than \$6 today.

# GRANTS NTEREST RATE OBSERVER

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"Alibaba could present a bigger problem. Suppose that BABA gave back half of the dollar gains it had on the past 12 months, or about \$40 per share. Given that SoftBank owns about 768 million shares, a \$40 ding would reduce SoftBank's market cap by more than \$30 billion, or more than ¥3,000 per share."

Nikesh Arora was the second-incommand at SoftBank who quit in 2016 when it became evident that Son was in no hurry to make him first-in-command. In a post-resignation interview with *For*tune magazine, Arora confessed that he didn't know how to value Didi, China's version of Uber, in which SoftBank had made an investment. Nor, he added, did he know "the right valuation for any of these companies"—i.e., early-stage tech businesses—in the SoftBank portfolio.

As for Son, the former No. 2 went on, he "has an idea per minute," works 12 to 16 hours a day and is slow to sell an investment (sometimes, as in the case of Yahoo!, much too slow). He is "an extremely positive person. Once he gets optimistic, I think sometimes he gets carried away."

"Every cycle has its poster child," says Brian Horey, president of Aurelian Management. You can't be sure who it will be until upside excess has turned into its downside mirror image. But for him, and for us, SoftBank is a leading contender for the cyclical laurels.

Mix the CEO's exuberance with cheap debt, high leverage and record asset values. Add the excitement of today's startling advances in robotics and artificial intelligence. Combine with the karmic report that the aforementioned "MBS," the Vision Fund's No. 1 limited partner, is also the rumored buyer of that \$450 million road-show da Vinci. Totting them all up, what do you have? Perhaps a corporation destined to read about itself on page one of *The New York Times*—and not in a flattering way.

### Attack of the killer BBBs

Gram's October 20, 2017—In 2007, less than 40% of Citigroup's U.S. Broad Investment-Grade Corporate Bond Index was rated triple-B, i.e., the last (whole) stop before speculative grade. Today, about 47% is so classified. In 2007, the index held \$1.7 trillion in securities. Today it holds \$5 trillion. The meaning of

these figures for credit and discredit is the topic under discussion.

At the *Grant's* Fall Conference last week, your editor observed that boomtime equity prices coexist, somehow, with depression-level interest rates and graveyard volatility readings. How to resolve this incongruity? He put the question to Alan Greenspan, who replied with a smile: "Good luck."

Good luck to the creditors, we say. On Sept. 15, Adam Richmond and his fellow Morgan Stanley strategists pointed out that, though credit spreads have tightened (suggesting that credit risk has diminished), idiosyncratic risk has risen. Thus, the dollar value of speculative-grade debt trading above 1,000 basis points over the Treasury curve has leapt by 74% since March, to \$70 billion from \$40 billion or so. The analysts likewise concluded that dispersion—the difference in performance among rating tranches or sectors of credit—is increasing. Stock jockeys may liken these phenomena to a deterioration in the ratio of advancing to declining issues. A ragged A/D line is no bull's friend.

If the credit cycle has turned—if the good news is behind us and the bad news ahead—the bulging supply of triple-B-rated corporate bonds is a risk to mark. Moody's finds that debt so rated has a 18% chance of suffering a downgrade to junk within five years vs. just 3% for single-A-rated bonds.

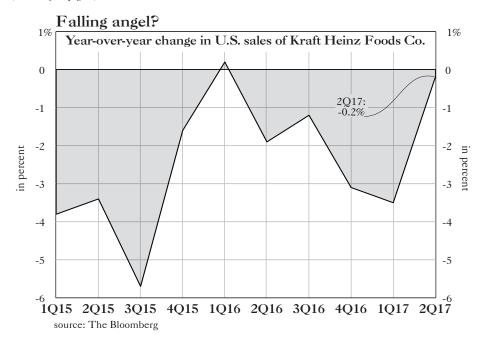
There's nothing secret about these observations, and a well-tempered market would reflect them in freely discovered prices. Following are profiles of a trio of triple-B-rated corporate bonds. We leave it to you, our noble readers, to decide if the ever-so-finite reward is worth the evident risk.

Our specimens are the Allergan Funding SCS 3.85% senior unsecured notes of 2024 (Baa3 by Moody's, triple-B by S&P), the Kohl's Corp. 41/4% senior unsecured notes of 2025 (Baa2, triple-Bminus) and the euro-denominated Kraft Heinz 21/4% senior unsecured notes of 2028 (Baa3, triple-B-minus).

The Allergan issue, of which \$1.2 billion is outstanding, trades at 104.92 to deliver a 3% yield to maturity or an 85 basis-point spread from the U.S. Treasury's 2½s due 2024. The issuer is a subsidiary of Allergan plc, the famous maker of Botox (the source of one-fifth of corporate revenue), whose borrow-

(Continued on page 34)

(Continued from page 33)



ings total \$30.2 billion on a market cap of \$66 billion.

Allergan (AGN on the Big Board)—you'll recall it fended off a takeover from our old friend Valeant Pharmaceuticals International, Inc. (*Grant's* Mar.7, 2014)—has racked up a long string of debt-financed acquisitions, in the process rendering its "adjusted" financials ever more obscure and achieving a ratio of debt to EBITDA (that's earnings before interest, taxes, depreciation and amortization) of 4:1.

There is a short thesis on Allergan's debt, which an anonymity-seeking hedge-fund manager (he's short the bonds) conveyed to Fabiano Santin, a new addition to the Grant's staff. Allergan "is the poster child for acquisitions over the last five years," says the bear. "They paid close to \$45 billion in acquisitions. Their biggest acquisition was Forest Labs, but they've bought a bunch of different businesses: Warner Chilcott and then some smaller acquisitions over the past several years. So this is a very large roll-up of different business lines."

Competition is one concern (Botox is getting lots of company in the marketplace), accounting another. Fourth-quarter 2016 results, observes Carol Levenson, co-founder and research director of Gimme Credit, LLC, featured "adjustments" in 20 different line items, "mostly expenses resulting from acquisition account-

ing." Or consider the June quarter, in which a \$902.4 million GAAP loss in operating income turned into \$1.9 billion in "non-GAAP adjusted operating income" after tweaks for amortization (\$1.7 billion), acquisition and licensing and other charges (\$232 million), impairment/asset sales and other costs (\$717 million), nonrecurring gain/losses (\$174 million), legal settlements (\$42 million) and other items. We're not the only curious onlookers. The Securities and Exchange Commission, too, in a letter to Allergan's CFO dated Jan. 11, searches for clarity.

"The specialty pharma landscape is mined with uncertainty," Santin observes. "Companies face infringement lawsuits, patents fall off cliffs, new products come to the market as substitutes and price hikes are under regulatory pressure—especially in the United States, which accounts for 80% of Allergan's sales."

All this can be yours, for a 3% yield to maturity.

Prospective fallen angel No. 2 is the Kohl's Corp.'s 41/4s of 2025, quoted at 1013/4 for a 4% yield to maturity. It's no front-page news that Kohl's is one of the many retailers not called Amazon. It earns its living by selling apparel, footwear, accesories, etc. through its network of 1,154 mid-tier department stores. Gross margin, which ran at 36.1% in 2016, has been admirably stable over the past five years, though selling, general and ad-

ministrative expenses have trended higher, to 23.7% of 2016 sales from 22.1% in 2012. Operating income fell to \$1,183 million last year from \$1,689 million in 2014. Interest coverage, defined as operating income divided by interest expense, was 3.8 times, down from 5 times in 2014.

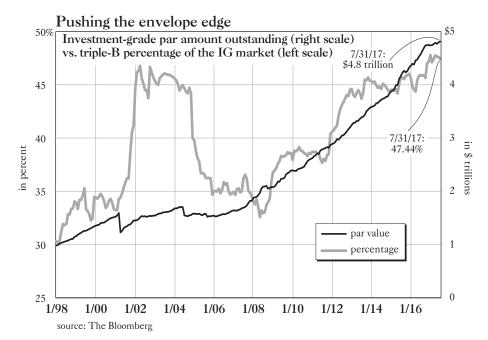
In January, S&P dinged the company with a one-notch demotion to triple-B-minus (with a negative outlook). Still, it's no small achievement to remain investment grade in the Bezosian world. Kohl's debt and capital leases stand at \$4.6 billion, while the maturity profile stretches from 2021 to 2045. Liquidity rests on \$552 million in cash supported by \$1 billion in an available revolver due June 2020. The revolver has a leverage limitation, against which limit Kohl's is not yet knocking.

Bondholders may be senior claimants in the capital structure, but they don't stand at the head of the queue for corporate emoluments (not at Kohl's and not anywhere else we know of in stockholder-centric corporate America). Thus, since the start of 2014, the front office has spent \$2.5 billion on share buybacks and \$1.2 billion on common dividends. You wonder about the kind of spending that keeps the stores fresh. "Even Amazon spent 5.4% of its trailing 12-months revenue on capital investment, a full percentage point higher than Kohl's," Santin notes.

All that for 4%.

Likewise teetering on the cusp of sub-investment grade are the europay Kraft Heinz Foods Co.'s 2½s. Constant readers are fully briefed on the corporate issuer (e.g., *Grant's* March 25, 2016 and March 24, 2017). The corporate equity (KHC on the Nasdaq) is a Wall Street darling. Perhaps the bonds are Mario Draghi's darlings. They trade at 103.8 for a 1.8% yield to maturity, 148 basis points over the German Bund 0½% due 2027.

Kraft Heinz's balance sheet shows \$31 billion in debt. Bloomberg consensus estimates 2017 adjusted EBITDA at \$8.1 billion, indicating a leverage ratio of 3.8:1. It is not so farfetched to imagine that operating results will pressure EBITDA. Last quarter's sales showed a 1.7% year-over-year decline, and not even the cheapskates from 3G Capital



Management can wring blood from a stone. Then, too, grocers, waging a price war, have begun to lean on suppliers, especially the ones in the declining packaged-foods industry— Kraft Heinz, for instance.

Last year, after stretching its suppliers, KHC directed most of the free cash flow to dividends, in the sum of \$3.6 billion, up from \$1.3 billion in

2015. For the first six months of 2017, free cash flow fell to \$201 million from the \$1.6 billion generated in the same period in 2016. According to the second-quarter 10-Q, the plunge was owing to the "timing of payments related to customer promotional activities, income taxes and employee bonuses, as well as increased inventory costs, primarily driven by higher key

commodity costs in the U.S." Interest coverage was ample at 5.6 times during the first half of 2017.

Event risk continues to loom. Kraft Heinz's failed \$143 billion bid for Unilever plc prompted S&P to reduce the KHC ratings outlook to stable from positive. No more, said the agency, did 3G Capital appear committed to maintaining debt leverage below 4:1 over the next two years. "A simple re-rating in credit spreads (erupted either by the ECB stopping corporatebond purchases or by the market reevaluating the company's prospects) would damage this 8.7-year-duration bond," Santin notes. "A 100 basispoint, credit-spread-widening event would cause a 8.7% decline in the bond value, erasing nearly four years of interest income.

Yours for 1.8%.

A coda, courtesy of Graham and Dodd: "The soundness of straight bond investment can be demonstrated only by its performance under unfavorable business conditions; if the bondholders needed prosperity to keep them whole, they would have been smarter to have bought the company's stock and made the profits that flow from prosperity."

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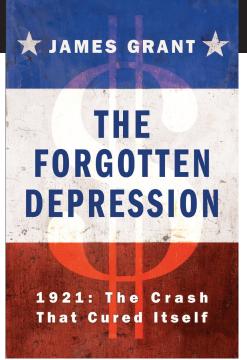
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