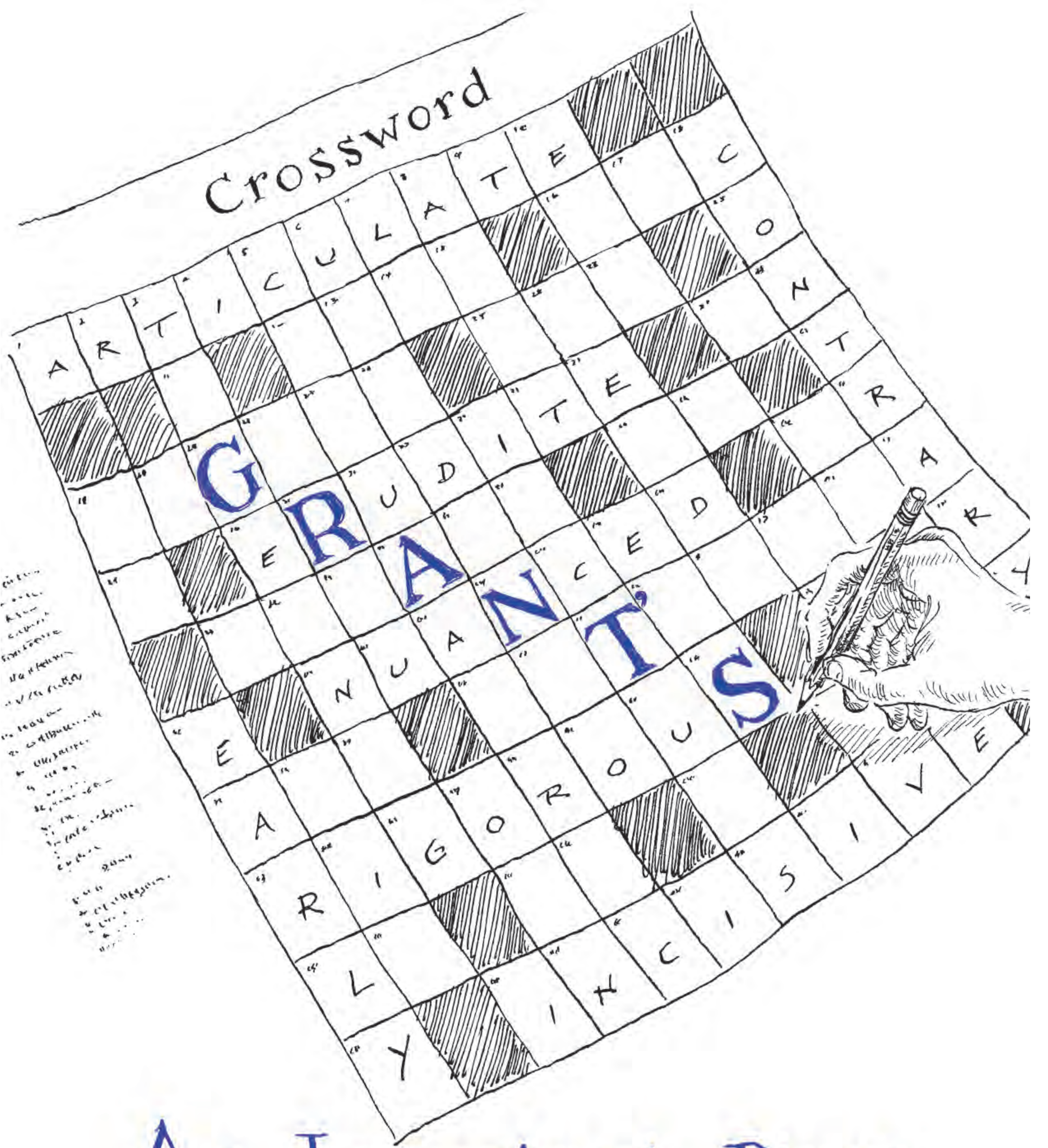

An Important Piece of the Puzzle

GRANT'S

A special invitation from James Grant, founder and editor.

Dear Investor,

I am about to praise my own publication to the skies—to tell you why so many successful investors find it indispensable and why you might, too. But before I get around to the sales pitch, let me tell you something of the back story.

I founded ***Grant's*** in 1983. I had been writing for *Barron's* before deciding to strike out on my own. In those early days, little did I realize how close I would literally come to striking out. Jimmy Rogers, the famed "Investment Biker," was my very first subscriber. Others did follow him, but—at first—not so many and not in any great rush.

We began to make a name for ourselves the next year with a bullish call on the 30-year Treasury bond, then priced to yield 13%. From the present era of stunted interest rates, it is almost impossible to conceive of the bearishness on Wall Street toward these astounding bargains. Interest rates had been rising since 1946. Most investors, looking backwards, expected them to continue to rise.

Well, interest rates did not keep rising, but began falling and have continued to fall. Armed with perfect foresight, I could have borrowed enough money to buy enough Treasurys to endow a small college. But I did not have perfect foresight—did not then and do not have now. What I believe I have acquired, though, is a sense of the cycles of finance. I have come to see how perfectly good investments lose favor and become unreasonably cheap, while not intrinsically better assets tickle the market's fancy on their way to becoming outlandishly rich. I have long since become a confirmed contrarian.

The collection of ***Grant's*** articles you hold in your hand represents a fair sample of our work. You will find equity ideas, both long (e.g., "Bullish on the one with the hair," about General Motors) and short (e.g., "In case the music stops," about Rackspace). You will find an article on the commodity markets ("Rain of grain") and one on the residential real estate market ("Houses for the long run"). You will find more than one article lambasting today's radical monetary policies. Suffice it to say that ***Grant's*** has earned its reputation as perhaps the sharpest intellectual thorn in the Federal Reserve's side.

You will find, too, samples of work from cycles past. ***Grant's*** was among the very few to have seen the debt bubble of the 2000s for what it was and to have identified actionable strategies to profit by its ultimate collapse. Allow me to say that the world would be a happier place today if more people had acted on our early analyses of such ill-fated mortgage-backed securities as the one deconstructed in "Age of Aquarius," reprinted here. But—and this was among our finest hours—we did not merely warn of the coming collapse in credit. We also helped our readers to profit by the explosive 2009 recovery, as you will see in our Dec. 12, 2008 rollout of the "Grant's supermodel credit portfolio" (no mere "model" portfolio for this publication).

In every 12-page issue, you'll find some of the best securities analysis this side of Omaha, Neb.—as well as astute observations on interest rates, the credit markets and currencies (not forgetting the legacy currency, gold). In the way of the hedged investor, we look for securities to sell short as well as those to buy and hold.

Please do subscribe, the past 30 years have been more than I ever dreamt of way back in 1983. And I have every confidence that the next 30 will put them in the shade.

Sincerely yours,

Jim

James Grant

P.S. Subscribe by November 27, 2013 and I'll send you an autographed copy of the sixth edition of Graham and Dodd's classic "Security Analysis," for which I was privileged to write a preface, or the 2008 collection of ***Grant's*** articles entitled "Mr. Market Miscalculates." If those volumes are already in your personal library, we offer instead, a reproduction of the timely ***Grant's*** cartoon, "Will you marry me, going forward?" shown on the inside back cover.

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Shot clock for capitalism

(March 8, 2013) Matthew Klecker, a paid-up subscriber from Chicago, was watching a basketball game when he got the big idea. It came to him in a flash that the Fed's toy interest rates give economic actors too much time to stall and dither. Zero-percent rates institutionalize delay in everyday business and investment transactions. They lead to postponement of needed adjustments. It's as if, he said to himself—and subsequently to the editor of *Grant's*—that basketball never got the shot clock.

Sports fans will cringe to recall what the game was like before the National Basketball Association adopted the 24-second rule in the 1954-55 season. (Years later, the National Collegiate Athletic Association imposed the 35-second rule on the men's game, the 30-second rule on the women's game.) In the days before the shot clock, the team holding a late lead could endlessly pass the ball to deny the opposition the chance to score. On Nov. 22, 1950, the Fort Wayne Pistons stalled their way to a 19-18 win over the Minneapolis Lakers, a contest that might easily have been mistaken for an adult game of Keep Away (in the fourth quarter, the two teams combined for a grand total of four points). With his invention of the 24-second rule, Danny Biasone, owner of the Syracuse Nationals, might have saved the NBA. Certainly, he saved the NBA's early television contract.

Anyway, Klecker, 51, a die-hard University of Wisconsin alumnus, started thinking about the tempo of financial and commercial life as he watched his alma mater beat Michigan in overtime last month. "Could not a proper—which is to say a significantly positive—real rate of interest function in the real economy much as a shot clock does in basketball?" he writes. "Let us say, for the sake of this analogy, that economic profits are like basketball points, and the pressure of the shot clock (or lack thereof) in basketball requires shooting dynamism, just as the pressure of a real rate of interest requires economic dynamism. Absent a ticking shot clock, the game can slow to a virtual standstill as an inferior team—in that 1950 stall-a-thon, the Pistons were up against the supremely large and talented George Mikan of the Lakers—may appear nearly the equal of a superior opponent in the low-scoring game that results. Likewise, absent the 'ticking' (accrual) of a proper real rate of interest, poor investments can survive and even appear to be the equal of alternatives that could generate superior returns. No shot clock, fewer shots; no interest accrual, less monetary velocity."

The rate at which base money is converted into commercial credit is one measure of monetary velocity (see the data on pages 6 and 7). But, notes Klecker, the real world of business tells its own story of velocity, or viscosity. "Consider," he bids us, "the case of a sub-investment-grade business that cannot borrow at a cost of 12%, but can at a cost of 7%. It remains in business, though perhaps it should not in the face of a competitor that can properly service the same debt at 12%: Think Japanese 'zombie' companies.

"Or take the case of a completed and largely unsold condominium project that is repossessed by lending banks as the developer defaults in the face of poor sales post-2008," Klecker continues. "I happen to live near one. The reason the building is still unfilled five years after it was built is because the banks, using very low Libor-plus financing, can wait and wait in hopes of higher prices rather than sell at today's clearing price."

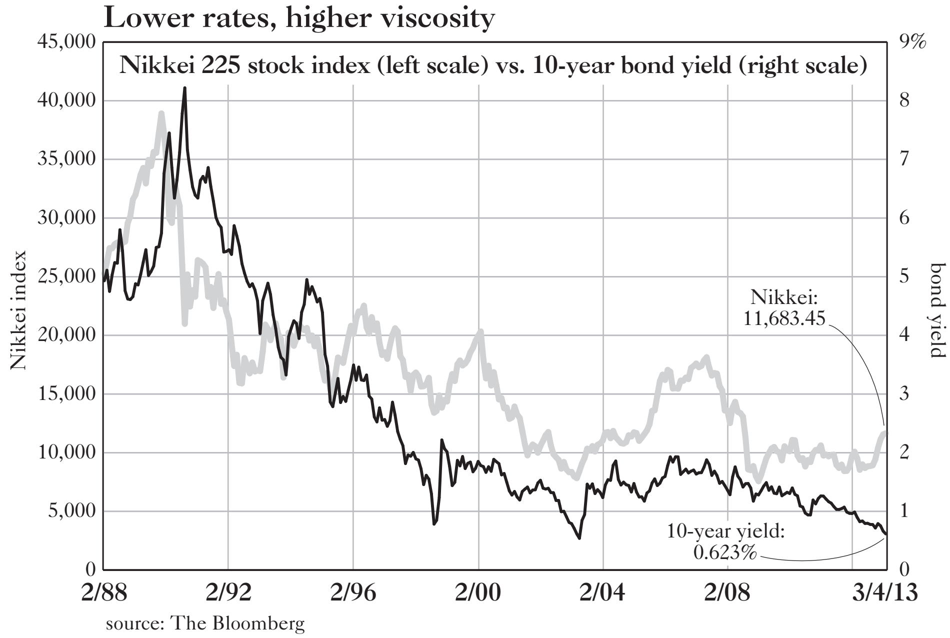
High real rates lower the viscosity of the flow of funds, Klecker thus proposes. Low real interest rates raise the viscosity level, in extreme cases to that of molasses. "Both of these examples betray telltale signs of monetary molasses," he goes on. "Repeated worldwide in a myriad of other forms, they generate the feedback loop of lower returns, leading to lower velocity, leading to deflation. The dynamism of competitive returns to capital is diminished. More and more money delivers less and less GDP growth. Malinvestment persists, and the 'beer goggles' of too low rates (a couple of Budweisers, and everything looks better) continually clouds the a priori investment analysis of any thinking capitalist."

The Fed has its interest-rate agenda, of course, Klecker observes, but inves-

(Continued on page 2)

"Will you marry me, going forward?"

(Continued from page 1)



tors have theirs. Maybe the holders of trillions of dollars in ultra-low-paying sovereign debt will wake up one day to decide that they have lost confidence in the governments that promise to pay negligible yields in currencies that they themselves print to excess. A bond bear market begins. Real rates of interest rise. But the bear bond market proves not a curse but a kind of blessing.

Yes, many would bear mark-to-market losses. But there would be some compensation in the quickening of the commercial and financial tempo. "A certain dynamism would be restored to the real economy via the accelerated liquidation of assets in response to higher carrying costs (e.g., real estate)," Klecker winds up. "A certain dynamism would be restored when a proper cost of capital is charged to a corporate borrower instead of an inappropriately low one (e.g., a single-B credit lives to service a 7% debt, depriving capital to another, more dynamic single-B borrower that could service the same debt at 12%). And, of course, a certain dynamism would be restored to the functioning of our public sector if the Treasury had to pay a rate of interest in excess of the observed rate of rise of the price level."

In Syracuse, N.Y., stands a small monument to Biasone's 24-second shot clock. Come the return of conventionally sized real interest rates, this publication will propose to erect a monument to Matthew E. Klecker, interest-rate theorist—and Badger fan.

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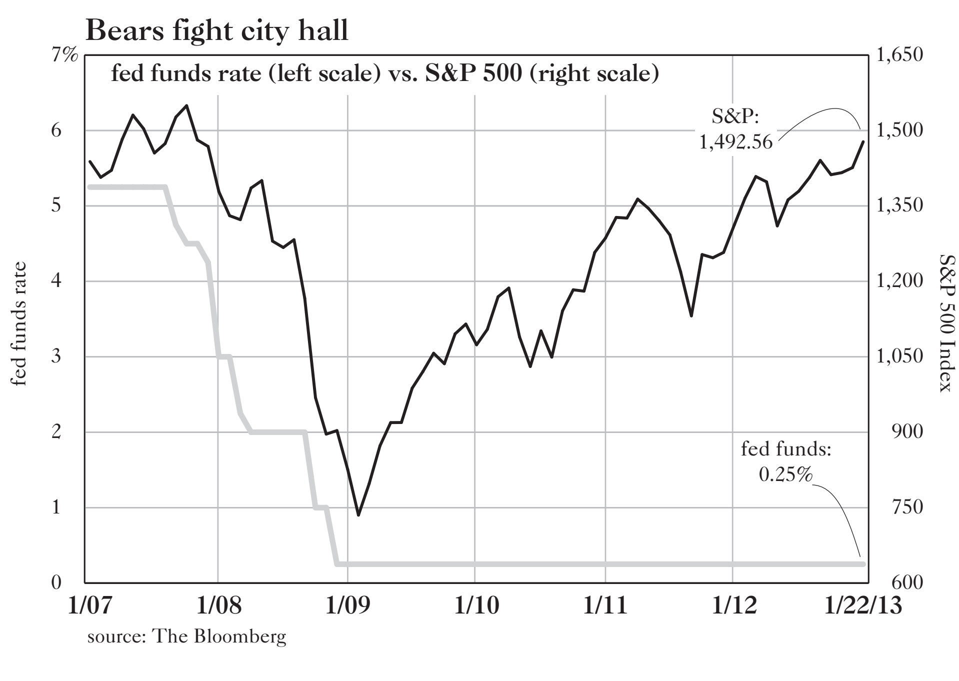
In case the music stops

(January 25, 2013) Institutionally sponsored bearbaiting arrived on Wall Street with the Jan. 3 debut of a financial instrument created to punish the short sellers. Deutsche Bank is the promoter of this, the "U.S. Short Squeeze Index." The investor who owns it gains an economic interest in a rotating group of 25 American-listed companies that people who actually read financial filings have gone to the trouble of betting against. Probably, we think, Deutsche Bank would not be marketing the index (only to professional investors, incidentally) unless its clients asked for it, and its clients wouldn't have asked unless they were very sure of themselves. Many seem to be.

Now begins a survey of the short side of the stock market as well as an analysis of one particular short-sale candidate. Having arrived at the age of wisdom, your editor will forbear from predicting the direction of the S&P 500. However, he will go so far as to say that when—as now—it seems futile to hedge against the downside, it is certainly *not* futile to hedge against the downside.

Generically, stocks are better than bonds, let us say—and at current multiples and interest rates, we so believe. And the Great Rotation out of bonds and into stocks is at last under way, let us also say. Suppose that America's economy will surprise by its strength, even in the teeth of the gale-force winds originating in Washington, D.C. Say it's all true. It does not then follow that the investment road is strewn with rose petals. "The market," observes A. Alex Porter, founding partner of Amici Capital, "is a complex system. Complex systems blow up from time to time." Ergo, hedge—at all times.

Of course, it's not so easy to hedge when the market goes up and up, and when the Federal Reserve buys $85 billion of bonds each month with money that didn't exist until the FOMC conjured it on a computer screen. An insurance policy consisting of a short position in a portfolio



Rackspace—but there's a price war

source: The Bloomberg

of volatile equities is different from a standard homeowners' policy, needless to say. The latter may or may not pay off after a visitation by the storm of the century, but it will never produce marked-to-market losses in a central bank-financed bull stock market. "As long as the music is playing, you've got to get up and dance," infamously quipped Chuck Prince, CEO of Citigroup, in July 2007. The dance floor was crowded when Prince spoke, and—to the strains of Ben S. Bernanke and his Orchestra—it's filling up today.

"Hedge funds are borrowing more to buy equities just as loans by New York Stock Exchange brokers reach the highest in four years, signs of increasing confidence after professional investors trailed the market since 2008," Bloomberg reported on Jan. 14. "Leverage among managers who speculate on rising and falling shares climbed to the highest level to start any year since at least 2004, according to data compiled by Morgan Stanley. Margin debt at NYSE firms rose in November to the most since February 2008, data from NYSE Euronext show." The Bloomberg bulletin quotes James Dunigan, chief investment officer at PNC Wealth Management, as follows: "The first step of increasing risk is just going long, the second part of that is levering up in order to go longer."

Having spent some time on the phone with Porter, who learned the art of hedged investing from the progenitor of the hedge fund, Alfred Winslow Jones himself, colleague David Peligal has wisdom to impart. "Short selling has rarely been easy," Peligal begins by observing. "It wasn't easy in 2006, or in 1999—or, as Porter noted, in the 1960s, when National Student Marketing Corp. doubled in the short sellers' faces, and then doubled again before crashing."

"Different today is ZIRP," Peligal continues. "When nominal rates were measured in more than a few percentage points, the prime brokers paid the short sellers. Now that nominal rates are measured in a small number of basis points, the short sellers pay the brokers. True, there are many fewer buy-ins these days than there used to be, but the cost of borrowing stock, especially heavily shorted stock, has gone way up. Finally, the popularity of exchange-traded funds may make the conscientious analyst wonder why he or she bothers to open the annual report. You might be short a retailer because its inventories are rising faster than its sales or its merchandising is lackluster. But if your particular stock is in the SPDR S&P Retail ETF (ticker: XRT), and if the retail sector is going up, chances are your short-sale target is going up, too. Couple that with the rise in algorithmic trading, and it feels like what happens to the price of the company you shorted (after all that hard work!) has more to do with the S&P or the XRT or the FOMC than with the company fundamentals."

No surprise, then, that the bear population is much reduced, as a *Forbes* piece dated Jan. 10 observes. Maybe the wonder is that there are any short sellers left. Jaime Lester is one of this hardy breed. He is the managing member of Soundpost Partners, New York, whose main fund dates from 2005 and which manages assets of $60 million, down from a peak of $375 million in early 2010. Undaunted, Lester started a short fund in June. He calls it the Soundpost Skeptic Fund, and it manages $20 million. Peligal asked Lester for the name of an actionable short idea, and Lester replied Rackspace Hosting (RAX on the New York Stock Exchange). Having investigated, *Grant's* concurs with Lester.

Founded in 1998 in San Antonio, Texas, Rackspace went public in 2008 and maintains data centers in the United States, the U.K. and Hong Kong. Service deluxe is the corporate watchword. You, a business customer looking for a stairway to the cloud, will be treated like royalty. And you will get the same special handling if you need a server on terra firma. No more are businesses content to spend uncounted billions on the inputs to information technology, e.g., servers, software and the salaries of the people who make them work, according to Lanham Napier, the 40-something Rackspace CEO. The new idea—the Rackspace idea—is economical, carefree "outcomes."

Let it be said that, to date, RAX has been what is euphemistically known in the trade as a "tough short." Valued at 106 times earnings, the shares have generally appreciated and have always been pricey. A triple-digit multiple is proof of the existence of a story, if nothing else, and Rackspace's story is one of booming growth in the centralization of information technology resources on the Internet. Why keep your own server when you can buy just that portion of a server you happen to need over the Net? A business should no more produce and maintain its own IT infrastructure than it should its own electrical generating capacity, is the Rackspace pitch.

In a December research note, J.P. Morgan contends that the migration to the cloud is persistent enough to continue to drive Rackspace's 20% revenue growth. The Morgan analysis dangles a December 2013 price target of $83, which is predicated on sticking a fancy multiple—an enterprise value 16 times EBITDA—on a 2014 estimate. Tuesday's closing price was $76.56. The shares, which pay no dividend, are liquid and easy to borrow; the short interest is less than 10% of the float (not big enough, evidently, to warrant admission to the Deutsche Bank Short-Squeeze Index). Earnings are due in mid-February.

No proper short idea hangs on valuation alone, especially these days. Balance-sheet weakness would be a promising thread on which to tug, but Rackspace—despite a recent bump up in capitalized software expense—isn't a balance-sheet story. Still less is it a business-execution story. The "Rackers," as management affectionately knows its more than 4,000 employees, are called to the ideal of "fanatical support," that is, unceasing and cheerful attention to the customer's every need. Rather, Lester advises Peligal, the company's Achilles heel is the competition that Rackspace's very success is ferociously attracting. The newly formed Google Compute Engine is one entrant. Amazon Web Services, now in its 11th year and the acknowledged market leader in the "public cloud" market, is another. There are many more.

"Since the summer," says Lester, "the stock traded from around $40 a share to about $80 a share. So it has roughly doubled in six months. I would argue that the news since the summer has been pretty uniformly negative. Now, there are some positive data points also, but, on balance, I would say this is a company that has had a fair amount of negative news. They missed earnings estimates. They beat sales estimates but by the lowest proportion they had ever beaten it. Historically, they beat sales estimates by 2%; in the last two quarters, they beat by 0.2%—so, very weak quarters. If you look at the growth in their subscriber base, it's decelerating. If you look at their margin structure, it's compressing. They've resorted to more accounting tricks like capitalizing software. They've changed their reporting structure a little bit to obfuscate."

The capitalized software costs relate to OpenStack, Rackspace's open-source cloud-computing platform. To capitalize such outlays adds to assets and income; each is higher, at least in the short term, than it would be if management had chosen to run those costs through the income statement. Over the past four quarters, EBITDA minus capitalized software outlays was effectively flat, a 19% jump in revenue notwithstanding.

"Taking a step back," Lester continues, "the core premise of this business is that I can build a data center and fill it with servers and then lease out that server space to a customer. And I'll call it a 'cloud' or I'll call it 'managed hosting' or whatever I call it. The problem is that there are massive, massive competitors here." Google and Amazon, as noted, do—or try to do—what Rackspace does. So do Microsoft, HP, Dell and Oracle. There's nothing gentlemanly about this competitive jostling. "Amazon Web Services and Microsoft, together with Rackspace Hosting, are staging a price war for their services," said a June bulletin from cloudtimes.org. December brought a parade of 25% and 30% price reductions of cloud-based storage prices by Google, Microsoft and Amazon.

Not only are the Rackspace adversaries big, says Lester, they are also different. Amazon and Google don't have to earn a profit doing what Rackspace does. They have, of course, alternative sources of revenue. Then, again, in fairness to all parties, Rackspace has been beating the competition—much of it, like IBM today or AT&T in the early going, big and seemingly scary—by delivering service that leaves the customers satisfied if not openmouthed.

Observing that Rackspace is no pygmy, either, Peligal asked Lester if the company he's short might be someone's idea of a takeover candidate. "People have certainly put that out there," Lester replied. "It's an $11.5 billion to $12 billion company [in market cap] at this point, with invested capital of about $800 million. The companies that have been rumored to take it over are actually smaller companies. People talked about Dell buying it. Dell had a $5 billion enterprise value until recently. If you wanted to generate $150 million of EBIT from $800 million of invested capital, they can do that if they want to. They just have to invest that capital. I think it's crazy that there's something about Rackspace that means they should pay 15 times invested capital to do that.

"When you've seen these big tech takeovers," Lester continues, "most

Rackspace Hosting
(in thousands of dollars, except per-share data)

	12 mos. to 9/30/12	12/31/11	12/31/10	12/31/09	12/31/08	12/31/07
Net revenue	$1,239,591	$1,025,064	$780,555	$628,987	$531,933	$362,017
Cost of revenue	354,874	309,095	249,840	200,943	172,583	118,225
Sales and marketing	150,491	126,505	96,207	79,458	80,323	53,930
General and admin.	335,568	270,581	199,011	168,116	148,706	102,777
Depreciation and amort.	235,775	195,412	155,895	125,229	90,172	56,476
Total costs and expenses	1,076,708	901,593	700,953	573,746	491,784	331,408
Income from operations	162,883	123,471	79,602	55,241	40,149	30,609
Total other inc. (expense)	(5,518)	(7,042)	(8,191)	(8,695)	(7,461)	(2,815)
Income before inc. taxes	157,365	116,429	71,411	46,546	32,688	27,794
Income taxes	56,807	40,018	25,053	16,328	10,985	9,965
Net income	100,558	76,411	46,358	30,218	21,703	17,829
Diluted net inc. per share	0.72	0.55	0.35	0.24	0.19	0.17
Cash and cash equivalents	257,651	159,856	104,941	125,425	238,407	24,937
Total assets	1,241,765	1,026,482	761,577	668,645	685,261	301,813
Long-term obligations	194,943	189,310	133,572	161,024	283,053	96,213
Total stockholders' equity	781,934	599,423	438,863	349,427	269,684	96,873
Price per share	$76.56					
Fully diluted shares outstanding (millions)	148.8					
Market capitalization	$11,392.1					
Price/earnings	106.3x					

source: company filings

of the time when they've gotten into really irrational prices, aside from Autonomy [whose acquisition by HP may or may not prove to be fraudulent but is undoubtedly questionable], most of these irrational deals that people cite as having a cloud multiple, they're small companies that can be added to a bigger platform. They're $1 billion to $2 billion acquisitions, whether they're 3Par or Compellent or one of these storage technology companies, or if they're some of these big 'software-as-a-service' revenue multiples for companies like Kenexa or SuccessFactors or some of the 'customer relationship management' companies. They can trade at seven to eight times revenues but they're small revenue numbers. They're really being paid $1 billion to $1.5 billion just for the IP [intellectual property]. Here, you're talking about, with any sort of premium, you're now talking about a $15 billion deal—for nothing. And the question is, 'What sort of board is going to okay that deal in this environment?' I think that's incredibly unlikely."

The aforementioned Rackspace CEO, Lanham Napier, a fifth generation Texan, was quoted as saying in *Texas CEO Magazine* that he doesn't want a "big" company. He wants a "great" company. This was in March, when Rackspace was in the middle of a move to new corporate headquarters it was fashioning out of a 1.2 million-square-foot abandoned San Antonio shopping center. In November, Napier, one of the speakers at a Credit Suisse technology conference, fielded a question about the growing competitive field. "I don't have a crystal ball with respect to how this will emerge," he replied. "I think the secret for us is to play our game, and the cloud is a big market, so what segments are we going to be really competitive in and which ones can we dominate? And I think it's this emerging segmentation around customers with applications who want help in a certain service experience, we can win that. That's what we won in the first round of hosting that made us a victor there, and I think it will play out the same way in this market."

However, just in case he is wrong, Napier has been selling. On Nov. 8, as part of his 10b(5)-1 plan, he exercised and sold 210,494 shares. On Dec. 17 and 18, also as part of his 10b(5)-1 plan, he exercised and sold 46,500 shares. His total holdings consist of roughly 4.57 million shares, of which 892,150 are held directly. Other insiders have been selling, too.

In 2012, *Fortune* magazine named Rackspace one of the "100 Best Companies to Work For." For 2013, *Grant's* names RAX one of the "100 Best Stocks to Sell Short."

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Ben on a broomstick

(November 30, 2013) On Nov. 15, the editor of *Grant's* addressed the Investment Decisions and Behavioral Finance meeting at the Harvard Kennedy School. The text of his remarks follows.

Good evening, Harvard! It is an honor and a pleasure to be with you to explore the connection between witchcraft and superstition, on the one hand, and modern central banking, on the other.

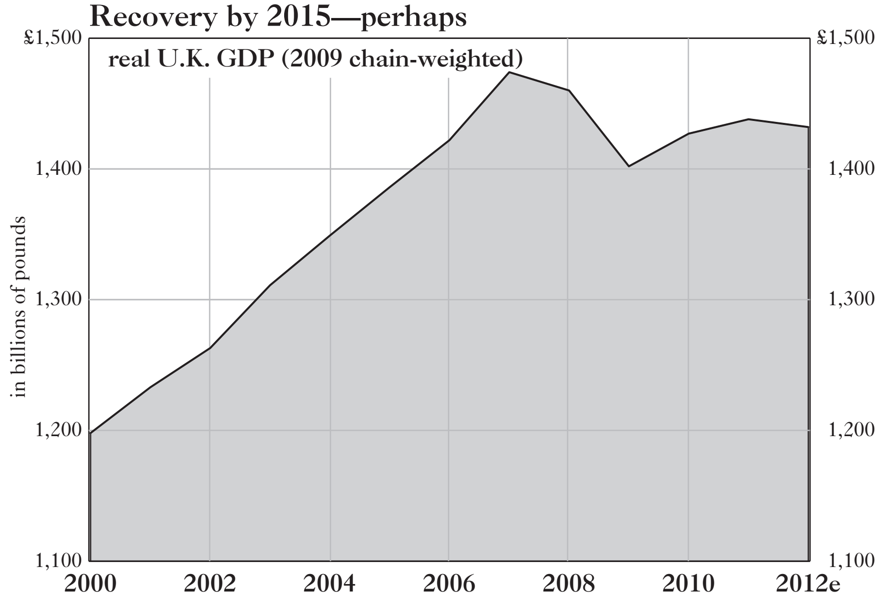
I won't spend much time defining terms. Witches, as you know, cast spells, make storms and fly on goats or broomsticks to diabolical nighttime rendezvouses called sabbats. Modern central bankers override the price mechanism, conjure money from thin air and undertake to boost economic growth by raising up stock prices.

I began thinking about witchcraft in the context of central banking a few months ago. The 2012 Republican Party platform pledged a victorious Romney administration to form a commission to study a return to the gold standard. Some commended this plank, others criticized it—and some sarcastically suggested that the Republicans, as long as they were at it, might as well study the revival of witchcraft.

These derisive allusions reminded me of an essay by the British historian H.R. Trevor-Roper entitled, "The European Witch Craze of the 16th and 17th Centuries." In it, Trevor-Roper sends up a warning against the common presumption that the history of thought traces a straight line from the darkness to the light. Far from it, as the historian shows by citing in evidence the outbreak of "dark passions and inflammable credulities" amidst the flowering of the Renaissance.

The belief in witches was not, Trevor-Roper writes, "as the prophets of progress might suppose, a lingering ancient superstition, only waiting to dissolve. It was a new explosive force, constantly and fearfully expanding with the passage of time. . . . Credulity in high places increased, its engines of expression were made more terrible, more victims were sacrificed to it. The years 1550-1600 were worse than the years 1500-1550, and the years 1600-1650 were worse still. Nor was the craze entirely separable from the intellectual and spiritual life of those years. It was forwarded by the cultivated popes of the Renaissance, by the great Protestant reformers, by the saints of the Counter-Reformation, by the

Recovery by 2015—perhaps



source: IMF

scholars, lawyers and churchmen. . . . If those two centuries were an age of light, we have to admit that, in one respect at least, the Dark Age was more civilized."

Hurricane Sandy taught a history lesson to hundreds of thousands of New Yorkers. Waking up in the cold and the dark, they suffered a kind of involuntary time travel. For days on end, they lived as their forebears had only a few generations before. When, at length, the heat and the light and the blessed cable TV connection and Internet service were restored, the unwashed and unshaven storm victims could thank their lucky stars that they live in an age of transcendent material progress.

But not all is well even in this time of plenty. Sovereign governments groan under seemingly unpayable debts. Our Great Recession, though officially ended in 2009, continues to cast its pall over our finances, labor markets and politics. In Britain, the Bank of England speculates that output will not return to the levels of 2008 until the year 2015 at the earliest. From these manifold troubles, the world seeks deliverance through the techniques of modern central banking.

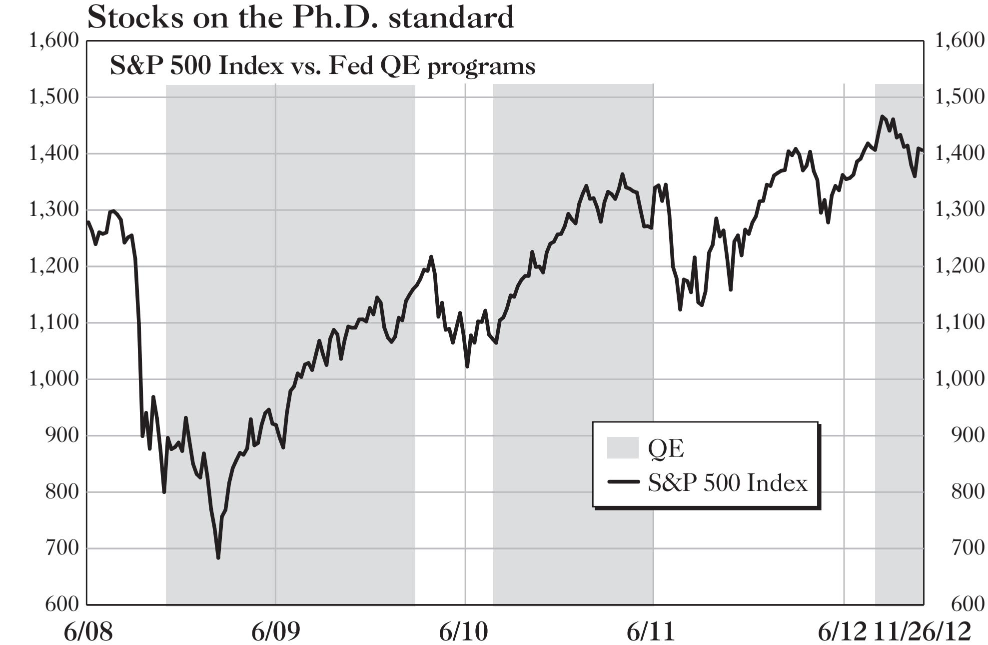
What the central bankers can do to help is not, in fact, so obvious. We Americans built too many houses and borrowed too much money to buy them. We produced too little and spent too much. A layman might suppose that to set things right a chastened people should work and save. We should mark our errors to market, restructure our debts as necessary and try to do better next time. But the layman would reckon without the theory and practice of modern currency management.

As to the theory, the highly trained economists who fix the interest rates (fix them to the point of invisibility), manipulate the yield curve and buy up hundreds of billions of dollars of notes, bonds and mortgages with newly materialized dollars profess that they know more than the market. That is their credo.

You have probably never heard a fully credentialed monetary economist profess this article of faith in just those words. The mandarins speak a language all their own, half faculty-club English and half mathematical symbols. Just how far up in the clouds are their heads may be inferred from a sample of the research papers recently produced by economists at the Federal Reserve Board:

- "From Many Series, One Cycle: Improved Estimates of the Business Cycle from a Multivariate Unobserved Components Model."
- "A Reliable and Computationally Efficient Algorithm for Imposing the Saddle Point Property in Dynamic Models."
- "Computing Dynamic Stochastic General Equilibrium Models with Recursive Preferences and Stochastic Volatility."

Stocks on the Ph.D. standard



sources: The Bloomberg, Federal Reserve

Formidable indeed are the intellects that create the scholarship that supports the Federal Open Market Committee in the business, not so much of central banking, but of a halfway kind of central planning. Press down interest rates by so many basis points and lift up asset prices by so many percentage points, the Ph.D.s at the Fed suggest. Hiring will restart, too, they say. Inflation will twitch higher also, but not by so much and, in any case, the scholars will not forget to reduce the rate of rise in the cost of living when the time is right. The Fed has devised an exit strategy.

This is no reformed and rehabilitated Federal Reserve. It is the same bureaucracy that somehow failed to notice the coming of the credit storms of 2008, the biggest event, bar none, in the bureaucrats' professional lives. Yet we are asked to believe that the unchastened mandarins will be any more observant come the next cyclical moment of truth.

Once we had the gold standard. Today we have the Ph.D. standard. Central banks in the era of the classical gold standard—that is, in the 40-odd years preceding the start of World War I—employed no economists. They monetized no government securities. They adjusted their discount rates to assure the ease of convertibility of bank notes for gold, or gold for bank notes, at the fixed and statutory rate. The system worked as well as any human monetary contrivance has ever worked.

Then came the guns of August 1914. Came John Maynard Keynes. Came the Great Depression, fascism, communism, statism, World War II, Bretton Woods, today's pure paper dollar—and the thoroughgoing transformation of economics into an outcropping of applied mathematics. Sounding for all the world like physicists, the doctors of economics became central bankers.

Though you can hardly understand a technical word they write, the mathematical mandarins are not physicists. Friedrich Hayek, in a speech given on the occasion of his acceptance of the Nobel Prize in economics in 1974, denounced the scientific pretensions of his fellow economists. Especially did he chide them for insisting that the only magnitudes that matter are the ones you can measure. He called this error "superstition."

Now it happens that the founder of

physics, Sir Isaac Newton, was a contemporary of the founder of econometrics, Sir William Petty. Imagine yourself in a London coffeehouse along about the year 1685. You know Newton and Petty. Sharp as a tack, they are. And each is on the threshold of discovery in a promising new field of thought. Imagine now that you have been returned to life. You are informed that the physicists have discovered the God particle, whereas the economists are embarked on QE3, having no real way of knowing if it will do any good—or, for that matter, if QE1 and QE2 worked, either. Plainly, physics has made a different kind of contribution to human society than economics has. Then, again, physics is an easier nut to crack than economics. Electrons don't have feelings, as they say.

Progress in science is cumulative; we stand on the shoulders of giants. But progress in finance is cyclical; in money and banking, especially, we seem to keep making the same mistakes. Just yesterday, the deputy governor of the Norwegian central bank took a swipe at quantitative easing. If Ben Bernanke doesn't watch out, said Jan F. Qvigstad, the chairman of the Federal Reserve will go down in monetary history as the 21st century's own John Law. As you know, Law disastrously over-cranked the money presses more than 300 years ago.

What imbues money with value? The stamp of the sovereign? Or the nature of the monetary medium itself, say gold and silver? The debate is recurrent, perhaps eternal.

Anyway, the case for the gold standard is no anachronism. Those who greeted the gold plank in the GOP platform with a derisive snort perhaps failed to understand the simple elegance of a convertible currency. To use a musical metaphor, the classical gold standard is money in the key of C, the people's key. The Ph.D. standard, in contrast, is money in the key of G-flat, a key for the musicologists.

Say this for the musicologists, they don't exercise coercive power. Central bankers do, but they shouldn't. They don't know enough—can't know enough—to use it wisely, as Hayek observed. "Even if such power is not in itself bad," he continued in his Nobel Prize Lecture, "its exercise is likely to impede the functioning of those spontaneous ordering forces by which, without understanding them, man is in fact so largely assisted in the pursuit of his aims. We are only beginning to understand on how subtle a communication system the functioning of an advanced industrial society is based—a communication system we call the market and which turns out to be a more efficient mechanism for digesting dispersed information than any that man has deliberately designed."

I conclude that the Ph.D. standard, not the gold standard, is the anachronism. In this day of increasing reliance on social networks, we have, in the Federal Open Market Committee, a throwback to the command and control methods of Eastern Europe in the dark age of the 1950s. One might almost call it witchcraft.

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Bullish on the one with the hair

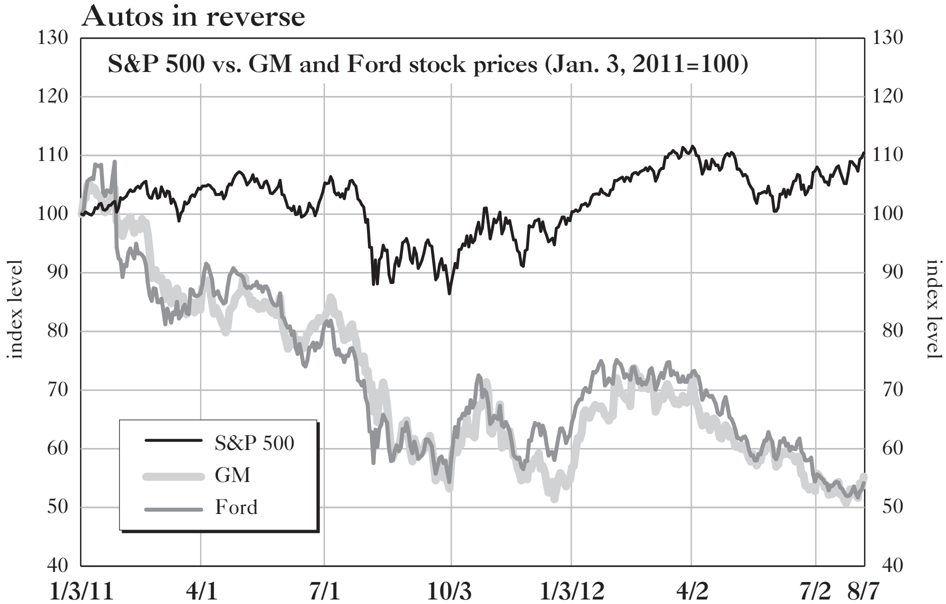
(August 10, 2012) "Charlie," General Motors CEO Rick Wagoner addressed the talk-show host Charlie Rose on Aug. 18, 2008, the year of the 100th anniversary of GM's founding, "I think the future's very bright." Let us only say that the former GM boss was early. Now unfolding is the bullish case for the company they call—but may not long continue to call—Government Motors.

How the mighty GM, the corporate edifice built by Durant and Raskob, Sloan and Wilson, became a supplicant to Timothy Geithner's Treasury Department, side by side with the U.S. Postal Service, Fannie Mae and Freddie Mac, is a sad story oft told. Lackluster products, unfunded pension liabilities, immense losses and reduced liquidity mortally weakened the maker of Corvettes, Cadillacs and Rivieras—and of Corvairs and Volts and subprime mortgages, too. In 2009, General Motors fell like a half-rotten tree.

Six weeks after a $50 billion, taxpayer-financed tow into the Chapter 11 garage, however, there emerged the reorganized GM. You could hardly tell it was the same company. Compared to the pre-bankruptcy lemon, "new" GM boasted 40% fewer dealers and $79 billion less debt. It gained a few things, too: wage concessions from the United Auto Workers Union and billions of dollars worth of tax-loss carry-forwards. On Nov. 18, 2010, came the IPO, priced at $33 a share. On Jan. 6, 2011, came the intraday high of $39.48 a share. From that day til this, the stock has been sawed in half.

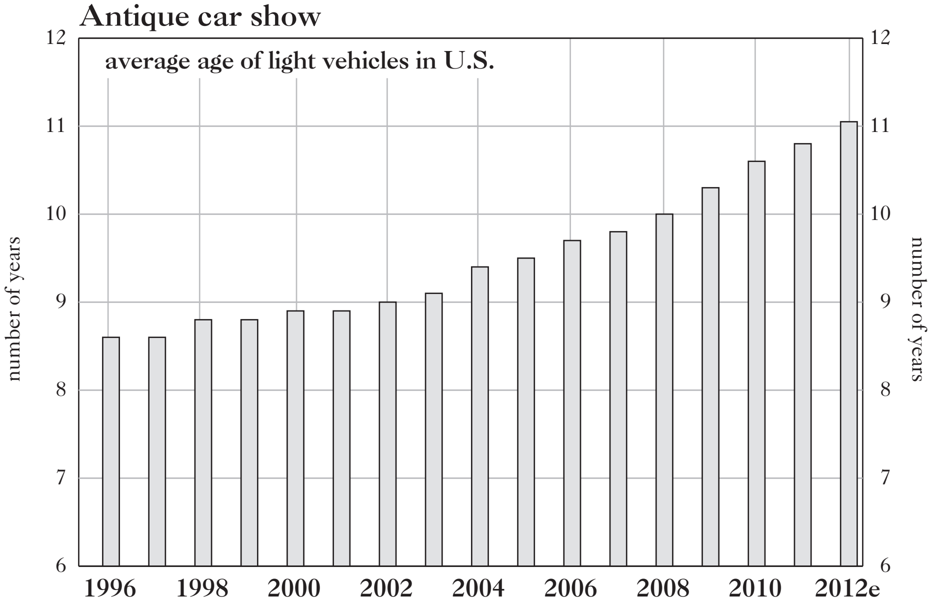
The bill of particulars against GM makes familiar reading. Thus, the company derives 17.8% of its revenue from Europe and 19% of its net income from China. It ranks fifth in sales but 20th in profits on the 2012 *Fortune* 500 roster. It's losing domestic market share, and rock-bottom interest rates have inflated the value of its pension obligations. The executive suite seems to have a revolving door. A June review of GM's

Autos in reverse



source: The Bloomberg

Antique car show



sources: WardsAuto.com, R.L. Polk & Co., JPMorgan

new minivan, the Spin, on The Truth about Cars Web site, ran out under the headline, "Dog of an engine devours any desire to buy." European inventories are high and rising. And if all that weren't bad enough, the company has an itchy minority owner in the U.S. government. Of the 1.57 billion GM shares outstanding, the Treasury owns—and will sooner or later sell—500 million.

Mr. Market is as fed up as anyone. At five or so times the 2013 earnings estimate, and at 1.8 times enterprise value to projected EBITDA (i.e., earnings before interest, taxes, depreciation and amortization), the stock is seemingly valued for every contingency except good news.

Then, again, the worldwide auto business is running on the valuation rims. Archrival Ford, the North American auto company that didn't go running to the government in 2009 (except for a $5.9 billion Department of Energy "green" retooling credit), is quoted at 6.15 times the 2013 estimate, and at a 2.5 multiple of EV to 2013 EBITDA. Like GM, Ford has its problems in Europe. Unlike GM, however, Ford is thriving in North America. It has regained its investment-grade debt rating and reinstated the dividend it stopped paying in 2006.

Volkswagen, the world's No. 2 automaker by production, is quoted at 5.3 times the 2013 estimate and at a dividend yield of 2.23%. Perhaps investors worry about the German company's home continent, or about VW's proclivity for discounting—you can buy a 2012 Golf today for €12,990, compared to the original list price of almost €17,000—or about the risk that management might not seamlessly execute its plan to replace many different engineering and production platforms with a single platform, a project known as the "modular transverse toolkit." Or, perhaps, the market is casting a wary eye toward China, where VW sold 28% of its vehicles in the first half of 2012 (do not be concerned about the People's Republic was the message from the Volkswagen second-quarter conference call). Or—yet another possibility—the problem is governance. No ordinary public company, "Volkswagen is basically now an Austrian family-owned company that coincidentally happens to be traded on the exchange. . . . [I]t's not exactly a company run for shareholders." So said Ferdinand Dudenhöffer, director of the Center for Automotive Research at the University of Duisberg-Essen, in March on the occasion of the nomination of the wife of Chairman Ferdinand Piech to VW's board of directors. Top owner of Volkswagen shares, with 50.7% of the outstanding, is Porsche Automobil Holding SE, i.e., the Porsche-Piech family. Second-largest holder is the German state of Lower Saxony, home to VW headquarters as well as to six VW plants and many of its half-million employees. By dint of that investment, Lower Saxony holds veto power over major VW corporate decisions. It seems a fair guess that the politicians won't vote their stock as, say, Carl Icahn would.

The question, therefore, is not whether the automakers are driving on economic black ice, but whether the market has adequately, or more than adequately, compensated for that known risk. In the case of GM, we think it has more than compensated. Much has gone wrong with the company that Peter Drucker extolled more than 60 years ago in his ground-breaking management study, "The Concept of the Corporation." And much will continue to go wrong, no doubt. Yet the post-Wagoner management team is effecting improvements, and the post-2008-09 auto market seems ripe for recovery—timing uncertain, we hasten to add.

In the palmy days of 2007, Americans bought 16 million cars and trucks, a number that seemed a reliable floor but hardly a ceiling. However, we Americans bought not with cash but with credit, credit that was supported by bloated real estate collateral. Cars busted along with houses, the annual vehicle selling rate plunging to 10.4 million units in 2009. It recovered to 11.6 million units in 2010 and 12.8 million in 2011. And the rate may reach 14 million or even 14.5 million units in 2012. As for the prospects of ever returning to the mountain top of 16 million units, they are, in fact, surprisingly good. One doesn't have to assume growth in vehicles per household to get there, only continued population growth of a little under 1% per year. At that rate the automakers would return to the good old days of 16 million sales as soon as 2015.

The buying drought of recent years has put some fancy figures on American odometers. At 11 years, the average car and truck on American highways in 2011 was the oldest on record. Considered in tandem with the reciprocally low rate of scrappage, the aging of the American fleet will presumably set consumers to hankering after that new-car smell. And more and more can afford it. To purchase and finance an average-priced new car required 23.2 weeks of median family income as of the first quarter, according to the Comerica Auto Affordability Index. That was within a whisker of the all-time most affordable period, the third quarter of 2009, and compares with the post-1978 average of 26.9 weeks of income.

There is another silver lining to GM's difficulties. As an IRS-conferred consolation prize for the eight consecutive quarters of red ink logged between 2007 and 2009, the company, as of year-end 2011, owned $47.2 billion of deferred tax assets before valuation allowances. While analysts may quibble about the correct discount rate to apply to the net operating loss, they will concur that GM is unlikely to be paying taxes to the U.S. government for another six years at least.

At the June 12 annual meeting, Daniel F. Akerson, chairman and CEO, pledged to "make GM great again," and in the same breath mentioned the disparity between sales and earnings that is so glaringly evident in the *Fortune* 500 rankings. As it is, GM is producing operating margins of not quite 6%—last year, it delivered sales of $150.3 billion, adjusted EBIT of $8.3 billion and $4.58 of diluted earnings per share. So far in 2012, it has generated sales of $75.4 billion, adjusted EBIT of $4.3 billion and diluted earnings per share of $1.49. And how might management make the leap from federal dependence to capitalist greatness?

"Our journey starts with our products," the CEO answered, "and I am pleased to report that we are now in the early days of one of the biggest global product offensives in our history. The impact of new vehicles will be especially profound in the United States, where about 70% of our nameplates will be new or freshened over the course of 2012 and 2013." Examples include the Chevrolet Spark mini-car, the Buick Verano Turbo and the new Cadillac XTS and ATS luxury sedans.

As to whether GM's new product "offensive" is so markedly bigger and better than anyone else's, colleague David Peligal remarks: "It's all about the timing. GM will have an edge in so-called refreshes in both 2013 and 2014. By the looks of a chart in a July 18 JPMorgan research report, GM's North American product-refresh rate is larger by about 25% in 2013 and 8% in 2014. A bigger difference, though, is that, while Ford will be revamping low-margin vehicles, GM will be focusing on high-margin ones. Full-size trucks are where the money is—they may produce earnings before interest and taxes of $10,000 each, or about 10 times the EBIT of a small car. GM will sell more of these trucks and at a better price point.

"Something else about new products," Peligal proceeds, "they command better prices than showroom-worn merchandise. Over the five-year life of the typical automobile or truck product line, or—as they say in Detroit—'platform,' years one and two deliver better prices than years four and five. In the second place, new offerings make for better market share. In large pickup trucks, GM's top profit driver (a sweet spot for the Big Three generally, as pickup-truck drivers as a class tend to buy American and only American), it has ceded domestic market share to Ford and Chrysler because the competition's offerings are newer and shinier than GM's. In the seven months through July 31, GM claimed around 36% of the American truck market, down from 40% just three years ago. Why buy this year's Chevrolet Silverado or GMC Sierra when, in 2013, GM management will pull back the curtains on the new K2XX platform?

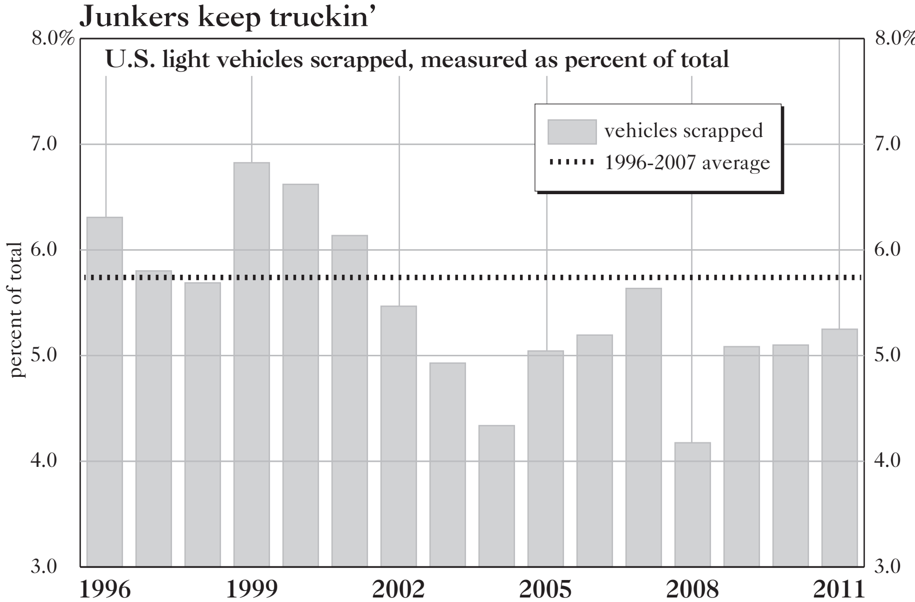
"Putting it all together," Peligal winds up, "if we're right that the industry will grow in North America, and that GM can regain a measure of market share, you could see the company's top line in North America climb to $100 billion from $90 billion. If management can find its way to a 10% operating margin, roughly 220 basis points more than it is posting today, therein lies $2 billion to $3 billion of improvement in operating profit, equal to $1.11 per share to $1.67 per fully diluted share—none of which will be taxed for a long, long time."

Well and good, a bear might interject, but GM has three hurdles to clear. The first is miniature interest rates, and a paradoxically high hurdle it is. With pension assets of $109 billion and pension obligations of $134 billion, the company faces an unfunded liability of $25 billion (as of year-end 2011 measured under GAAP conventions). As part of a drive to close the deficit, management is offering lump-sum payments to some retirees in lieu of a promised stream of pension income. Also in the cause of pension "de-risking," GM is paying Prudential Financial no less than $4 billion to take $26 billion of liabilities off its hands.

However, as fast as the front office can de-risk, the Federal Open Market Committee re-risks. Low and lower interest rates require a pension obligor to come up with more and more capital. One thousand dollars will generate $60 a year of interest income at a 6% interest rate, but it takes $2,000 to generate the same income at a 3% interest rate.

While it's a stretch to call GM a back-door play on rising interest rates, there is some element of truth in that notion, at least in the matter of pension obligations. According to the 2011 10-K report, a 25 basis-point rise in the discount rate, considered in isolation, would reduce the U.S. pension benefit obligation by $2.66 billion. Given that

Junkers keep truckin'



sources: WardsAuto.com, R.L. Polk & Co.

the unfunded portion of the company's pension obligation comes to $24 billion (or will when the Prudential deal closes), the return of the 10-year Treasury note to the alpine heights of 3% would shrink that obligation to $8 billion ($2.66 billion times six increments of 25 basis points comes to $16 billion).

Incidentally, GM's pension fund last year deftly boosted its bond allocation to 66% of the portfolio from 41% in 2010. By so doing, it returned 11.1% in a year when the S&P 500, with dividends reinvested, was up 2.1%. Kudos to the portfolio managers. And double kudos if they manage the trick of getting out of bonds, when the time comes, as profitably as they got into them.

On balance, in the article of interest rates, we would venture (borrowing from former GM chief Charles Wilson) that what is good for the country is good for General Motors and vice versa. Normalized interest rates, borne of rising prosperity, would be good for the country and GM alike. As it is, a qualified customer can finance a 2013 Cadillac XTS luxury sedan at 3.9% APR for 60 months. Gently rising rates (underscore "gently," please) might be just what the doctor ordered.

Hurdle No. 2 is the state of the vehicle business in what Google is wont to call the "Rest of the World." Last year, GM produced nine million cars and trucks in 30 countries. Some 72% of those sales took place outside North America. And of these sales in the hinterlands, 43.4% occurred in the so-called emerging markets, e.g., Brazil, India, Russia, China, etc. Europe accounted for 1.7 million sales, or not quite 27% of the non-North American total.

Of Europe, the best that can be said—and it is no small thing—is that everybody hates it. In 2010, General Motors Europe, a.k.a. GME, produced an operating loss of $1.95 billion on revenues of $24.1 billion. In 2011, the European division turned in an operating loss of $747 million on $26.8 billion of revenue. And in the first six months of 2012, GME delivered an operating loss of $617 million on $11.4 billion in revenue. Just when the European auto business might be put to rights is anyone's guess. Ford is on record as saying not for five years. Sergio Marchionne, CEO of Fiat, calls the old Continent "a bloodbath of pricing and it's a bloodbath on margins." According to a July 25 research bulletin from Deutsche Bank, European automakers are operating at only 72% of capacity, compared to 98% in the United States. Is it so hard to imagine the statesmen and stateswomen of Europe coming together to forge a constructive solution to the raging sovereign debt crisis? Or to imagine the European Central Bank lending a hand with a generous outpouring of new paper euros, thereby igniting the mother of all relief rallies and a few quarters, at least, of commercial recovery? Well, yes, it is very hard to imagine these things, especially the first, but we owe it to ourselves to try. There is probably no more hardened consensus of opinion than that Europe is a lost cause.

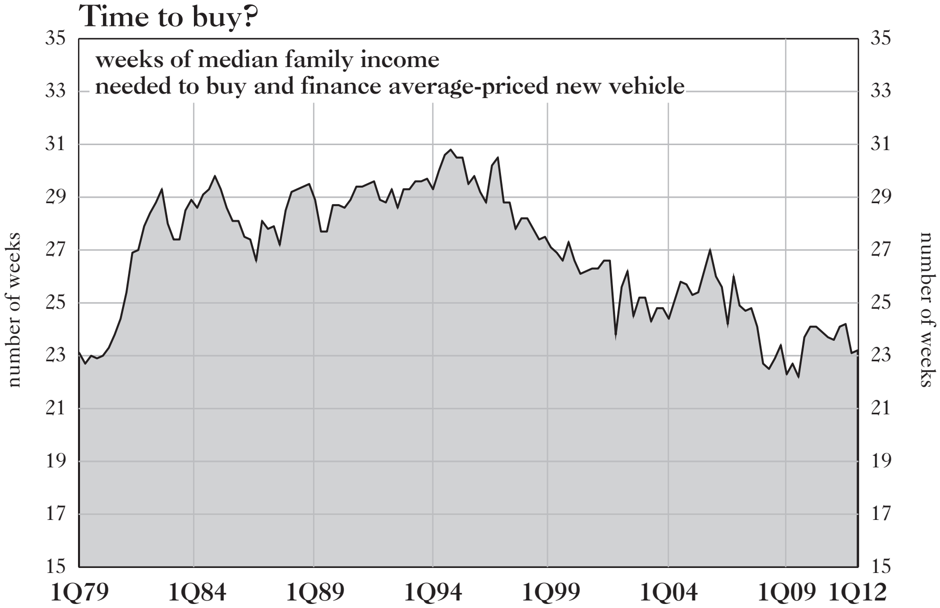
As for China, GM operates through joint ventures of which it owns just shy of 50%. To date, what's been good for China has been very good for GM, its JVs commanding a 14% share of the market, tops in the People's Republic. And China has remitted a steadily rising stream of net income back to Detroit: $753 million in 2009, $1.31 billion in 2010, $1.46 billion in 2011 and $719 million in the first half of 2012. This publication, as bearish as it is on China, regards GM's exposure to the People's Republic as perhaps the greatest risk the market has not adequately discounted. South America, the company's main emerging-markets under achiever, sends home a pittance of earnings, or a small net loss, on revenues in the neighborhood of $16 billion. Even a 3% EBIT margin would produce a swing in net income to $500 million from minus $100 million. To effect the desired results, GM has been working to reduce break-even costs (via lower headcounts and more advantageous union contracts) as well as by introducing such new products as the Chevrolet Cobalt and the Chevrolet Cruze.

Hurdle No. 3 is the overhang of U.S. Treasury-owned shares, 500 million, or just over 30% of the total. Many ask: Why get into GM before the government gets out? To get out whole, Secretary Geithner would need a price of $53 a share. With the 2012 presidential election looming, let us say it is unlikely that the Obama administration will choose to call attention to its investment in GM with a pre-November sale. Yet, one day the feds will sell—Mitt Romney is on record as pledging an early liquidation, should the former private-equity titan win the White House. As for the former community organizer, he, too, would likely entertain a motion to sell if he won a second term.

Then, who would buy? Not likely the oft-burned retail investor. Neither the casual institutional investor who, after a cruise through the relevant Bloomberg pages, judges GM to be a low-margin business making hard-to-differentiate products—really, our imagined portfolio manager will reason, GM might as well be a call on the macro economy. A much more likely candidate for the purchase of the people's stock is GM itself.

Certainly, the company has the re-

Time to buy?



source: Comerica Economic Insights

sources, Europe or no Europe, and China or no China. As of June 30, the balance sheet showed $32.6 billion of cash and marketable securities against $5.1 billion of debt.

"If you think about their current cash position and what is really required for them to run the business," Peligal says, "GM would probably say that $25 billion of liquidity would suffice. The company already has a $5 billion revolving line of credit. Ford, with a smaller balance sheet, has a $10 billion revolver. But say that GM is willing to borrow no more than $5 billion. Any way you slice it, the company sits with just under $35 billion of available liquidity (after giving effect to the $4 billion earmarked for Prudential Financial). At $20 a share, the Treasury's stake is worth $10 billion—and GM has that $10 billion to spend. And what better use of cash than to buy in shares valued at five times the estimate and at less than two times EV to EBITDA?"

So how do we value Government Motors? Acknowledging that the exercise is an art, not a science, let us proceed. Enterprise value, as you know, is defined as equity market cap plus debt at par minus cash, though there are wrinkles.

Peligal presents the *Grant's* estimates. "Let's use 1.8 billion fully diluted shares, taking into consideration the conversion of the convertible preferred, which makes a fully diluted equity market cap of $36.45 billion. To which we add: $5.1 billion of debt, $910 million of minority interest, $7.2 billion of other post-employment benefits (OPEB), $6.9 billion in preferred and $24 billion for unfunded pension liabilities. Which adds up to $80.56 billion.

"From which," Peligal proceeds, "we subtract $16 billion in net operating loss, $4 billion for GM Financial (valued at book), $10 billion for the Chinese joint ventures (to the earnings of which we assign a P/E multiple of 6.3 times), $28.6 billion of cash and marketable securities (anticipating the year-end payment to the Pru) and $300 million for the corporate stake in Ally Financial. What you're left with is an enterprise value of $21.66 billion. We assume that 'core,' or nonfinancial GM, can produce $12 billion in EBITDA. Dividing $21.66 billion by $12 billion, we find that an investor can buy GM at 1.81 times EBITDA, compared to the 3.5 times EV-to-EBITDA multiple at which the likes of Magna International, Delphi and Tenneco change hands."

Do we hear the objection that, only a few months back, this once-and-future American jewel was valued at the supposedly incredible, never-to-be see-again bargain multiple of two times EBITDA? Cheap stocks do get cheaper. However, given the strength of the company's post-bankruptcy financial position, we judge a permanent impairment of capital unlikely. More likely, we believe, is the risk of nothing much happening for a very long time.

As for something—anything—going right, who knows? Last month, three Chevrolet models—the subcompact Sonic, the compact Volt and the Avalanche pickup—earned the "best in segment" award from J.D. Power and Associates, the most of any brand (seven other brands snagged two awards). On the higher end, the first compact Cadillac in 25 years, the ATS, won huzzas from Aaron Bragman, industry analyst for IHS Automotive: "Driving wise, I think it's extremely comparable [to the BMW 3 Series]…. It feels very German to me in terms of the way it drives." Quoth Mike Colias of *Automotive News* on Monday, "In many ways, GM is in better shape than it has been in decades."

"I prefer it partly because of the hair," an investor tells Peligal when asked why he likes GM more than the safer, more flourishing Ford. GM does, indeed, have a full head of hair, i.e., of troubles, risks and contingencies. But let the record show that the company has survived moments far hairier.

"The automobile market had nearly vanished and with it our income," writes Alfred P. Sloan Jr. in "My Years with General Motors," concerning one such patch of rough road. "Most of our plants and those of the industry were shut down. . . . We were loaded with high-priced inventory and commitments at the old inflated price level. We were short of cash. We had a confused product line. There was a lack of control, and of any means of control in operations and finance, and a lack of adequate information about anything. In short, there was just about as much crisis, inside and outside, as you could wish for if you liked that sort of thing."

This was the crisis of the depression of 1920-21, a slump that, for GM, was worse by far than the Great Depression of the early 1930s. It was in 1920 that William C. Durant, the company's founder, ran up an unpayable margin debt trying vainly to prop up the sinking GM share price. To the rescue rode E.I. du Pont de Nemours & Co. and J.P. Morgan & Co.—and out on the Detroit pavement went Durant. But GM and Durant's creditors were saved.

In relating this story of decline and fall and triumphal redemption, Sloan recalls how difficult it would have been to try to compete with Henry Ford in the low-price end of the automobile market: "No conceivable amount of capital short of the United States Treasury could have sustained the losses required to take volume away from him at his own game," as Sloan put it.

Writing in the glory years of the early 1960s, Sloan could not have dreamt that the day would come when GM would indeed have to call on the Treasury. Yet, though that evil day has come, it will surely go. Before very long, Government Motors, like the depression of 1920-21, will be a chapter in the history books.

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What the chairman didn't mention

(September 7, 2012) An undramatic reading of 19 pages of double-spaced text lifted stocks, bonds, commodities and non-dollar monetary assets on the Friday before Labor Day. In a few short hours, the price of gold rallied by more than the $35 per ounce at which it was officially valued between the mid-1930s and the early 1970s. The text, "Monetary Policy since the Onset of the Crisis," and the mind of the man who recited it, the chairman of the Federal Reserve Board, are the subjects at hand.

"Self-parody and self-plagiarism, neither intentional, are the bugbears of the aging author," wrote Whitney Balliett, the late, great jazz critic at *The New Yorker*. The readers of *Grant's* don't need to be told. The aging Ben Bernanke has been saying one thing, your aging editor another for a decade. We persist because he persists, and because monetary ideas have consequences. If we're right about the chairman's message, danger and opportunity are staring the holders of dollar-denominated assets right in the face. We write to try to sort out risk and reward.

It's old news, though worth repeating for emphasis, that the Jackson Hole, Wyo., address broadly hinted at a further radical monetary stroke. "The stagnation of the labor market in particular is a grave concern," warned Bernanke, "not only because of the enormous suffering and waste of human talent it entails, but also because persistently high levels of unemployment will wreak structural damage on our economy that could last for many years. Over the past five years, the Federal Reserve has acted to support economic growth and foster job creation, and it is important to achieve further progress, particularly in the labor market. Taking due account of the uncertainties and limits of its policy tools, the Federal Reserve will provide additional policy accommodation as needed to promote a stronger economic recovery and sustained improvement in labor market conditions in a context of price stability."

For a trade, the market seized on the phrase, "will provide additional policy accommodation as needed." For an investment, it may profitably consider the more important and revealing words, "[t]aking due account of the uncertainties and limits of its policy tools." It makes all the difference that the chairman does not, in fact, take due account of the "uncertainties and limits" of his "policy tools." He may pay them lip service, as he did in his speech. But he does not really weigh the costs and benefits of doing what no other American central banker has done before. With Bernanke, as with Adm. David Farragut, it's "[d]amn the torpedoes, full speed ahead," though Farragut's aggression, unlike Bernanke's, got quick and quantifiable results.

Shining through the chairman's text is the conviction that economic problems are susceptible to a monetary solution. For every monetary-policy action, Bernanke all but said out loud, there is a predictable reaction. That is, for policy A, you may bet your boots on outcome B. For ourselves, we have come to believe—the past five years have decided us on the question—that while policy A may deliver outcome B, it may alternatively serve up outcomes J or Q or Z—or, not inconceivably, some other result too strange to be classified under a known English letter. Especially are surprises in store for the makers of "nontraditional" policy—and for the millions on the receiving end of those inventions.

Bernanke makes no bones that he is improvising. "Large scale asset purchases," a.k.a. QE, and the "maturity extension program," a.k.a. Operation Twist, are, if not absolutely novel in concept, then unprecedented in scale. "[W]e were guided by some general principles and some insightful academic work but—with the important exception of the Japanese case—limited historical experience," the chairman...

admitted. "As a result, central bankers in the United States, and those in other advanced economies facing similar problems, have been in the process of learning by doing."

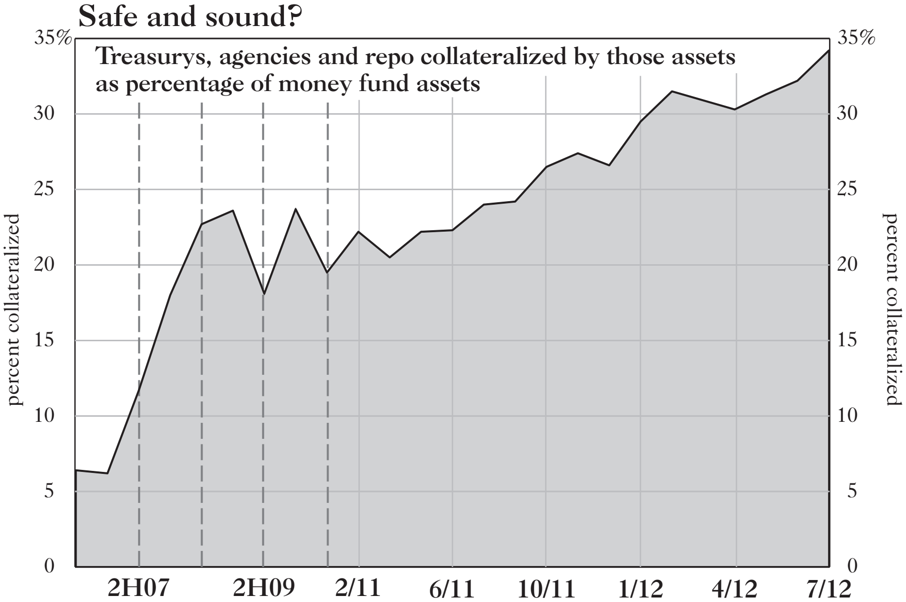
All of us learn by doing. To learn how to ride a bicycle, we pedal. But money has been circulating for millennia, and there is a voluminous monetary record. It is there to be read. Did the chairman or his staff consult the wisdom of the ages before deciding to muscle around the yield curve, manipulate asset values, materialize dollars by the hundreds of billions and, in general, to short-circuit the price mechanism? Not on the evidence of the four-and-a-half-page bibliography appended to the Bernanke text. To judge by this reading list, the chairman consulted no authority published before 1965. He cites relatively few sources published before the onset of the 2007 financial cave-in. His favorite authors are his employees at the Federal Reserve Board.

Perhaps not surprisingly, Bernanke and his authorities are in broad agreement on the post-2007 policy record of U.S. monetary policy. It is swell, they conclude. "After nearly four years of experience with large-scale asset purchases," said Bernanke, "a substantial body of empirical work on their effects has emerged. Generally, this research finds that the Federal Reserve's large-scale purchases have significantly lowered long-term Treasury yields."

And not only Treasury yields, he goes on. QE has tamped down mortgage rates and corporate bond yields and firmed up stock prices: "it is probably not a coincidence that the sustained recovery in U.S. equity prices began in March 2009, shortly after the [Federal Open Market Committee's] decision to greatly expand securities purchases. This effect is potentially important because stock values affect both consumption and investment decisions."

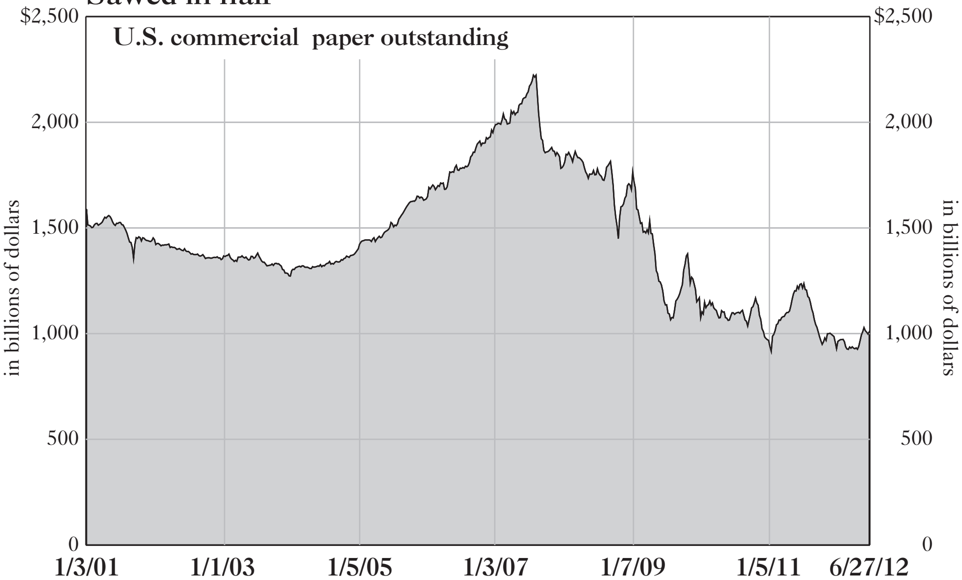
So you didn't build that, Mr. Market. The Federal Reserve got the rally rolling—and much to the advantage of the macroeconomic situation, too, Bernanke judged. Granted, the chairman told his audience, there's no telling how the economy might have fared in the absence of these improvised measures. But, "if we are willing to take as a working assumption that the effects of easier financial conditions on the economy are similar to those observed historically, then econometric models can be used to estimate the effects of [QE] on the economy." The Fed's own models rate the Fed's monetary policy a winner, the chairman again

Safe and sound?



source: Fitch Ratings

Sawed in half



source: Federal Reserve

noted: "as of 2012, the first two rounds of LSAPs may have raised the level of output by almost 3% and increased private payroll employment by more then two million jobs, relative to what otherwise would have occurred."

Striking the pose of a disinterested scholar, the chairman next sought to persuade his listeners that he had considered the risks, not just the rewards, of monetary experimentation. He mentioned four potential pitfalls, of which the first was the risk that the Fed's interventions might impair the "functioning" of the securities markets. Second was the chance that QE might frighten the uninitiated into doubting the Fed's ability to normalize policy without seeding a new inflation. Third was the risk to "financial stability" presented by the temptation to reach for yield in these times of pygmy interest rates. Fourth was the possibility that the Fed might suffer a mark-to-market loss "should interest rates rise to an unexpected extent" (a slightly disingenuous point given the 2011 accounting change that shifts the burden of absorbing financial losses away from the Fed and onto the Treasury; on this little-reported innovation, so handy for an activist and leveraged central bank, the chairman was silent). All these risks the chairman discounted.

Omissions from the Bernanke checklist of unintended consequences and undesirable side effects, though they received no press, deserve the attention of every investor. He said nothing about the distortions wrought by the so-called zero-percent interest rate policy on the allocation of capital or on the analysis of investment value. Neither did he acknowledge how the whisking away of interest income has punished savers and nudged them into unsuitable risk taking. Though quick to claim credit for the decline in mortgage rates or the rise in stock prices, Bernanke was characteristically mute on the Fed's contribution to resurgent prices of commodities and farmland. We commend to the chairman the cover story in the August 18 issue of *The Spectator*, published in London. "Hunger strikes," says the headline: "Rising food prices will mean more revolutions."

With a lot more time and a little more candor, Bernanke could have held forth for hours in this vein. The crisis-era money market alone could have afforded him all the material he needed. Zero-percent interest rates and blanket FDIC guarantees of bank deposits have reconfigured what used to be a market in short-dated IOUs of the private sector. Today's money market is increasingly a market of short-dated IOUs of the public sector.

Before the rains came in 2007, money market mutual funds earmarked just 6.2% of their assets for Treasury securities, agency obligations and repurchase obligations collateralized by the same. As of last report in July, according to an Aug. 29 bulletin from Fitch Ratings, such holdings weighed in at 34.2% of money-fund assets. Midway in 2007, $2.2 trillion of commercial paper—unsecured corporate promissory notes—was outstanding. Less than half of that amount is issued today. As Bernanke did not get around to saying in Jackson Hole, zero-percent interest rates obviate the value of credit analysis. When a given claim yields nothing, the prudent investor will roll Treasury bills or—functionally the same thing—lay up deposits at a too-big-to-fail bank.

Zero-percent interest rates may impart no credit information, but that doesn't mean they're inexpressive. "Be afraid, Mr. or Ms. Investor, because the government is afraid," is the subliminal message. It's a suggestion that the post-crisis regulatory regime powerfully reinforces. The 2010 amendments to Rule 2a-7 of the Investment Company Act of 1940, for instance, slap tough new liquidity tests on money market mutual funds. They require that 10% of the assets of a taxable fund be held in cash, U.S. Treasurys or securities that convert to cash the next business day. And they require that 30% of the assets of a taxable fund be placed in securities that mature within 60 days or that convert to cash within five business days. Pre-crisis, the money-fund managements decided such matters for themselves.

Post-crisis, the government has its knives out, and the new rules push the funds into the least remunerative spots on the nearly barren money market credit and liquidity curves. Thus, the smaller funds face starvation, the biggest funds malnutrition. Nancy Prior, president of Fidelity's Money Market Group, the nation's largest, told readers of the June issue of *Money Fund Intelligence* that "we monitor every single dollar, every hour," and that there are no fewer than 80 Fidelity money market credit analysts on the case, some of whom "can hop on a plane or a train and be in Germany, Brussels or France in an hour." It is, however, travel, overhead expense and man-hours expended in the service of delivering a 0.01% return, pretax, to the investors in Fidelity Cash Reserves.

That ultra-low interest rates tend to beget even lower—and more dysfunctional—rates is another side effect of zero-percent rate policy that the chairman didn't talk about. He could have cited the example of the European Central Bank, which in July shaved the rate it pays on bank deposits to zero percent from 25 basis points. By this adjustment, Mario Draghi, president of the ECB, presumably expected to drive money out of his vaults and into the receding European economy. But the funds have stayed put while other yields have actually turned negative. It stands to reason that repurchase rates on the highest quality collateral would be quoted at less than zero if that collateral itself—short-dated notes issued by the governments of Germany, Denmark and Switzerland, for instance—yields zero percent or less. As optimism has a life of its own, so does pessimism, and the central bankers are having a hard time cheering up the glum and broken-spirited survivors of the panic of 2008. They'll have an even harder time of it after the €1.1 trillion European money-market industry starts passing along negative interest rates to its hapless investors, as FT.com is reporting the funds are preparing to do.

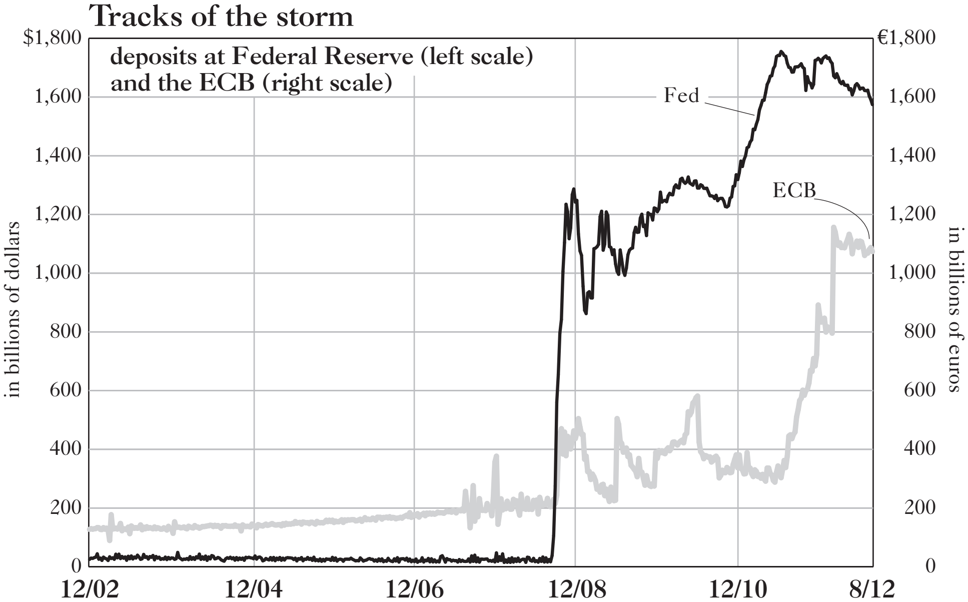
In June 2011, Jamie Dimon put a question to Bernanke at a banking conference in Atlanta. The CEO of JPMorgan Chase & Co. asked the chairman if the regulatory and market response to the financial crisis might not be hurting recovery rather than helping it. Regulators are tougher, credit committees are tougher and examiners are tougher, Dimon observed. "Has anyone bothered to study the cumulative effect of all these things?" he posed.

Bernanke replied that he, for one, was gratified by how thoroughly the government had scoured the system. As to Dimon's question, he answered that no one had attempted to study the cumulative effect of so much rule and policy making and that, in truth, "it's just too complicated, we don't really have the quantitative tools to do that." And the chairman had a most revealing afterthought. He had a "pet peeve," he said, about people insisting that "the single cause of the crisis was 'x.' There was not a single cause of the crisis," Bernanke went on. "There were many, many different causes, and they interacted in a way that was in many ways unpredictable, and led to the disaster that we experienced."

So, after all, the chairman was prepared to concede that outcomes are unpredictable, that financial systems are complex and that policies implemented for one purpose can wind up serving another. Yet the very same Bernanke, speaking at Jackson Hole, talked up the new federal crisis-prevention bureau, the Financial Stability Oversight Council, as if it had powers of divination never before available to the federal bureaucracy. "We have seen little evidence thus far of unsafe buildups of risk or leverage," he said, "but we will continue both our careful oversight and the implementation of financial regulatory reforms aimed at reducing systemic risk."

Market economies excel at identifying and repricing error. Regimented economies, in contrast, are ill suited to making mid-course corrections, as the only thing the Dear Leader despises more than error is the messenger who tells him about it.

Tracks of the storm



sources: Federal Reserve, European Central Bank

America's Dear Leaders are the functionaries who are busily substituting bureaucracy for the price mechanism. Nowadays, when things go pear-shaped, Chairman Bernanke is front and center with broad hints to print enough money or suppress enough prices or inflate enough assets to make us forget our troubles. Don't worry that QE or Twist or ZIRP will end in inflationary tears, Bernanke counseled at Jackson Hole: "The FOMC has spent considerable effort planning and testing our exit strategy and will act decisively to execute it at the appropriate time."

But, of course, Mr. Market doesn't hand out wristwatches. It isn't the Fed's efforts or good intentions one doubts, but its judgment. As for our judgment, as fallible as anyone's, we expect that our drugged bond markets will give no helpful signal that the central banks of the world have over-cranked the printing presses. The radical monetary experiments of 2012 will strike posterity as the most obvious setup to a virulent inflation there ever was, except that our monetary mandarins had no clue it was happening.

In 1921, O.M.W. Sprague, author of "History of Crises under the National Banking System," contributed an essay on the Federal Reserve, then just seven years young, to *The American Economic Review*. In it, Sprague, a Harvard professor, warned against the temptation to print one's way out of cyclical trouble. The Fed had hugely expanded the nation's money and credit to help the Treasury finance America's participation in World War I. There had been a rip-roaring inflation. And now came the time to undo the inflationary damage. What, if anything, could the new central bank do to smooth the process of adjustment?

"If we insist upon using such power as a means of temporary relief and stimulation," wrote Sprague, "ultimate disaster is the certain consequence. Past experience shows that it is dangerous for governments to issue paper money. There is a constant temptation to overissue when confronted by real or imaginary emergencies. The same danger arises in the case of the [R]eserve system—that public opinion and perhaps legislative action will compel the employment of its resources in a vain endeavor to cure evils which are mainly due to credit already granted in excess."

Now comes Chairman Bernanke, a Harvard man himself, doing exactly what Sprague warned against, and with the support of the 21st-century economics establishment. *Grant's* is betting on a new inflation with a flight of investable funds from the assets that are today deemed safe (notably, sovereign debt) to assets deemed infra dig or permanently impaired (for instance, precious metals and equities). Anyway, "nontraditional" central banking is a short sale.

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Age of Aquarius

(September 22, 2006) ACA Aquarius 2006-1 is the subject under discussion. Are you still with us? Good! A short catechism will serve to introduce the fine points.

To start with, what is it? ACA Aquarius 2006-1 is a $2 billion, mezzanine-structured, hybrid collateralized debt obligation, or CDO. What is a CDO? A CDO is a kind of bond, the collateral of which is debt. In the case at hand, the underlying, or reference, collateral is residential mortgage debt. What does it mean to call this contraption a "hybrid?" It means that Aquarius holds not only mortgages, and structures packed with mortgages, but also options on mortgages.

Here is another question: Why should anyone care about something so very much unlike a good, cheap value stock—anyone, that is, not directly involved as a basis-point-grubbing bond investor, collateral manager, mortgage scientist, rating-agency quant or member of the immediate families of such as the foregoing? One should care because (a) complexity in financial instruments sometimes obscures risk for which an investor may or may not be adequately compensated; (b) the issuance of complex mortgage structures is booming when house prices are not; and (c) the visible and looming difficulties in residential real estate have not yet depressed the prices of such instruments as these mezzanine-structured hybrid CDOs. Investors in the senior tranches of ACA Aquarius 2006-1 earn a few dozen basis points over Libor. Holders of the junior tranches earn 300 basis points, more or less, over Libor. Equity holders have come to expect 15% to 20% (of which more below). Expressing a personal preference, we would feel undercompensated holding any portion of the ACA Aquarius 2006-1 capital structure, in view of the risks and rewards, as we understand them.

Others have a different understanding. The progenitor and collateral manager of this transaction, ACA Management LLC, manages 19 CDOs with a cumulative par value of $12.75 billion. Not once, says ACA, has any rated note in any ACA-managed CDO been downgraded or placed on negative credit watch. Standing by its merchandise, ACA has invested $200 million in the equity portions of the CDOs it manages. And some smart money has invested in ACA, including Bear Stearns Merchant Banking, Stephens Group and Third Avenue Value Fund.

The deal at hand caught our eye not because its genus is so rare—this year, through September 15, $126 billion of asset-backed securities in CDOs have come to market, vs. $118 billion in all of 2005, according to Thomson Financial. Rather, what piqued our interest was the species. The new Aquarius offering is a hybrid CDO. Its assets consist chiefly of credit default swaps. Actual slices of cash mortgages furnish only 10% of the portfolio.

It takes a little doing to visualize a derivative of a derivative, but that's what this hybrid CDO is. The CDO itself is a derivative—and so are its assets. Credit default swaps are credit derivatives. They resemble insurance policies. The underwriter of CDS sells protection against a default or other defined credit event with reference to a stipulated security, index or portfolio of securities. The buyer of protection writes checks to the seller—unless, and until, such credit event occurs, at which time the seller of protection writes checks to the buyer. In the case at hand, the underwriter is ACA Aquarius 2006-1, and the referenced credit items are clumps, or tranches, of residential mortgages. Thus, for as long as the mortgages pay on time, Aquarius receives money from the buyers of protection, and these funds it distributes to its investors. Money cascades down the totem pole of credit, with the highest-rated securities (the Class A1S notes, in this case) receiving first priority—after payment of fees and expenses to the managers and trustee, of course. If enough homeowners stop paying on time, Aquarius must make whole the buyers of protection, at which point the Aquarius investors (starting with the lowest-rated tranches) stand in line for a haircut.

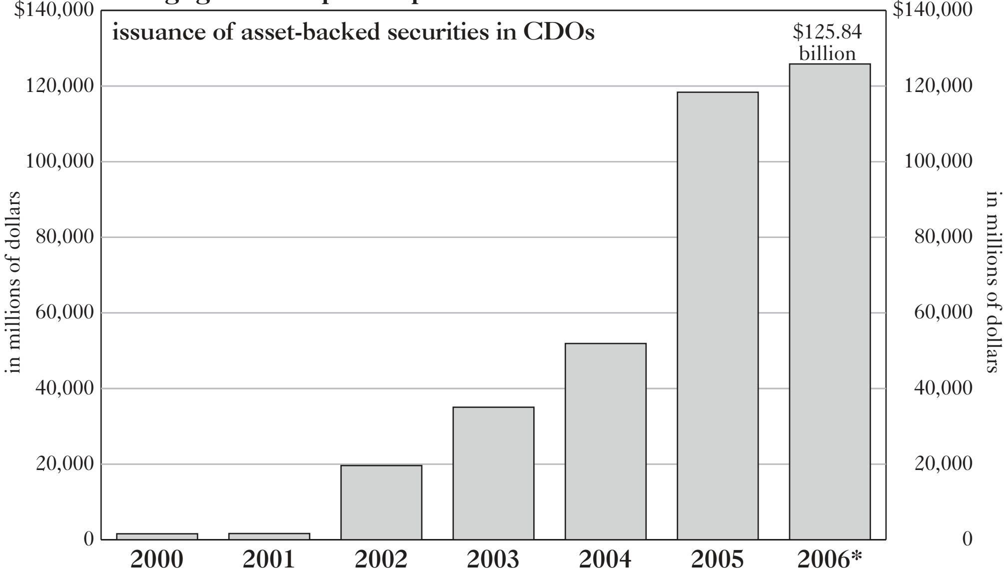
There are plenty of loans in the Aquarius constellation—loans held outright or only referenced. The structure is, as noted, only 90% synthetic; 10% of its assets are invested in actual mortgages, or, more exactly, in actual tranches of mortgage-backed securities. Do you wonder if, by investing 90% in CDS and only 10% in cash CDOs, you bear any additional credit risk—not only the risk of the mortgages going bad but also the risk of a counterparty keeling over? Bulls insist not.

Anyway, the Aquarius structure has 51 issues behind the cash CDO component of the structure and another 129 issues that serve as reference entities for $1.4 billion in CDS contracts, for a grand total of 180. Colleague Dan Gertner sampled 40 of them. California dominated, he relates; one issue was 50% exposed to the Golden State. The 40 had an average of 6,500 loans at origination, he says. Projecting that number to all 180 issues suggests that

Such a deal
ACA Aquarius 2006-1

securities	principal balance	interest rate	rating
Class A1S notes	$ 1,266,000,000	3-mo. Libor + 0.32%	Aaa/AAA
Class A1J notes	255,000,000	3-mo. Libor + 0.43	Aaa/AAA
Class A2 notes	177,000,000	3-mo. Libor + 0.53	Aa2/AA
Class A3 notes	80,000,000	3-mo. Libor + 1.55	A2/A
Class B1 notes	17,500,000	3-mo. Libor + 2.60	Baa1/BBB+
Class B2 notes	74,500,000	3-mo. Libor + 3.25	Baa2/BBB
Class B3 notes	20,000,000	3-mo. Libor + 3.70	Baa3/BBB-
Class I subordinated notes	86,000,000	6.00	NA/BBB-
Class II subordinated notes	24,000,000	NA	NA
	$ 2,000,000,000		

Mortgage contraptions proliferate



*through September 15
source: Thomson Financial

Aquarius has exposure to about 1.2 million loans.

Performing due diligence on 1.2 million loans sounds like just the thing that nobody would do, not even in this age of "liars' loans," and interest-only and negative-amortization loans. Bulls would reply that structures like Aquarius' are stress-tested for changes in mortgage prepayment speed as well as for the timing and incidence of defaults. "We have a default probability generator model that runs a Monte Carlo multi-step simulation default probability model. . . ," a man from Fitch advises Gertner. What we wonder is whether the stress tests take full account of the unprecedentedly open-handed lending practices of recent years. Possibly not.

Demand for the junior-most tranches of these mortgage structures is reported to be red hot. "Magnetar Financial, an Evanston, Ill.-based multi-strategy hedge fund, is dominating the market for asset-backed securities collateralized debt obligations by buying bespoke deals in massive sizes," discloses the August 11 Derivatives Week.

"The fund has enlisted a clutch of Wall Street firms to structure full-capital structure deals in which it buys the equity slice. . . . The deals are being pushed through in such size that spreads are tightening and structurers gripe it is becoming difficult to ramp. It is also becoming difficult to place the rest of the capital structure."

Reports have it that Magnetar hedges its equity exposure by buying protection on the BBB-rated tranches in the deals in which it invests. (The fund did not respond to Gertner's requests for comment.) If so, its management may reason that the world is not coming to an end and the equity tranches will likely pay 20%, but that, if worse came to worse, the BBB tranches, too, would get wiped out. Even absent such a calamity, the cost of the hedge is hardly onerous compared to the hoped-for equity return; the BBB slice yields Libor plus 300 points or so.

Of course, timing is critical. Bulls observe that the equity gets paid in relatively short order, after the so-called step-down, or trigger date, which typically falls three years after the issue date. "Everyone is playing the same game," a non-bullish practitioner tells Gertner, "which is: 'As long as the problems don't occur too soon, we are all okay.' This is a very important thing to understand."

We do understand that, at least.

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Introducing the Grant's *Supermodel Credit Portfolio*

(December 12, 2008) Credit is what we are bullish on—cast-off residential mortgage-backed securities, senior bank loans, convertible bonds and corporate debentures, high-rated and middling. And it's credit that fills the new *Grant's* model portfolio. Expectantly, we call it our Supermodel Portfolio. May it deliver superior returns for 2009 and beyond. No guarantees, of course. However, at the least, we expect it will outearn the corresponding portfolio control group, an assortment of long-dated, "super-safe" (as a certain newspaper habitually calls them) U.S. Treasurys. Whoever coined the phrase "return-free risk" to apply to government securities at these ground-hugging yields was a sage as well as an aphorist. Barring a deflationary collapse, the Treasury market will surely have its comeuppance.

The investments that stock the Supermodel Portfolio have had their comeuppance already. They deserved it. Credit had a heart attack last year on account of its scandalously loose living during the bubble years. Still remorseful and weak as a kitten, the institution of lending and borrowing is gathering strength for the next cycle. A not-bad time to invest, we think.

The portfolio, in the hypothetical sum of $10 million, is apportioned among RMBS, secured bank loans, investment-grade corporates, convertibles and junk (or should we say "high-yield"?) bonds. We set aside no cash reserve. This is not to say, however, that we refuse to entertain the possibility that even better credit opportunities will present themselves in 2009. They well might. If they do, we'll just have to raise some more imaginary millions to scoop them up.

No need to say much on high-yield (see the prior issue of *Grant's*), except to explain its presence in what is intended to be a safe and cheap portfolio. Rarely, if ever, has junk been junkier, to judge by the ratings mix of the bond crop or the likely sky-high prospective default rates. Then, again, we believe, never have yields to maturity been so high—22% on the Merrill Lynch Master II Index. Come the cyclical turn, junk bonds will shine. The question is, from what level will they begin to glimmer? There can be no assurance, to steal a phrase from the junk-bond prospectuses, that it won't be from prices much below even these. The fact is that, at this point in the cycle, junk is hugely speculative. The iShares iBoxx $ High Yield Corporate Bond Fund (HYG on the Big Board), our junk-bond trading vehicle, holds a position in 51 liquid issues. At a price of $64.81, the fund pays monthly dividends to produce a current yield of 13.5%; indicated yield to maturity is 18.7%. Its market cap is $1.02 billion. Given the risks, we assign to high yield an allocation of just 5%. We view it as a portfolio seasoning, an herb.

A little less speculative is the investment-grade component of our Supermodel Portfolio, though investment-grade yields in relation to government yields imply a looming deflationary disaster even for better-rated debt. At 616 basis points, the spread between the Moody's Baa-rated corporate index and the 10-year Treasury is the highest since at least 1962. Indeed, according to Deutsche Bank data recently quoted in these pages, the gap is probably wider than at any point since the Great Depression (when—let us not forget—the nominal GDP was sawed in half). Moody's relates that the investment-grade default rate never topped 1.6% in any Depression year, while the average annual default rate for investment-grade bonds from 1920 to 2006 was just 0.146%; the high was 1.55%, recorded in the recession year 1938. For what it's worth, the Moody's Baa index has actually been rallying these past few weeks, trading to 8.75% from 9.5%, yet such high-quality issuers as Caterpillar and Hewlett-Packard had to dangle 100 basis-point concessions (in relation to the yields assigned to their own outstanding issues) in order to place new securities last week.

Senior loans, in the shape of a $2.5 million allocation to the Nuveen Floating Rate Income Fund (JFR on the Big Board), are the third item in the portfolio. "Leveraged loans" is what the adepts call these instruments. They are secured claims—tradable bank loans—on leveraged companies. True, such leverage was typically excessive, but the senior secured lenders stand to come out of the experience in a relatively strong position. The trouble is that leveraged loans attracted leveraged buyers; they yielded a pittance over Libor. To enhance the return, loan investors—e.g., hedge funds and collateralized loan obligations—borrowed liberally against the leveraged collateral. Come the great margin call, they sold (and continue to sell) just as liberally. "All told," according to the definitive chronicler of the loan market, Standard & Poor's LCD, "the [loan] index is down 25.5% over the past three months, leaving returns for the first 11 months of the year at a soul-destroying negative 27%, all but ensuring that 2008 will produce the first annual loss for the index, which dates to 1997."

"Soul-destroying"? An editing error, probably; LCD must have meant "wealth-destroying" and, therefore, "opportunity-creating," though the opportunity thereby created seems not yet to be widely perceived. Supply keeps coming out of the woodwork, and the public continues to yank its money from loan mutual funds. Motivated sellers put out calls for bids, i.e., "bids wanted in competition," and they are the bane of the market. BWICs in the sum of $3.3 billion set a monthly record in October. Another $1.3 billion of BWICs rattled the market in November. (These days, OWICs, i.e., "offerings wanted in competition," are only a dim, gauzy memory.) "While these figures are tiny in relationship to the institutional loan universe of $595 billion," LCD observes, "they are daunting in the absence of any new funding sources." Loan funds have suffered net outflows in 16 of the past 17 weeks, for a year-to-date total of $4.5 billion. Assets under management have dropped to $7.5 billion from $15.9 billion.

There are, according to the *Barron's* Weekly Closed-End Funds roundup, 19 loan-participation funds. As you know, closed-end funds issue a fixed number of shares, and with the proceeds from the sale of those shares, they acquire assets. The funds are exchange-listed and the prices at which they trade may or may not mirror the value of the underlying assets. The universe of listed loan-participation funds trades at a large discount to NAV—at last report, an average of 17.2%.

"Investors are getting a double discount," colleague Dan Gertner points out. "The price of the loans held in the portfolios has fallen below par value. And the funds are selling at a discount to the underlying NAV because so many investors are selling. Elliot Herskowitz, president of ReGen Capital, has studied the discounts at which the closed-end funds are trading. He finds that the funds are trading between 30 and 60 cents on the dollar of the underlying par value of the loans. Herskowitz told me, 'It really points out that, based on the way these things are trading, you can buy into loans at 50 cents on the dollar—I mean the senior loans. And I think it's just an unbelievable opportunity out there.' Herskowitz cautions that the market is thin and prices can move erratically. 'But if you're careful about getting in or out, it's just an unbelievable opportunity. It is very rare for the retail investor to actually get a better deal than that which exists for the institutional clients,' he says. 'But in this particular area, at this particular time, given the way these things are trading, it's just a glaring example.'"

We chose the Nuveen Floating Rate Income Fund to carry the

Treasury portfolio

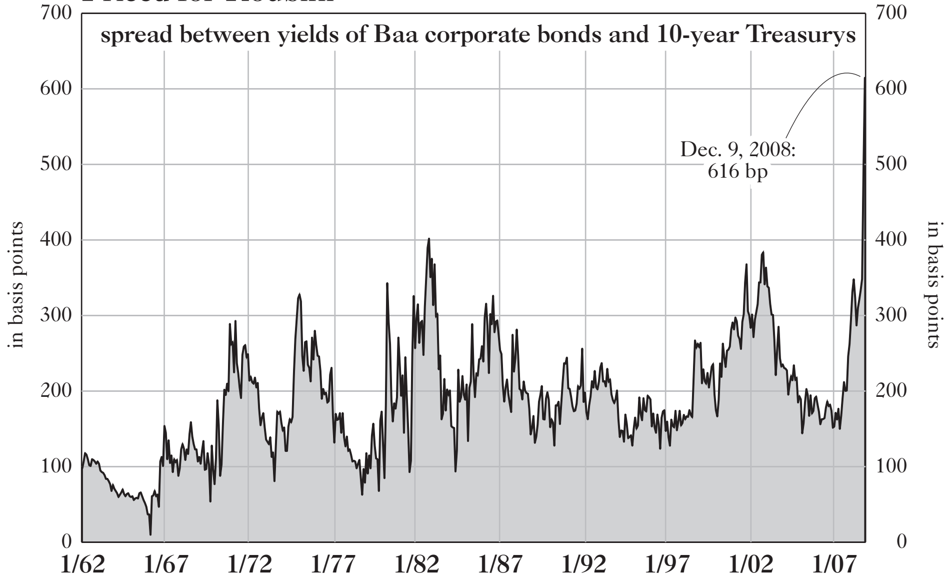
security	price	investment
4 1/2s of May 2038	128-06	$2.0 million
4 3/8s of February 2038	125-03	2.0
5s of May 2037	135-15	2.0
4 3/4s of February 2037	130-08	2.0
4 1/2s of May 2036	123-27	2.0
Cash*		0.0
Total		$10.0

Grant's Supermodel Credit Portfolio

iShares iBoxx $ High Yield (HYG)	63.75	$ 0.5
iShares iBoxx $ Investment Grade (LQD)	92.14	2.0
Nuveen Floating Rate Income Fund (JFR)	5.03	2.5
Calamos Convertible Fund, Class B (CALBX)	15.69	2.5
GSAA 2005-12, Class AF-3	50	1.25
Popular 2007-A, Class A-3	32	1.25
Cash *		0.0
Total		$10.0 million

*cash earns 1%.

Priced for Roubini



source: The Bloomberg

leveraged-loan flag for a number of reasons. For one thing, JFR has redeemed 59% of its auction-rate preferred securities ($235 million out of $400 million), and Nuveen says it intends to redeem the balance. For another, 93.6% of the fund's portfolio is allocated to variable-rate loans and short-term investments (many funds have heavy junk-bond exposures). Finally, the fund is quoted at a discount to a discount. Thus, as of July 31, the portfolio encompassed $954 million of loans and bonds. Assuming no change since the reporting date, the underlying assets are trading at 47 cents on the dollar, based on the decline in the disclosed NAV. Then, too, at the current price of $5.03 a share, the fund is trading at an 18.7% discount to its $6.19 NAV. Multiply one discount by the other, and a new JFR investor winds up owning the assets at 38 cents on the dollar. The fund shows these characteristics of diversification by industry: media, 18%; hotels, restaurants and leisure, 7.3%; health care, 6.4%; and chemicals, 4.8%. Typically for the group, JFR is leveraged 42%, with preferred stock and borrowings. The current yield is 14%. In order for JFR to pay a common dividend, the value of its assets must be 200% greater than the value of the leverage-providing preferred stock and borrowings. As of November 28, the ratio stood at 239%, compared—for reference—to 243% in January. (Consult www.etfconnect.com for current information on closed-end funds.) Open-end funds provide unleveraged access to the bank loan market. Among three of the largest are Fidelity Floating Rate High Income, Eaton Vance Floating-Rate Fund and Franklin Floating Rate Daily Access Fund.

As to convertibles, we laid out the story line in the previous issue of *Grant's*; suffice it to say that they are still not the fixed-income market's favorite flavor. We choose the Class B shares of the open-end Calamos Convertible Bond Fund (CALBX) for the Supermodel Portfolio. The B stock has a deferred sales charge that shrinks by a percentage point in every year that an investor chooses not to redeem—from 5% in year one to zero percent in year six. The fund's annual operating expenses are 1.88%, and the average credit quality is triple-B. Assets total $462 million. Information technology is the top sector weighting (24.4%), followed by health care (20.3%) and consumer discretionary (13.2%). The Calamos fund, founded in 1985, had been closed to new investors since April 2003. It reopened on October 7, with John P. Calamos Sr., co-chief investment officer, recalling the persistent knocking on its door by some would-be investors. "[O]ur response has always been 'not until we identify a significant opportunity that may be advantageous for both new and existing investors,'" he said. "Well, we think we have found one." Nick P. Calamos, co-CIO, added, "According to our research, we believe the global convertible market is significantly undervalued today." So do we.

Last but not least come residential mortgage-backed securities, the hardest of the credit markets' hard cases. In particular, we tap for inclusion in the Supermodel Portfolio a pair of structures we first reviewed in our September 19 issue. They are the GSAA Home Equity Trust 2005-12 and the Popular ABS Mortgage Pass-Through Trust 2007-A. At the time, the slices on which we particularly focused—Class AF-3 of GSAA and Class A-3 of Popular—traded at 69 and 59, respectively. Today's prices are 50 and 32.

At inception, the GSAA Home Equity Trust was stocked with Alt-A residential mortgages, 2,919 of them. All were fixed-rate and first-lien and all had maturities of 30 years or less. The average FICO score, LTV and loan size were 690, 79.1% and $194,740, respectively. Thirty-nine percent of the dollar value of the mortgages was secured by houses in California, Florida and New York.

Oddly enough, the deal hasn't performed badly. The principal balance has been reduced by 43% and the number of loans by 39%. Troubled loans (60 days or more delinquent) stand at 13.8% of the outstanding balance, and cumulative losses amount to just 0.85% of the original balance. We thought that the Class AF-3 was cheap at 69. We like it more—exactly 28% more—at 50. AF-3 pays a fixed coupon of 5.07%, and its credit enhancement has grown to 12.3% from 7.4% as the top of the structure has melted away. It is the third-pay bond, i.e., third in line to receive principal payments. But it might as well be second, because the first bond in the structure has paid down 95.8% of its original balance.

In our post-Labor Day review of the RMBS field, Gertner spoke to Bryan Whalen, managing director of Metropolitan West Asset Management. Whalen obligingly came to the phone again last week. He told Gertner that, in a base case, the AF-3 bond would yield 29% to a five-year maturity. Even a modified Nouriel Roubini disaster scenario would permit a 14% yield, he said. In such a setting, the conditional (i.e., steady-state) prepayment rate would slow to 3% from the current 8.2%, 84% of the remaining pool would default (compared to 13.8% of the deal that is currently troubled) and loss severities would reach 70% (up from 50% at present, which is ghastly enough).

And if interest rates should happen to rise, what then? Not much, probably. At 50 cents on the dollar, the AF-3 is trading on credit quality and liquidity, not on interest rates. "I have a hard time believing that this bond would sell off even with a few hundred-basis-point Treasury sell-off," Whalen told Gertner. "In fact, prices may go up in that scenario if the market is indicating that credit is improving and the economy may be improving and reinflating."

Our final investment, the Popular ABS Mortgage Pass-Through Trust, will absorb our last imaginary $1.25 million. Your hand may quaver when you write the check (if you are following along at home), as the Popular bond—triple-A-rated Class A-3—houses subprime mortgages. The wrinkle is that the mortgages are overachieving ones, though priced as if they were slugs. For one thing, adjustable-rate loans constitute just 49% of the 2,779 mortgages in the pool, the rest being fixed-rate. Usually, ARMs occupy a much bigger share of a subprime RMBS. For another thing, the collateral is widely distributed, with just one bubble market—Florida—in the top five.

On the face of it, our Popular investment will win no quality-assurance awards. Its troubled loans stand at 21.6% of the outstanding balance, while cumulative losses total 1.5% of the original balance. But it shines in comparison to an especially rotten field. In the 07-2 portion of the tradable ABX subprime mortgage index, for instance, troubled loans amount to 35.7% of the outstanding balance, while cumulative losses foot to 4.9%. That ABX subindex last traded at 33.6, a slight premium to the plainly superior Popular bond.

Though the Popular deal references slightly more fixed-rate mortgages than it does ARMs, the Class A-3 bond pays a floating-rate coupon: Libor plus 31 basis points. That fact, of course, makes it more sensitive to interest-rate movements than the preceding AF-3 model, but only to a degree. At 32 cents on the dollar, the market is plainly more worried about solvency than about Libor. Whalen's base case would produce a yield to maturity of 21% and an average life of eight years. The stress case—a 3% prepayment vs. an observed 14.7% rate, and 93% of the remaining loans defaulting with a loss severity of 70%—still results in a 14% yield to maturity.

"The mark to market over the past couple of months has been brutal," Whalen tells Gertner, "but if you can put the emotions aside and keep your eyes on the horizon, and not on short-term volatility, investors should be drooling over today's prices."

Pass the napkins and reach for the "buy" tickets. May the *Grant's* Supermodel Credit Portfolio be worthy of its name.

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Buyers, please call your office

source: The Bloomberg

Demobilizing the reserves

(July 26, 2013) One day soon, banks will have on deposit at the Federal Reserve $2 trillion more than the rules require them to hold, a mountain of excess reserves that could, at the outer limit of what is theoretically possible in money and banking, support $20 trillion of new lending. Now under way is a speculation on the meaning of this imminent fact.

All agree that $2 trillion is a large and complicating figure. Chairman Bernanke insists that it isn't a troubling one. But unless we miss our mark, the Fed will miss *its* mark. It will overstay its inflationary course until it can't reel in the dollars it has so generously paid out. We think the die is already cast.

For signs that the Fed will stay too easy for too long, look no further than the bond market. On talk of a mere "tapering" in asset purchases (never mind cessation, still less of outright sales), the yield on the 10-year Treasury note vaulted to 2.74% from 1.63% in the course of only 46 trading days. World markets shuddered, and the FOMC probably shuddered along with them ("*Holy mackerel, we did that?*"). Buying securities with newly issued dollars is not only the path of least resistance, it is also, to many policymakers, the path of prudence, conscience and duty. It will be hard for the Bernanke Fed to abandon it, and a Yellen Fed would find it no easier.

In modern central banking, the learned practitioners do not just print money (or withhold their printing). They also "communicate," and the burden of what they communicate these days is usually the assurance that they will remain accommodative. Thus, on Feb. 11, 2011, Rep. Mick Mulvaney (R., S.C.) asked Bernanke—the chairman was then testifying before the House of Representatives—why the Fed had decided to buy $600 billion of Treasurys in its second round of quantitative easing instead of, say, $500 billion or $750 billion? "We estimate that the impact on the whole structure of interest rates from $600 billion is roughly equivalent to a 75 basis-point cut [in interest rates]," Bernanke replied, the funds rate being zero. "So, on that criterion, it seemed that that was about enough to be a significant boost, but not one that was excessive."

QE was tantamount to a rate cut: Such was the message two years ago. But in his Humphrey-Hawkins testimony last week, Bernanke tried to explain why ending, or tapering, QE would not be tantamount to a rate hike. "[E]ven after purchases end," said the new and revised version of the Bernanke text, "the Federal Reserve will be holding its stock of Treasury and agency securities off the market and reinvesting the proceeds from maturing securities, which will continue to put downward pressure on longer-term interest rates, support mortgage markets and help to make broader financial conditions more accommodative."

Possibly, the chairman means to communicate a yield-curve stratagem. Other things being the same, the greater the distance between funds and 30s, the brighter the prospects for economic growth. By pledging to hold the funds rate at zero while letting the long-bond yield lift, the Fed might be hoping to bring about the good things a steeper curve could help to deliver. Then, again, how would the Fed muscle down the funds rate except by the inflationary monetization of government securities? It's a conundrum.

Some would interject that even $2 trillion of excess reserves present no inflationary threat if the apparatus of lending and borrowing is impaired. In that money and banking class you wish you had not slept through, the professor explained that banks may lend and relend these funds up to the inverse of the reserve ratio. Thus, a 10% reserve ratio would provide scope for $10 of new credit for each $1 of excess reserves—assuming a normally fluid banking situation. But when borrowers aren't borrowing, latent lending power goes unused. (A slightly technical point: To the banks in whose Fed accounts the money is deposited, "excess reserves" are cash, a perfectly suitable asset for use as collateral in futures and derivatives transactions. So that $2 trillion may not be entirely idle after all.)

The chairman, a scholar in his previous life, values punctilious accuracy in speech and writing (the Fed does "not literally" print money, he helpfully pointed out last week; the Bureau of Engraving and Printing is the one with ink on its fingers). So, in support of the cause of accuracy, we note that the Fed has retired the *datum* excess reserves; under a new rule, banks keep reserves within a range above and below the required level. But the concept of excess reserves lives on, and so—in a do-it-yourself fashion—does the calculation of the now-retired figure. Thus, as of July 10, such balances amounted to $1.983 trillion, within shouting distance of $2 trillion. As recently as year-end 2007, they totaled a mere $1.8 billion (with a "b").

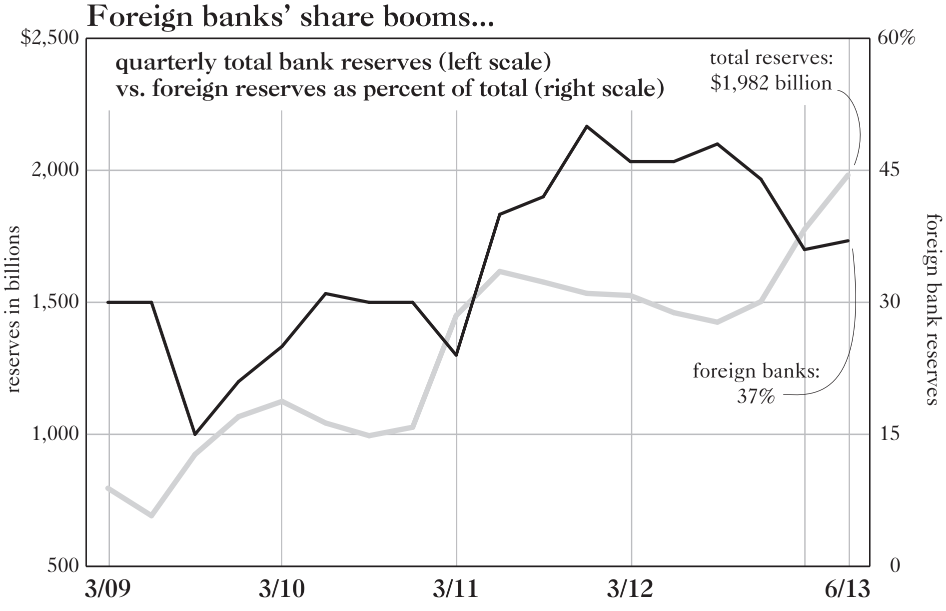
"As a percentage of GDP," relates colleague Evan Lorenz, "excess reserves stand at a never-before-seen 12.4%. Total domestic nonfinancial credit amounts to 254% of GDP, which means that banks are sitting on the potential to increase total credit in America by half. Between 1929 and 2007, excess reserves averaged just 0.5% of GDP (as a rule, of course, bankers prefer not to sit on idle balances, but to make their money sweat). As a percentage of GDP during the unprosperous 1930s, excess reserves peaked in 1935 at 3.4%. They spiked to 6.2% of GDP in 1940, the year Paris fell to Hitler."

Just as noteworthy as the level of excess reserves today is their composition. Of that almost $2 trillion, $738 billion, or 37% of the total, is credited to American branches of foreign banks. Interest-rate arbitrage is one reason for this striking fact. Desire by the managements of foreign banks to accumulate reservoirs of dollars with which to stock the home office in times of need is another reason. Suffice it to say that if the Fed finds it necessary to jack up the interest it pays on reserve balances—today's rate is 25 basis points—Congress will surely demand to know why the taxpayers are enriching the stockholders of non-American financial institutions.

There is another item of background information that bears on the curious distribution of excess reserves. Ever since 2011, the FDIC has dunned its member banks not on the size of their insured deposits but on the difference between their assets and tangible equity. In the case of Bank of America Corp., for instance, the change raised the assessed base to $1,968 billion (that being the difference between assets and tangible equity) from $1,006.8 billion (those being the bank's American deposits). The BofA's assessable base was effectively doubled. Though all banks, foreign and domestic, earn one-quarter of one percent on their deposits at the Fed, American banks wind up paying the FDIC between five and 45 basis points on those same deposits (the exact levy depends on the regulators' assessment of a particular bank's safety and soundness). For many of these institutional depositors, it's a break-even proposition, at best.

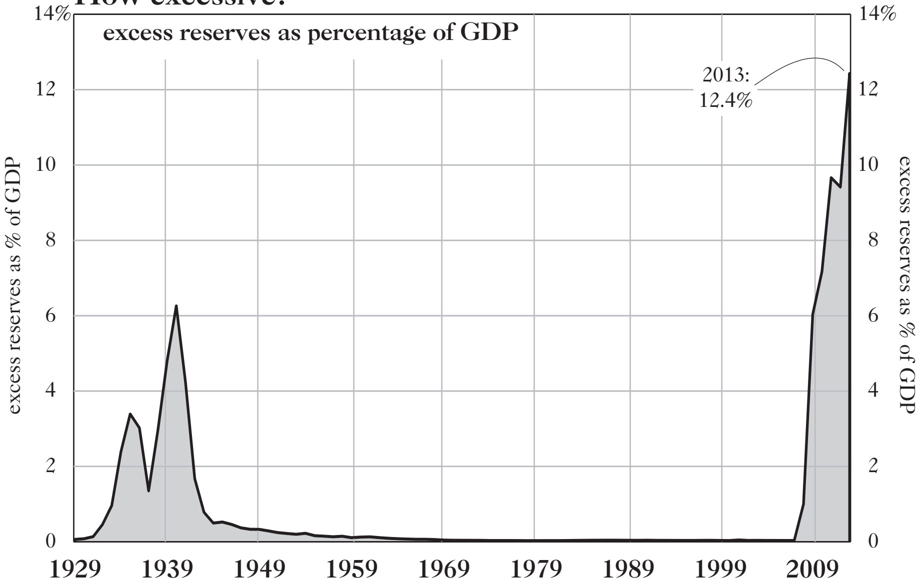
Because the American branches of foreign banks are not so inclined as homegrown institutions to lend in the 50 states, the excess reserves that the foreign banks control are less likely to find their way into the American finan-

Foreign banks' share booms...



source: Federal Reserve

How excessive?



source: Federal Reserve Bank of St. Louis, Bureau of Economic Analysis, Banking and Monetary Statistics 1941-1970

cial bloodstream than are the American banks' balances at the Fed. So let us set aside the foreign banks' share of that nearly $2 trillion figure. Still, that leaves $1.2 trillion in excess balances in the accounts of American-chartered banks, equivalent to 7.8% of GDP. That, too, is a record-high reading.

Anyway, apologists for the Fed argue, there is no realistic risk of these immense sums doing inflationary mischief. With the power to pay interest on excess reserves (granted by an act of Congress in October 2008), the central bank is the master of the dollars it conjured. If it chooses to bottle them up inside the Federal Reserve System, it can simply pay the banks not to withdraw them. Problem solved, or so the argument runs.

Yet the banks, as noted—the American ones—are earning little to nothing on those balances at the current, 25 basis-point deposit rate. How little becomes clear when one compares one-quarter of 1% with the 4.61% that the banks are earning today on jumbo mortgage loans to prime borrowers (see *Grant's*, July 12). If the Fed would manipulate the banks with high deposit rates, the very same Fed has committed to medicate the labor market with low deposit rates.

"Besides," Lorenz observes, "the Federal Reserve is earning the same rock-bottom interest rates that Bernanke et al. have stuck the rest of us with. In 2012, the system's earning assets delivered a return of 2.9%, down from 3.3% in 2011 and 3.7% in 2010. Maybe the yield is on its way to 2.5% (no disclosure on this point till year-end). It wouldn't be surprising in view of the Fed's continued purchase through QE of $85 billion a month of low-yielding Treasurys and MBS.

"The yield is meaningful because it defines how much the Fed can pay on reserves before it pays out all its earnings," Lorenz continues. "If the Fed were earning 2.5%, the top interest rate it could afford to pay would be 4.3%. At 2%, it could afford to pay only 3.4%. You ask: Why couldn't the central bank simply buy more Treasurys and more MBS with which to earn the income from which it could bribe its member banks not to withdraw their deposits to feed a new inflation? Well, it could. But where would it stop? And what would Mr. Bond Market say about a new adventure in quantitative easing at what would arguably be exactly the wrong time?"

For that matter, what would the House, the Senate and the White House say? Over the past three years, the Fed has contributed mightily to the federal budget. Its QE-generated earnings have chipped in an average of about 3½% of annual federal receipts. How would it fly in sequester-minded Washington if the former monetary sugar daddy announced that it was not, after all, remitting funds to the Treasury, because it was paying out those billions instead to its banking clientele, not forgetting the foreign cohort?

The Bank of Bernanke can be seen as a prisoner in a monetary jailhouse of its own construction. Interest rates and the yield curve will block the exits. So will budgetary politics. One day—timing, as usual, uncertain—the chairman or his successor will try to neutralize, sterilize or immobilize the excess reserves that today lie idle (more or less) in the system's computers. We say that those dollars will prove harder to squelch than they were to create.

In 1934, the economics faculty of Columbia University organized publication of a big fat book entitled, "The Banking Situation." Excess reserves were then a concern, just as they are today. But they would not necessarily prove inflationary, wrote one of the contributors to the volume, Louis Shere, since they would not be mobilized until the demand for business credit picked up. But, Shere went on, a central bank in conscience could create only so many reserves, "because it is quite conceivable that if a huge amount of credit is created in the lean years, perhaps when the money lever is more or less inoperative, the Federal Reserve Banks could not 'mop up' the supply in early revival without breaking the bond market. Under these circumstances, the foundation would be laid for the next collapse."

In point of fact, the bond market in the 1930s went unbroken. But as for the 2000s, we say: Stand by!

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Rain of grain

(March 8, 2013) Do you happen to know when the nation's farmers planted more acres to corn than the consensus of informed opinion expects them to plant in 2013? The year was 1936. Or when farmland values in the five-state Seventh Federal Reserve District (the headquarters of which are in Chicago) appreciated as much over a three-year period as they did in the ZIRP-facilitated boom of 2010-12? It was in 1974-76. Now unspooling is the *Grant's* farm report. Cropland values, money printing and wheat are on the agenda.

Concerning the ruinous drought of 2012, Ben S. Bernanke has—as far as we can determine—clean hands. Yet, although the chairman personally raises not one bushel of corn or wheat, his experimental monetary policies affect all who do. Exhibit No. 1 is the continuing updraft in agricultural land values.

In constant dollars, reports the February edition of the *AgLetter* published by the Federal Reserve Bank of Chicago, "good" quality Seventh District farmland—i.e., Illinois, Indiana, Iowa, Michigan and Wisconsin—registered a 14% gain in 2012, the third highest in 35 years. Over the past three years, Seventh District land prices leapt by 52%, the most since the mid-1970s, when the CPI was roaring along at annual rates of between 5% and 12%.

Well does your editor recall the obloquy that was heaped on the then Fed chairman, Arthur Burns, for letting the inflationary genie out of the bottle. From the vantage point of 2013, however, Burns seems not so much incompetent as unperceptive or unlucky. Between Jan. 1, 1974, and Dec. 31, 1976, the Fed's balance sheet expanded at annual rates no higher than 9.2% (that was in 1975). Over the same span of years, the real funds rate averaged as little as minus 4.1% and as high as positive 0.8%. By March 1980, the CPI would be zipping along at a year-over-year rate of 14.6%.

Compare and contrast the Bernanke years. Between Jan. 1, 2010, and Dec. 31, 2012, the Fed's balance sheet expanded at annual rates of as much as 20.8% (that was in 2011). Over the same three years, the real funds rate averaged minus 1.8%. Consumer prices rose by an average of 2%.

Chairman Bernanke's admirers will see in this comparison between Burns and himself the vindication of flexibility in policy making. Burns misread his era. He should have tightened but didn't (it's clear as a bell in retrospect). Bernanke, his fans contend, has correctly read *his* era. To beat back deflation, he has conjured trillions of dollars. Only imagine if he hadn't.

It's a funny kind of deflation, only allow us to say, when credit spreads contract, junk bond prices soar and the measured rate of inflation (and how generously measured it is) remains in positive territory. Be that as it may, farmland prices in three Bernanke years more or less matched the gains they recorded in the mid-1970s under Burns, whose name is synonymous with inflation. So far, Bernanke's name is synonymous with that happy form of inflation called a bull market.

"Perhaps the most surprising aspect of 2012's strong gain in farmland values," the Chicago Fed notes, "was that it occurred in the midst of the worst drought in the Midwest since 1988." Or maybe it's not so surprising. The drought-shortened crop lifted prices, while interest rates charged on land loans dipped to 4.7% in the fourth quarter, a new low, the Chicago Fed reports.

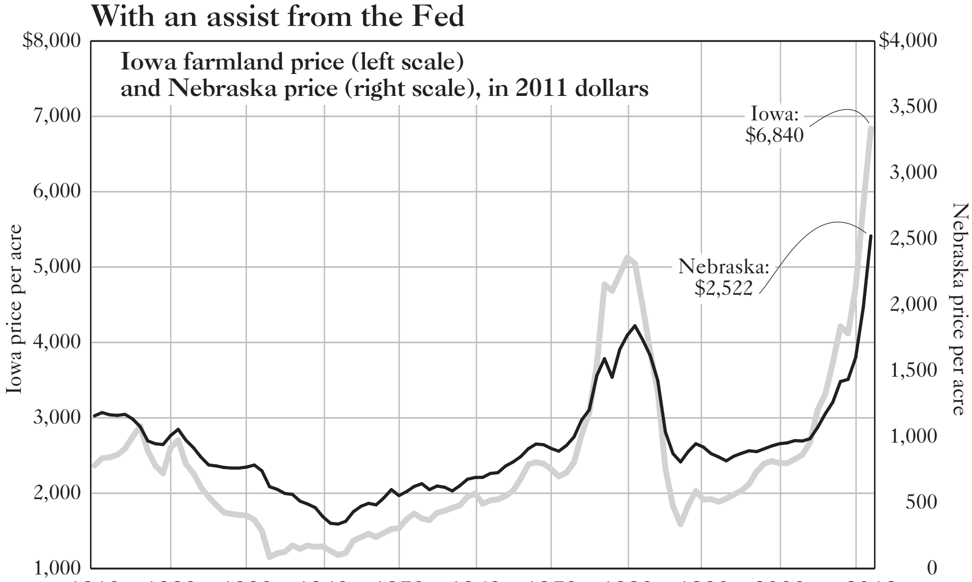
Just how bullish the current alignment of agricultural stars is can hardly be exaggerated. Drought or no drought, American net farm income in 2012 is set to reach $112.8 billion, within a few percentage points of the record set in 2011. "Since 2008," according to a Dec. 10 bulletin from the Congressional Research Service, "farm asset values are up 26% while farm debt has risen by only 10%. As a result, the farm debt-to-asset ratio has declined steadily since 2008 and is expected to fall to 10.6%, its second-lowest level since 1960."

If, in urban America, the so-called new normal is down-in-the-mouth resignation to high rates of joblessness and low rates of economic growth, Midwest farmers seem infused with optimism. "Farmers' capital expenditures—including expenditures on machinery and equipment, trucks and autos, and buildings and facilities—were forecasted by respondents to be even higher in 2013 than in 2012. . . ," the Chicago Fed relates. "With the USDA predicting net farm income to rise 14% from 2012 to $128.2 billion in 2013, there would seem to be at least another leg to be run as farmland values continue their upward race."

There will soon be a race to the tractor if unofficial forecasts of 2013 planting intentions are on the beam. By the USDA's reckoning, the number of acres to be planted to corn this spring will total 96.5 million. Independent analysts project a total closer to 100 million acres, which, if realized, would be the most since the 102 million acres planted in 1936, when the Dust Bowl ravaged the American midsection and per-bushel yields per acre averaged not today's 160-plus but rather 18.6, the lowest ever recorded in USDA statistics stretching back to 1866. Say that American farmers do plant 100 million acres to corn—100 million acres being a little bit smaller than the size of the state of California—and that these acres, of which 95% are harvested, deliver the trend-line yield of 163.6 bushels per acre. The result would be a domestic corn crop of over 16 billion bushels, the most ever.

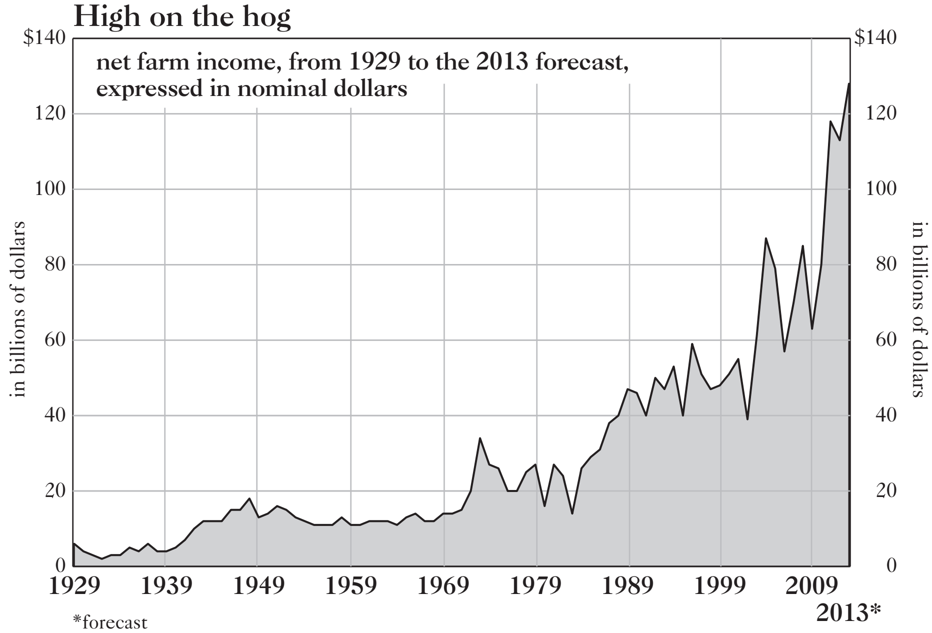
Such a bounty would be bearish for prices, other things being the same, and not only for corn, but also for the grains that compete with corn—wheat, for example. "Take a legal pad," Keith Bronstein, managing director at Endurance Asset Management and this publication's most valued resource on all things grown in dirt, tells colleague David Peligal, "and draw a line down

With an assist from the Fed



sources: Federal Reserve banks of Chicago and Kansas City

High on the hog



*forecast
source: USDA Economic Research Service

the middle of the page to determine what's bullish and what's bearish for the grain complex. On the left-hand side, the bullish side, there are two things—and I'm really talking about the 12- to 18-month time frame, and not a five- to 10-year time frame. One is drought, two is a collapse of the dollar. That's it. Case closed.

"Now let's begin on the right-hand side of the page by saying that somewhere in the vicinity of 85% of the time, weather is normal," Bronstein continues. "Therefore, it's not so crazy to think in terms of normal weather. What does normal weather produce? If you went back in time to last fall, when we saw the corn production in South America, the market cognoscenti said, 'thank God for that because we've had a corn shortfall here in the United States and they're going to fill in the holes of demand until about February or March, and then they'll run dry and then look out above, because now the United States is the only source of supply.'

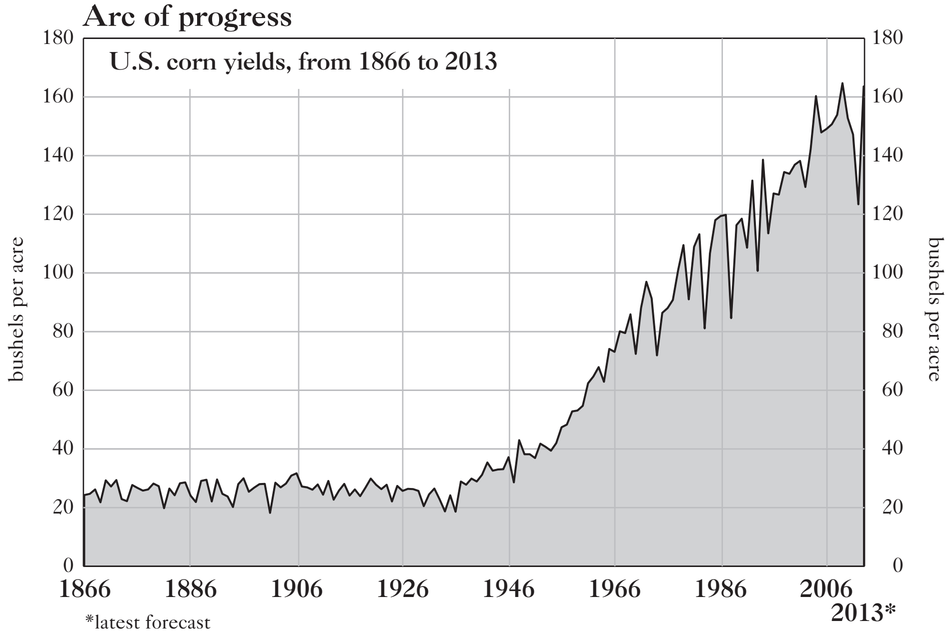
"Well," Bronstein goes on, "that premise was completely wrong. So what happened? One is, they're still selling corn. It's not magic. It's just that their corn supplies were maybe a little bit bigger and the demand worldwide for corn wasn't that it was so much less … just that it was continually satisfied by various alternatives. One of those alternatives is feed wheat. India is selling feed wheat into traditional corn-consuming channels. That has never happened before. And all of a sudden, that's filling holes. It's the old story that the cure for high prices is high prices. And we had a couple of years of high corn prices and poor supplies, and the world has done what the world does. It adjusts. Now, logistically and in terms of overall supplies, it's still going to be dicey for the next few months. I'm not pretending it won't be. But we're kind of getting through this without having anything hysterical happen in terms of price."

Of course, as the USDA's own chief economist, Joseph Glauber, recently observed, one might have said the same thing last year. Indeed, many did. "Yet," Glauber notes, "instead of a record corn crop, we saw record high corn prices. Instead of [cattle] herd rebuilding, there was further liquidation as livestock margins tightened. So while the outlook for 2013 remains bright, there are many uncertainties."

To be sure, Bronstein concurs, nothing is certain. But some things are fairly dependable. "Going back to my days at the Chicago Board of Trade, there was an aphorism: 'Short crops have long tails.' Four of the last five crop cycles have been short crops. We've had two bad crops out of three in South America and two in the United States. So we could be setting up for one of the biggest tails anyone has ever seen." That is, given some normal weather, crops could be immense, with prices to match.

And if corn prices tumble, so would wheat prices. Especially vulnerable would be wheat for December delivery, pitched as it is at a premium of $1.79 per bushel over corn. Yet, in the here and now—see the contracts for May delivery—the two grains are quoted within two cents of each other. At such a small premium to corn, wheat is today being served to poultry and livestock in the American Southwest and Southeast. The critters would

Arc of progress



*latest forecast
source: USDA

have to make do with corn alone if the December price relationship, wheat to corn, persisted.

"How are we going to get—or keep—wheat into feed rations," Bronstein muses. "Well, it's going to have to get considerably cheaper on corn. It's going to be a race, and if we had this normal yield I'm talking about in corn, this is going to be a race to the bottom. And wheat has given corn a big head start, so a lot of that space has to be filled in. I think that while corn prices, in a normal yield scenario, have reasonable downside in the December forward futures, wheat potentially has a much greater downside. The wheat price is really sticking up there like somebody's got to take a hammer and hit it."

Reflecting on the continued ascension of land prices, Mike Duffy, Iowa State University economics professor and surveyor in chief at the annual Iowa Land Value Survey, marveled that 2012 was "one of the most remarkable years in Iowa land value history. This is the highest state value recorded by the survey, and the first time county averages have reached levels over $10,000 [per acre]. While this is an interesting time, there is considerable uncertainty surrounding future land values."

Duffy could say that again. Only consider that prime Iowa corn ground is trading at $11,000 an acre. Assume that this rich earth brings forth 200 bushels an acre, and that the landlord captures 35% of the gross. At $7 a bushel, today's elevated spot corn price, a landlord would earn a pretax rental yield of approximately 4.45%. At $4.50 a bushel—not an unreasonable expectation for this season, we think—the rental yield would drop to 2.86%. At $1.94—the average corn price as recently as 2005—the yield would dip to $1.23%. Then, again, land prices would probably do a little dipping themselves.

"Of course," Peligal notes, "there's more to agricultural America than the Midwest. The Palouse region of eastern Washington has begun to attract some value-seeking land buyers. This is the dryland portion of eastern Washington, which receives such rain as the gods choose to dispense from moisture coming off the Pacific. Never to be confused with the sprawling Corn Belt, the Palouse produces soft white wheat, which makes its way to China and Japan and then into noodles and dumplings.

"The spot price of old crop wheat today is a very full $7 a bushel," Peligal continues. "The Palouse can serve up 90 bushels of wheat per acre. Again assuming a 35%/65% split, landlord and farmer, the landlord would be looking at pretax income per acre of $220. Divided by a land price on the order of $3,000 per acre—up from about $1,500 per acre five years ago—he or she would be looking at a pretax yield of 7.4%. But, again, we think, grain prices are due for a tumble. At $5 a bushel, our hypothetical landlord is looking at a yield of 5.3%; at $4 a bushel, a yield of 4.2%. This is hardly the stuff of Armageddon. But just as Bronstein says, markets do adjust."

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Houses for the long run

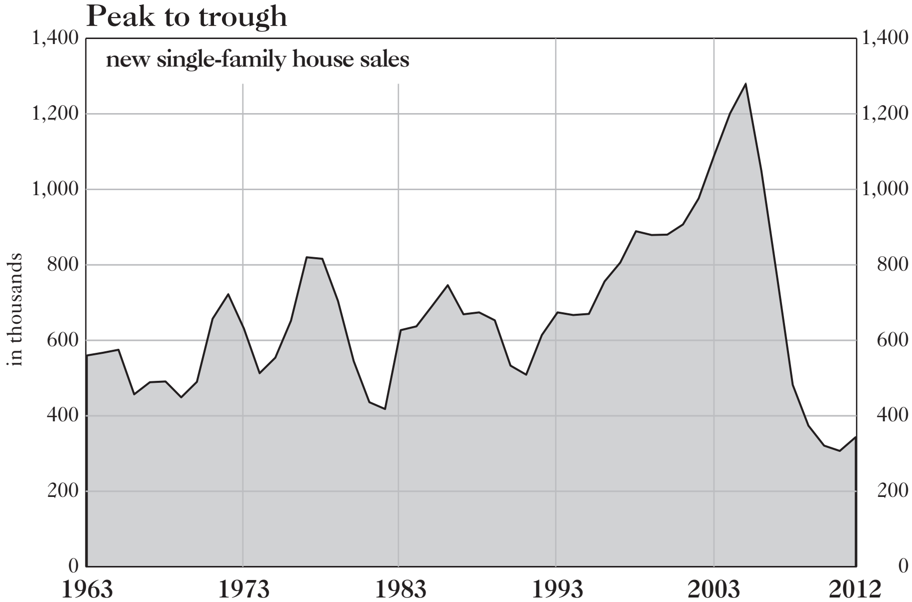
(June 1, 2012) May 18 found David Peligal of this staff in a car headed to the leafy Atlanta suburbs. Aaron Edelheit, general partner of the American Home Real Estate Partnership, was behind the wheel. Three prospective investors of Edelheit's occupied the other seats. The passengers' mission: To see for themselves just how cheap are the houses that fell to earth in Georgia.

Residential real estate is the subject under discussion, as it has been at close intervals in these pages over the past six months (e.g., "Private island markdowns," Dec. 2; "House of the 16 liens," Feb. 10; "Block trade," Feb. 24; "Value alfresco," April 6). If the topic seems repetitive, it is also momentous. Insofar as houses have been a ball and chain on the leg of the American economy, that leg is—so we believe—in the process of shedding its shackles. Of course, there will be other crises. But whatever becomes of Greece, the euro, iron-ore prices, the Australian dollar or the measured rate of growth of Chinese GDP, it helps to know that hard American assets are available at half the cost of replacing them. In preview, we remain bullish on cast-off residential real estate.

The men in Edelheit's car fell to talking about Facebook—the company was going public, or trying to go public, that very morning. How curious, they mused, that public investors were clamoring for shares valued at 107 times trailing net income and 26 times trailing revenues. The perfectly good houses, sitting only 40 minutes from the point at which Interstate 75 parts company with Interstate 85, presented as striking a contrast in valuation and popular audience appeal as could be imagined. You could buy them—Edelheit has, in fact, been buying them—at gross rental yields in the teens.

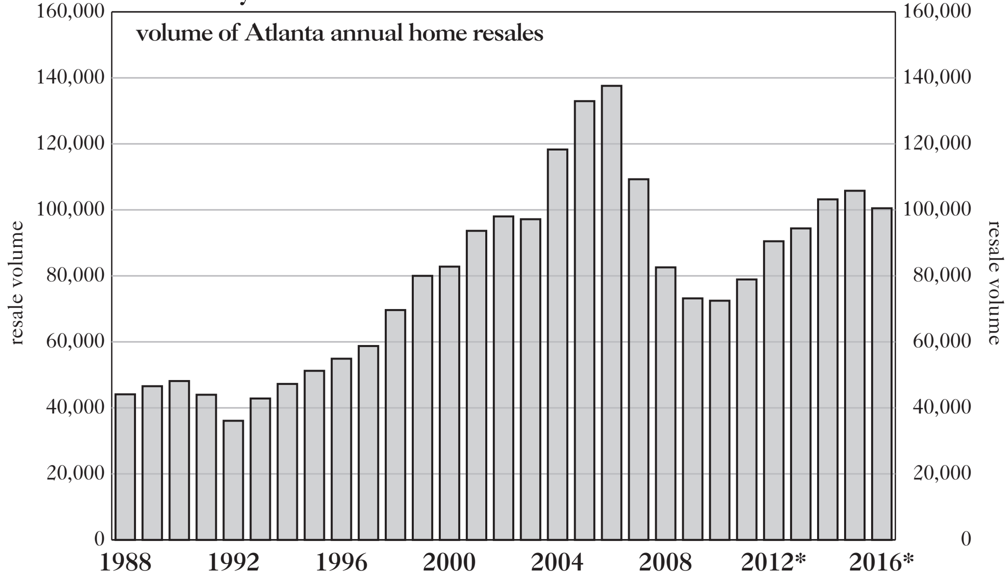
To us bulls on houses, the yields seem incongruously high, gross though they are. Certainly, they seem

Peak to trough



sources: U.S. Census Bureau, Gluskin Sheff

Better days for Atlanta



*estimate
sources: Moody's, NAR, John Burns Real Estate Consulting

out of sync with current events. Thus, according to the National Association of Realtors, the prices of not-new houses climbed by 10% in the 12 months to April, while the inventory of not-new houses fell by 20.6% over the same 12 months. According to the Commerce Department, sales of new houses rose by 9.9% in the 12 months to April. And then there is this: last week, Oliver Chang, head of U.S. housing strategy at Morgan Stanley, disclosed he was quitting his day job to start an investment partnership dedicated to buying houses in order to rent them. "Having followed this market for the past several years," Chang wrote in his going-away letter, "I believe it represents one of the most compelling investment opportunities across all asset classes today."

You may have read about Edelheit's American Home Real Estate Partnership in the Feb. 24 issue of *Grant's*. Other funds and partnerships are in the works—Beazer, KKR and Colony Capital are among the names to be reckoned with. Early this month, American Residential Properties LLC, a privately held residential real estate shop headquartered in Scottsdale, Ariz., raised just over $200 million from institutional investors in a non-public, 144A filing. Like Edelheit, the man from Morgan Stanley and other venturers, American Residential Properties expects to rent the houses it buys—namely, the newer models situated in Phoenix, Las Vegas and the so-called Inland Empire of California. Of 2006 and 2007 vintage, they are the very houses that probably had no business being built in the first place. But here they are in 2012, more affordable than ever.

"American Residential Properties is all about reversion to the mean," a knowledgeable onlooker tells Peligal. "Pricing will revert to the mean. Real estate volume will revert to the mean. Home ownership, at some point, will revert to the mean. Everything reverts to the mean. That's all they need for their business to work."

Understandably, partnerships specializing in single-family houses are something new under the sun. Apartments lend themselves to large-scale investment. Real estate investment trusts like AvalonBay Communities and Equity Residential boast efficiencies that come from managing not a handful of apartments but buildings full of apartments. Single-family detached residences are something else again. "It is simply not proven," Peligal observes, "that the expenses associated with maintaining a few hundred houses are scalable. In consequence, institutional money has left the field to moms and pops. So what's different now? Thanks to the mortgage crisis itself, the volume of houses on offer is huge, and the prices are, as noted, low."

In Atlanta, Edelheit is buying houses for $30 a square foot, half of the prevailing construction cost of $60 per square foot. If "people have to live somewhere"—a basic bullish tenet—that means they must either rent or buy. "Atlanta," Edelheit tells Peligal, "is growing at 1% a year. Businesses and people are moving here. So you have 5.7 million people growing at 1%. That's 57,000 people. And they're building a couple of thousand homes. Those numbers don't work. Eventually, either you have massive rental increases or prices return to incentivize builders to build again. Or you have both. Either way, something has to give. If the economy goes into the tank, there will be even less building. It creates a pressure cooker. That's why, in Atlanta, with 8.5% to 9% unemployment, the apartment companies are raising their rents by 6% year-over-year. You're creating an environment where something has to give. People have to live somewhere."

"I will not mention the name of the neighborhood Edelheit favors—he wants to hand the competition no unnecessary gifts," Peligal relates. "But know there is nothing wrong with it, or with the properties he's buying. Sure, they need sprucing up—new paint, new carpet, etc.—but once that's complete, these houses are what you'd expect to see in most middle-class neighborhoods across the United States. Yet, when you first see the prices he pays, you think, 'This must be a terrible and/or dangerous neighborhood.' Not so. There are lots of trees, enough room in the backyard to throw a football around and well-manicured lawns (especially if the house is under surveillance by a homeowners' association). Edelheit pays an average of about $70,000 per house. He'll put in roughly $15,000 of repairs and renovations and rent the house for $950 a month. His investment partnerships—he expects to close his fourth on May 31—own 450 of these value dream homes.

"Two houses are representative of the others we saw on our tour," Peligal proceeds. "House No. 1 is a two-story colonial with a white exterior and shuttered windows. You can almost imagine it pictured on the cover of one of those happy-talk Fannie Mae annuals during the housing-bubble years. The house was built in 1985 and encompasses 1,912 square feet. It contains three bedrooms, three bathrooms and a two-car garage. It isn't fresh-baked bread you smell when you walk in the front door, but dust or must—plainly, the windows

House No. 2—ready for tenants

have been sealed for a while. Edelheit says that the place sat vacant for a year before he bought it last month. This would explain the graffiti spray-painted on the exterior back wall.

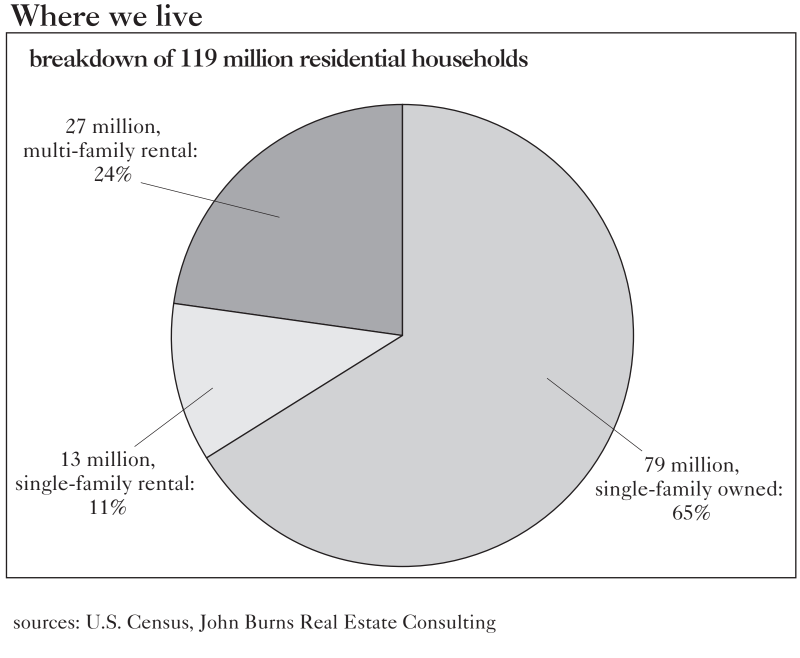
"The economics of the situation are certainly attractive," Peligal goes on. "In October 1997, the house sold for \$111,000. By and by, post-bust, it was acquired by an arm of the federal government, which listed it for sale at \$83,000. Edelheit paid just \$49,500. Add in closing costs of \$2,255 and repairs of \$17,930, and you get a total acquisition price of \$69,685. Market rent of \$950 a month would deliver a gross yield of 16.4%. As the five of us walked out of the house, Edelheit paused to relate a quick story. 'Here's the best part,' he says. 'I was here on a tour a couple of days ago. And the guy next door walks over and he's an investor, too. We're talking, and he's been renting out that house for awhile. I think he's owned the house for around 25 years. He says, "How much did you pay for it?" I say, \$49,500. He thinks about it and sheepishly reveals that he bought the neighboring property for \$90,000 25 years ago. The numbers are silly. It's not going to last. There's nothing wrong with this area. A couple of years from now, this house might very well double in price.'"

"House No. 2," Peligal continues, "had been renovated and was ready for the arrival of a tenant on June 1. Maybe it was the well-groomed landscaping to our left and right, or maybe it's because I've lived in New York City too long, but it's not hard to be impressed by the value proposition of this McBargain. Built 15 years ago and encompassing 2,104 square feet, complete with four bedrooms and three baths, the house sold for \$137,500 in December 1997. Edelheit paid not the feds' asking price of \$85,000 but \$71,800. His all-in cost, after \$2,632 in closing costs and \$11,827 in repairs: \$86,259. Market rent of \$1,250 a month produces a gross rental yield of 17.4%." Gross yield, as a thoughtful observer relates to Peligal, "is what the market will provide." Net yield "is what the operator is able to achieve."

To listen to the house bulls, buying-to-rent is an all-season strategy. If the housing recovery proceeds and the world avoids a euro- or Sino- or American-instigated recession, all well and good; house prices would likely appreciate. If, however, another macro bump in the road lies directly ahead, new-home building would likely stop and mortgage financing would become even harder to come by than it already is. Thus, the argument goes, even the bearish scenario would likely deliver stable or rising rental rates, whether or not house prices resume their fall. For us, we judge that the point survives the bullish exaggeration.

Anyway, the bulls have the wind at their backs. "One of the things that shocks us when we go and talk to investors," says Edelheit, "is that you don't need to convince Wall Street of the macro thesis anymore. It's more the details of how you're structured, how you are operating, etc. You don't need to convince them of the housing thesis—they're all buying the home builders." Certainly, someone is: PulteGroup, Lennar Corp. and Sherwin-Williams (which makes the paint that covers the Pulte and Lennar walls) are three of the top-10 best-

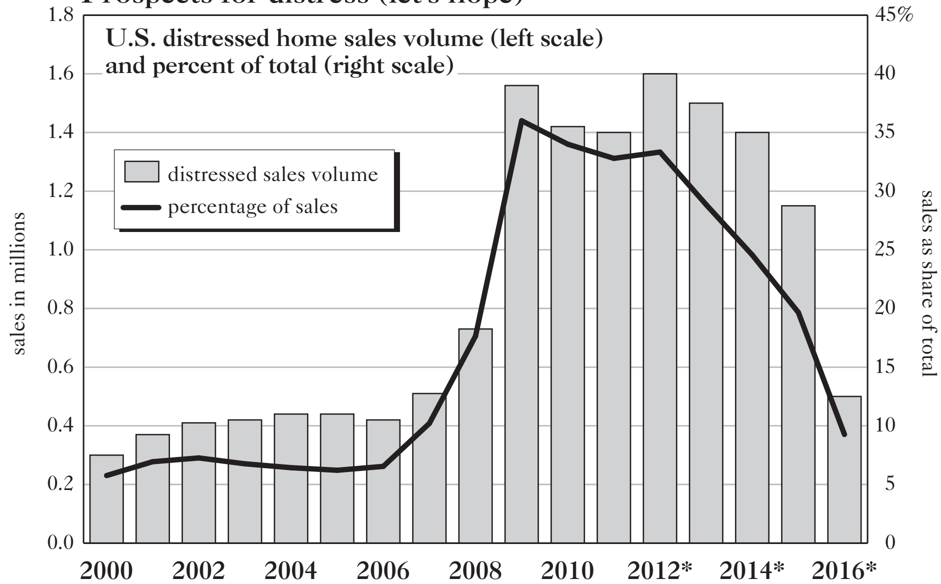
Where we live



sources: U.S. Census, John Burns Real Estate Consulting performing stocks in the S&P 500 this year. Though home building is a small industry, as market caps go, there can be no such complaint about houses themselves. Here is a market as big as all outdoors.

Many hear the quacking of the investment ducks. Thus, on May 3, Beazer Homes USA disclosed plans to contribute its rental-home business, consisting of a couple of hundred single-family houses in Phoenix and Las Vegas, to a newly formed private REIT. Los Angeles-based Colony Capital, which has $30 billion under management, unveiled a single-family residential REIT early this year. Colony American Homes, which says it has raised $750 million, has more than 1,000 formerly distressed houses under its wing, either owned or in escrow. Many of these properties are situated in the former bubble regions of Arizona, Nevada and California.

Prospects for distress (let's hope)



*forecast
source: John Burns Real Estate Consulting

"We're all trying to help bring capital into an asset class that we think is going to become a real institutional asset class," says Justin Chang, a principal with Colony Capital and acting president of the new REIT. "What has resonated with investors and what has helped us raise a lot of capital very quickly is, one, deal flow. It's easier to raise capital when you can say, 'Here is where I'm investing, here is what I'm buying today, here's what it is'—as opposed to something that is vague. We are buying homes aggressively and quickly, and generating both very attractive total return potential and current yields. . . . We are generally achieving net yields in the high single digits. We are buying significantly below what it costs the home builders to build comparable product."

Altogether, listening to Edelheit, Justin Chang (not to be confused with Oliver Chang, the former Morgan Stanley analyst) and others, you get the sense of a market catching fire. "You ask why I'm moving so fast?" Edelheit says to Peligal. "This won't last. I'd be insane to think that people won't be buying at these prices." Making the reportorial rounds last week, Peligal heard talk that B. Wayne Hughes, founder of Public Storage (PSA on the Big Board) is buying up houses all over the country and generally not permitting himself to be outbid. Calls and e-mails to one of Hughes's investment vehicles, Malibu-based American Homes 4 Rent LLC, went unreturned.

Chang said that Colony was respectful of the competition though not focused on it. "If you take a step back and look at the macro opportunity," he tells Peligal, "there's something on the order of $500 billion to $800 billion worth of single-family rental homes that need private capital in the next three to five years. The sheer scope of the opportunity and the magnitude of the supply are just massive. All the people you mention, plus us, plus 50 of our favorite investment firms, could each go raise a couple of billion dollars and it would still not begin to put a dent into the market. That's not an exaggeration.

"The rush and the opportunity and the time to market, it's not so much driven by a feeling that the window is going to close—because I don't think the window is going to close," Chang goes on. "I think this is a three- to five- to seven-year opportunity. You'll have some markets where prices will bounce up and then they'll bounce back. Of the houses that are out there on the market right now, it's probably less than 10% of the ultimate opportunity. There's a lot of shadow inventory that still needs to be worked through the foreclosure system. That's going to take … several years, and that's playing through. I think the opportunity is hundreds of billions of dollars of investment opportunity. The rush isn't to buy before the window closes at all. I think the rush is because lots of people see the opportunity and anytime you see this opportunity, you want to go after it. As you can move more quickly and acquire more homes, success begets success. What we're seeing in a market is, we start closing in on some homes, we become the preferred call for the brokers. They start calling us first. You prove you can close, you prove you have capital, you prove you can move quickly, you prove you can do what you say you're going to do—in an industry full of people that don't always have all that—you start to get things done and you start getting the best calls first. Pretty soon, you're getting exclusive calls to look at things where other people aren't even getting the opportunity to do it. You start being able to attract better people, all of that. Ultimately, as you get to scale, you lower your cost structure. . . . As you grow, some of the fixed costs get leveraged very quickly. In our opinion, as you get a billion or a billion-and-a-half dollars of capital invested, which is probably 10,000 to 15,000 homes, you start really generating economies of scale that allow you to lower your cost structure and improve your margins and improve, quite frankly, your returns to investors."

Bye-bye, then, to the McMansion phase of the American home investment cycle. Hello to the era of the McBargain.

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