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OUTER LIMITS As Funds Leverage Up, Fears of Reckoning Rise

Fed and SEC Question Wall Street on Policies; 'A Mockery' of Margin

By **RANDALL SMITH** and **SUSAN PULLIAM**

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(See Corrections & Amplifications item [below](#).)

Hedge-fund manager John Paulson made \$1 billion using a complex financial instrument to pump up a bet that the subprime-mortgage market would crater. The parent company of retail giant Sears made \$74 million using a similar device to boost its wager that a basket of stocks would rise in value.

Both were playing with leverage -- the magical power that allows investors to make big investments without putting big money on the table. These days, they have lots of company. Thanks to advances in financial engineering, investors have never had so many different ways to make commitments that exceed their bankrolls. And never before has leverage wormed its way into so many nooks of the financial world.

We're living on planet leverage, and regulators and market gurus are growing nervous.



John Paulson

How did this happen? For starters, hedge funds and leveraged-buyout funds have proliferated. They're pioneers in boosting returns using borrowed money, the most traditional form of leverage. Also, investment banks are pumping out newfangled leveraging tools such as derivatives, complex securities that allow hedge funds and other investors to add leverage without borrowing money.

Finally, mainstream America has gotten into the act. Once-conservative institutions are copying hedge-fund tactics. The Pennsylvania State Employees' Retirement System has begun dabbling in derivatives. Mutual-fund companies such as Easton Vance Corp. and **Federated Investors Inc.** have launched funds that rely heavily on derivatives. Garden-products maker **Scotts Miracle-Gro Co.** and other public companies have loaded up on debt to improve returns.

This leveraging binge has regulators and others worried. In the first place, no one knows how much leverage there is. Much of it is hidden, because investors aren't just juicing returns with borrowed money, but with derivatives, which are harder for regulators to track.

No one is sure what will happen to this complex brew in the event of a serious market downturn. When markets turn bad, leverage can create a snowball effect. Lenders and derivatives dealers demand that investors provide them with more collateral -- the stocks, cash or other assets they pledge to cover potential losses. Sometimes, investors dump stocks and bonds to raise cash. Prices drop more, losses accelerate, and more selling ensues. Some Wall Street analysts have taken to referring to a nightmare version of this scenario as "The Great Unwind."

ON THE MARGINS



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Read about how individual investors have been hurt [investing on margin](#)².

Timothy Geithner, president of the Federal Reserve Bank of New York, said in an interview that the torrent of money flowing into hedge funds has coincided with a troubling erosion in lending practices.

The Fed, the Securities and Exchange Commission and European regulators have spent months trying to gauge the risk by gathering information from hedge funds and Wall Street firms. They've asked the brokerage firms, among other things, how much collateral they're demanding from hedge funds when they provide financing.

Regulators concluded that Wall Street firms aren't always getting enough information from hedge funds to assess risk, and that they sometimes aren't asking for enough collateral, according to one person familiar with the matter. Regulators also found that some hedge funds, which are lightly regulated, are receiving credit with terms similar to those received by the biggest brokerage firms and banks, which are heavily regulated, this person said.

On March 27, regulators held a conference call with bankers from nine Wall Street firms to brief them on their findings, people familiar with the matter say. The regulators told them there was room for improvement on collateral requirements and on their systems for predicting how financial losses arising from the collapse

of a big hedge fund or some other market disruption would ripple through the financial system, one of these people says. The regulators said they planned to dig deeper into those areas over the next two months before deciding what steps to take, if any, this person says.

Mr. Geithner, who has been deeply involved in the effort, said in the interview that regulators want to make sure that major U.S. banks and brokerage firms "can comfortably manage" a shock to the system, such as a big hedge-fund failure.

The 1998 collapse of highly leveraged hedge-fund giant Long-Term Capital Management threatened to unleash something like a Great Unwind, but a consortium of Wall Street firms, prodded by the Fed, stepped in to prevent such a selloff. Last year, when the leveraged energy bets of Amaranth LLC went awry, the big hedge fund had losses of \$6 billion within days, albeit without rattling the overall market.

"It's easy to put on leverage, but not as easy to take it off," says billionaire Omaha, Neb., investor Warren Buffett, who has warned that widespread use of derivatives is endangering the financial system.

America has been a nation of debtors for years. Prior to the 1929 stock-market crash, brokers allowed customers to buy stocks with as much as 90% borrowed money -- called margin debt. When the market began sliding, investors had to dump shares to keep their debt levels below 90%, igniting market panic. Nowadays, the SEC limits margin borrowing by most investors to 50% of a stock's purchase price. ([Read more about investing on margin](#)³.)



Timothy F. Geithner

But those limits don't apply to all of the derivatives and other financial instruments that now pack the portfolios of hedge funds and other big investors. Estimates by analysts of leverage at major securities firms, borrowing by hedge funds and margin loans to individuals added up to \$4.9 trillion in 2006, compared with \$1.8 trillion in 2002. Hedge-fund borrowing and other financing tools were valued at \$1.46 trillion last year, up from \$177 billion in 2002, according to estimates by Bridgewater Associates Inc., a Westport, Conn., hedge-fund company.

RISK FACTOR

- **The Situation:** Regulators have grown worried about rising leverage in the U.S. financial system.
- **The Players:** Hedge funds and the Wall Street firms that provide them with financing are among the biggest contributors to the rise.
- **The Bottom Line:** No one is sure what will happen with this complex web of borrowing and derivatives in the event of a serious market downturn.

Private-equity firms, investment funds that often buy entire companies, also are contributing to the leverage buildup. Loans to companies bought by private-equity firms rose to \$317.3 billion in 2006 from \$51.5 billion in 2002, according to Reuters Loan Pricing Corp. That's partly a function of more and bigger deals. But borrowing has also risen relative to cash generated by companies the funds buy.

Individual investors have been moving in the same direction. Their margin debt -- the amount they borrowed from brokerage firms to buy stocks -- totaled \$293.2 billion in March, the third straight month it exceeded the record set during the high-tech bubble in 2000, according to the New York Stock Exchange. That's up

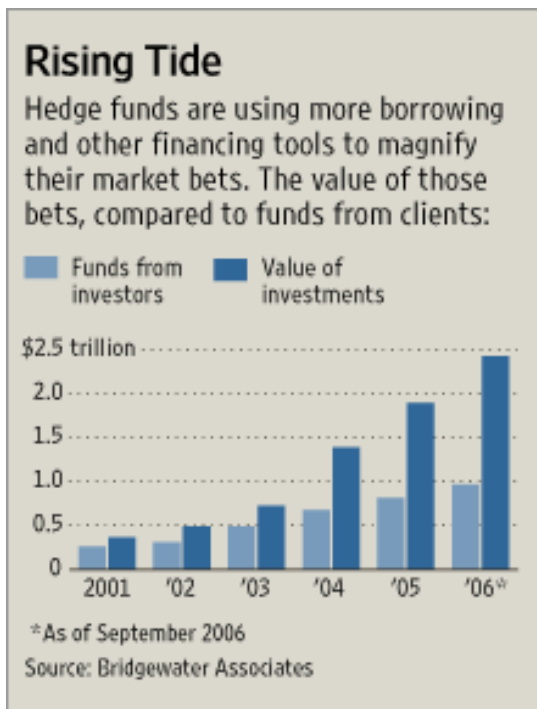
from \$134.58 billion in 2002.

"There's leverage everywhere -- whether at corporations or broker dealers or hedge funds or private-equity funds," says senior credit analyst Tanya Azarchs, who follows U.S. banks and brokers at Standard & Poor's Corp. "It sort of feels like something's got to give."

Some Wall Street executives say rising leverage levels aren't alarming, in part because the value of all securities outstanding has also been climbing. In 2006, the Federal Reserve estimated there was \$20.6 trillion worth of corporate stock outstanding, up 73% from 2002.

Hedge funds, private investment pools for institutions and wealthy individuals, have been coming up with clever ways around margin limits for years. In the 1990s, for example, some of them bought shares in affiliates of securities firms and set up "joint back office" arrangements. That gave them access to higher borrowing levels, because regulators allow securities firms to take on more debt than other investors. Regulatory changes have since given hedge funds more leeway on margin and have made other leveraging options involving derivatives more attractive.

These days, hedge funds are using derivatives to mimic the effect of purchasing stocks and bonds -- for a lot less money up front. On Wall Street, dealers offer derivatives in dizzying variety. The values of some are tied to single stocks, others to baskets of stocks or market indexes, still others to bonds, oil prices, even the weather.



How do they allow investors to leverage up? Consider a derivative contract known as a swap. In one simple form of a swap, a derivatives dealer, often an investment bank, agrees to pay a counterparty, say a hedge fund, the change in the market price of a stipulated security. In return, the dealer receives payments tied to something else, often a benchmark interest rate.

Suppose a hedge fund wants to bet that IBM stock will rise. Under the SEC rule governing margin lending, the fund couldn't borrow more than \$50 for every \$100 of IBM stock it buys. A "total-return swap" on \$100 of IBM shares would cost \$5 or less for many hedge funds, at least initially. If IBM shares were to rise, the return per invested dollar would be better than if the hedge fund bought the IBM shares outright using a margin loan. If IBM shares were to fall, however, the derivative leverage would work in reverse: The hedge fund would have to pay the counterparty an amount equal to the decline in share value -- plus the agreed-upon fee.

Mr. Buffett contends that the proliferation of such swaps is dangerous. "Total-return swaps make a mockery of margin requirements," he says. The widespread use of swaps, he maintains, makes the leverage that preceded the 1929 crash "look like a Sunday-school picnic."

Hedge funds are under no obligation to publicly disclose derivatives transactions or borrowing levels. But Citadel Investment Group, a \$13.5 billion Chicago hedge fund run by Kenneth Griffin, had to do so when it

sold bonds last year. A bond offering document said the fund's leverage ratio -- the value of its assets compared to its capital from investors -- stood at 13.5 to 1, due in part to its use of derivatives. That raised eyebrows in an industry where 5-to-1 leverage is considered aggressive. Citadel's filing noted that once certain other financial agreements were taken into account, the leverage ratio was about 7.8 to 1.

What kind of leverage maneuvers was Citadel using? Its filing provided one example: It used a total-return swap on a \$400 million basket of securities "to provide leverage" to the fund. That swap, negotiated last October, entitled the fund to collect payments equal to what it would have gained if it actually owned all those securities. Citadel paid a negotiated fee to the swap's counterparty, HSBC Corp.

Mr. Paulson, who runs New York's Paulson & Co., used a different form of swap to play his hunch that trouble was coming for companies that lend aggressively to home buyers with sketchy credit. Figuring that bonds backed by subprime mortgages would fall in value, he invested \$1 billion in credit-default swaps. In essence, he bought insurance against losses on about \$10 billion worth of bonds held by other investors. When those bonds decline in value, Mr. Paulson collects from his counterparties an amount equal to those declines. The subprime market unraveled earlier this year, and Mr. Paulson's fund notched about \$1 billion in paper profits, as of early March.

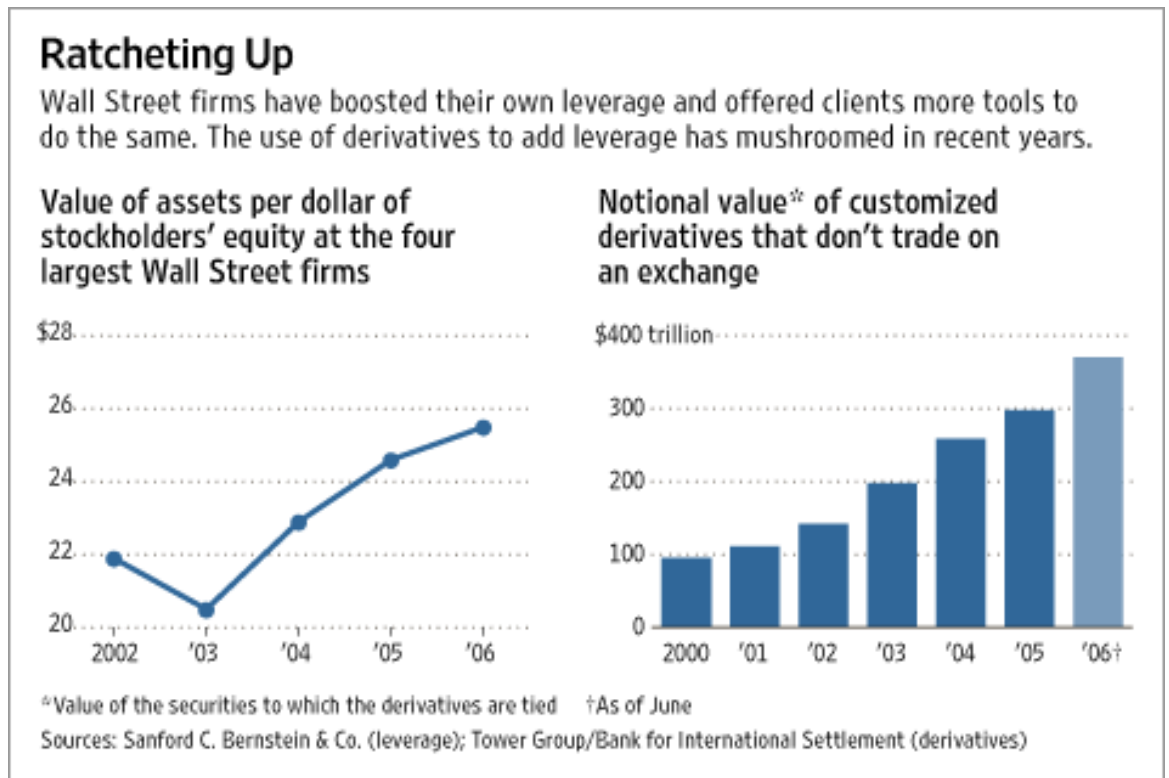
When swap wagers go bad, however, investors sometimes have to make the big payments to derivatives dealers. The danger is that they'll suffer big losses unloading hard-to-sell securities. Citadel offsets that risk by carrying a pool of easy-to-sell securities, such as U.S. government bonds. A Citadel spokesman says the fund uses leverage carefully, hewing to internal risk and liquidity targets.

Until recently, public companies, mutual funds and pension funds generally steered clear of such risks. But the lines between risk takers and mainstream investors are blurring. In part, that's because stock-market returns aren't what they were a few years back. Between 2000 and 2006, the average annual return on the S&P 500 stock index was 2.5%, down from 28.7% between 1995 and 1999. Using derivatives and borrowed money is one way to try to boost returns.

Pennsylvania State Employees' Retirement System, which manages about \$32 billion, has long allocated more than half of its assets to U.S. and overseas stocks. Several years ago, in pursuit of higher and more consistent returns, it began shifting some of that money into hedge funds, while buying swaps to replicate the stock-market exposure it gave up. Currently, the system has \$8.1 billion in hedge funds and has arranged swaps contracts for a like amount.

The strategy has boosted the fund's returns. Chief Investment Officer Peter Gilbert acknowledges the swaps could require the fund to make cash payments in a down market -- unlike the paper losses generated by the traditional stock holdings. But the goal is for the hedge funds to generate positive returns at such times, he says, at least partially offsetting the losses. "This is economic leverage, not financial leverage," says Mr. Gilbert, who adds that the program doesn't increase risk "materially."

Last year, **Sears Holding Corp.**, the department-store chain controlled by Greenwich, Conn., hedge-fund manager Edward Lampert, entered into a total-return swap on a basket of stocks with a market value of \$387 million -- the swap's so-called notional value. The swap produced \$74 million in income last year. Sears reported that the swap involves "substantial risks," and that the company posted collateral worth 25% of the swap's notional amount.



Wall Street sells the fuel for this kind of speculation. Credit Suisse Group, for example, offers total-return swaps through its "Delta One" prime brokerage program. **J.P. Morgan Chase & Co.** offers a total-return swap through its "Master Swap" program.

Philip Vasan, who runs a Credit Suisse unit that provides financing to hedge funds, says the unit monitors its clients, keeping "a close eye on not only the overall portfolio exposures and scenario analysis of those portfolios, but also the individual securities and their relative concentrations."

But some regulators worry that competition between derivatives dealers could lead dealers to loosen collateral requirements too much. Hedge funds routinely shop around Wall Street to find the derivatives deals that require them to post the smallest amount of collateral. In a speech to bankers last year, Annette Nazareth, an SEC commissioner, said that regulators want to stave off "an environment that encourages a competitive 'race to the bottom' concerning margin."

Dealers such as Credit Suisse and J.P. Morgan don't disclose the amount of total-return swaps on their books. That's "trouble in the making," argues Janet Tavakoli, a Chicago consultant specializing in derivatives. The collateral provided by hedge funds to secure swaps could be difficult to trade, she says. In a market downturn, attempts to unwind such positions could lead to a vicious cycle of selling that would feed on itself, she says. Representatives of Credit Suisse and J.P. Morgan declined to comment.

Wall Street itself is one of the biggest users of leverage. Last year, the nation's four largest securities firms financed \$3.3 trillion of assets with \$129.4 billion of shareholders' equity, a leverage ratio of 25.5 to 1, according to research firm Sanford C. Bernstein & Co. In 2002, those same firms financed \$1.59 trillion of assets with \$72.7 billion of equity, a ratio of 21.9 to 1, it said.

Among the big firms, **Goldman Sachs Group Inc.** pumped up leverage by the largest degree in recent years. Goldman says it was just trying to catch up to the levels of its competitors after it shifted from a partnership to a public corporation. Its ratio of assets to shareholders' equity, one common measure of borrowing, climbed to 25.2 to 1 in 2006, from 17.7 to 1 in 2002, according to analyst Brad Hintz of Sanford C. Bernstein. (Goldman says it has a pool of easy-to-sell securities valued at more than \$50 billion that it could tap if market conditions require it to raise cash.) Goldman's 2006 profit of \$9.54 billion was tops on the Street. Mr. Hintz estimates the increased leverage accounted for 20% of the additional pretax profits.



David Viniar

One way Goldman ratcheted it up is through a joint venture with **Bank of New York Co.** involving repurchase, or "repo," agreements. Goldman uses stock from the accounts of its own traders and its hedge-fund clients, selling the stock temporarily and agreeing to buy it back later. In effect, the cash it receives is a temporary loan. Under the program, Goldman has effectively jacked up debt secured by stocks held for customers and its traders from 90% of the value of those shares to as high as 95% to 98%, people familiar with the program say. More than \$50 billion of stocks is involved.

Rating agencies keep an eye on debt levels on Wall Street, and the credit ratings they assign can affect investment banks' cost of borrowing. Several years ago, Goldman said it planned to lend more money to hedge funds, a move that would increase its leverage. It previewed its plan to credit analyst Peter Nerby of Moody's Investors Service.

In a meeting with Mr. Nerby in February 2004, Goldman Chief Financial Officer David Viniar and Treasurer Elizabeth Beshel argued that the expected leverage increase didn't warrant a credit-rating downgrade. The prime-brokerage lending business, they told him, "provides a stable recurring revenue stream with limited risk," according to Mr. Nerby.

Mr. Nerby says he left Goldman's rating unchanged.

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Corrections & Amplifications:

Eaton Vance Corp. is a mutual-fund company that has launched funds relying on derivatives. This article misspelled the company's name as Easton Vance.

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