COVER STORY

MORTGAGE-BACKED MAYHEM

Naive investors, aggressive dealers, baffling instruments — the market was a disaster waiting to happen. Will it be next time around?

By Michael Carroll and Alyssa A. Lappen

Lewis Ranieri is a founding father of the mortgage-backed-securities market. A 28-year veteran of Wall Street, the former Salomon Brothers vice chairman runs a money management firm that invests $3.9 billion, chiefly in mortgage products, from a skyscraper in New York City. Edward Ray has helped to manage the investments of the Shoshone tribe since October 1992, not long after he got out of college. The 25-year-old Native American's perspective on Wall Street comes from the wide-open skies of the Wind River Reservation in Wyoming.

Michael Murphy

These two very different investors have this in common: In the past two years, both bought mortgage-backed-securities derivatives — and got burned.

Ranieri was the bear. Aiming to profit from an expected run-up in interest rates, a couple of the closed-end funds of his Hyperion Capital Management loaded up in late 1992 on interest-only strips, which move inversely to other bonds, only to watch the market rally relentlessly through last fall. Prices on the Hyperion 1997 and 1999 Term Trusts' shares fell by tens of millions of dollars (although the funds recovered some of their losses in the bear market this past spring).

Ray went looking for yield in the wrong place at the wrong time. The Shoshones, who sorely needed income to cover an operating deficit, purchased bullish inverse floaters and principal-only strips — near the market's mid-October peak. This spring's rate hikes wiped out half the value of his tribe's $5 million in mortgage investments, Ray estimates. "It's been a real learning experience," he sighs.

Indeed. The mortgage-backed-securities market has been conducting a stunningly expensive tutorial for seasoned and neophyte investors alike. Cumulative losses run into the tens of billions. In a bond market that has been devastated by Federal Reserve Board chairman Alan Greenspan's spring flurry of rate hikes, the $1.5 trillion mortgage-backed-securities market — second in size only to the U.S. Treasury market — stands out as a disaster area.

Although straightforward enough in concept — simply bundle together a bunch of home mortgages and sell the package as a security — mortgage-backed securities include some of the

Pimco's Powers: "The most common complaint I hear nowadays (from investors) is, 'I didn't buy *this* bond' "

David Strick

most complex financial instruments ever invented. These are bonds whose very characteristics — not just their value — can change under different interest rate scenarios. "The most common complaint I hear nowadays [from investors] is, 'I didn't buy *this* bond!' " says William Powers, a managing director and mortgage specialist in the portfolio management group at Pacific Investment Management Co.

In the ultravolatile markets of early 1994, even sophisticated investors did not always seem to grasp what they were dealing with — and paid dearly for it. Take David Askin, the ex-Drexel Burnham Lambert fixed-income research chief and manager of Granite Partners. He had touted the virtues of his all-but-foolproof "market-neutral" strategy for investing in the more far-out tranches of collateralized mortgage obligations. "We're in weird stuff," he told *Institutional Investor* in mid-February, "but we're very confident with the structure and prepayment risk even in a 69-tranche deal, because we do this all day long." By April Askin's market-neutral device had gone off like a pound of plastique, blowing away most, if not all, of his clients' $600 million investment (see box, page 84).

The spring casualty count has steadily mounted. One fund managed by Piper Jaffray's Worth Bruntjen was down about 23 percent in mid-May, when the firm announced that it was investing $10 million and closing the fund to investors to demonstrate its own confidence. In Hongkong the $1 billion First Investments Ltd. Leveraged United States Government Bond Fund suspended trading in mid-April. In June, after PaineWebber's own billion-dollar Short-Term U.S. Government Income Fund took a hit from an unannounced investment in mortgage derivatives, the firm pumped in $33 million in new capital and agreed to buy back the offending securities. All these funds were investors in exotic CMOs.

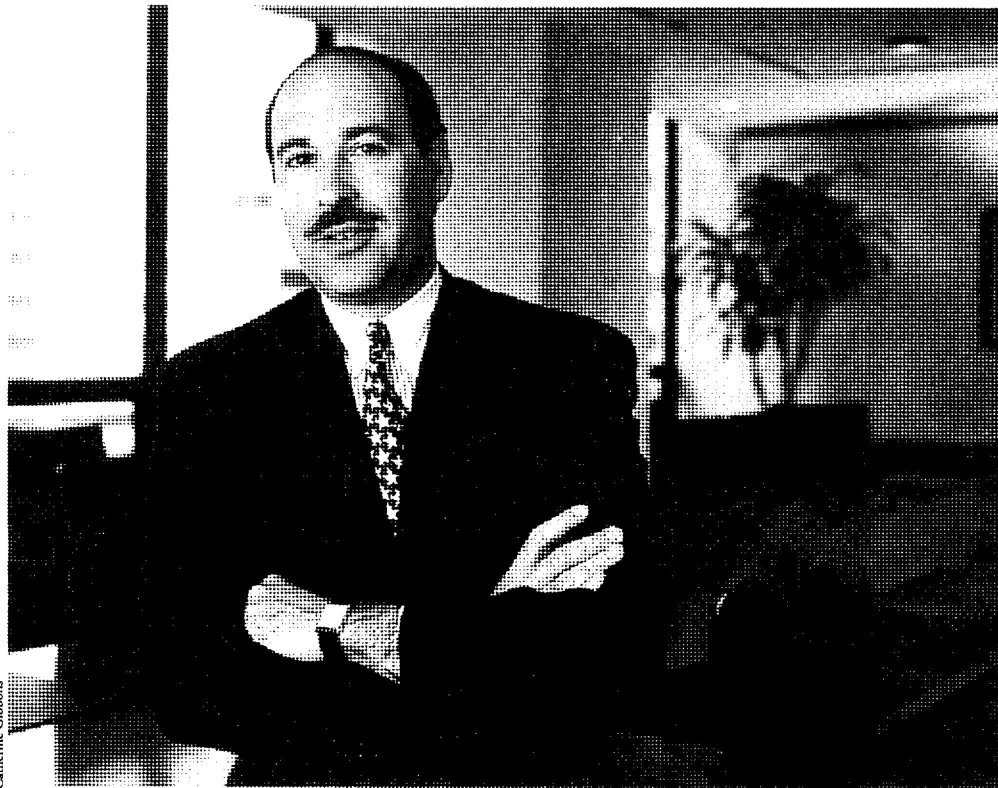
In mid-June many Wall Street firms active as dealers in the mortgage-backed market were facing the prospect of a severe second-quarter bloodletting. Some seemed to be as spooked by the market's gyrations as investors were. "The Street is hiding under their desks," said one longtime mortgage pro in mid-May. "Wall Street has never walked away from customers like it has in this market." Liquidity in derivatives securities had all but dried up as of June. Issuance of new mortgage-backeds had slowed dramatically, with fresh CMOs virtually nonexistent.

In the inevitable blame game, investors are fingering Wall Street for its cupidity; dealers are countering that investors greedy for high-yielding instruments were at fault. "On the whole, the more complicated bonds are sold and not bought," asserts a mortgage securities manager who once structured mortgage-backed deals but now calls his former business "evil." "The successful collateralized-mortgage-obligation originator is pitted against the customer."

The upshot of Cyclone Alan this past spring is a mortgage securities market that resembles a house whose frame has been flattened but whose foundation remains intact. The overall mortgage-backed market fulfills too important a function, for investors as well as mortgage borrowers, for it to

Merrill's Kronthal: "The entire CMO market has to redefine itself"

BlackRock's Kapito: "The technology is very expensive, and one third of our professionals are in analytics"


Catherine Gibbons

remain in shambles for long, however. Sanford C. Bernstein & Co. analyst Jonathan Gray calculates that the existence of a secondary market in mortgages saves homeowners about $17 billion a year in interest costs. And mortgage instruments, such as the mundane pass-throughs that account for nearly half of the mortgage securities market, and even many types of CMOs, remain fundamentally sound investments. Indeed, by late June some savvy investors had begun bottom-fishing in the mortgage-backed market's troubled derivatives sector.

Still, as the wreckage is cleared away, it's likely that the market that arises in the old one's place may look quite different:

• **The investor base.** This will change, and the remaining investors will be more skeptical. Amateurs have been routed, along with some purported professionals, and big insurance companies, banks and mutual funds that stuck mostly to straight pass-through instruments have grown even more conservative. "A lot of investors — whether they didn't do enough homework or they were misled on what they bought — don't want to have anything to do with any structured mortgage product," says one Wall Street analyst. "We're getting a real revival of interest in pass-throughs. It's back to basics."

Catherine Gibbons

• **Regulation.** New rules governing mutual funds' use — and disclosure — of mortgage-based derivatives will very likely be added to the regulation introduced for banks and insurance companies.

• **New issues.** Investor resistance will continue to crimp CMO creation. Throughout last year and into this year's first quarter, $1 billion in new agency-backed CMOs was announced on an average day. In the second quarter that was a good week. By mid-June just $12 billion in new CMOs had been created in the second quarter, down from $79 billion in the first quarter, according to "Inside Mortgage Securities," an industry newsletter. "The entire CMO market has to redefine itself," says Jeffrey Kronthal, managing director and president of Merrill Lynch Mortgage Capital. "Derivatives will not play as important a role in the new-issue market."

• **Derivatives.** The dominant instruments probably won't be as arcane. "As prepayments even out," notes William Bartlett, senior vice president of mortgage research at Smith Barney Inc., "it will be less tempting to create some crazy derivative for someone who wants to get paid a lot for the prepayment risk, which just isn't there anymore."

• **Pricing.** The fancy computer analytics that were designed to predict how CMOs would perform under various prepayment scenarios exhibited systemwide failure and must be revised to reflect new prepayment patterns. Even then their putative predictive powers will be regarded by investors with a new wariness. (The Securities and Exchange Commission is investigating why investors had so much trouble valuing their securities last year.)

• **Profitability.** Wall Street's mortgage-backed dealers, which made a handsome living slicing and dicing mortgages

into ever-more-complicated CMOs, could find themselves in for a rough time near-term. With profit potential thinning, firms are already turning to potentially more fertile business lines, such as the fledgling commercial-mortgage-backed-securities market. "It portends a shakeout," says analyst Michael Flanagan of Lipper Analytical Securities Corp. "The fundamentals of the market are deteriorating, if not falling out of bed. That's bad news for the mortgage-backed market going forward and could be especially bad news for firms with a high concentration in the mortgage-backed area."

For some, investors' distress offers a chance to display their own mortgage-backed acumen. Thomas Kendall is a former Salomon mortgage trader who once ran the mortgage-backed-securities department at Greenwich Capital Markets. Today, as a managing partner of Wasserstein Perella Capital Management, he runs a small mortgage-backed portfolio and advises institutions about their investments as a gambit to attract assets. He's examined a lot of woebegone mortgage-backed portfolios lately. "We've looked at the portfolios of mutual funds, insurance companies, pension funds and even a bank that want to know what they have, how to value it and what to do now," he says. "We've been playing mortgage doctor and doing forensic finance."

One firm that seems to need no help is BlackRock Financial Management, an offshoot of investment bank Blackstone Group. As the mortgage markets got choppy, BlackRock relied on a high-tech rudder to steer its institutional portfolios away from the shoals. A sizable chunk of the firm's 30th-floor Park Avenue office looks like a computer showroom. Boasts Robert Kapito, vice chairman and head fixed-income trader: "The technology is very expensive, and one third of our professionals are in analytics. No other money managers have anything like this." In the turbulent first five months of this year, BlackRock,

Did dealers gang up on David Askin?

He was billed as a mortgage-backed-securities genius, but that was a couple of quarters ago. David Askin's Askin Capital Management lost a massive chunk of the $600 million in equity invested in Granite Corp., Granite Partners, Quartz Hedge Fund and segregated accounts earlier this year.

Now Askin wants his hapless investors — including Capital Holding Corp., Rockefeller Foundation, Collins Associates and Marion Merrell Dow — to believe that Wall Street played dirty with him. In a recent affidavit he complained bitterly about the purported unwillingness of mortgage-backed dealers to make fair bids on his paper in March and April.

Yet even in mid-February Askin hinted to *Institutional Investor* that things were not going well. "This has been a desperate three months," he said on February 16. "Not all this stuff is for kids in the studio audience to try and do at home." Askin's pitch — an offer of handsome returns regardless of whether other markets were moving up or down — apparently looked enticing even then. He boasted in mid-February that his "hit ratio" with new prospects exceeded 50 percent and that 50 of his 125 clients were based outside the U.S. His strategy, he declared, ought to be particularly attractive to insurance companies "desperate" for his market-neutral assurance.

"They were whacked in real estate, junk bonds, by insurance commissioners, by risk-based managers," he said, "and we're here with no default risk, high triple-A bonds and zero correlation with other assets — even against EAFE, Treasury bills, bonds, et cetera. [The mortgage securities market] is not going to be the junk bond market of the '90s." One major insurance company was reportedly about to sign a large check when Askin's funds went under.

Askin had been in mortgages for 15 years and was known for his work as head of fixed-income research at Drexel Burnham Lambert, where he also developed complex models to predict the prepayment rates that could be expected on home mortgages in various interest rate environments. (These were sold off in the Drexel liquidation in 1990 and were the foundation for software that is now peddled widely to money managers.)

Yet Askin did not actually run Granite Partners and Granite Corp. until September 1991, when New Amsterdam Partners hired him to manage the portfolios whose management it was in the process of selling to the family of Jack Whitehead. At that point he began to market the existing Granite Corp. and Granite Partners — and later a new fund, the Quartz Hedge Fund — to pension funds and other institutions as well as foreigners and other wealthy individuals. In 16 months Askin took assets under management at his firm from $110 million to $600 million. And for most of that time, he earned stiff, performance-based fees.

Edid Villarosa/IDD

Askin: "We are mortgage specialists"

The mortgage derivative manager's confidence was falsely buoyed by the size of the overall mortgage securities market. "The market is huge, deep and broad," he noted in mid-February. "In the macro picture [our funds] could be ten times as big and have ten to 20 other competitors the same size without being too big." He added: "We have the talent to handle significant growth, as long as we stick to our

which manages $24 billion in fixed income — 40 percent of it in mortgage-backeds — was off a trifling 1.6 percent in its typical mortgage portfolio, compared with a 2.7 percent drop in the Lehman Brothers Mortgage Index.

For far too many investors, mortgage-backed securities evolved so fast that it was impossible to keep up. Now comprising more than 100 varieties of securities backed by half of America's $3.4 trillion in residential mortgages, the mortgage-backed market's mind-bending complexity can sometimes be masked by the familiarity of its raw material: the home mortgage.

In reality a mortgage makes for a deceptively tricky investment instrument. Embedded in every mortgage is an odd call option: the homeowner's right to prepay the loan at any time. Mortgage-backed investors assume that risk in exchange for the homeowner's payment of a sizable spread over Treasury bonds. Sophisticated investors, like BlackRock, look for ways to properly value this call by applying recondite computer analytics. Unsophisticated investors either get lucky — or get taken.

Homeowners, exercising their call, routinely pay off mortgages faster than their amortization schedules dictate: Thirty-year fixed-rate mortgages have traditionally paid off in about 12 years. Homeowners prepay for any number of reasons — they may sell the house, opt to reduce their debt, or die — but the most significant reason has been to take advantage of favorable interest rates.

The industry standard holds that mortgages, uninfluenced by changes in rates, will prepay at about 6 percent a year after 30 months (at which point they're considered "seasoned"). This baseline is known as 100 PSA (after the Public Securities Association, which derived the standard). When interest rates plumbed 20-year lows in October 1993, some mortgage securities were prepaying at unprecedented speeds of more than 70 percent annually, or about 1,200 PSA.

What can catch out even experienced investors is the so-called negative convexity of mortgage-backed securities. Like other bonds, basic mortgage-backeds lose value when interest rates rise. However, they can *also* lose value — indeed, be called away entirely — when interest rates decline and homeowners refinance. Thus investors receive more principal for reinvestment at precisely the wrong time — when rates are dropping — and less at the right time, when rates are rising. In the latter instance homeowners slow prepayments, stretching out the life of the bond. It's the effort to reduce, redirect and otherwise control the consequences of this negative convexity that is the essence of the rocket science behind the making of CMOs.

How a simple home loan could ever end up becoming the basis of something as daunting as a "sticky jump Z" — a particular tranche of a complex CMO — is difficult to fathom without some sense of how the mortgage-backed market has grown and been transformed by technology over the years. By market standards it's a short story. The very first mortgage pass-through pool was put together in 1970, the first mortgage-backed bond issued in the mid-'70s and the first CMO structured little more than a decade — and some $800 billion — ago.

The market's starter engines are the Federal National Mortgage Association and the Federal Home Loan Mortgage Corp., both congressionally chartered corporations (see box, page 90), and the Government National Mortgage Association, a government agency. Together they aggressively promote the secondary market that broadens the investor pool, allowing mortgage lenders to sell their loans

knitting. We are mortgage specialists."

When Askin's funds sank he had a stew of highly concentrated risk, in the form of such esoteric and supposedly "bullish" instruments as super POs (principal-only strips carved off of support bond tranches), inverse floaters, Z bonds and super PO inverse floaters, along with an equally unappetizing soup of supposedly bearish instruments like interest-only strips, IOettes, inverse floating-rate IOs and two-tier PAC IOs, in addition to floaters.

By their very nature many of these instruments were leveraged bets. But Askin had effectively leveraged his equity more than two times, bringing the total under management to roughly $2 billion. He bought from Wall Street on the promise of forward delivery from unclosed collateralized-mortgage-obligation deals (as much as two months ahead) and leveraged by going heavily into the repo market. Worse, his partnerships gave him the right to set his own prices on the instruments in his portfolio, a provision he took advantage of this year.

An oversight that killed Askin, many managers now argue, was his complete failure to take into account the huge imbalance between supply and demand that would develop in a bear market. "The major Wall Street dealers are distributors, not holders and accumulators of securities," explains one former Wall Street mortgage man. "If the market is bullish and dealers can't find investors to buy bearish securities, they don't want them either. And if the market is bearish, they don't want bullish pieces. They may be obliged to make a quote, but not for fair economic value." If there was a dealer conspiracy against Askin, it was inherent in the nature of any over-the-counter market.

Another mistake was his apparent failure to properly quantify the volatility in his bonds. "In very highly leveraged CMO pieces," says a mortgage manager, "the option components exceed the fixed-income components, and the key to pricing is the volatility assumption. But some of the brightest and most sophisticated managers use a volatility assumption [for these things] based on the imputed volatility of [U.S.] Treasuries — and that can be way off."

Now, most outsiders wonder how sophisticated investors could have been roped in. "What David Askin did, to me, bordered on fraud," says Martin Schafer, who runs $3.2 billion of mortgage pass-throughs for Principal Financial Group in Des Moines (see Portfolio Strategy). "How can you give 15 percent, if rates go up or down, and insulate investors? Forget it. If it sounds too good to be true, it probably is. Yet there are a bunch of suckers out there that want to believe." Says another manager: "I could return 45 percent to my investors just by leveraging Treasury paper, so how come Askin was promising only 15 percent? And why did investors buy?" Fair question. — **A.A.L.**

and provide more mortgages to home buyers.

Once, thrifts were the chief lenders to homeowners, and they kept mortgages until maturity, living off the spread between the home loans and the thrifts' liabilities, such as certificates of deposit. Prepayment penalties could be stiff — nowadays they're virtually extinct — but for much of the '70s, homeowners had little incentive to prepay because most mortgages were at discounts to market rates. Unfortunately, the thrift industry lurched from one liquidity crisis to another, threatening to choke off funds for home buyers. And that, in the minds of elected officials, wouldn't do.

Congress set out to expand the pool of investors in mortgage securities, hoping in the process to lower the cost of mortgages to homeowners. It established Freddie Mac to buy mortgages from thrifts and combine them into securities that could be sold, either back to the thrifts or to other investors. In 1981 Fannie Mae followed suit. The key element: the elimination of credit risk through a guarantee on the timely repayment of principal and interest. (Ginnie Mae buys only Veterans Administration and Federal Housing Administration loans and has the full faith and credit of government behind it.)

"What we are witnessing is proof that mortgage investing is an art, not a science."

By 1982 competition had caused the pass-through era to take off. "The agencies made a secondary market possible," says Invista Capital Management's Martin Schafer, who manages $3.2 billion of mortgage pass-throughs (see Portfolio Strategy). "The S&Ls had screwed up everything. So the government blessed the loans and provided the confidence [the market needed] in the quality of the paper."

Collateralized mortgage obligations — the first CMOs appeared in 1983 — were created to make mortgage assets more stable and predictable for investors. Pioneered by Laurence Fink at First Boston Corp. (he later founded BlackRock) and by Ranieri at Salomon Brothers, these so-called sequential deals divided principal and interest payments into rough time lines, one after another. One tranche might cover the principal and interest payments on the underlying mortgages for the first five years of their term, the next for years six and seven and so on. Prepayment risks were spread sequentially over the entire structure, and interest rates on the tranches varied accordingly.

Eventually, the time lines, or tranches, numbered as many as four to seven for a typical $100 million to $300 million deal. A tranche tacked onto the end of the deal — dubbed the "Z" — would be designed to accrue rather like a zero-coupon bond. The early CMOs attracted interest from insurance companies. Thrifts liked them, too, as a way in effect to exchange whole loans for a better, shorter class of asset.

Even as CMOs were being spawned, the market got its first taste of prepayment shock. From a high of nearly 14 percent in August 1984, mortgage rates fell almost 5 percent, to a 1980s low of 9.03 percent in March 1987. Homeowners refinanced in droves. By April of that year, when the market reversed — as suddenly and as swiftly as it did this past February — many investors had been hammered. Some dealers also were hurt by the reversal. Merrill Lynch reportedly lost more than $300 million from a long position in principal-only strips.

In creating CMOs Wall Street simultaneously developed computer models to contend with the prepayment hazard. The first practical model was developed by market leader Salomon. Analysts later borrowed from the options market and began to use option-adjusted spread pricing in tandem with prepayment models to value the call option embedded in a mortgage-backed security.

Modeling led to the first real innovation in the CMO market: planned amortization class securities, or PACs. First carved from pass-throughs in 1986, PACs were designed to give investors far more complete prepayment protection than plain-vanilla sequential CMOs, as long as prepayments on home mortgages stayed within certain "PSA bands" set by the bonds' Wall Street sculptors. An investor could be assured that if prepayments on outstanding mortgage balances did not exceed or fall below the annual percentages implied in the PSA bands — a big if, as it turned out — the PAC tranches would deliver a consistent return at a healthy spread over Treasuries.

The new CMO structure was supported by a sort of second-class bond category. Known as support, or companion, bonds, they were created to absorb prepayment and extension risks that would otherwise have a hugely adverse effect on the first-class bonds, the PACs. In the event that interest rates fell, prepayments exceeding the PACs' upper bands would be absorbed by the support pieces first. Similarly, if interest rates rose, extending the average life of the bonds, the support class of bonds would extend first. Although riskier for investors, they also paid higher returns.

The early CMOs lured additional investors into the market. But many more buyers of mortgage securities were required to rescue floundering thrifts and to cope with a mid-'80s housing surge triggered by sharply lower mortgage rates. Besides, Wall Street was clamoring to get into the business, which Fannie and Freddie wanted for themselves. So the agencies paid a visit to Congress. The result was a 1986 reform that removed some tax impediments from CMOs, ushering in a second generation of mortgage securities known as real estate mortgage investment conduits, or Remics.

Ever quick to spot an opportunity, investment banks began creating Remic-style CMOs. The firms cut up the interest and principal cash flows of pass-throughs — "collateral" in market parlance — into increasingly numerous and complicated pieces tailored to the particular tastes of various investor classes. Fannie and Freddie took charge of this customizing process, making it possible for upstarts like Kidder, Peabody & Co. to elbow their way into the top rank of CMO underwriters. At the end of the first quarter of 1994, Kidder and Bear, Stearns & Co. ranked first and second, respectively, among lead underwriters of mortgage-backed securities. Well-known firms, they nonetheless are not among the Wall Street bulge-bracket elite that generally dominates debt markets.

Demand for Remicified CMOs from banks and insurance companies quickly broadened, and mutual funds and a host of public and private investment managers and treasurers

plunged into the market. CMO outstandings surged, from $29 billion in 1985 to $113 billion in 1987 and to $335 billion by the end of 1990.

PACs, having upped investors' comfort level, were an easy sell. Myriad conservative investors, such as banks, insurance companies and even Fannie and Freddie, needed instruments to closely match timed liabilities, such as CDs, guaranteed investment contracts and callable notes. Though the PAC pieces, which are themselves cut into tranches of varying maturities, carried somewhat lower spreads over Treasuries than traditional sequential bonds, they were generous enough to whet investors' appetites.

CMOs' chancier securities, the support tranches — some of which were later dubbed "toxic waste" — didn't have as broad a constituency. A floating-rate version appealed to institutions needing to match assets to floating-rate liabilities. Like any floater, the mortgage-backed forms are structured to trade at or close to par, and they typically float at a premium to some index — LIBOR, Constant Maturity Treasury or the 11th District Cost of Funds index. If interest rates rise above the caps that are generally built into these instruments, they pay only at the cap rate, thus losing value.

"There are too many players, too many dealers, for the amount of business there is right now."

So-called inverse floaters, by contrast, come out of the same cash flows but were built to float inversely to the movement of interest rates. Inherently a bull market instrument, these securities threw off more and more interest the further rates dropped until the underlying mortgages prepaid — at, say, 10 percent minus LIBOR or Cofi. For true bond market bulls, they could be, and often were, leveraged up to three or four times, to pay, say, 30 percent minus LIBOR times three. One inverse floater leveraged four times allowed Wall Street to peddle four floaters.

Investment bankers, who had begun stripping mortgage-backed collateral into interest-only and principal-only pieces in 1986, found that they could carve IOs and POs off of PAC and support bonds as well. As interest rates fall and homeowners repay principal faster than expected, the POs, which are sold at a discount, rise in value. IOs, by contrast, pay only the mortgage interest and lose value — or evaporate altogether — as rates fall. For most investors IOs and POs represent pure bets on the tempo of prepayments or, alternatively, approximate bets on interest rate movements (since prepayments don't correlate strictly with interest rates). As both Lew Ranieri and Ed Ray can attest, the instruments have their quirks.

Some insurance companies and banks took to support tranches, perhaps to make interest rate bets they were prohibited from making in other derivatives markets. "You could buy the same kind of things as floaters and inverse floaters in the swaps market," notes Max Senter, a portfolio manager at Putnam Investments. "But the reason a lot of people prefer CMOs is that they are an agency credit, which means the principal is guaranteed."

From 1988 to 1991 a treacherous tranquility prevailed in the mortgage-backed market. Mortgage rates held fairly steady within a range of 150 basis points, from about 9.5 to 11 percent, though spreads over Treasuries widened tremendously in the depths of the thrift crisis. During this time Wall Street came out with whole new support classes, many of them downright speculative. Not evident in the calm climate — and not always mentioned prominently by dealers — was the inherent volatility buried deep within the new vehicles. But the structures seemed to hold up well, and variations on them proliferated.

One innovation from this era was the PACII, a disguised class of support bond that was especially popular in 1992 and the first half of 1993. PACIIs were often designed to do well in low-volatility environments, and banks, credit unions and thrifts snapped them up, eager to lock in their juicy yields (PACIIs typically paid a spread of 130 basis points or more over regular PACs last year). What many buyers failed to appreciate was that once prepayments rose above or fell below projected rates, the bonds would shorten drastically or extend out like the support bonds they really were.

Wall Street now had a compelling incentive to sell a broad swath of investors on support bonds. The dealers' ability to issue complex, and lucrative, multiclass CMOs was limited only by their ability to peddle the support bonds. As the mortgage-backed market became increasingly crowded and commoditized, it was only by carving up CMOs into ever-more-complicated pieces that dealers could prop up their diminished profit margins.

These high-risk, high-reward derivatives have been fundamental to market growth — and to dealer profitability. In the early days of CMOs, the firms' take could run as high as one or two percentage points: $10 million or $20 million for every $1 billion of face value of the bonds. By last year margins had shrunk dramatically, to 2/32 to 4/32, or just $625,000 to $1.2 million per $1 billion in face value.

Confronted with such paltry margins, the Street embarked on a creative frenzy. New instruments were spun off: interest-only strips, PAC principal-only strips, support-tranche floaters, inverse floaters. By last year such bizarre monikers as soft-bullet maturity, turbo and WAC floater were part of the mortgage-backed vocabulary. Some creations, like the sticky jump, fathered as many as 20 offspring. The greater the ingenuity, the greater the chance of profit for the dealer.

"All of the profits are in the toxic waste," notes the head of capital markets at one Street firm. The aim for the dealers' high-tech "structurers" was to create instruments whose characteristics appealed to specialty purchasers of exotics, like Askin, or tempted buyers, sophisticated or not, "to take a view." The whole process, he adds, is part of Wall Street's attempt "to create spreads where they don't exist in very liquid markets." However, in creating ultracustomized securities, a certain measure of liquidity is sacrificed.

To value a derivative, traders and sophisticated investors recreate, or reverse engineer, the original deal to determine the cash flows that would go to the security under different circumstances. The process can take hours, even days. Thus, even in the best of times, these exotic securities don't trade the way

pass-throughs do; the latter can routinely have bid-asked spreads of only 1/32 to 2/32 (PACs, depending on the maturity of the tranche, 1/4 or more). But the wilder derivatives often trade at wide spreads of 5 percent and more. Even then the only dealer willing to bid on them is likely to be the one that created them. (This spring, bid-offer spreads on some exotics were routinely 10 percent, when they were bid at all.)

Yet many investors willingly, and perhaps gullibly, paid up. Others shied away. "The problem with new offerings is that they are not very cheap," notes Sten Bergman, a Yale University Ph.D. and quantitative analyst who once co-headed Salomon's structured-finance desk. For that reason, he and his partners at Wasserstein Perella Asset Management rarely buy bonds in the new-issue market.

Though support tranches offer the highest yields, they tend to concentrate risk. According to many observers, the harder-to-sell support tranches at first made up only 25 to 30 percent of a typical Remic deal. The fewer the supports in a deal, the greater their risk and the less the protection they provide for the PACs. By 1993, with accelerating prepayment speeds routinely "busting" PACs, dealers began upping the percentage of supports in each deal.

Wall Street did a bravura job of merchandising these high-octane derivatives. Increasingly, the major firms relied on a network of regional dealers to spread the mortgage-backed gospel to smaller investors. "One of the most important aspects of the mortgage-backed market is [that] the regional dealers [are] moving a lot of this funky stuff, because a lot of the sophisticated buyers won't buy them anymore," says one mortgage-backed salesman who has covered major accounts for a couple of primary dealers during the past decade. "We don't know who the regional dealers are selling to," he says. "If [the investors] blow up, it's not our problem. We don't get the liability."

The traditional mortgage-backed market was also quite receptive to high-yielding derivatives. From 1991 through 1993, as interest rates slid, institutional investors avidly pursued returns; mortgage-backeds, with their government agency blessing, passed the credit smell test. Banks liked CMOs as a way station for their funds in a slack credit market. Indeed, "Inside Mortgage Securities" reported that among the nation's 100 largest commercial bank CMO buyers, holdings of all types of CMOs rose nearly 30 percent, from $33 billion to $42.6 billion, between year-end 1992 and year-end 1993. Overall, banks increased their CMO holdings from $84 billion to $96 billion — 14 percent — from 1992 to 1993.

Tax-exempt pension funds found they could sidestep restrictions on their use of leverage by buying certain CMO classes. Mutual funds, restricted to 33 percent leverage, also piled in. Naturally, hedge funds found them simpatico. Corporate and even college treasurers were smitten. In 1993 alone some $400 billion of agency- and nonagency-backed CMOs were issued; at least $100 billion of that represented support tranches.

Only the rare manager risked underperforming the indexes by shunning mortgages and CMOs altogether. "I saw in mid-1992 that with my expectation of declining rates, I'd have a difficult time trying to determine yields on mortgages," says Henry Kaufman, the former Salomon chief economist who now runs a $750 million portfolio. "[They] are highly influenced by prepayments, there was the prospect that prepayments might be larger than expected, and I wasn't really smart enough to figure out what they were going to be."

Often investors had scant idea what they were placing in their portfolios. Wasserstein Perella Capital's Kendall cites one inverse-floater buyer, a mutual fund manager, who thought the derivative's effective duration would remain static at 3.75 years — that is, that its price would change no more than 3.75 percent for every 1 percent rise or fall in rates.

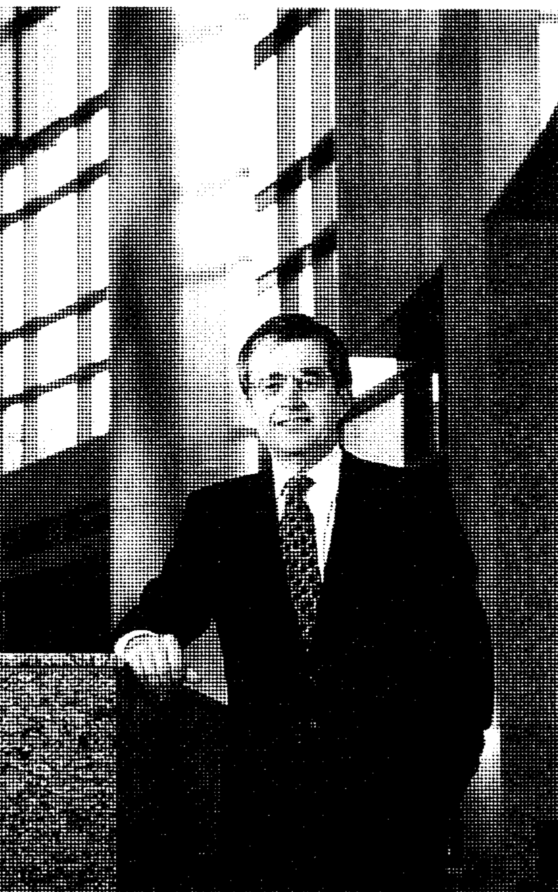
Not our fault, say Fannie and Freddie

Evidence abounds, in housing tracts all over America, that the Federal National Mortgage Association and the Federal Home Loan Mortgage Corp. have accomplished their prime task: to make mortgages both more available and more affordable to homeowners. But being American-dream machines has also helped to make the agencies themselves phenomenally profitable.

Here's how. For its guarantee of interest and principal payments on the mortgages it securitizes, Freddie Mac shaves an average 25 basis points of interest from every loan funneled into a Freddie Mac participation certificate, or Gold PC, netting about 13 basis points, according to Sanford C. Bernstein & Co. analyst Jonathan Gray. This year, he estimates, that will probably add up to more than half of the $909 million in profits he projects Freddie will net. Similar fees from mortgages securitized under the Fannie Mae banner accounted for roughly one quarter of that company's $1.9 billion in net profits last year.

Fannie Mae and Freddie Mac have also earned some handsome pin money off real estate mortgage interest conduits. The agencies "reengineer" every collateralized-mortgage-obligation deal that utilizes Fannie Mae or Freddie Mac collateral, checking to make sure that Wall Street's complicated estimates of cash flows ostensibly work. For this service the agencies gross about 10 to 12 basis points of the face value, netting 7 or 8 basis points, says Gray. He estimates that Fannie netted about $126 million, and Freddie about $92 million, this way last year. This year, however, Gray expects those fees to drop dramatically, as the number of Remic deals falls off with the market. The Government National Mortgage Association is also coming into the Remic market this year.

Agency representatives bristle when asked if the profit motive encouraged them to allow risky mortgage-backed tranches to be sold to unsuitable investors. "When people tell me that they didn't know something was going to blow up," says a defensive Bernard Buscemi, vice president of securities marketing at Freddie Mac, "I just tell them to turn to page five." He is referring to the analysis of a specific 20-tranche Remic deal issued last January, but he could just as easily be talking about any agency-guaranteed deal. In each prospectus a table lists every tranche and examples of how it can change under a rather wide range of interest rate and prepayment scenarios. Just one slice of the January deal could



Barbara Reis

Freddie Mac's Brendsel: "We don't benefit from complex structures"

Although the agencies profit from growth in the market, and risky CMO derivatives are what's been driving that growth, the illiquid CMO tranches that have hurt investors have not harmed Fannie and Freddie. "We don't benefit from complex structures per se," insists Freddie Mac chairman and CEO Leland Brendsel. "Our success comes from letting people get the best mortgage rates."

Neither agency is inclined to share responsibility for the scorching that some investors took. "We have spent a lot of time with the bank regulators and the Securities and Exchange Commission to explain what Remic tranches are," says Jayne Shontell, senior vice president of financial and information services at Fannie Mae. "We clearly do not believe that [these] securities are terrific for everyone."

Critics, however, view the agencies' role differently. "This is akin to the cigarette or gun manufacturers saying, 'We just make the stuff, we don't tell them to buy it,' " says one sell-side mortgage market analyst. — **A.A.L.**

run from an average life of 30 years, under a zero-prepayment scenario, down to a mere six months, when prepayments reach 36 percent a year.

In reality, says Kendall, a 1 percent rate rise would have elongated the inverse floater's effective duration to 57 years, and a corresponding downshift would have raised the duration — or volatility — even more.

The scene was being set for a severe market shakeout. Inverse floaters and other mortgage-backed derivatives are preciously short on liquidity. Few investors have the sophisticated analytics to track them, and those that do often steer clear of the risks. Moreover, the potential pool of investors for exotic CMOs was shrinking as regulators began imposing risk guidelines that effectively restricted certain mortgage-backed investing by banks, thrifts and insurance companies.

On the eve of the Fed's interest rate surprise this past February, investors held an estimated $90 billion worth of extremely illiquid CMO tranches, including inverse floaters, fixed-rate support bonds and super POs — principal-only strips carved off of support bonds — according to a source at Fannie Mae. As Kevin Cronin, a former insurance company mortgage-backed manager who's now a vice president and portfolio manager at Mass Financial Services, dryly observes, "The liquidity in this market has not developed as the participants had hoped." Cronin has avoided most CMOs for that reason.

But other investors, caught up in the heady bond rally in 1993, put aside concerns about liquidity and bought, bought, bought. Some swooped up the new "kitchen sink bonds," so called because they consisted of everything but. Comprising a range of exotic tranches from previous deals, they served as a convenient way for dealers and big investors to sell off some of their dud CMO holdings.

The growing presence in the mortgage-backed market of investors unschooled in CMOs no doubt helps explain why spreads on many classes of mortgage securities narrowed last year. Spreads in pass-throughs tightened thanks to the demand for CMOs. Smaller, less experienced investors didn't begin to know how to value the securities properly. Many small banks and thrifts routinely valued their investments only quarterly (and from quarter to quarter some of those valuations weren't even changing, according to sources who've spoken with bank regulators). But then, even seasoned investors were having difficulty valuing the more complicated CMOs.

The interest rate rally that ran from 1991 well into 1993 nevertheless produced conspicuous winners as well as losers. Investors who rolled down in coupon as the rally wore on came out ahead. Many investors made killings on inverse floaters. Trust Co. of the West reportedly stocked up on the inverse floaters after 1991 and turned in some of the best performances. TCW declined to comment. (However, the firm had several closed-end funds that were hit particularly hard this year.) At Fidelity Investments, portfolio manager Robert Ives made good bets on several premium Z bonds last year. "These are the last bonds in a deal to pay out, so they were expected to prepay much slower than everything else," he says. "Yet people were pricing these at [prepayment] speeds we thought were too fast."

The rally, however, delivered a nasty surprise to many mortgage-backed investors. Homeowners refinanced at unheard-of rates. Wall Street's prepayment models, based on the 1985–'87 experience (when interest rates actually fell more steeply), failed to predict the onslaught of prepayments.

Mortgage brokers, much more active than in the earlier refinancing episode, were able to originate no-point loans at 50 basis points above prevailing rates and sell them into the secondary market for more than the two-point origination fees they would have collected otherwise. Thus mortgage brokers could and did offer cash incentives to homeowners to refinance and routinely promoted no-point, no-fee refinancings after every 50- or even 25-basis-point drop in interest rates. Some homeowners refinanced three or four times. Of the $1 trillion in home-loan

originations last year, about 55 percent was for refinancing.

The refinancing binge underscored that mortgage-backeds are "warm-blooded" securities, all too subject to human vagaries. Virtually all of the PACs created before 1992 had either paid off early or were broken by the end of last year, according to Arthur Frank, vice president of mortgage research at HSBC Securities. The pre-1992 pass-throughs that remained outstanding in any quantity had by then seen months of prepayments at rates of more than 30 percent per year, he adds.

Investors who placed too-early bets that rates would stop falling and bought interest-only strips got creamed as the principal on which the interest payments were based did a vanishing act. Many IOs lost much of their value irrecoverably. Japan's Kokusai Investment Trust Management, a mutual fund company that reportedly had $2 billion in play in the mortgage market, pulled its money out of the market after underperforming its goals. Yamaichi Securities Co. agreed in September 1993 to pay more than $90 million in compensation to investors to cover losses in mortgage trading in its "mortgage jumbo" fund, according to press reports.

"Often investors had scant idea what they were placing in their portfolios."

Along the way several Street firms got hit with heavy losses. J.P. Morgan & Co. acknowledged losing in excess of $50 million in mortgage-backed securities in 1992, though some sources put the total much higher. Morgan declines comment, but sources said the losses stemmed from IO positions. There were reports that Morgan Stanley & Co., which acknowledged difficulties in the mortgage sector in the third quarter of last year, may have dropped tens of millions in trading in an otherwise immensely profitable quarter. A Morgan spokeswoman declined to comment on specific numbers.

Ironically, but also typically with mortgage-backeds, the cautionary tale of losses during the '91–'93 rally provided precisely the wrong lesson for too many investors to apply to the market's next phase. Fixated on call protection, they in many cases failed to reckon with the possibility that the real danger had shifted by the beginning of 1994 to extension risk.

"What I've learned about the mortgage sector is that people get hurt by shifting from one gimmick to another," says one savvy money manager. "They get hooked on one outlook or another, go heavy into IOs, lose their shirt, then switch to POs just in time to lose their shirt there, too."

Pimco's Powers points to the last run-up of the Treasury long-bond rally in October as evidence of how anxious investors had become about a further shortening of the average life of mortgage-backeds: The 23-basis-point move from 6.01 percent on October 7 to 5.78 percent on October 15, he suggests, may have come from investors selling mortgage-backeds and buying long bonds in a "desperate search" for duration. Other investors, showing exquisitely bad timing, bought principal-only strips. Some of these were purchased — almost like money market substitutes — at prices close to par on the expectation that astronomical prepayments would continue and the POs would pay off quickly.

Who would buy such investments at the peak of an interest rate rally? Says Powers, "Anyone with an appetite for yield and a lack of appreciation for how volatile the market could be." By this time the long rally had sucked in any number of investors who wouldn't have known extension risk from an extension cord.

Once the Fed started jacking up short-term rates in February, the entire mortgage-backed market quickly developed the painful symptoms of hyperextension. Fannie Mae 8s, which had a weighted average life of 2.4 years on October 15, had extended to 3.1 years by January 15, but by mid-June they were at 8.6 years. Short support bonds aged even faster than the hapless investors who owned them. Some, with expected lives of two years, leaped out to 20-year or longer maturities.

Among the victims were the Shoshones. Last fall they bought a so-called super PO with a face value of about $1.85 million for close to $1.5 million. By May it was worth about 50 cents on the dollar. As an investment in principal, the PO will eventually pay off, and it can recover some value quickly if rates go down. But the tribe needed the current income to help offset a budget deficit. This bond, as well as an earlier IO, another PO and a couple of inverse floaters, was sold to the Shoshone tribe by a small Houston dealer, according to Ed Ray.

By coincidence, the same Fannie Mae 1993 205H bond that the Shoshones bought also found its way into the portfolio of the City Colleges of Chicago, which made headlines earlier this year for the highly speculative nature of its investment portfolio. City Colleges has filed suit against its broker on the purchase — Houston-based regional, Westcap Government Securities — and several of its affiliates, as well as Westcap's parent, National Western Life Insurance Co. of Austin, Texas. City Colleges bought $68.4 million (face value) of the 205H at a price of about $55.6 million between September 9 and September 30. That's nearly half the total amount of the H-class tranche in the $565 million deal, which consisted of a stripped PO issue reassembled into a CMO.

City Colleges sued for recision of the sale of this and several other securities and demanded $50 million in damages. City claims that its former treasurer, Philip Luhmann, was acting without authority and that Westcap knew or should have known this. Westcap, which had not yet formally responded to the suit by mid-June, insists it is innocent. "We're not convinced we did anything wrong," says Tom Pollard, Westcap's executive vice president in charge of marketing and sales. "We feel we have all the proper documentation authorizing Luhmann to buy and sell securities on behalf of City Colleges." A woman answering the phone at Luhmann's home said he had no comment.

Enthusiastic buyers of PACIIs, such as small regional banks, credit unions and thrifts, learned to their chagrin that these derivatives weren't really like the comparatively docile conventional PACs at all. "These are a bet that mortgages will prepay in a very narrow range, from, say, 150 to 200 PSA [or between 3.6 and 4.8 percent at the end of the first year]," explains Chris Lissner, managing director of the capital group at Mark Twain Bank in St. Louis. "They tend to have a lot of extension risk, and the worst environment is like this one, where prepayments are fast

and then slow down. They are way uglier than a PAC." Two or four months out of the box, he says, prepayments last year and in 1992 were almost always far faster or slower than expected, making the bond's average life contract or extend wildly.

Disenchantment with mortgage-backeds set in fast, and soon a full-fledged liquidity crisis hit the market. Some buyers had begun shying away even before the Fed hikes. Some, unfortunately, shifted into emerging-markets debt in late 1993. Banks found other places to put their money as loan demand began to surge with the economic recovery. On December 15 the Financial Accounting Standard Board's Rule No. 115 went into effect, mandating more extensive marking to market and forcing banks to recognize immediately changes in CMO values.

Formerly heavy mortgage-backed buyers, including some funds that had been major players in bull-style securities, were now hoping to dump some of their holdings. One major global speculator, giant Japanese steel company Hanwa, announced in January that it was going to liquidate its entire portfolio of more than $10 billion in securities in the next three to four years. Hanwa reportedly had been a huge CMO buyer at one point. "We don't want to talk about that," a company official in New York says. Mortgage bond funds had no choice but to be sellers as investors yanked their funds out. From mid-January to mid-June, according to AMG Data Services, investors withdrew $8 billion, or 12 percent, from the 174 Ginnie Mae funds it surveyed.

"Wall Street did a bravura job of merchandising the high-octane mortgage derivatives."

But it was Wall Street, ultimately, that applied the air brakes to the mortgage market. Traders were reeling in the fixed-income rout. As volatility increased, financing costs shot up, as did the cost and difficulty of hedging. Not only did the firms stop buying securities, but they too became sellers, looking to lighten their rally-bloated inventories. Firms were also being slammed in other markets — governments, currency, emerging markets — and were eager to cut losses. Protecting themselves, dealers became less active in making markets in mortgage-backed derivatives. Such is the drawback, of course, to any over-the-counter market.

The dealers also closed in on David Askin's funds, forcing their liquidation when he was unable to meet margin calls in late March. Bear Stearns reportedly approached Askin first. Says Bear senior managing director John Sites: "We managed to garner sufficient collateral, though not enough to satisfy our total margin requirements. Nevertheless, this allowed us to sustain minimal losses." Margin calls proliferated among investors.

Kidder, eager to dispel market skepticism about the health of its operations, has said that it reduced inventories from $16 billion at the start of the year to less than $10 billion in June. Long the dominant underwriter in the market, the firm had a nearly 25 percent share in the first quarter. At Bear Stearns, Sites says, "we've been aggressively reducing inventory almost all year" — or since the Fed's rate rises made hedging more difficult.

Some investors did change tack in time to sail through the market squall. A number even hauled in modest profits. Mass Financial's Cronin picked up a sizable position in plain-vanilla trust IO pieces stripped out of Fannie and Freddie deals involving just one additional, principal-only tranche. That was in January, when prices of the trust IOs were $35 or so. By mid-June they were trading at 36½ and had thrown off total returns of 7.5 to 8 percent. Lisa Brown Premo, managing director of mortgage-backed securities at First Union Capital Markets Corp. in Charlotte, North Carolina, is having a fine year. "I bought IOs at the right time, in February and March," she says. "Some we sold, some we still own, but that was the sector to be in."

Wall Street dealers now have got to be wondering how strong a sector agency mortgage-backeds will be going forward. Even before escalating interest rates and the spring shakeout signaled a sharp falloff in CMO issuance, fierce competition had narrowed underwriting margins.

As the yield curve flattened earlier this year, the so-called dealer arbitrage disappeared. In other words, dealers could no longer carve up collateral in such a way that the total value of the pieces was greater than that of the underlying collateral. When the yield curve was steep, and prepayments were fast, dealers generated this arbitrage by creating as much short paper as they could — in essence, pricing as much of the deal as they could off the short end of the curve. Late last year dealers were getting greedy, according to one money manager, pricing as much as 40 percent of some deals off the two-year Treasury. With no arbitrage whatsoever, the Remic market has dried up.

Dealers can make money positioning and trading, too, but there are huge risks in that, as many were reminded in the first quarter. Indeed, most firms' results in mortgage-backed operations in the second quarter are likely to be even worse than those in the first. Trading volumes are off, and there is virtually no CMO issuance to speak of. The demise of Askin's funds left several firms on the hook, including Kidder, which is suing his funds for some $25.5 million. Lehman Brothers is suing for about $6.5 million. Bear Stearns has filed suit against one Askin fund for $1.3 million. Nomura Securities International, another Askin creditor, is seeking to recover about $7.5 million from HYM Financial, a failed New Jersey regional firm that specialized in mortgage-backed securities. "The bulk of the bad news for firms in mortgage-backed securities is in the second quarter," says Alden Toevs, managing vice president of First Manhattan Consulting Group. "Customer volume is way off, new originations are way off, and the hedge effects for dealer inventories are as bad if not worse than in the first quarter."

General Electric Corp. officials concede that the company's Kidder Peabody unit will post an aftertax loss of perhaps $25 million to $30 million in the second quarter, chiefly because of mortgage-backed activity. In early June Gruntal & Co. analyst Katrina Blecher slashed her estimate of Bear Stearns' net income for its fourth quarter, ending in June, to 10 cents per share (about $15 million) from 57 cents (about $80 million). Bear Stearns made nearly $125 million in the year-earlier quarter. Blecher attributed the prospect of down performance to poor trading results. "All of the problems have been in the fixed-income markets, specifically mortgage-backed bonds," she says. April she described as "terrible"

and May as "better but certainly not good."

Still, the Street's quick action to reduce inventory may have spared some firms greater problems. Merrill Lynch, for example, pulled back on its underwriting and reduced inventories early when it foresaw rising rates and a flatter yield curve. "I've got to hand it to them," says a competitor. "They saw a lot of this coming."

Near-term prospects for the residential agency mortgage-backed market look dim. Higher interest rates have taken the steam out of refinancings, reducing the supply of mortgages to be securitized. By some measures, net of refinancing, mortgage-backed issuance actually decreased after 1990. Observers expect mortgage originations to decline, from $1 trillion in 1993 to about $700 billion this year. And much new origination is in adjustable-rate mortgages, for which there has been only a very limited Remic CMO market. Because of investor doubts, CMO issuance is down to a bare trickle. With much of the mortgage-backed market trading at a discount to par (with coupons lower than current mortgage rates), investors buying mortgage pass-throughs receive a measure of the protection against prepayment risk that CMOs are supposed to offer.

"Losses during the '91–'93 rally provided precisely the wrong lesson for investors to apply to the market's next phase."

Some Street analysts are looking for ways to put together Remics backed by discount collateral. Meanwhile, the few CMOs coming to market are simpler in structure. Says Vincent Pica, an executive vice president at Prudential Securities: "It's back to basics. This is a market for straight-down-the-middle deals."

For dealers some belt tightening may be unavoidable. "There are too many players, too many dealers, for the amount of business there is right now," declares one top mortgage-backed official at a major firm, predicting a consolidation of players. Nomura recently let go about ten fixed-income salespeople, including several mortgage-backed specialists, from a staff of about 70. The firm described the move as part of a restructuring done to make its sales force "more efficient and productive."

Of course, since compensation is tied to production, there may not be a wave of layoffs, just a lot of poorly paid salespeople on the street. Times could be tough for the regional dealers that have flourished as vendors of Wall Street's more exotic derivatives products. Houston's Westcap suffered a trading loss of about $4.4 million in the first quarter and received an infusion from its parent company, which purchased $4.4 million in Westcap preferred and agreed to extend a $3 million credit line, according to a regulatory filing by the parent. "If current market conditions persist," says Westcap's Pollard, "it has the potential to wash some of the smaller, newer firms out of the business. We've seen it happen before."

Market participants are fixated on Kidder to see how it will weather the storm. The firm doughtily increased its underwriting market share during the first quarter. But since the Joseph Jett government bond trading scandal broke, Kidder has ridden a wave of bad news that appeared to crest in late June with the forced departure of chief executive Michael Carpenter and his replacement by two senior GE executives. Kidder lost two of its top mortgage traders to Donaldson, Lufkin & Jenrette amid widespread reports that many Kidder mortgage staffers are job-hunting. "Half of Kidder's department is looking for jobs," says the head of fixed income at a major bulge-bracket firm. "I've talked to half of them myself." Despite its commanding market share, Kidder was not selected to be one of the first five underwriters for Ginnie Mae's new Remic program, launched in May. Market participants eye Kidder closely because, some say, the expectation that the firm will have to continue to shrink its huge inventory — perhaps two to three times that of any competitor — has been a damper on the market.

"The traditional business of turning agency pass-throughs into CMOs, especially with exotics created in the process, will be difficult this year," says Andrew Davidson, ex-head of Merrill Lynch mortgage-backed research and now head of a consulting firm bearing his name. "The real question for dealers is whether or not they're going to be able to find other markets or similar areas to make money."

For many firms the new darlings are commercial mortgage-backed securities, which offer much fatter spreads. Wall Street firms, racing to hook up with commercial mortgage originators, are aglow with the prospect of securitizing even a small portion of the $1 trillion in existing commercial mortgages and multifamily loans. Investment bankers are also looking to boost whole-loan or nonagency mortgage products and develop securitized mortgage markets abroad.

For those on the other side of the deals, the portfolio managers, the new emphasis in mortgage-backeds will have to be on more aggressively managing performance. This is not a market for the passive — or the timid. "There are no right answers in mortgages right now," says Cynthia Mann, fixed-income strategist at First Union Capital Markets. "What we are witnessing is proof that mortgage investing is an art, not a science, and that all the quantitative analysis in the world is only a tool."

Whether the market will learn from this spring's disaster and how it will rebound remain open questions. One major investor is cynical. The market didn't learn much from the '85–'87 prepayment flurry, he argues, because many of the players changed and Wall Street just kept on looking for an edge. "A lot of mistakes keep getting made," he notes, "at the same point in the interest rate cycle."

Others are not so pessimistic. "There's no question the mortgage business is not what it was six months ago," says Bear Stearns' Sites. "But it's my belief we're off the bottom. It's a real business. There are homes to be financed. Mortgage rates are incredibly low compared to the '70s and '80s." He and other mortgage executives at Street firms expect the market to recover slowly. Already some total-return accounts are bottom-fishing for cheap derivatives, they say. A modest pickup in the pace of CMO issuance in late June gave dealers a ray of hope.

"The mortgage market hasn't died and gone to heaven," says Sites. "It may be in purgatory. These types of dislocations are what opportunities are made of." **II**