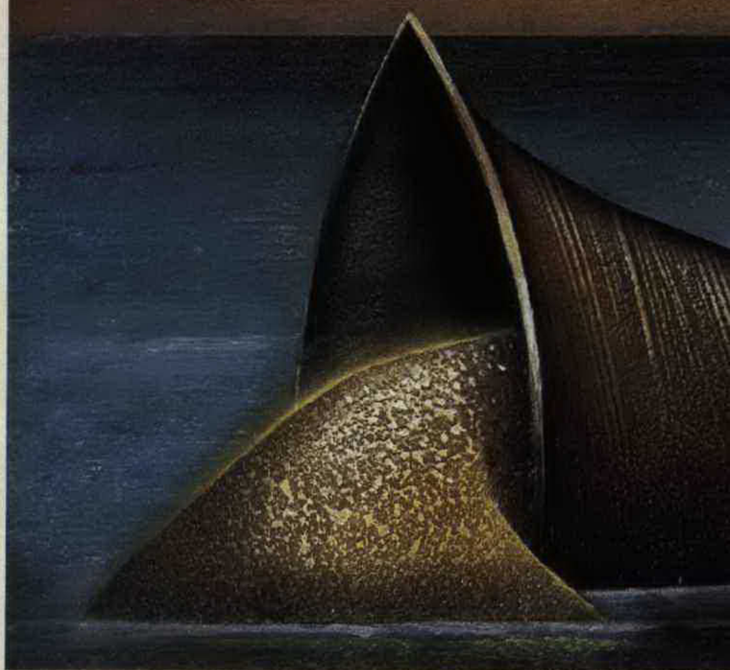
Special Report



MANA

In recent years, the American corporate landscape has been littered with risky financial bets that went awry: Bum real estate loans. Defaulted junk bonds. Rogue brokers at Prudential Securities Inc. and traders at Kidder, Peabody & Co. Troubled mortgage-backed securities portfolios. And most recently, millions of dollars of losses from imprudent investments in derivative exotica by Procter & Gamble, Gibson Greetings, and Piper Jaffray, to name a few.

U. S. companies and financial institutions have typically responded to these crises in helter-skelter fashion, sending in bucket brigades to douse the flames and perhaps install a few safeguards to prevent the same problem from cropping up again.

Now, due largely to the derivatives debacles, many companies, banks, and Wall Street firms are asking themselves whether a knee-jerk approach to managing risk makes sense for the in-

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- Fragmented in different
- Considered a cost item
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ILLUSTRATIONS

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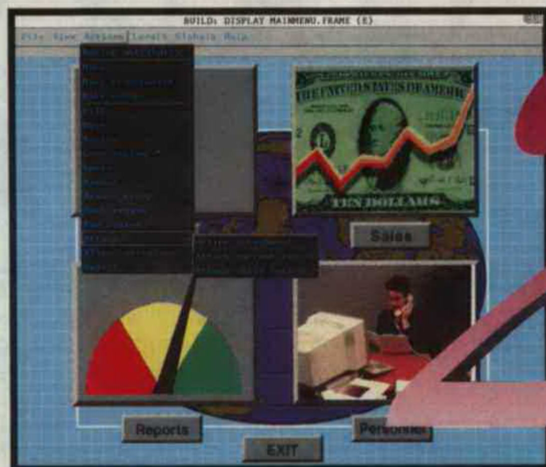

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the pack is its effort to assess the risks in the company's business activities. Working on the premise that the aim of risk management should be to enhance shareholder value, Lewent's staff uses sophisticated mathematical models, such as Monte Carlo simulation, to weigh the risks and rewards of all kinds of business initiatives, from acquisitions and joint ventures to research and development expenditures for new drugs.

Several companies are beginning to embrace a risk-control model proposed in a 1992 report by the Committee of Sponsoring Organizations (COSO), a group of leading accounting and auditing associations. The study concluded, among other things, that risk control wasn't just the job of compliance and internal auditing departments, but also line managers, from the CEO on down. Control is effective, the study found, only when managers become convinced that it is part of doing business, not separate from it. Says William C. Jennings, an internal control consulting partner at Coopers & Lybrand, which authored the COSO study: "The guys making the money can't relegate control to someone else. They've got to take responsibility for it themselves."

Unlike traditional risk-control programs, which typically include risk identification and measurement, written policies and procedures, and monitoring, this approach also calls for the CEO and the board to set the moral tone for the company by establishing a control philosophy and disseminating it to all employees. "The biggest risk you have is someone screwing up the reputation of the company," says Jennings.

Which is perhaps why troubled Prudential Insurance Co. of America has turned to Coopers & Lybrand to help implement the program companywide to avoid the kinds of financial disasters that have afflicted it in recent years (page 96).

To be sure, only a few derivatives dealers and users have ordered top-to-bottom revamping. Conservative financial

THE HIGH ART OF HEDGING AT MERCK

For many CFOs, Monte Carlo analysis is still little more than fodder for academic journals. That was the case at Merck & Co. until about eight years ago, when Judy C. Lewent, as head of financial analysis, became fascinated with the notion that maybe these seemingly arcane mathematical models had some value in real life. "I wanted to find a way to facilitate taking prudent risks, as opposed to just being a gatekeeper," she says.

Since then, both Lewent and decision theory have come into their own. As Merck's chief financial officer, the 43-year-old Lewent is now one of America's highest-ranking female executives and a guru for a growing cadre of high-powered female risk managers. And thanks to quantum leaps in computer software, Lewent now uses Monte Carlo analysis—a technique for formulating a set of possible consequences of certain actions—as routinely as she used the slide-rule when she was a graduate student at Massachusetts Institute of Technology in the early 1970s.

JUDY LEWENT Chief Financial Officer

"I wanted to ... facilitate taking prudent risks, as opposed to just being a gatekeeper"

Besides using these models to help decide what products to develop, a key application is managing Merck's foreign-exchange risks. Merck has operations in more than 140 countries but pays dividends in dollars and incurs about 70% of its research and development expense in the U. S. So Merck must protect foreign-currency earnings against the vagaries of the dollar to fund dividend and research costs.

Although Merck ultimately decided to use options to hedge this exposure, Lewent says she always explores so-called operational hedges first. For example, even though it might be impractical, a company might reduce foreign exchange risks by moving research and development activities overseas—a tough business decision that requires a good deal more analysis than Monte Carlo.

By Phillip L. Zweig in Whitehouse Station, N. J.

practitioners, such as WMX Technologies Inc., based in Oak Brook, Ill., say they haven't changed the way they do things. WMX, says CFO James E. Koenig, runs a conservative hedging program for foreign exchange and fuel purchases. Earlier this year, WMX directors reviewed risk-management operations. No changes were made.

But many companies have implemented some controls and reforms, including rewriting investment policies and control procedures, installing more sophisticated computer programs, and limiting their use of financial instruments to "plain-vanilla" forwards, options, and futures.

Not surprisingly, some corporate treasurers are giving a very cool reception to salesmen from banks such as Bankers Trust, the chief purveyor of highly leveraged derivative instruments that burned the likes of Procter & Gamble Co. and Gibson Greetings Inc. As a result, bankers have become "a little more frank" about disclosing risks, says Ruud P. Roggekamp, manager of capital markets and corporate finance at FMC Corp.

Several companies have renounced the use of their treasury units as profit centers by speculating in the derivatives market, which is what got many companies into trouble. Dell Computer Corp., which lost nearly $32 million in the first half of the year on derivatives after earning more than $13 million on derivatives in the previous three years, says it will no longer use derivatives as an investment vehicle. In its annual report for the fiscal year ended June 30, Procter & Gamble, which lost $102 million after taxes in leveraged swaps transactions, stated that its philosophy is to use financial instruments "to manage risk and cost," but not to speculate. In May, the company announced the formation of what it calls a Risk Management Council, chaired by Vice-President and Comptroller Edwin H. Eaton Jr., to add what Chairman Edwin L. Artzt said was another "level of scrutiny" extending "well beyond normal corporate operating controls." The RMC reports directly to the CEO and board of directors, meets monthly, and consists of senior managers from the various financial and purchasing units.

HOW MERRILL LYNCH KEEPS RISK AT ARM'S LENGTH

DANIEL NAPOLI

Senior Vice-President

"I protect the chairman, the board, and the shareholders"

Could Kidder, Peabody & Co.'s Joseph Jett fiasco have happened at Merrill Lynch & Co.? Merrill executives insist it couldn't.

The reason: An embarrassing $377 million trading loss in 1987 caused Merrill Chairman and Chief Executive Daniel Tully to make structural changes that other companies are only now implementing. Tully chose Daniel T. Napoli, a skilled risk taker who was then head of the government securities desk, to occupy the new position of head of risk management. "In retrospect," says Napoli, "it might have been the best money we ever spent. What we learned from that trauma built up the risk culture for the next seven years."

Napoli reports directly to Tully. "I have no profit-and-loss agenda. I protect the chairman, the board, and the shareholders," says Napoli. "As it relates to risk management, no one outranks me except the chairman." Napoli doesn't just passively monitor risk. He also has the ability to tell Merrill's many trading desks to reduce their outstanding positions if necessary. Napoli is careful to exercise this authority only in partnership with the heads of the trading desks, since he depends on good relations with them to keep tips about potential problems coming in.

Some years ago, a Merrill trader was fired for mismarking positions after Napoli got a tip from a Merrill salesman. "He never thought he was going to get fired, because he was profitable," says Napoli. "No one individual is larger than the firm." That's a lesson other Street firms should not have to learn the hard way.

By Leah Nathans Spiro in New York

Other companies are restructuring their management of foreign exchange risk, which has become especially critical as companies have globalized. Until 1992, Rhonda L. Seegal, treasurer at Perkin-Elmer Corp., a Norwalk, Conn., instruments manufacturer, monitored foreign exchange contracts put on by finance officials in each country where the company does business but was not responsible for negotiating them. Early that year, however, with help from Emcor, an Irvington, N. Y., consulting firm, she initiated a pilot project to centralize foreign exchange hedging, starting with six countries that represented half of the foreign currency exposure. By offsetting positions in different currencies against each other (such as dollars owed by German units and German marks owed by the parent), the company beefed up control while trimming costs.

The controversy over derivatives risks hasn't deterred some other companies, notably chipmaker Intel Corp., based in Santa Clara, Calif., and Enron Corp., the Houston oil and gas con-

cern, from making innovative, and some say daring, use of financial risk-management techniques. They insist that the risks of not using them vastly outweigh the risks of using them.

When Intel Treasurer Arvind Sodhani joined the unit in the early 1980s, he observed that "excess returns" could be achieved by doing complicated transactions. In managing Intel's $5 billion cash trove, Sodhani insists that he doesn't make bets on currencies or use leverage. But he has pioneered a number of innovative techniques. One example: using put options to reap windfalls on its stock-buyback program. That has produced gains of $183 million since Intel began using the idea in 1990 (BW—Aug. 29). "We look at everything," he says. "We don't get scared because of the complexity involved. But we examine it to death."

Special Report

In 1990, Enron arrived at the novel conclusion that erratic natural-gas prices and the industry's byzantine price-regulatory structure was a huge profit opportunity. Gas producers couldn't count on a stable cash flow from buyers, such as utilities, and utilities couldn't project electric rates accurately because they couldn't anticipate future gas prices.

So Enron set up a kind of in-house merchant bank to serve as an intermediary between the two. Besides marketing gas and financing production, Enron Capital & Trade Resources (formerly Enron Gas Services Group), uses commodity swaps and other complex derivatives to smooth cash flows for both sets of customers. Enron Capital, says CEO Jeffrey K. Skilling, is "essentially taking a very volatile unknown cash-flow stream and converting it to a stable cash-flow stream," adding that Enron's risks are minimized by careful credit analysis and "matching" purchases and sales. "We're never more than 1% out of balance," he says. These activities earned the company $169 million pretax in 1993.

Like their corporate counterparts, many big banks and Wall Street firms are reinventing risk management and giving it top-level attention. They are now trying to determine how much capital and earnings their individual businesses and institutions have at risk under different scenarios. "You take risks in whatever you do," says Dennis Weatherstone, chairman and CEO, J. P. Morgan & Co. "But if you understand, measure, and account for them, that should keep you out of trouble."

To accomplish that, a number of institutions have lately centralized their risk-management activities and appointed risk managers to head them.

Take J. P. Morgan. Every day, Morgan's risk-management unit compiles a one-page "4:15 report," which gets handed to Morgan's top six executives by that time of day. The report is a snapshot of Morgan's entire foreign exchange, interest-rate, commodity, and equity positions, among other exposures. Using complex correlations and volatility data, it calculates Morgan's "daily earnings at risk"—the maximum amount Morgan has a 5% likelihood of losing per day.

Earlier this month, in a bid to establish its risk-measurement practices as the global standard, Morgan began offering a risk-management program—dubbed RiskMetrics—available free to anyone with a modem and a PC. Users will be able to obtain daily risk data on different instruments and currencies through electronic services and calculate their exposures over one day or one month.

Swiss Bank Corp. has a system that is, at the same time,

WRITING FMC'S RULE BOOK ON DAMAGE CONTROL

Cheryl A. Francis learned the simple approach to risk management back in the 1980s, when she was chief financial officer at FMC Gold Co., a Nevada mining company. She used the straightforward method of selling through forward contracts to lock in commodity prices. Today, as treasurer of parent FMC Corp., she has made that basic principle—keep it simple—an ironclad rule.

The Chicago-based conglomerate limits itself to plain-vanilla options, forward contracts, as well as futures, avoiding exotic products that have gotten other companies in trouble. "A lot of those benefit the dealers more than the company," says Francis. The practice of writing, or selling, options is out. And counterparty risk is controlled by strict limits on the size of deals with less than AAA credits. Transactions of $10 million or more require a sign-off from Francis; $20 million or more need an O. K. from Chairman Robert N. Burt. "[FMC] had excellent procedures already in place, but now they're much more detailed and specific," notes FMC director Clayton K. Yeutter, a former Agriculture Secretary.

ILENE EHRLICH

CHERYL FRANCIS
Treasurer
"A lot of [exotic derivatives] benefit the dealers more than the company"

Francis also has moved to integrate the risk-management center for FMC, whose 21 far-flung business units deal in 35 currencies. The units identify exposure, then turn to the Chicago office for advice on hedging, cost-effective borrowing, and other financial necessities. In currencies, headquarters offsets FMC's net market exposure with over-the-counter forwards and swaps.

Not all risk management involves derivatives. Francis is working with one FMC unit to finance a new chemical plant in China. She wants to fund the project in the local currency, but there's no easy way to borrow or hedge it. So she'll borrow from another multinational in China that has renminbi on hand and buy insurance in case China devalues its currency or seizes FMC's assets. Quite a switch from her gold days, but her goal is the same: to minimize risk without getting too exotic.

By Greg Burns in Chicago

simple and rigorous. According to Robert Gumerlock, managing director, Swiss Bank takes what it calls a "market shock" approach. Gumerlock produces a daily report showing how the bank would fare in the event of a "worst case" event, such as a sharp and protracted rise in interest rates accompanied by a sustained 10% movement in foreign exchange rates.

In the aftermath of Citicorp's early 1990s brush with disaster, largely because of bad commercial real estate loans, the nation's largest banking company has formalized and expanded its risk analysis and controls. At the core of its problems: No one was watching the buildup of loan concentrations in certain industries—notably commercial real estate—and in geographic regions.

Citibankers now review the bank's credit and market risk exposure in each of what Chairman and CEO John S. Reed calls its "windows on risk." As part of this process, every company in an industry is risk-rated, and individual countries and industries have their own limits or trip wires. Now, there are limits by geography and, in real estate, by the type of real estate.

Citicorp's day-to-day risk-management process places heavy responsibility on line managers, in part because Citicorp's businesses are so far-flung. The bank believes managers need to be able to control their positions, says Thomas E. Jones, the bank's top financial officer. Every business unit has a financial officer, but a single person monitors risks in derivatives worldwide, he says. Citicorp Treasurer Peter Gallant oversees risk limits for particular businesses and tracks the overall corporate risk limit, Jones says.

Effective risk management, though, extends beyond Monte Carlo simulations, 4:15 reports, and risk-management councils. It also requires a risk-sensitive culture that permeates the entire organization. Morgan Stanley's Whelan says that no centralized unit can take the place of control-minded employees. "Risk management is not a bunch of guys on the 50th floor."

Some companies seem predisposed to repeated problems, perhaps because they have weak risk-management cultures. Take Gibson Greetings. In addition to its well-publicized $19.7 million derivatives loss last March, Gibson disclosed this year that Cleo Inc., its gift-wrap subsidiary, had over-

THE SENTRY AT BANKERS TRUST

DANIEL MUDGE Managing Director

"What I'm trying for is information—what's happening and why"

Bankers Trust Co. has come under fire for allegedly selling inappropriate derivatives to its customers, but its internal risk-management system has won praise from analysts for years. Charles S. Sanford Jr., chairman and CEO, developed a risk-based method for capital allocation as a capital-markets executive back in the early 1970s. Today, the system is still in use. In fact, says Raphael Soifer, an analyst at Brown Brothers Harriman & Co., "many of their biggest competitors are using risk-management systems that are clones of Bankers Trust's."

Today, the task of overseeing risk management falls to Daniel T. Mudge, a low-key managing director who joined Bankers Trust after Harvard business school and never left. Mudge earned his stripes in trading and risk arbitrage in London and New York, and he became head of global risk management in 1988. Among other things, he oversees the production of a daily risk report that tallies the bank's exposure in every business and market. It is circulated among half a dozen senior executives, including President Eugene B. Shanks Jr., at the end of each day. "The philosophy is, day to day, be relatively decentralized but have strong central guidance on risk mandates," he says.

SYSTEM SAFEGUARDS. Bankers Trust's risk-management and monitoring systems have not been foolproof, however. In 1988, the bank had to revise downward its 1987 earnings by $80 million because it had overvalued some options positions. But the bank then developed the ongoing reports and practices Mudge now oversees, and it has not had major problems with risk management since then.

Mudge almost never tries to change a trading strategy. "I'm not going to read something on the tape and go in and say, 'Get your Mexican position to zero,'" he says. "What I'm trying for is information—what's happening and why." While Mudge does not stop traders from taking risks, he can make sure that any losses that result won't be a nasty surprise.

By Kelley Holland in New York

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stated finished-goods inventory at yearend 1993, forcing Gibson to restate earnings to $19.8 million, a 23% reduction. In connection with the derivatives fiasco, Gibson has sued Bankers Trust Co. for deception, fraud, misrepresentation, and breach of fiduciary duty. On Oct.11, Bankers replied, saying in court filings that Gibson knew what it was doing.

Special Report

After the Cleo disclosures, five shareholder lawsuits were filed against Gibson and its chairman, alleging violations of securities laws. Gibson also disclosed that the Securities & Exchange Commission was conducting an investigation into the transactions. In the most recent development, Gibson in the early part of October fired its accounting firm, Arthur Andersen & Co.

For all the sophisticated analysis and computer models now being deployed to keep America's big companies and financial institutions out of trouble, some say that they can often save themselves a lot of pain and suffering by using simple common sense. For example, companies typically call managers on the carpet when their results fall below expectations, but most never ask apparent superstars, like Kidder Peabody trader Joseph Jett, to explain results that far exceed normal returns.

Jay Alix, a Southfield, Mich., turnaround consultant, says: "Most frauds are not detected by control systems. Most are picked up by chance"—that is, by people who ask smart questions.

Risk managers these days are a long way from having all the answers. But asking the right questions seems like a pretty good way to start getting a good handle on risk.

By Phillip L. Zweig in New York, with Kelley Holland and Leah Nathans Spiro in New York, Peter Burrows in Dallas, Greg Burns in Chicago, and Zachary Schiller in Cleveland

PRUDENTIAL: MAKING IT ROCK-SOLID AGAIN

Few companies are better candidates for a business-school case study on Murphy's Law than the beleaguered Prudential Insurance Co. of America.

When the meter finally stops running, the Pru will probably have shelled out more than $1.1 billion to settle investor claims from 1980s sales of soured oil and gas limited partnerships by its Prudential Securities Inc. unit. Both the parent and the brokerage have been the targets of numerous lawsuits accusing agents and brokers of improper sales practices.

IN CONTROL. Enter Pru Senior Vice-President Martha Clark Goss, who in July was tapped by Chairman Robert C. Winters for a daunting three-year assignment: Install a top-to-bottom system of integrated internal controls in every unit and, along the way, overhaul the corporate culture. A former Pru treasurer and former president of Prudential Asset Management Co., the 45-year-old Goss reports directly to Winters and now holds the auspicious, if unwieldy, title of enterprise integrated control officer.

Although reluctant to go into details, Goss acknowledges that some controls broke down as Prudential decentralized in the late 1980s. To remedy this, the company is installing a comprehensive, integrated risk-control system with the help of Coopers & Lybrand, the Big Six accounting firm. "What's appealing about the approach is that controls are the responsibility of business-unit heads and line managers, not support structures," Goss says. Over

MARTHA CLARK GOSS
Senior Vice-President
Managers should ask: "What's the worst that can happen, and could I survive it?"

the next year or so, Goss, with the aid of a small staff, will sweep through the company, working with managers to identify risks and then build controls to address them. All managers, she says, will be called upon to ask themselves: "What's the worst that can happen, and could I survive it?"

Currently, a number of departments evaluate different risks at the corporate level, and a financial-control council meets every week. The company is now considering whether to establish a permanent, top-level risk unit, among other possibilities.

Goss believes the thrust of the exercise is to make sure that "people know what their jobs are, what's expected of them, and that they're accountable for them." She hopes the program will convince employees that they have not only a right but also a responsibility to ask questions if they are instructed to do something they don't think is right or don't fully understand. "The traditional hierarchical management process in this country doesn't empower people to question their bosses," she says.

Goss admits the program has met resistance. Some managers view it as yet another chore. Others seem to think the company is billing it as a miracle cure for the Pru's ills. Goss denies it's a "magic pill." In any case, the program has the backing of Chairman Winters. Says Goss: "Bob has taken a very strong leadership position on this. He said, 'We will do this, and we will do this across the board.'"

What kind of company does Goss expect Pru to be in another year or so, when all the action plans are to be put in place? "Well-managed and in control," she says. For Prudential, that would be a definite improvement.

By Phillip L. Zweig in New York

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