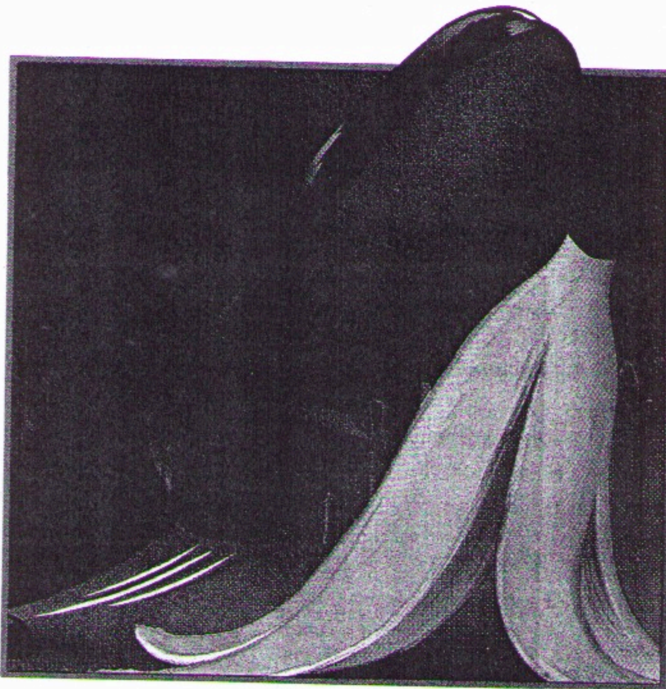


cover by Henry Grossman

Off balance sheet risk: Where is it leading the banks?

More than a trillion dollars in commitments lurks beyond the balance sheets of the largest U.S. banks. Just how great is the risk? And is anyone doing anything about it?

by Suzanna Andrews and Henny Sender

The bank analyst was clearly worried. ''You've got to be careful about this story,'' he told the reporter. ''This is a touchy topic. A lot of bank clients don't know about it, and they could overreact.'' The touchy topic: the burgeoning off-balance-sheet commitments of the largest U.S. banks. The dreaded overreaction: nervous investors' provoking a funding crisis à la Continental Illinois.

Once negligible in amount and restricted to prosaic trade and project guarantees, off-balance-sheet commitments now amount to a staggering $1.5 trillion at the top 25 banks in the U.S. alone. They represent a rainbow of exposure across complex new markets — standby letters of credit guaranteeing customers' municipal bond and commercial paper issues; interest rate and currency swaps; note issuance facilities; and options, futures and forward contracts on everything from Treasury bills to gold.

Unlike loans, these are promises that the banks in most cases are betting they won't have to keep. And unlike loans, these potential obligations are not funded, nor are they factored into the banks' capital requirements. Furthermore, they appear nowhere on the banks' balance sheets — rendering them virtually invisible to analysts and investors — to say nothing of regulators. ''It becomes difficult to look at the balance sheet of a bank that uses this stuff and tell to what risks it's exposed,'' notes a frustrated supervisor. ''You get CEOs who don't know the risk exposure of their own banks.''

The stunning growth in these commitments over the

past few years has begun to set off alarms. Today's $1.5 trillion figure represents a hike of more than a third over the tally of September 1983, when U.S. regulators first made data on these items public. Standby letters of credit have mushroomed from just under $10 billion in 1976 to $155 billion in mid-1985. And some of the most rapid rates of growth are in areas where risks are hardest to measure; interest rate swaps, for example, have shot from zero four years ago to $180 billion today, while note issuance facilities have grown 800 percent since the end of 1983, to more than $31 billion as of last September. Warns a leading bank analyst, "Everything that's grown rapidly at banks has come back to haunt them."

Many banks have amounts far in excess of their total assets theoretically pledged through these commitments. As of last June, for instance, Bankers Trust Co. had clocked in with the equivalent of nearly 300 percent of its assets in contingencies and commitments, Citibank with 230 percent, Chemical Bank with 201 percent and Morgan Guaranty Trust Co. with 168 percent (see chart, page 78). It's easy to see why the banks have embraced these shadow liabilities so eagerly; they generate much-needed fee income — and they don't tie up precious capital. At the same time, banks have been increasing their trading activities, deepening their involvement in the futures and forward markets.

The irony here is that many of these items — guarantees, futures, options — are designed to dilute, spread and hedge a wide variety of risks. But many observers contend that just the opposite may be happening. "If the concept is that by spreading risk in the market you lessen it, I would have thought we'd have learned the fallacy of that from syndicated lending to the LDCs," notes Paul Sacks, president of Multinational Strategies. The big concern, of course, is that these off-balance-sheet risks, if not well managed, could lead to sudden liquidity squeezes or surprise losses. And this worry is intensified by the fact that, as Bankers Trust executive vice president George Vojta admits, off-balance-sheet risks "tend to be relatively neglected by managements compared to what is on the balance sheet."

No wonder Federal Reserve chairman Paul Volcker asked the American Bankers Association in October, "Has the attention paid to simple capital-asset ratios driven risks off balance sheet — and is off balance sheet also out of mind?" And no wonder the Fed, as this issue went to press, was considering new requirements that would include some of these commitments in the measure of capital adequacy.

Tough questions

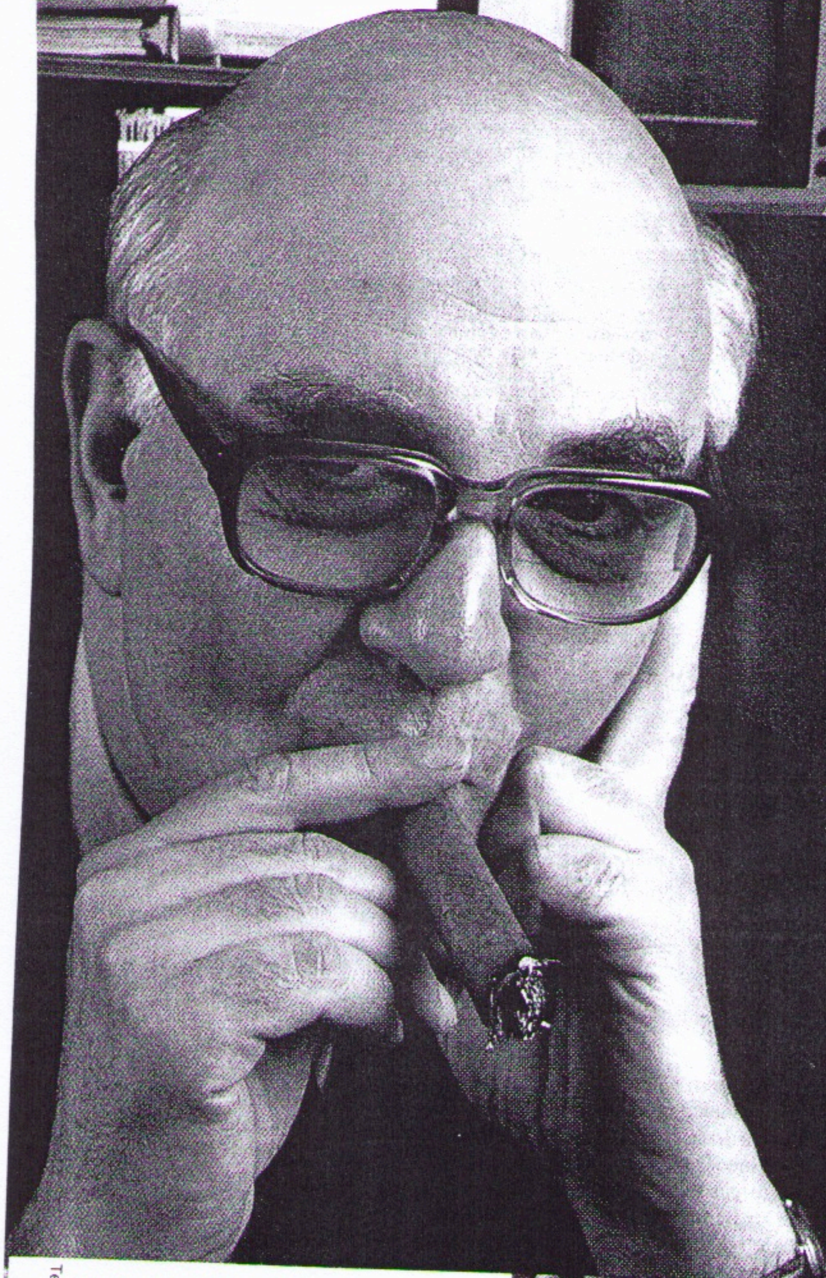
Just how risky *are* these items? Could shadow banking activities truly become, in the words of one analyst, "the next LDC problem"? Do the risks differ from those of lending? And do bank managements understand the differences?

Much of the concern stems from the

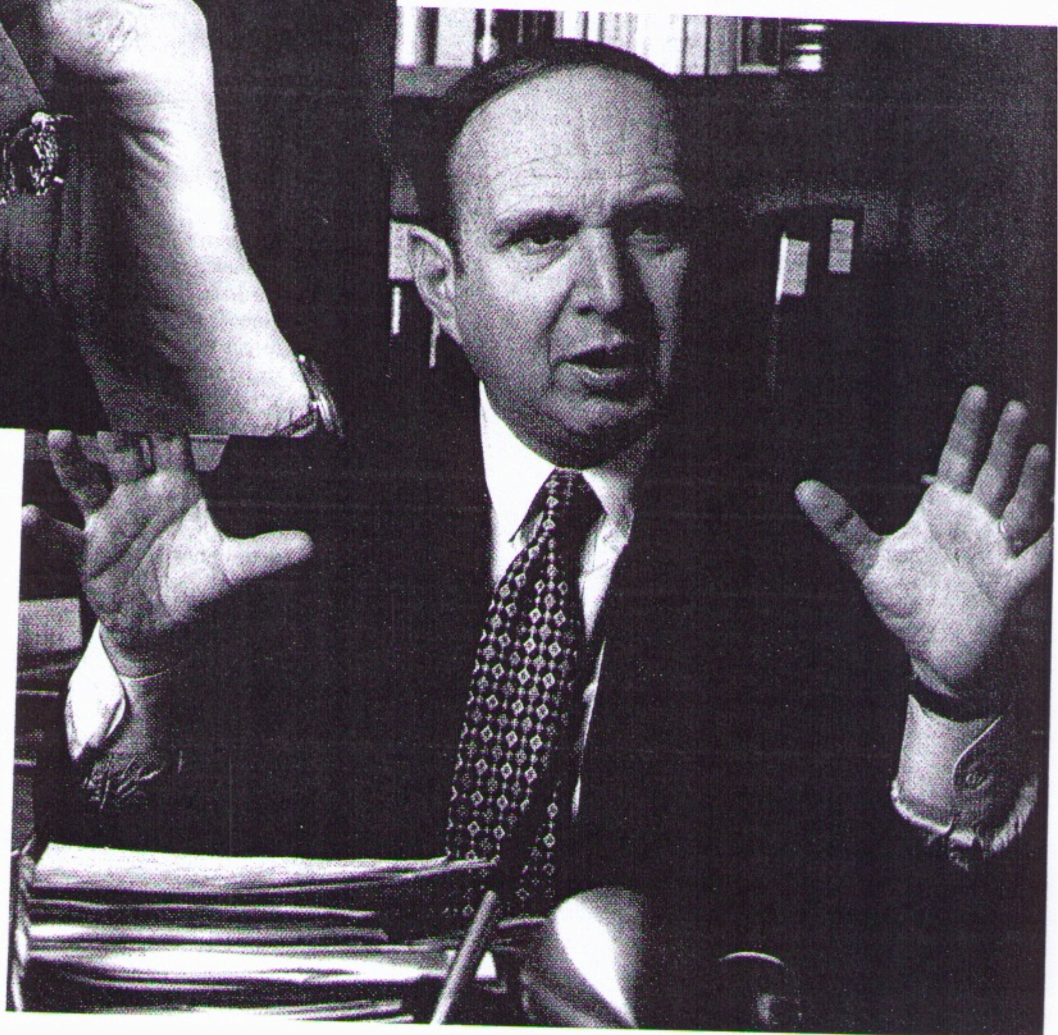
Portogallo

Merrill's Heimann (above): "On a case-by-case basis, I'm pretty confident. But if the world goes to hell, the only question is, What will the Federal Reserve do?"

Matthew Klein



Chase's Terraciano (above): "Banks don't give these facilities to people who don't satisfy their credit requirements"



Ted Kappler

The Fed's Volcker: "Has the attention paid to simple capital-asset ratios driven risks off balance sheet, and is off balance sheet also out of mind?"

Salomon's Kaufman (right): "The problem is that we do not truly know in a volatile, dynamic credit structure what the outer limits are of credit risk. We have no prudential rule of thumb"

Former Citi chief Wriston (left): "The publishing of volume numbers has confused the issue almost beyond belief, in the sense that the volume of transactions doesn't have much to do with risk"

sheer newness of some of these activities, particularly swaps, note issuance facilities, futures and options. But beyond their novelty, these commitments now bind the players in the financial system more tightly together than ever. In the U.S. $289 billion commercial paper market, for example, domestic and foreign banks are estimated to be involved as guarantors of principal and interest to the tune of $20 billion. And with huge credit lines backing up issues, they have a more vital stake than ever in supporting that market. In the U.S. municipal market, according to Salomon Brothers, about $42 billion in bonds issued since 1984 alone carries bank insurance or liquidity guarantees of variable-rate demand notes, committing banks to step in and buy back bonds put by investors if issuers are unable to do so.

Such interdependence strongly suggests that a glitch in one market could reverberate widely. "There is no general appreciation of the full extent of the risks," contends First Boston Corp. economist Albert Wojnilower. "If something goes wrong with the economy, there will be more trouble than the figures suggest because of the off-balance-sheet activities." Adds a congressional economist, "Thanks to the linkages that off-balance-sheet activities provide, any trauma in any market would be like cars piling up at 60 miles per hour."

How could it start? Quite simply, warn some observers — say, with a dramatic rise in short-term interest rates, the default of a major corporate or municipal borrower or broker, even a wrong guess on market movements. "The problem is that we do not truly know in a volatile, dynamic credit structure what the outer limits are of credit risk," says Salomon Brothers economist Henry Kaufman. "We do not know what the risk is, how much unused letters of credit an institution should have, how many guarantees are valid for an institution to grant. We have no prudential rule of thumb."

What Schedule L reveals

So-called Schedule L, filed quarterly by banks with regulators along with other financial data, is the best (albeit flawed) available view of banks' off-balance-sheet commitments (story). The major items as of June 30 of last year for seven of the nation's largest banks are listed below; the total figure also includes such other items as commercial letters of credit, participations in acceptances and securities borrowed and lent. The amount listed for interest rate swaps reflects the principal value of the transactions, while that under "foreign exchange" represents commitments to purchase foreign securities and U.S. dollars in the spot and forward markets.

Citibank

Total assets $125.8
Total off-balance-sheet commitments $296.8 (236%)
Standby letters of credit $21.5 (17%)
Commitments to lend $29.2 (23%)
Foreign exchange $163.8 (130%)
Futures & forward contracts $28.6 (23%)
Options $1.3 (1%)
Interest rate swaps $19.2 (15%)

Bank of America

Total assets $107.1
Total off-balance-sheet commitments $209.6 (196%)
Standby letters of credit $11.8 (11%)
Commitments to lend $48.1 (45%)
Foreign exchange $127.2 (119%)
Futures & forward contracts $8.9 (8%)
Options $0.1 (0.1%)
Interest rate swaps $5.6 (5%)

Chase Manhattan

Total assets $79.5
Total off-balance-sheet commitments $149.0 (187%)
Standby letters of credit $8.1 (10%)
Commitments to lend $27.1 (34%)
Foreign exchange $88.2 (111%)
Futures & forward contracts $3.9 (5%)
Options $1.3 (2%)
Interest rate swaps $4.5 (6%)

Graphics Media

Worst case

Here are a few hypothetical worst-case scenarios that trouble the sleep of bank supervisors, economists and bankers themselves:

- Due to a major corporate collapse, several banks are faced with enormous demand for loans, as commercial paper issuers, no longer able or willing to float their paper, activate backup lines of credit. To fund the demand, the banks must issue huge amounts in certificates in deposit. But the market knows that the banks are strapped and that, as the biggest issuers of commercial paper themselves, they must also fund their own operations. Interest rates skyrocket, and a host of other bank commitments in the government bond, futures and municipal markets are called. Those banks whose credit with investors is already tarnished have difficulty selling enough CDs to reliquefy, and the Fed must step in to prevent the crunch from spreading. But the Fed can absorb a bank's credit demand only during the immediate crisis, cautions one regulator: "As lender of last resort, at some point it has to cut the bank loose to survive, go under or be nationalized."
- Or say there's a default by a major issuer in the municipal market or a dramatic rise in interest rates above the caps on most variable-rate muni issues. This prompts a rash of calls on the liquidity guarantees provided by banks. Under these agreements, banks are obliged to buy and hold the bonds put by investors until the issuer can repurchase them. However, if a number of issuers are strapped for cash, some banks could end up holding these bonds for a long time. If they do, they are entitled to charge the issuer market rates. But with those issues that are low quality or uninsured, the banks would face a spate of ailing borrowers unable to pay such high rates on their debt. A worst-case result could be a significant hit to capital as the paper the banks hold loses value.
- Or what would happen if the International Tin Council declared that it had run out of cash? Trading in tin on the London Metal Exchange would be suspended, and dealers owed hundreds of millions of pounds by the council could call on their standby letters of credit. The banks are also strapped, however; yet, if one of them calls the governments behind the council in default, that could trigger a chain reaction of cross-default clauses on billions of dollars of sovereign debt. As governments repudiate the claims of their state-owned mining corporations, the markets begin to reassess the international debt situation, casting an even gloomier pall on the banks' chances of raising funds. Meanwhile, as the difficulties at the LME lead to a trading paralysis worldwide, dealer insolvencies pile up. And the market, never overly selective, boycotts the CDs of certain major banks, leading to a widespread liquidity crisis.

Signs of confidence

Scary as such possible scenarios might be, not everyone regards the banks' off-balance-sheet activities as a time bomb. For

Morgan Guaranty

Total assets $64.3
Total off-balance-sheet commitments $126.9 (197%)
Standby letters of credit $10.2 (16%)
Commitments to lend $21.3 (33%)
Foreign exchange $61.3 (95%)
Futures & forward contracts $5.3 (8%)
Options $0.0 (0%)
Interest rate swaps $14.8 (23%)

Manufacturers Hanover

Total assets $61.0
Total off-balance-sheet commitments $101.0 (166%)
Standby letters of credit $11.4 (19%)
Commitments to lend $22.2 (36%)
Foreign exchange $46.2 (76%)
Futures & forward contracts $7.9 (13%)
Options $0.02 (.03%)
Interest rate swaps $10.8 (18%)

Chemical

Total assets $57.3
Total off-balance-sheet commitments $114.9 (201%)
Standby letters of credit $9.4 (16%)
Commitments to lend $19.9 (35%)
Foreign exchange $69.3 (121%)
Futures & forward contracts $4.9 (9%)
Options $0.23 (0.4%)
Interest rate swaps $4.4 (8%)

Bankers Trust

Total assets $43.4
Total off-balance-sheet commitments $128.5 (296%)
Standby letters of credit $9.8 (23%)
Commitments to lend $16.5 (38%)
Foreign exchange $59.1 (136%)
Futures & forward contracts $5.0 (12%)
Options $4.7 (11%)
Interest rate swaps $16.7 (38%)

these items to threaten the banking community as a whole, some argue, a major financial explosion would have to occur, in which case banks would face highly serious problems with their on-balance-sheet loans as well. "On a case-by-case basis, I'm pretty confident," says John Heimann, vice chairman of Merrill Lynch Capital Markets and former U.S. comptroller of the currency. "But if the world goes to hell, the only question is, What will the Federal Reserve do?" To create real turmoil in the banking system, Heimann suggests, "you have to predicate a whole bunch of horrors, including a serious recession — worse than 1981–1982 — and a laissez-faire, hands-off policy by the Fed."

Others, including former Citicorp chairman Walter Wriston, insist that most of the activities of the shadow banks are not inherently very risky, especially at well-managed institutions. "The publishing of volume numbers has confused the issue almost beyond belief, in the sense that volume of transactions doesn't have much to do with risk," maintains Wriston. "The marketplace is the best evaluator of risk, and the marketplace already judges it."

But does the marketplace really have enough to go on when making such judgments?

Since September 1983, U.S. banks have been required to disclose off-balance-sheet activities in their call reports, the comprehensive financial statements filed quarterly with their regulators. But to the frustration of analysts, regulators and even bankers, the figures reported on what is called Schedule L by no means quantify the risks involved.

Schedule L's do not, for example, indicate what collateral is backing any of the shadow categories, what their maturities are or how diversified a bank's off-balance-sheet portfolio is — all of which is crucial in measuring risk. Furthermore, analysts believe some banks choose not to report some items such as NIFs and standby bond purchase agreements, normally classified as commitments to lend, simply because they consider the amounts negligible. (Though European banks do not report as much publicly, they are way ahead of U.S. banks in one important respect: Their guarantees and such trading obligations as foreign exchange commitments are already backed by capital.)

Important difference

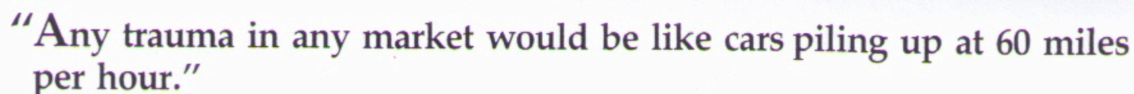
No one claims that the off-balance-sheet commitments carry any *more* risk than a loan — which, after all, is a bank's riskiest on-balance-sheet business. In fact, if managed correctly, these activities are probably less risky than outright loans. But there are nevertheless some important differences.

If the prices on such items as swaps, NIFs and standby letters of credit were higher, more people might feel comfortable with the risks banks are taking. But despite the banks' newfangled "risk-adjusted" pricing techniques (which assign units of risk to the use of capital or to a particular customer, for example, to ensure that risk is factored into the pricing decision), some analysts say banks are just not getting paid enough to compensate them for taking on these risks.

Stiff competition in the shadow bank activities has brought fees as low in some cases as 0.25 percent on a letter of credit that guarantees the principal and interest on a muni issue or from 1/16 to 1/4 to act as agent on a swap. Indeed, without a floor under the prices of these items — such as that which the cost of capital would create if it were included in the capital adequacy calculation — "the pricing can be brought down pretty far," says Stephen Joynt, director of financial institutions analysis at Standard & Poor's Corp. Looking at the ten to fifteen basis points on a typical NIF, Chemical Bank CFO Kenneth LaVine says, "No risk-return analysis can support that pricing, but it's a critical product for the banks' ability to underwrite and syndicate."

Some banks claim little interest in such activities as NIFs and price them accordingly. At Chase, says vice chairman Anthony Terraciano, "If I give you a [NIF], I assume it'll be drawn for a certain amount and at a given interest rate. Then I'll ask, 'What return on assets do I need to let that happen?' " The price is then calculated to produce that return. But other banks seeking an active presence in this market are less choosy. "We can't price at cost-plus if we want the business. We have to price at the market," confesses a senior U.S. banker.

Still, a number of banks have been toying with new ways of measuring their exposure and making sure revenues cover it. Manufacturers Hanover has introduced a system in which borrowers are assigned a risk weighting, which is then factored into pricing of, for example, a standby letter of credit along with the maturity of the LOC and a weighting for the borrower's type of industry. Bankers Trust's RAROC method — for risk-adjusted return on capital — assigns a numerical value to the risk in-



> "Any trauma in any market would be like cars piling up at 60 miles per hour."

volved in each type of transaction, including loans, standbys and swaps, and then factors the level of risk into the amount of capital allocated to each activity.

Here, then, is a closer look at the risks involved in the main areas of the banks' off-balance-sheet activities.

Standby letters of credit

Today about 60 percent of standby letters of credit are financial guarantees under which, for a fee, banks guarantee the financial obligations of a borrower to a specified third party. These pledges include credit enhancement facilities to municipal borrowers and corporate commercial paper issuers through which the banks in effect rent their credit standings to lower-rated borrowers by guaranteeing that principal and interest will be paid. The standby is also used to provide liquidity guarantees for variable-rate municipal issues.

At first glance, the likelihood of a large loss stemming from a standby is slim because most well-managed banks would have a fairly limited exposure to any single client. And most banks have cut back their activities in this area because, except for Morgan Guaranty, they lack the triple-A rating that muni issuers need behind them. (The exception is Citibank. Through a little-known deal in which it acquired a majority holding in a muni bond insurance company, AMBAC Indemnity Corp., the bank garnered about $25 billion in unreinsured bond insurance.)

Banks have also backed away from commercial paper guarantees, having caught on to the fact that these issues were competing with their own huge offerings. Hardly idle, however, they have become increasingly involved in liquidity backstops in the muni market that could require them to buy back the put bonds.

But bankers agree that the standby is the riskiest item in their shadow banks. Because these commitments are irrevocable and are activated by problems on the borrower's part, when a standby is called upon, notes one accountant, "chances are the bank immediately has a questionable loan." The big risk in standby letters of credit is the market exposure — an unpredictable shudder in the muni market, for instance, could activate numerous guarantees and liquidity backstops — rather than the credit exposure to any one borrower.

Yet bankers, it seems, would rather focus on the credit risk — a concern, to be sure. They contend they're protected from nasty surprises in the market by the quality of their credit analysis. "Banks don't give these facilities to people who don't satisfy their credit requirements," snaps Chase's Terraciano. Although these instruments are originated in a number of nontraditional banking divisions, such as the municipal or corporate finance divisions, bankers say they apply the same credit vetting procedures to standby LOCs that they do to their loans.

At Bankers Trust, for example, muni standby business is drummed up by the public finance division, but the banking department performs the credit analysis and carries the credit risk on its own book. In pricing standby letters of credit, banks generally factor in the credit quality of the borrower, the type of letter of credit (nonfinancial guarantees are considered to have less risk) and the maturity. Chase, for one, believes that standby LOCs carry the same risk as cash loans and includes them in its calculation of primary capital adequacy. But except for Morgan, it is the only large U.S. bank to have beaten the minimum guidelines when standby letters of credit were factored into last June's primary capital ratios.

Only about 2 percent of all standby LOCs are known to have been called by clients, with losses historically averaging a paltry 0.03 percent, compared with 0.77 percent on loans in 1984. But standby LOCs, particularly financial guarantees, have grown enormously — more than sixteenfold in a little more than eight years — and many are concerned that their risk profile could be changing. Citibank's volume of standby letters of credit has grown about 70 percent since 1981, Bank of America's has doubled and Manufacturers Hanover's is two and a half times its 1981 volume. And no matter how sophisticated a bank's credit analysis, such devices as liquidity guarantees to issuers depend on market and interest rate risk as well, which may have little to do with the financial soundness of clients.

Regulators appear to have concluded that standby letters of credit are indeed the most dangerous of the shadow commitments. One of them calls the business "a club of sorts where everyone relies on each other. The Fed backstops it and knows it has to keep it primed up. Otherwise, the financial system would collapse." Salomon Brothers' Kaufman has advocated banning the use of LOCs in the commercial paper market, along with lines of credit: "If there were no standby letters of credit, no unused commitments to lend, no guarantees, then an issuer would have to stand on his own merits. The market would be more discerning."

Loan commitments

These commitments are generally believed by regulators to rank next in terms of riskiness. They include old-fashioned revolving credit agreements, backup lines of credit on commercial paper (agreements to lend as an alternative to issuing the paper) and note issuance facilities (in which the bank agrees to buy the short-term notes of a borrower if it is unable to sell them in the markets); they ranged in mid-1984 from about $29 billion at Citibank to just under $20 billion at Chemical to $16.5 billion at Bankers Trust. Their safety depends on the care taken writing the legal caveats that permit the banks to extricate themselves from their promises when a borrower's financial situation deteriorates. And though those covenants are unlikely to be made public, regulators could well make distinctions among different types of commitments when they formulate new risk guidelines. The chief risk is a large and unanticipated demand for these funds, probably triggered by a trauma in the short-term markets.

NIFs are a cause of particular concern. Although occupying a relatively small corner of the shadow bank — the backstops on the $31.5 billion outstanding have been spread out over numerous banks — their rate of growth has been phenomenal. And in some cases banks could be obliged to honor their commitments against their better judgment because they have written the protective clauses in their agreements carelessly or have omitted them altogether.

Moreover, notes one U.S. banking official: "These guys have a whole banking relationship with the client. Are they going to pull the plug on a NIF funding? The worse the situation is, the less likely they'll be able to do it."

Futures and options

Market-related operations tend to be considered far less worrisome than such loan-linked commitments as standbys and NIFs. Of these operations, futures and options transactions are regarded as the riskiest, if only because banks are relative newcomers to this fast-moving trading world.

With the explosive growth in the use of interest rate, currency and stock-index and other financial instruments, the banks have become increasingly active participants in both over-the-counter and exchange-traded contracts. The trust department trades these contracts to protect clients' portfolios and maximize returns, while the foreign exchange department might suggest, for example, that a corporate customer doing a forward currency contract consider an option instead. And the bank uses these instruments to hedge its own positions.

Most money center banks channel their activities through futures commission

"These are risks that are hard to pinpoint and not well understood."

merchants, the equivalent for the futures market of securities brokerage houses. Still, the off-balance-sheet exposure of the banks themselves is considerable. Citibank has almost $30 billion of commitments in futures and forwards, not counting currency contracts (which are included in forex transactions). But the average total for futures contracts is a more modest $5 billion for most of Citi's peers, while the value of options is generally in the hundreds of millions.

The risks involved in futures and options differ considerably. If a bank purchases an option, it pays a premium for the right (but not the obligation) to receive a specified amount of a commodity or its cash equivalent in the future. If that option becomes profitable to exercise, the bank must be sure that the counterparty (either the exchange itself through its clearing corporation or simply the seller if it is an over-the-counter option) won't default. If, on the other hand, the bank sells (or writes) an option, such credit risk doesn't exist, because the bank collects its premium up front. But then its exposure to market risks is theoretically unlimited.

To minimize the risk of dealing over the counter, banks say they have strict standards governing whom they deal with (the same standards, in fact, that they apply to loan applicants). Moreover, collateral is requested more frequently now, particularly as savings and loans account for a growing share of the banks' client base. Not that limiting dealing solely to the exchanges is wholly without risk. There is always a chance that the banks' clearing broker or even the clearing house itself can go under. "Contrary to the view that there is no credit risk in futures," cautions Blair Corkran Jr., senior staff counsel at the Securities and Exchange Commission, "participants may find they bear the risk of the firm's weakest customer."

Most clearing brokers are not especially well capitalized; $50 million means a well-heeled firm indeed. If a clearing broker does default, a bank could lose its margin deposit and other funds on deposit with its broker. But even more significantly, it could find that its position is frozen, and by the time it could by liquidated or transferred, the market might have cost the bank hundreds of thousands of dollars. Furthermore, if a clearing broker is large or active enough, its collapse could trigger a major chain reaction in the market, forcing others to put up more and more margin as the market moved, bringing about multiple insolvencies.

There has never been a clearing *house* default, but banks nonetheless face a twofold risk. Beyond the losses they might incur directly, banks extend letters of credit to the clearing firms. The Hunt brothers' silver positions in 1979 and 1980 were collateralized by silver and backed by letters of credit from Citibank, among others. "If the federal authorities hadn't bailed out Bache [the brokerage firm with which the Hunts transacted most of their business], Bache would have brought down Citi as well," in the opinion of Jack Barbanel, director of futures and commodities research at Gruntal & Co.

Foreign exchange trading

Commitments to buy and sell currencies are by far the largest entry on a bank's Schedule L and can easily exceed its total assets. The average money center bank, for example, has at least $60 billion in commitments to deal in currencies at any given time, while average daily volume worldwide comes to about $150 billion.

Yet most bankers shrug off the potential risks involved. Even when the markets are shaken by some external event — such as the Group of Five meeting last September, which led to a depreciation of the dollar — and banks take losses, they are slight as a percentage of total dealings. Moreover, the figures on Schedule L reflect both sides of transactions — commitments to buy *and* to sell — that in effect cancel out much of the risk.

Nevertheless, as a result of newly perceived volatility in the markets, banks are keeping their forex traders on a tighter leash; both individual transactions and the size of positions have been reduced. Banks are more likely to square their positions at the end of the day and especially going into the weekend. Their posture has become far more defensive. The emphasis is on intraday trading rather than position taking and on customer rather than in-house business.

The overwhelming majority of those the major banks deal with are *other* major banks, and though their dealings with their peers might amount to billions, on a net basis the actual exposure is quite low, Chemical CFO LaVine maintains. And bankers insist that if a default does occur, the potential loss would be relatively insignificant. Most of the losses banks have suffered have resulted when individual traders exceeded their authorized limits. Internal rather than external controls have made a difference.

Swaps

Though the size of the market is formidable — more than $180 billion in interest rate swaps arranged to date worldwide, with $70 billion concentrated at seven of the largest U.S. money centers — many bankers admit that it's hard to get a handle on the riskiness of these intricate transactions. Swaps can be "a five-legged monster," says Chemical's LaVine. "It's difficult to aggregate all the separate commitments and determine one's actual exposure." Nonetheless, the banks are knocking one another down in the race to swap.

The $180 billion figure is the total of the principal amounts of the deals; in fact, only the interest rate streams are at risk, since each issuer retains its obligation for its own principal. Moreover, banks are parties to some of the swaps and agents to others, and though there has been only a handful of defaults so far, there are indications that agents' liabilities may be fairly limited (a recent court case involving Bank of America indicated that gross negligence had to be proved in order to establish liability). The biggest risk is simply that one of the swap partners will be unable to make its interest payments. The potential loss to a bank acting as principal in a swap is the cost of replacing a defaulting counterparty.

More defaults might occur if rates were to move sharply, and some wonder if the banks are prepared. "The banks never factor in a differential of more than 600 basis points in their scenarios," says the SEC's Corkran. "In fact, we have already had greater differentials." To protect themselves against weaker counterparties, the banks can ask for collateral to secure those interest payments. Yet many responsible banks tend to revalue their exposure daily, so they are less likely to ask for collateral up front. "They tend to ask for it when creditworthiness comes into question," notes Corkran. "By then it might be too late."

To date, there has been only $90 billion worth of *currency* swaps, a more exclusive world in which participants have the highest credit ratings and are intimately familar with one another. But if the chance of default is slight, the potential for loss is far greater. "With an interest rate swap, all you can lose is the differential between the two payment rates," explains World Bank vice president and treasurer Eugene Rotberg. "But with a currency swap, if one party defaults, it is easy to imagine a much greater differential." Still, if regulators fret that the pricing on interest rate swaps is too slim to provide a comfortable cushion or to reflect the realities of the market, some players, including Rotberg, feel that this is not the case with currency swaps. Bankers, he complains, "want a *lot* of spread to protect themselves."

If there is a potential mine field in banks' off-balance-sheet obligations, however, it seems unlikely to be swaps. The likelihood of default grows with time, but

as the life of the transaction fades, so does the amount at risk. And it would be hard to imagine any one default or even a series of defaults posing a serious liquidity crunch for most banks. Such a disaster scenario would have to assume a concentration of counterparty risk that would be hardly credible.

Regulatory eye

Regulators have lately begun to sit up and take notice — and action. In calculating a risk-adjusted capital ratio, U.S. bank regulators plan to assign weightings to most bank activities — on and off the balance sheet — reflecting their assessment of the risks of each item. "Greater risk takers will have to have more capital," warns one top regulator.

Outside the U.S., where the phenomenon is similarly worrisome, the Bank of Japan has been asking its banks to limit voluntarily their financial guarantees and may introduce new capital standards this year that would include note issuance facilities and swaps. The Bank of England was the first to try to contain the off-balance-sheet explosion by including note issuance facilities in capital calculations last year; this year it may move to include other activities such as swaps.

Nor are regulators the only ones peering into the darkness beyond the balance sheet. To test banks' capital adequacy, Moody's Investors Service loads up bank balance sheets with a number of contingent liabilities, and the disappointing results were factors in some of its downgradings. Meanwhile, the Financial Accounting Standards Board, prodded by the SEC, has begun a study of possible new disclosure requirements for *all* U.S. corporates' contingent liabilities.

Leadership

Such a broad-brush review of the invisible banks does ignore one essential factor: the quality of each bank's management and its ability to judge and control these risks. As with lending, it's the caliber of leadership that determines how risky the off-balance-sheet portfolio is, and this can vary dramatically from bank to bank.

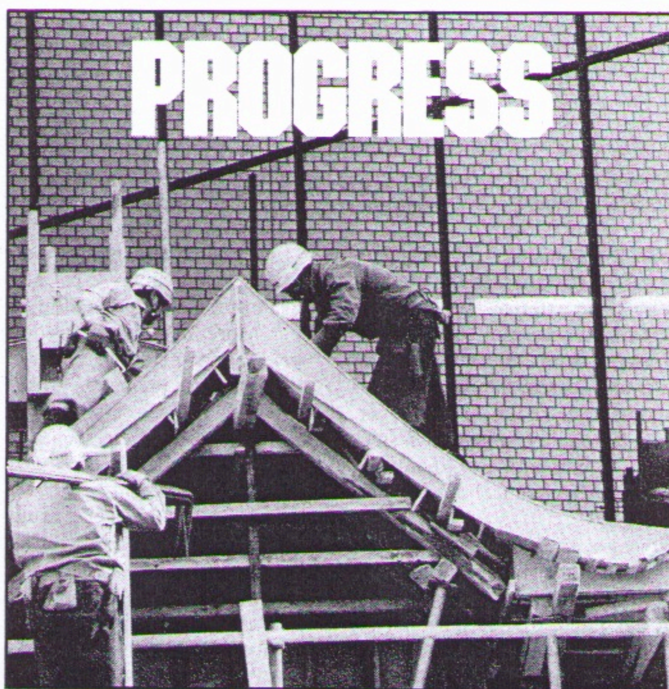
In general, because many of the off-balance-sheet activities involve the capital markets, those banks — such as Citi, Morgan and Bankers Trust — that have solid investment banking expertise are considered strongest at managing these items. Most banks say they run these standby letters of credit and commitments to lend through the same credit approval process as loans and include them in their overall limits to borrowers and industries. For example, Chase's investment banking group cannot arrange an interest rate swap without the permission of the lending officer for that company, and at Citi officers insist that the bank would never make a loan commitment to an energy company without its energy group signing on.

Many U.S. bankers deride the regulators' push for more capital, claiming that across-the-board ratios are arbitrary measures of the risks. But capital requirements impose a discipline on volume and pricing that will undoubtedly offer investors increased confidence while serving to bolster the financial system. Indeed, additional caution and scrutiny could hardly hurt. Off-balance-sheet items seem to suffer from a worrisome lack of attention. One senior finance officer interviewed at a money center bank, for example, was unsure just where, if anywhere, note issuance facilities were classified on his bank's Schedule L. Capital requirements would undoubtedly bring these activities out of the shadows.

At the same time, they would curtail the activities of the weaker players. "The problem with many off-balance-sheet activities," says an official at the Comptroller of the Currency, "was that because they were perceived as 'riskless,' small banks were entering and doing things they didn't fully understand."

But there's more at stake here than the small fry. The big boys are very much in the game as well — and sometimes with just as much abandon. "These are risks that are hard to pinpoint and not well understood," says an economist at a major money center bank, who nonetheless concedes that "we're jumping in with both feet." What worries regulators is that they may already be in over their heads. **II**

Additional reporting for this article was provided by Senior Writer Lenny Glynn.



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The issue will be distributed at the annual meeting of the Asian Development Bank.

Institutional Investor