

Trimming the hedges: Regulators, banks, and financial futures

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The regulation of banks, savings and loan associations, and other depository financial intermediaries stresses the prevention of insolvency and failure. This traditional emphasis has caused regulators to worry about the development and growth of financial futures contracts in recent years. Financial futures contracts represent an effective vehicle for hedging interest rate risk, but the fear is that institutions will use them to speculate on interest rate changes in order to increase earnings rather than to reduce risk.

In the current institutional setting, the possibility of a market or nonregulatory solution to this problem is doubtful. Because margin requirements for futures trading are low, the availability of funds is not a barrier to entry into the futures market; a depository institution can assume a risk well beyond the value of its equity. Insured depositors are unlikely to monitor and penalize a depository institution for assuming speculative positions. Little market discipline can be imposed through deposit insurance premiums because they are currently independent of the institution's risk exposure. Finally, in the particular case of savings and loan associations, many of which are organized as mutuals, there are no stockholders to impose market forces on those that take excessive risks through financial futures trading. This leaves only uninsured depositors and debtholders to impose a market discipline, and they are not in a position to monitor futures trading developments effectively under current accounting disclosure requirements.

With a nonregulatory solution unlikely, the question of whether or not regulation can control the use of futures contracts by banks and thrifts becomes important.¹ If regulatory control is possible, hedging with financial futures should

be allowed and speculation should be prohibited. If regulatory control is not possible, the benefits of futures contracts as a risk management tool must be weighed against the potential costs of futures speculation. If the latter are too great, futures trading by financial intermediaries should be disallowed altogether.

This article outlines the current regulations and mechanisms used to control and monitor trading by some depository institutions—specifically commercial banks and bank holding companies—in financial futures contracts.² The article then examines several regulatory problems with emphasis on the definition of interest rate risk exposure and interest rate futures accounting. Concluding the article are suggestions on alternative control mechanisms.

Institutional aspects

Futures market institutions have evolved to facilitate the volume of trade in commodity markets and to contribute to the efficiency with which commodity markets operate. They act as parallel markets to those in which physical commodities are traded.

In general, goods may be exchanged according to: 1) agreements specifying transfer of title and delivery on the spot, called spot or cash market contracts; 2) agreements specifying transfer of title on the spot and delivery at some future date, called forward market contracts; and 3) agreements permitting frequent transfer of title and liability until a future delivery date, called futures market contracts. Cash and forward con-

²For other treatments of these regulations, see Franklin R. Edwards, "The Regulation of Futures and Forward Trading by Depository Institutions: A Legal and Economic Analysis," *Journal of Futures Markets*, Summer 1981, 201-218; Robert C. Lower and Scott W. Ryan, "Futures Trading by National Banks," *Banking Law Journal*, March 1981, 239-256; and John H. Strassen, "The Regulators-An Overview," Chapter 20 in *The Handbook of Financial Futures*, edited by Nancy H. Rothstein and James M. Little, New York, McGraw-Hill Book Company, 1984.

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¹Throughout the remainder of this paper, the term "thrift" refers to any depository financial intermediary that is a savings and loan association or credit union.

tracts trade on the "actuals" markets, established to trade physical commodities.

A futures market agreement can be viewed as a forward market contract with special characteristics that facilitate the transfer of title and liability. Several contract attributes serve to separate trading in futures markets from trading in spot and forward markets. For example, the terms of an actuals market contract are not standardized but rather are tailored to meet the needs of the buyers and sellers involved with respect to commodity grade, quantity, and place and time of delivery. To reduce the costs of exchange, a futures contract is highly standardized in each of these respects.

Another major difference between contracts in futures and in actuals markets concerns the settlement of monetary obligations. In actuals markets, contracts are settled by any mutually agreeable method. Futures contract settlements are managed by a clearing house interposed between the contract principals, which assumes the opposite position to each of the parties required to make a contract. The clearing house mechanism expedites contract settlement by allowing the elimination of a position through offsetting contracts, by protecting against default risk with required deposits of initial and subsequent margin monies to the extent that prices move adversely to buyer or seller, and by organizing delivery of commodities on open contracts during the delivery month.

Futures market participants can be characterized as either hedgers or speculators. Hedging involves making a contract to buy or sell as a temporary substitute for a cash market transaction of equivalent or greater size. The purpose of hedging is to offset the price risk incidental to cash or spot market operations. Hedging can take two different forms. One is a hedge of an existing cash market position; the other, an anticipatory hedge, is a hedge of a cash market position expected to be taken in the future.

Speculation involves a single market purchase or sale with the intention of resale or repurchase. In this case, the uncertainty about the future transaction price is a source of both risk and potential return. In most futures markets, the volume of short (sell) hedging is different

from the volume of long (buy) hedging; this market imbalance necessitates the presence of speculators to absorb the excess contracts.

As the example in the box illustrates, interest rate futures contracts widen the options available to banks making decisions in a risky environment. Futures markets are a mechanism for sharing and shifting risk among participants. Hedgers shift interest rate risk to speculators; they trade the risk of interest rate change for the risk of changes in the rate spread between the

A Hedging Example

As a simple example of the risk-shifting potential of interest rate futures contracts, suppose on December 1, 1981, a bank holds \$7 million in 26-week U.S. Treasury bills and wants to hedge the value of these securities over the next 13 weeks until March 1, 1982. The bank plans to sell these securities in March to help fund its other operations. To hedge the interest rate risk associated with this cash Treasury bill position, the bank's management decides on December 1 to sell 90-day Treasury bill futures contracts worth \$7 million (face value), maturing in March 1982, and trading at an annual rate of 10.81 percent. This futures transaction requires an initial margin deposit of approximately \$14,000 [= 7 contracts at \$2,000 per contract]. On March 1, 13-week Treasury bill interest rates have risen to 12.49 percent from 10.93 percent on December 1 and the bank's cash Treasury bill position now has a value of \$7,173,000. If interest rates had not changed over the 13-week period, the cash Treasury bill position would be valued at \$7,203,000. The rise in interest rates over the 3-month period had decreased the value of the Treasury bills by \$30,000. However, interest rates in the Treasury bill futures market have risen 160 basis points over the same three-month period. The loss in market value of the cash Treasury bills is offset by a gain of \$28,000 [= $(.1241 - .1081) (90/360) \$7,000,000$] in the Treasury bill futures market before the return of margin. By hedging the Treasury bill futures market, the bank limits its net loss to only \$2,000.

cash and futures market instruments, i.e., they substitute basis risk for interest rate risk. The existence of basis risk explains why the gain from futures hedging in the example does not exactly offset the loss in the cash Treasury bill position. Perfect futures market hedges exist only by coincidence. The advantage of futures market hedging is that basis risk is usually much less than interest rate risk and this risk substitution can be accomplished at low transaction costs.

Current regulations

Any depository institution's strategy for participation in financial futures markets must take account of the restrictions placed on trading by the federal and state regulatory agencies. Regulatory jurisdictions over bank and thrift futures trading is the responsibility of federal and state banking agencies, the Federal Home Loan Bank Board, and the National Credit Union Administration. The jurisdiction of the Commodity Futures Trading Commission does not extend to trading by depository financial institutions on their own account except to require the reporting of large positions, prohibit market manipulation, and subject positions to the emergency powers of the commission. The primary focus in this article is on the policies instituted by the federal regulators of banks and bank holding companies.

In general, regulators disapprove of futures trading that increases an institution's risk exposure. The federal regulatory agencies are in agreement, however, that financial futures contracts, properly used, can effectively hedge interest rate risk and that institutions should hedge only the net interest rate exposure in the overall balance sheet. This is called macro hedging, and makes the balance sheet insensitive to unexpected interest rate changes.

A micro hedge, on the other hand, makes a well-defined individual asset or liability insensitive to unexpected interest rate changes. A series of micro hedges coordinated so as to reduce the maturity mismatches or to manage the spreads between assets and liabilities appearing on the bank's balance sheet may comply with public

policy, if these micro hedges are tantamount to a macro hedge. Although micro hedging strategies can be initiated on a decentralized, profit center basis with an area manager making decisions, the general requirement that futures hedging should reduce overall risk exposure implies that the trading strategy must be implemented at a high level in the organization, where all relevant information can be centralized.

It is not necessarily true that a micro hedging strategy automatically reduces an institution's risk exposure and accomplishes the same goal as a macro hedging strategy.³ For this reason, policy proscribes micro hedges placed without considerations of their effect on the net interest rate exposure in the institution's balance sheet.

Banks and bank holding companies

On November 20, 1979, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency jointly adopted—effective January 1, 1980, and amended March 12, 1980—a policy statement governing bank participation in the interest rate futures markets for U.S. government and agency securities.⁴ This joint pronouncement recognized that hedging interest rate risk is a legally appropriate activity for commercial banks because it is incidental to the business of banking. On August 21, 1980, the Board of Governors adopted a policy statement governing the futures trading activities of bank holding companies and their non-bank subsidiaries.⁵ Subsequently, on September 18, 1981, the Board of Governors issued an interpretation of existing policy statements that applied the regulations then in place to financial

³For a discussion of why this is true, see Robert W. Kolb, Stephen G. Timme, and Gerald D. Gay, "Macro Versus Micro Futures Hedges at Commercial Banks," *Journal of Futures Markets*, Spring 1984, 47-54.

⁴For supplementary information on these guidelines, see Banking Circular No. 79 (3rd Revision) issued by the Office of the Comptroller of the Currency (April 19, 1983); 45 Reg. 18120-22 (March 20, 1980), and 45 Fed. Reg. 18116-18 (March 20, 1980).

futures contracts on bank certificates of deposit.⁶ These policy statements are applicable specifically to commercial banking activities and do not pertain to bank trust accounts. Futures contracts are not considered to be investment securities by the regulators.

As always, the regulators held that banks that engage in financial futures should do so only in accordance with safe and sound banking practices. Further, futures activity should be at a level reasonably related to the bank's business requirements and its capacity to fulfill the contractual obligations. Banks should evaluate their overall interest rate risk exposure resulting from asset and liability positions to ensure that the futures position reduces their total risk.

Financial futures positions in practice may be used to hedge interest rate risk exposure associated with undesired mismatches between interest-sensitive assets and liabilities. Long futures positions can be used when funding variable-rate assets with fixed-rate sources of funds; short futures positions can be used when funding fixed assets with variable rate liabilities.

Futures are viewed as a temporary risk management tool to aid the restructuring of the bank's portfolio rather than a permanent income generating device. Within this view, distinctions can be drawn between the federal regulators. The Comptroller of the Currency is unwilling to accept the substitution of a futures hedge for a prudent banking decision that can be made with available cash market instruments.⁷ The Comptroller also suggests that, where practicable, futures contract gains be used to offset losses resulting from cash security sales undertaken to upgrade the yield on portfolio holdings.⁸ On the other hand, the Board of Governors views futures hedging as an alternative to cash market transactions, treating futures as one possible tool for asset-liability management.

⁶See 46 Fed. Reg. 46386 (September 18, 1981).

⁷See Owen Carney, "Comments on 'The Regulation of Futures and Forward Trading by Depository Institutions: A Legal and Economic Analysis,'" *Journal of Futures Markets*, Summer 1981, 219-223.

⁸See Banking Circular no. 79 (3rd Revision) issued by the Office of the Comptroller of the Currency, April 19, 1983.

Regulations for futures trading by commercial banks

The Board of Governors has established the following as minimal guidelines to be followed by banks authorized to participate in financial futures. Similar guidelines have been established by the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency.

1. Prior to engaging in futures transactions, a bank should obtain an opinion of counsel or its state banking authority concerning the legality of its activities under state law.
2. The board of directors should consider any plan to engage in futures trading and should endorse specific written policies in authorizing these activities. Policy objectives must be specific enough to outline permissible contract strategies and their relationship to other banking activities, and record keeping systems must be sufficiently detailed to permit internal auditors and examiners to determine whether operating personnel have acted in accordance with authorized objectives. Bank personnel are expected to be able to describe and document in detail how the positions they have taken in futures contribute to the attainment of the bank's stated objectives.
3. The board of directors should establish limitations applicable to futures contract positions; and the board of directors, a duly authorized committee thereof, or the

The regulation of futures trading by banks emphasizes the importance of self-policing behavior rather than strict adherence to specific externally imposed controls. (See box for a detailed outline of commercial bank regulations.) All open futures positions must be reviewed and market values determined at least monthly. Banks have the option of valuing futures

bank's internal auditors should review periodically (at least monthly) contract positions to ascertain conformance with such limits.

4. The bank should maintain general ledger memorandum accounts or commitment registers to adequately identify and control all commitments to make or take delivery of securities. Such registers and supporting journals should at least include:

- (a) the type and amount of each contract;
- (b) the maturity of each contract;
- (c) the current market and cost of each contract; and
- (d) the amount of money held in margin accounts.

5. With the exception of contracts described in item 6, all open positions should be reviewed and market values determined at least monthly (or more often, depending on volume and magnitude of positions), regardless of whether the bank is required to deposit margin in connection with a given contract. Underlying security commitments relating to open futures contracts should not be reported on the balance sheet. Margin deposits and any unrealized gains or losses are the only accounting entries recorded. All futures contracts should be valued on

the basis of either market or the lower of cost or market, at the option of the bank. All losses resulting from monthly contract value determination should be recognized as a current expense item; those banks that value contracts on a market basis would recognize gains as a current income item. In the event the above described futures contracts result in the acquisition of securities, they should be recorded on a basis consistent with that applied to the contracts (either market or lower of cost or market).

- 6. Futures contracts associated with *bona fide* hedging of mortgage banking operations, i.e., the origination and purchase of mortgage loans for resale to investors or the issuance of mortgage-backed securities, may be accounted for in accordance with generally accepted accounting principles applicable to such activity.
- 7. Bank financial reports should disclose in an explanatory note any futures contract activity that materially affects the bank's financial condition.
- 8. To assure adherence to bank policy and prevent unauthorized trading and other abuses, banks should establish other internal controls including periodic reports to management, segregation of duties, and internal audit programs.

contracts on the basis of either market or the lower of cost or market, with futures losses recognized as a current expense item. (As discussed below, this treatment is usually contrary to the bank's treatment of cash market investments.) Bona fide hedging of mortgage banking operations with futures contracts is exempt from this accounting treatment; these transactions may be

valued using the generally accepted practices of accounting.

All three federal bank regulators monitor bank transactions in futures contracts. National banks and bank holding companies are requested to notify their respective regulator(s) at the inception of futures trading activities, indicating the type and purpose of the activity. Monitoring

is also conducted through the bank examination process, although the timing and quality of this information is sometimes criticized. In light of what is learned through this continued review, the regulators may institute supervisory action in individual cases.

Trades by security dealer and trading departments at state member banks may be treated more liberally than futures trading to manage overall balance sheet risk. In this, they are similar to foreign bank exchange operations.⁹ On the other hand, futures trading by trust departments, trust subsidiaries, and trust companies is viewed more conservatively by both federal and state regulators. The Federal Reserve Board's policy statement dealing with bank holding company participation in financial futures reflects the view that bank holding companies should be a source of strength for their subsidiary banks and should not speculate in financial futures. Any positions that bank holding companies or their nonbank subsidiaries take in financial futures should reduce risk exposure, not increase it. (See box for a detailed outline of bank holding company regulations.) The bank holding company regulations are consistent with the commercial bank regulations in that the primary regulatory initiative must come from within the organization itself. The parent holding company may not, however, consider the interest rate exposure of its bank subsidiaries in formulating holding company policies with respect to futures. This is consistent with the Board of Governors' belief that the final responsibility for futures transactions that reduce the interest rate risk exposure of an affiliated bank resides with the management of that bank. In contrast to the commercial bank regulations, no accounting treatment for bank holding company futures transactions is mandated.

Although the parent holding company cannot execute financial futures transactions for its bank affiliates and carry the transactions on the parent company's books, Board policy does not preclude it from centralizing the futures transac-

tions of its bank affiliates for execution. As long as all transactions are passed through to its bank affiliates for the purposes of record keeping and those transactions reduce the net interest rate risk exposure of the bank affiliate, the centralization of futures trading by the parent may reduce the risk exposure of the entire organization.

Overall, the three federal regulators have adopted a policy stance that is quite liberal. A variety of futures positions can be taken by banks as long as it can be documented that the positions reduce the institution's net interest rate risk exposure. Because banks have had mixed results in matching the maturities of assets and liabilities, the guidelines on futures trading must be general enough to permit banks with a variety of balance sheet exposures to hedge their interest rate risk. Finally, the lower-of-cost-or-market accounting treatment of futures hedges is viewed as a deterrent to speculation because speculative losses cannot be hidden for long periods of time.

Problems and questions

Policing bank behavior so that it conforms with the policy statements, defining an institution's undesired interest rate risk exposure, and accounting for financial futures transactions are three problem areas in the current regulations. The policy statements of the three federal banking agencies establish a framework for the self-regulation of futures activities subject to review by bank examiners. Because the effectiveness of a futures hedging strategy can only be known *ex post*, periodic monitoring of futures activity through the examination process seems appropriate. But this policy relies heavily on examiner judgment in determining the acceptability of an individual institution's futures transactions.

Do examiners have the expertise to make such a judgment? If depository institutions are still learning how to use financial futures, how much more informed can examiners be? In addition, given the speed with which futures markets move and the level of trader sophistication, a more frequent monitoring of bank and thrift futures transactions by the regulators would be advisable.

The appropriate definition of an institution's

⁹See Federal Reserve Board document AD82-24 (FIS) Manual for Examination Concerning Bank and Bank Holding Company Use of Interest Rate Futures and Forward Contracts (July 26, 1982).

Regulations for futures trading by bank holding companies

In addition to the guidelines in items 2, 3, and 4 with respect to individual commercial banks (Box), bank holding companies should follow these additional guidelines.

1. In formulating its policies and procedures, the parent holding company may consider the interest rate exposure of its nonbank subsidiaries, but not that of its bank subsidiary. As a matter of policy, the Board believes that any financial contracts executed to reduce the interest rate exposure of a bank affiliate of a holding company should be reflected on the books and records of the bank affiliate (to the extent required by the bank policy statements), rather than on the books and records of the parent company. If a bank has an interest rate exposure that management believes requires hedging with financial contracts, the bank should be the direct beneficiary of any effort to reduce that exposure. The Board also believes that final responsibility for financial contract transactions for the account of each affiliated bank should reside with the management of that bank.
2. The joint bank policy statements of March 12, 1980 include accounting

guidelines for banks that engage in financial contract activities. Since a special task force of the American Institute of Certified Public Accountants is presently considering accounting standards for contract activities, no specific accounting requirements for financial contracts entered into by parent bank holding companies and nonbank subsidiaries are being mandated at this time. The Board expects to review further developments in this area.

3. The Board intends to monitor closely bank holding company transactions in financial contracts to ensure that any such activity is consistent with maintaining a safe and sound banking system. In any cases where bank holding companies are found to be engaging in speculative practices, the Board is prepared to institute appropriate action under the Financial Institutions Supervisory Act of 1966, as amended.
4. Bank holding companies should furnish written notification to their District Federal Reserve Bank within 10 days after financial contract activities are begun by the parent or a nonbank subsidiary.

undesired interest rate risk exposure is related to the issue of policing compliance. If an examiner judges that futures activity lowers net interest rate risk exposure, such activity is acceptable to the regulators. But how should a depository institution's overall exposure be measured and how much of this exposure is deemed undesirable? The overriding standard by which futures transactions are judged—the reduction in net interest rate risk exposure—can be measured only subjectively. None of the policy statements offer guidance as to the measurement of risk exposure. In a sense, the implied flexibility in the

measurement of bank risk exposure is consistent with flexibility in the implementation of a hedging program. The most widely used measure of the exposure of net interest income to changes in interest rates is the maturity gap approach, which involves classifying all asset and liability accounts by their term to maturity (or first permissible repricing whichever comes first).¹⁰ Maturity mismatches or gaps between assets and liabilities are calculated for subintervals in the predetermined horizon or over the entire horizon

¹⁰As one possible approach to developing a gap analysis model, see Appendix 8 of the manual referenced in note 7.

to assess the interest rate risk exposure.

The overall horizon and the subinterval cutoffs are determined subjectively; changing these limits can alter the evaluation of interest rate risk exposure appreciably.¹¹ Cumulating the subinterval gaps to measure overall risk exposure is of limited value because it hides the differences in asset and liability repricing and maturity that occur within the horizon. The maturity gap approach does not generate a single index number of interest rate risk exposure that the bank or thrift could use to assure that its futures transactions reduce overall net exposure.¹² The maturity gap measure also encourages a depository institution to use futures to hedge specific cash market instruments at specific subinterval maturities (micro hedging) to the possible detriment of regulatory objectives (macro hedging).

In addition, regulators realize that most types of normal banking activities are speculative to some degree, based on expectations of future interest rate movements. Thus, it seems plausible that banks and thrifts will want to carry some cash market interest rate risk even while engaging in futures transactions. Hedges may be selective or partial rather than complete and may be placed and lifted according to expectations of interest rate changes and futures gains.¹³ Because banks and thrifts use interest rate forecasts in their cash market activities, it seems natural to use these forecasts in futures position-taking. The drawback with such selective hedging is that the risk-reduction potential of futures is sacrificed for a futures return greater than can be

earned with complete risk exposure hedging. The success of a selective hedging program depends on consistent forecasting accuracy, which may be beyond the abilities of most bank managements.

Whether or not a bank selectively hedges just the undesired portion of its interest rate risk exposure, the jointness of cash and futures market transactions can also have an effect on the underlying risk exposure of the institution. The policy statements of the regulators suggest that futures transactions should occur after cash transactions because the latter are needed to calculate its net interest rate risk exposure. But suppose an institution's cash and futures market decisions are made simultaneously rather than sequentially. For example, a bank may decide to make more long term, fixed-rate loans when it has authorization to engage in futures transactions than it would without such authorization.¹⁴ Net cash market interest rate risk exposure may then be greater with futures than without them. Depending upon its objectives, it may be optimal for the bank to make simultaneous cash and futures decisions to attain its desired level of risk bearing.¹⁵ Should institutions be required to make futures decisions without regard to other cash market decisions and vice versa? If so, the gains from preventing joint decisions must be greater than the losses from the possibly suboptimal allocation of financial resources resulting from sequential decisions.

Another major issue concerns the accounting treatment applied to financial futures transactions.¹⁶ As already indicated, commercial

¹¹Bank examiners are requested to review an institution's gap analysis model to see if the assumptions are realistic and reasonable.

¹²The disadvantages of the maturity gap approach to interest rate risk exposure measurement are summarized by Alden L. Toevs, "Gap Management: Managing Interest Rate Risk in Banks and Thrifts," *Economic Review*, Federal Reserve Bank of San Francisco, Spring 1983, 20-35; and George G. Kaufman, "Measuring and Managing Interest Rate Risk," *Economic Perspectives*, Federal Reserve Bank of Chicago, January/February 1984, 16-29. These authors also offer an alternative risk exposure measure based on a duration approach.

¹³The Federal Reserve Board's instructions to examiners caution them to watch for excessive opening and closing of futures positions to guard against speculative activity.

¹⁴This result is shown theoretically by G. D. Koppenhaver, "A T-Bill Futures Hedging Strategy for Banks," *Economic Review*, Federal Reserve Bank of Dallas, March 1983, 15-28.

¹⁵In the situation where banks set deposit rates and take futures positions to hedge the risk of core deposit withdrawals, simultaneously, it has been estimated that such behavior significantly increases the variability of bank profits. See G. D. Koppenhaver, "Managing Deposit Flows with Cash and Futures Market Decisions," Unpublished paper, Research Department, Federal Reserve Bank of Chicago, 25 pages.

¹⁶For another discussion of the federal bank regulators' accounting prescriptions, see Michael R. Asay, Gisela A. Gonzalez, and Benjamin Wolkowitz, "Financial Futures, Bank Portfolio Risk, and Accounting," *Journal of Futures Markets*, Winter 1981, 607-618.

banks have the option of carrying futures transactions on a mark-to-market basis or a lower-of-cost-or-market basis. The rationale for this policy is that futures losses cannot be deferred and must be realized as a current expense item as they occur. The issue, however, is the extent to which this policy also discourages legitimate hedging activity. The financial effects of futures transactions can be deferred as long as the futures are "right" in the sense of favorable price movements relative to the futures position taken. If the futures trades are "wrong" such that the futures market moves against the position, the bank is disciplined by having to report losses.

In and of itself, this treatment seems innocuous, but financial institutions have traditionally applied an amortized cost basis to account for their nondealer cash market transactions. That is, the cash items hedged with futures are usually not marked to market but are carried at amortized cost. Even though the bank's risk exposure is correctly hedged and its balance sheet made less risky, reporting futures losses as they are marked to market while deferring cash market gains results in greater volatility in reported earnings. This inconsistent accounting treatment of futures relative to cash transactions does not recognize and reflect the basic intent of futures hedging: to reduce the net interest rate risk associated with an institutions's cash market transactions.

At the time the three federal banking regulators issued their policy statements, no accepted accounting treatment was in practice in the industry, and the accounting profession itself differed as to what the appropriate standard should be. In order to prevent unsafe and unsound banking practice, the regulators considered the prescription of accounting standards for bank futures transactions to be within their statutory responsibility. In August 1984, the Financial Accounting Standards Board (FASB) issued a statement of accounting standards for futures hedging transactions that differ from those authorized by the federal bank regulators and from those proposed by the American Institute of Certified Public Accountants, issued in December 1980.¹⁷

Since hedge or deferral accounting merely

dictates when futures gains or losses are to be recognized as income and does not affect the accounting treatment of the hedged item, FASB outlines three criteria which must be satisfied before deferral accounting can be applied to futures transactions. If a transaction satisfies these criteria, deferred gains or losses are classified as an adjustment to the carrying amount of the existing hedged item and amortization of interest income or expense begins at the termination of the futures contract. The FASB criteria for hedge accounting treatment of futures are summarized as follows:

1. The item being hedged must expose the institution to interest rate risk such that futures hedging reduces the overall interest rate risk exposure of the institution (macro hedging). Risk can be assessed on a business unit basis when the decentralized nature of operations makes it impossible to consider the relevant positions and transactions of the entire enterprise.
2. At the inception of the hedge and throughout the hedge period, changes in the market value of the futures position must have a high (probable) correlation with the fair value of, or interest income or expense associated with, the hedged item so that the futures result will substantially offset the effects of price or interest rate changes on the hedged item (micro hedging). The futures contract(s) must be identified with a specific cash item or an identifiable group of essentially similar items.
3. If the hedged item is an anticipated cash transaction, the significant characteristics and expected terms of the anticipated transaction must be identified, and the anticipated transaction must be likely to occur.

¹⁷See *Statement of Financial Accounting Standards No. 80*, Financial Accounting Standards Board, Stamford, Connecticut (August, 1984).

In sum, these criteria fit with the principles and objectives underlying the federal regulators' policy statements. Commercial banks may have some marginal difficulty in decomposing their overall interest rate risk exposure into item by item components, as required by criteria 1 and 2, but the problem is not insurmountable. In light of the regulators' willingness to modify their prescribed accounting procedures, it would seem reasonable to authorize deferral accounting for futures transactions satisfying the FASB criteria to correct this technical impediment to banks' use of futures. A market discipline on bank futures transactions can be imposed more effectively in other ways.

Suggestions

There may come a time when an institution's *failure* to use the risk-shifting potential of financial futures is an unsafe and unsound banking practice. Until then, it is likely that bank regulators will continue to neither openly encourage or discourage bank participation in financial futures. As a risk management tool, financial futures hedging can be an effective device for reducing the net interest rate risk exposure of a depository institution's overall balance sheet until a restructuring can take place. Given the current and ongoing deregulation in the banking industry, an institution's environment is likely to become more uncertain, not less; to avoid a powerful risk management tool in such an environment only exposes financial intermediaries to more interest rate risk.

Before the time of "mandated" futures trading by banks arrives, much needs to be done to educate the institutions and regulators alike about the benefits and dangers associated with financial futures. Such an education effort requires an ongoing research effort as well. The rapid innovation of new futures contracts, especially financial futures contracts, makes both research and the education process continuous and more complicated.

As regulatory policy governing bank use of financial futures now stands, some refinements are possible within the context of primary regulation by the market and through self-policing activity.

First, the regulators should specify definite measures of interest rate risk exposure to be used by classes of institutions engaging in financial futures transactions. This would aid management as well as examiners in monitoring compliance with stated policy. If it is within the regulators' statutory responsibility to specify accounting treatments for futures, it would also seem to be within their statutory responsibility to specify how risk exposure should be measured.

Second, the regulators should authorize deferral accounting for futures transactions to remove the bookkeeping impediment to futures use that exists in current bank policy.¹⁸ Tying accounting procedures to the intent and purpose of hedging will reduce the variability of reported earnings and help correct any inaccurate notions of what constitutes hedging and speculation.

Third, as a substitute for the market discipline imposed by the current policy on futures accounting, consideration should be given to the institution of a system of either risk dependent deposit insurance premiums or risk dependent futures margin requirements, over and above the exchange and brokerage requirements, based on the institution's past futures hedging results. In the latter case, liquid funds similar to loan loss reserves could be earmarked in the event an institution's past hedging results reveal a misuse of futures. Either system would raise the cost to the institution of making unsound banking decisions with respect to futures. Since it is unlikely that insured depositors will penalize a bank or thrift for assuming speculative futures positions, restricting the availability of funds for futures transactions through increased insurance premiums or margins can be used to inhibit an institution's use of futures contracts.

Regulatory control of futures use by banks is possible but current policy should be fine-tuned so that legitimate hedging activity is not discouraged. As bank participation in financial futures becomes more widespread, the benefits of such regulatory changes should become much more apparent.

¹⁸In view of *Statement of Financial Accounting Standards*, No. 80, this authorization is currently being studied by the Board of Governors.