

Mark-to-Market Accounting Undercuts Banks' Loan Hedging

by Allan Yarish and Brian Hurdal

FAS mandates that derivatives be recognized in the statement of financial condition as either assets or liabilities and are to be disclosed at fair value. Changes in fair value of the derivative instrument may be offset by changes in the value of the hedged asset. However, distortions that arise from differences between fair value accounting of derivative instruments and the accrual accounting valuations used in valuing bank loans makes hedge accounting difficult if not impossible to achieve. This article explains the problem and offers a possible solution.

Money can't buy happiness, but risk managers like to think credit derivatives bring the next best thing—peace of mind in a volatile, unpredictable world. That's the argument for credit default swaps: They help manage the downside of bank lending—the risk of borrower default following an unforeseen change in financial condition.

The over-the-counter capital markets, the place where credit derivatives are originated and

traded, have an enormous capacity for absorbing credit risk. As risk managers gained insight into the power of credit derivatives, banks became active users of credit derivatives to diversify loan portfolios and free up capital for additional lending. Credit default swaps today are widely used in portfolio risk management, according to the January 2003 Federal Reserve Senior Loan Officer Opinion Survey.

About 35% of the 36 largest domestic banks surveyed by the

Federal Reserve said they used credit default swaps to hedge risk in their outstanding commercial loans and loan commitments. Non-U.S. banks use default swaps even more extensively. About half of the foreign banks surveyed said they purchased credit protection using default swaps. Twenty-five percent hedged 8% or more of their loan commitments with default swaps.

Both domestic and foreign banks said they preferred buying credit protection through default

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swaps over selling loans because swap agreements preserved the bank's relationship with the borrower.

Since the early 1990s, when default swaps were first introduced, the over-the-counter credit swap market has seen tremendous growth. The popularity of the default credit swap (CDS) is evident from the rapid growth in the notional values of these contracts. In 2001, the International Swaps and Derivatives Association (ISDA) began tracking the value of outstanding swaps; as of 2002 year-end, the notional value of outstanding credit default swaps was reported at *\$2,149 billion*, or more than double the market size a year earlier, according to ISDA survey data.

A large part of the appeal of credit swaps is explained by their simplicity. Credit default swaps allow one party to “buy” protection from another party against potential losses in a specified loan or loan pool. The “seller” of protection, usually another commercial bank or an investment bank, agrees to make compensating payment to the buyer following any of several triggering “credit events,” such as bankruptcy or failure to pay. The protection “buyer” effectively exchanges the reference entity credit risk for risk that the “seller” is willing and able to compensate the “buyer” following a “credit event.”

Default swaps are easily traded in the secondary market, much like investment-grade bonds. Bank loans, on the other hand, are generally illiquid investments and are held to maturity. Five-year swap maturities trade most frequently, as

this part of the credit curve typically has the highest liquidity.

Mark-to-Market versus Accrual Accounting

The other side of the story is the financial accounting standard, FAS 133 (Accounting for Derivative Instruments and Hedging Activities), a set of reporting guidelines for derivative contracts that continues to pose compliance issues for U.S. GAAP reporting companies. Non-U.S. companies will have similar hurdles to deal with when IAS 39, a comparable set of accounting rules drafted by the International Accounting Standards Board, becomes effective a year or two from now.

The objective of both FAS 133 and IAS 39 is straightforward and easily stated: Derivatives are reportable on the balance sheet as either assets or liabilities and are to be disclosed at fair value. Any changes in mark-to-market (MTM) fair value of the derivative instrument are offset by changes in the value of the hedged asset.

Inevitably, the differences between MTM accounting valuation used in valuing derivative instruments and the accrual accounting valuations used in valuing bank loans can lead to valuation distortions—and distortions in bank earnings from one quarter to the next.

Unlike financial derivatives, bank loans typically are valued at their loan origination value (book value) under accrual accounting rules. When full repayment is considered doubtful, this book value is revised downward, and

the loan becomes an “adversely classified” asset.

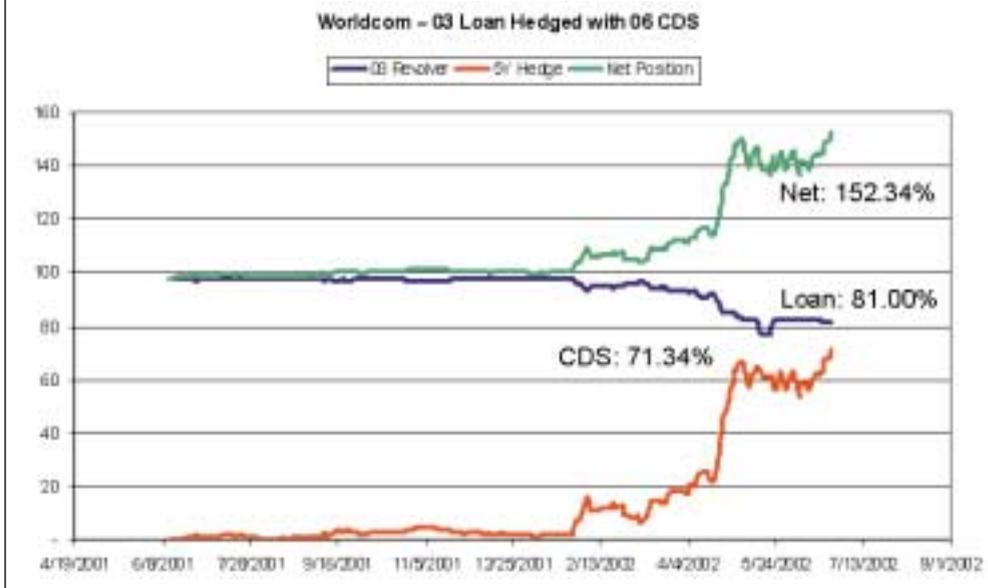
Short-term valuation differences also can result when bank loans are hedged against longer-term derivatives. In bank risk management, a practice sometimes applied is to use a five-year default swap to hedge a shorter-term loan, such as a two-year revolver. This allows the bank to take advantage of better market liquidity—and pricing—in the five-year maturity range.

An obvious mismatch in the accounting treatment occurs when two-year loans are hedged with five-year default swaps. Normally, this valuation mismatch has little or no impact on profit and loss, as is the case when the credit risk doesn't materially change. The pricing differences eventually reconcile and are minimal at loan maturity.

As loans near impairment, however, the valuation differences—however temporary—become exaggerated to the extent that the loan in question no longer qualifies for hedge accounting treatment. In this case, the hedge gain must be recognized immediately in the profit and loss statement without a similar offset from the loan. The bank will be able to recognize a loss that offsets the credit derivative gain only when it is probable that a creditor will be unable to collect all amounts due.

Consider the example of a \$100 million two-year revolving loan to WorldCom originated in July 2001. The loan is hedged with a five-year credit swap derivative (see Figure 1). For the first several months, the bank loan and

Figure 1
Distortions Flowing from MTM Hedge Accounting, WorldCom—June 11, 2001 to June 25, 2002



default swap are strongly correlated in value and the net impact of marking the loan and the default swap to fair market value is quite nominal.

In February 2002, the swap valuation and the loan value begin diverging dramatically. What is happening is that the credit spread on WorldCom obligations widened significantly as the financial difficulties of the borrower became public knowledge.

Because of the valuation divergence, under FAS 133 the lender is required to take into income the 71% gain of the credit derivative but cannot take into P&L a 19% loss on the loan. The lender is required under accounting rules to recognize a net gain of 52% on a deteriorating asset, assuming the loan is

deemed to be impaired. The net profit in this illustration would be \$52 million.

If the borrower ends up defaulting on a fully hedged loan, the value of the loan would typically deteriorate further—in this example, falling to 25 cents on the

dollar (see Figure 2). The net difference between the loan and swap is 96.84% of par, which is about a 3% loss, or \$3 million.

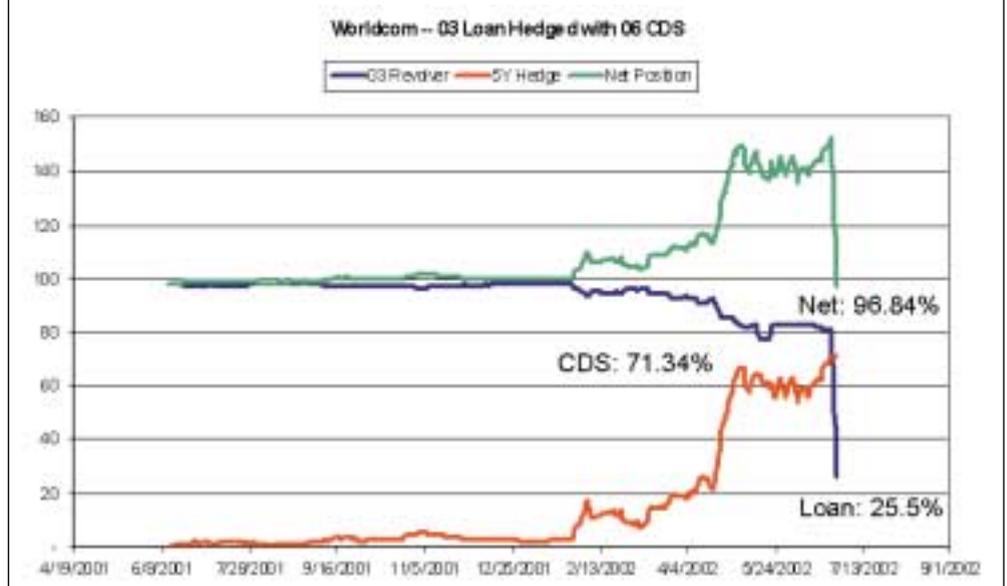
Hedge Effectiveness

Valuation swings of this magnitude illustrate the difficulties of trying to apply hedge accounting to longer-dated credit derivatives. Under FAS 133, derivative contracts qualify for hedge accounting treatment as long as the hedge is “highly effective” through the term of the swap agree-

ment. In simplest terms, this means the value of the underlying hedged asset—the bank loan—and the derivative contract are highly correlated within a range of values.

There are several methods for calculating hedge effectiveness for

Figure 2
Distortions Flowing from MTM Hedge Accounting, WorldCom—June 11, 2001 to June 25, 2002



fair value swaps, including credit default swaps. Ultimately, it must be demonstrated that the correlation of the underlying asset with the hedge has to be between 80% and 125%. If this is the case, then only the 20-25% portion of the hedge that is ineffective will affect P&L.

For credit default swaps, the drawback is that high effectiveness is difficult to achieve consistently from one accounting period to the next, especially if the tenor of the hedge is longer than the loan. A risk develops that small changes in credit spreads will result in numbers outside the 80-125% range that would invalidate the hedge accounting and cause the entire position to be marked to market.

Given the limitation imposed by accounting rule-making bodies, the International Association of Credit Portfolio Managers reports finding no viable mechanism for establishing hedge accounting treatment for loans hedged with credit derivatives. The Derivatives Implementation Group, an advisory group affiliated with the Financial Accounting Standards Board, has to date issued very little technical guidance regarding hedge accounting for credit swaps.

How will banks react? Banks could respond to the accounting disparity created by the MTM requirement by unwinding gains halfway through the migration of a loan out of the "highly effective" range. This approach might work if the loans don't become impaired or go into default, because gains otherwise would be reversed as the

revolving loan and default swap approach maturity. However, this is an unreasonable expectation and defeats the portfolio manager's main purpose of using credit derivatives, which is protection in the event of default.

Mark-to-market accounting of derivative gains (or losses) also has the unwanted result of increased volatility in reported bank earnings. Banks in general would have a more difficult time explaining volatility in earnings to the market. Gains on the MTM hedge book may not be coincident with losses on the accrual loan book, meaning that last quarter's gains offset this quarter's losses. One possible reaction is that bank CEOs and boards of directors would likely be less enthusiastic about devoting energy and money toward expensive hedges if they cannot demonstrate that hedging reduces both actual losses and volatility in income.

Hedging is important to financial institutions because it enables banks to maintain targeted, niche-oriented relationships while maintaining adequate portfolio diversification. The fact that bank loan losses in the current business cycle compare favorably to losses during the business contractions in the early 1980s and 1990s results in large part from greater emphasis on risk management and portfolio diversification. Credit default swaps also provide banks an opportunity to attract new groups of investors through the sale of participations in collateral debt obligations (CDOs) and similar investment pools backed by financial derivatives.

Some Possible Solutions

Credit default swaps would arguably be much more effective risk management tools if banks could more easily apply hedge accounting to their commercial and industrial loan portfolios. As seen in the WorldCom example, hedge accounting still requires mark-to-market reporting of the net position, or the difference between loan value and derivative instrument.

Ideally, a long-term solution to the accounting mismatch problem might be some form of scope exclusion that would effectively exempt loans hedged with credit default swaps from MTM accounting requirements. This might be accomplished through some modifications to the FAS and IAS standards that would define hedge effectiveness in qualitative terms, that is, seniority matching, maturity matching, or name matching for hedges of credit positions.

While the accounting rule-making bodies seem intent on extending MTM accounting to all types of financial assets, such a move would have an unwelcoming and potentially negative effect in the financial system. Bank loans, unlike marketable securities, are essentially illiquid assets. Credit derivatives enable banks to achieve portfolio diversification, while maintaining customer relationships.

In a full mark-to-market world, who would hold the credit risk? Would banks be willing to live with the resulting volatility? Do banks become nothing other than glorified fund managers? □

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