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Interest Rate Swaps: Accounting vs. Economics

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Although accounting rules undergo virtually ongoing review and adjustment, the genesis of the current framework is Statement of Financial Accounting Standards (FAS) No. 133, *Accounting for Derivative Instruments and Hedging Activities*, which was originally issued in June 1998. Prior to this statement, interest rate swaps had been "off balance sheet"—meaning that swap market values were not at all transparent. FAS 133 changed that treatment by requiring all qualifying derivatives (swaps included) to be recorded on the balance sheet at fair value. How (and where) changes in values of these swaps are to be recorded depends on their intended use and other technical considerations.

Three alternatives are possible:[1]

1. If the swap was used for *trading* purposes (or if it was not specifically documented to be a hedging contract), gains or losses are to be reported in earnings.
2. If the swap qualifies for *cash flow hedge accounting*, which is likely to be the case if the swap was being used to transform a floating-interest-rate exposure to a fixed-interest-rate exposure, the accounting treatment requires a comparison of the derivative's performance with that of an ideal (i.e., a hedge that perfectly offsets the effects of the risk being hedged).[2] On the one hand, *effective* results are gains (or losses) of the actual derivative equal in magnitude to or less than the ideal gain (or loss). These results are initially recorded in "other comprehensive income" (OCI, a component of equity) and later reclassified to earnings, coincidently with the earnings impact associated with the hedged item (i.e., the cash flow being hedged). On the other hand, *ineffective* swap results (i.e., gains or losses generated by the swap in excess of the ideal) are recorded directly in income.[3]
3. If the swap is designated a *fair value* hedge, which is likely if the swap is used to convert from a fixed rate to a floating rate, the total swap results are recorded in earnings but so also is the change in the value of the debt being hedged because of the risk being hedged.[4]

For most nontrading companies that use derivatives to manage interest rate risk, qualifying for and applying cash flow or fair value hedge accounting is vital. With hedge accounting, gains/losses from derivatives are sure to be recognized in earnings concurrently with the interest expenses or revenues associated with the risks being hedged. Without hedge accounting, the two income effects are likely to occur in different accounting periods. Whether hedge accounting is used or not, the same aggregate income will ultimately be reported, but period-by-period income volatility will undoubtedly be mitigated under hedge accounting. All else being equal, managers, owners, and analysts concur that lower reported income volatility results in lower stock price volatility and a higher multiple. The preference for hedge accounting, then, is understandable.

To qualify for hedge accounting, reporting entities have to document their hedges and meet a series of specific requirements. In particular, preparers must provide justification for expecting that the hedges will offset changes in fair values or cash flows of the associated hedged items due to the risks being hedged. When the derivative is structured to address a specific risk, you might expect preparing such documentation and meeting the requirements to be a trivial exercise. But you would be in for a surprise.

The Shortcut Treatment

The FASB clearly thought about this issue in connection with the use of interest rate swaps and allowed for a special "shortcut" treatment when the critical terms of the swap match those of the debt. For the critical terms to be matching, the swap must be tailored to reflect the features of the instrument being hedged. Among other things, the swap's notional amount would match the debt's principal. Also, the accrual periods and reset periods of the swap and the debt would be the same.

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Applying the shortcut method serves to ensure the desired matching of hedge gains/losses with those associated with the earnings impact of the hedged items and does so with less onerous accounting calculations and documentation than would otherwise be required. In particular, qualifying for the shortcut method eliminates the need to specify and carry out tests of effectiveness. Moreover, because perfect effectiveness may be assumed, the issue of *measuring* effectiveness also becomes moot.

For the most part, qualifying for the shortcut simply requires documenting that the critical terms of the swap match those of the associated exposure. With that documentation in place, the shortcut accounting treatment ends up providing "synthetic instrument accounting." That is, swapping from fixed to floating fosters a posthedge interest expense or revenue that replicates that which would arise from a variable-rate security; conversely, swapping from floating to fixed generates a fixed amount of reported interest income/expense per period.

Unfortunately, a number of companies—perhaps most prominently, Fannie Mae (Federal National Mortgage Association)—claimed the ability to apply the shortcut treatment but the U.S. SEC disagreed. The outcome (required by FAS 133) was that these companies had to restate earnings to disallow hedge accounting altogether. Clearly, the SEC was sending a message. It could have overridden FAS 133 and denied the shortcut but still allowed hedge accounting carried out in the "long haul" procedures (i.e., regular cash flow or fair value hedge processing). In that case, in all likelihood, a relatively minor adjustment to reported earnings would have resulted. Rather, the SEC came across loud and clear in support of the FASB rules: Inadequate or incorrect documentation disallows the ability to apply hedge accounting—period.

Not surprisingly, this posture caused many companies to take a fresh look at their documentation and hedge effectiveness testing and measurement procedures. Many companies have eschewed the shortcut option and elected instead to apply the long-haul method. By doing so, they believe they can reduce the prospect of being denied hedge accounting because a condition for the shortcut treatment has been inadvertently overlooked or violated.

Forgoing the shortcut treatment has little impact on cash flow hedges (i.e., when the objective is to swap from floating to fixed). That is, if the swap is structured to reflect the best estimates of the expected future cash flows of the variable cash flows that were designated the hedged item, the assertion can (and should) be made that the swap is identical to a "hypothetical derivative"—the perfect hedge for the designated exposure. As such, unless and until any aspects of the hedged item change, this swap will be perfectly effective at offsetting cash flows—without reliance on the shortcut election. That is, exactly the same accounting entries as those of the shortcut entry will result.

The same cannot be said, however, for fair value hedges. For one thing, the long-haul method for fair value hedges requires a different calculation from that required by the shortcut. Specifically, in the shortcut method, the adjustment to the carrying value of the hedged item is determined as a function of the swap's results. In the long-haul method, the reporting entity must independently determine the value change in the hedged item *due solely to changes in the benchmark rate*—a calculation that is by no means trivial.

Even more of a problem is that with fair value hedges, even though the swap perfectly satisfies the economic objective of exchanging future fixed cash flows for future variable cash flows, to be *effective* in an accounting sense, an alternative objective must be satisfied. The swap must generate a gain or loss that perfectly offsets the change in the value of the debt resulting from the observed change in the benchmark interest rate (i.e., the change in the LIBOR-based swap rate). In fact, the FASB seems to be unconcerned that the swap was never designed to perform in this fashion. Indeed, in the general case, the equivalency that the FASB seems to be looking for would *not* occur. The reason these two effects should be expected to differ is that different discount rates are prescribed for valuing the gains/losses for, respectively, the swap and the hedged item.[5] Thus, even though the *exactly* correct future cash flows are generated by the swap, the two respective present value changes will generally *not* be equal.[6] Under FAS 133, differences between these two effects are considered to be ineffective. And if the ineffectiveness is sufficiently large, hedge accounting may be disallowed—even though the hedge is working perfectly in an economic sense.

Living with the Current Rules

Operating under the current posture of the standard, hedgers should at least understand the difference between structuring a hedge designed to offset future cash flows and structuring a hedge to offset changes in fair values. These two objectives require

different hedges. In the first case, the swap's notional amount should match the principal of the debt being hedged, but companies that structure their hedges in this way may be exposed to the risk that hedge accounting might be denied at some point. If they choose, instead, to structure the hedge with the objective of offsetting changes in the fair value of debt arising from changes in the benchmark rate (i.e., the typical fair value hedge objective), the notional amount of the swap should *not* match the principal amount of the debt. With such a hedge construction, however, the hedger should understand that the resulting income effect will not match the shortcut result. Thus, it will not correspond to the original economic objective of achieving an effective interest expense or revenue that directly ties to the swap's underlying variable interest rate.[7]

If the objective is to structure a hedge to offset changes in fair values (i.e., to ensure that hedge accounting is permitted, seamlessly), the hedge should be designed to equate the interest rate sensitivities of the hedged item and the hedging derivative. The concept of "the dollar value of a basis point" (DVO1) is relevant in this regard. This measure computes the price effect (i.e., the change in the fair value of the debt instrument) arising from changing interest rates by 1 bp. If the swap and the fixed-rate debt happen to have the same fixed interest rate, the DVO1 will be the same for the debt and the swap. But this condition generally will not hold. As a rule, the instrument with the lower fixed interest rate will have the greater interest rate sensitivity, and vice versa. Thus, if the swap's fixed rate is higher (lower) than that of the debt, the ideal fair value hedge from an accounting point of view requires the notional size of the swap position to be greater (lesser) than the debt's principal amount.

A Call for a Change

First, in the best of all possible worlds, independent of any consideration relating to shortcut treatment, the FASB (and the International Accounting Standards Board) should reconsider the restrictions it imposed in connection with cash flow hedge accounting and allow this treatment for any interest rate risk management application that relates to future cash flows—irrespective of whether those cash flows are fixed or variable. Currently, cash flow hedge accounting applies only to uncertain cash flows. This requirement obliges entities to document what they are doing in an artificial and unnatural way. When swapping from fixed to floating, risk managers are seeking to (and will successfully) alter future cash flows. They aren't seeking to offset changes in fair value. The current documentation rules virtually force companies to misrepresent their objectives.

Realistically, for the FASB to make such a drastic adjustment in the FAS 133 model is unlikely. In that case, a second-best alternative would be for the FASB to clarify and *liberalize* the shortcut treatment. The current state of affairs, in which entities seem to be afraid of applying an allowed procedure because of regulatory uncertainty, is inappropriate, undesirable, and easily correctable.

Third, in a more liberal posture, minor differences in the timing of the cash flows for the debt and the swap should be of little concern. Additionally, use of the shortcut would be authorized if the swap was the correctly designed swap when traded, even if the official hedge designation occurred later.[8]

It is certainly appropriate to restrict shortcut treatment to cases in which the notional amount of the swap matches the principal of the debt and the swap's start and end dates correspond to the accrual periods relevant to the designated hedged item. But little beyond these few conditions should be required.

Conclusion

Application of any of the three recommendations would represent a clear improvement over current practice. Each would simplify implementation of the standard and foster accounting results that more accurately reflect the intended economics of the related hedging transactions. The status quo leaves much to be desired.

This article qualifies for 0.5 PD credit.

Notes

1. See my article, "What Analysts Need to Know about Accounting for Derivatives," in the March/April 2004 issue of the *FAJ*.
2. For interest rate exposures, FAS 133 may address one of several distinct risk exposures: (1) the risk of benchmark interest rate changes (i.e., LIBOR-based or U.S. Treasury interest rates), (2) the risk associated with the full interest rate changes associated with the exposure (assuming it is other than a benchmark rate), or (3) the credit aspect of interest rate risk (i.e., the difference between the exposure's interest rate and the associated benchmark interest rate).
3. For purposes of this allocation between earnings and OCI, the effectiveness assessment must be based on cumulative comparisons.
4. In the typical case, the risk being hedged would be the risk associated with changes in the benchmark rate; so, the change in the carrying value would probably *not* be the same as the change in the debt's market value. This issue is discussed more completely later.
5. Paragraph 120C of FAS 133 details one acceptable procedure for determining the magnitude of the change in the carrying value of the hedged item.
6. This generalization does not hold if the yield to maturity on the debt happens to be exactly equal to the fixed rate on the at-market swap when the hedge is initiated.
7. These generalizations pertaining to the notional amount of the swap and the principal amount of the debt presume that the maturities of the two are the same.
8. In this situation, on the date of the hedge designation, the swap is unlikely to have a zero market value, which would disallow the shortcut treatment.

