Association for
Financial Professionals

SURVEY RESULTS

THE IMPACT OF FAS 133 ON THE RISK MANAGEMENT PRACTICES OF END USERS OF DERIVATIVES

May 21, 2001

FOREWORD

Although the Financial Accounting Standards Board (FASB) issued Financial Accounting Statement 133 (FAS 133) in June 1998 with a June 15, 2000 effective date, most companies had to comply with these new rules pertaining to accounting for hedging transactions and derivative instruments for the first time, beginning with the first quarter of 2001. Prior to implementation, AFP and other parties provided written comments and testified publicly concerning initial problems associated with this standard. These problems included its complexity, its potential impact on earnings volatility and concerns that the rule would discourage the use of legitimate risk management tools.

These efforts resulted in substantial changes to the rule along the way, as well as a delay in its originally scheduled effective date. By now, however, virtually all reporting entities have had to grapple with these difficulties over the course of at least one quarter.

The impact of FAS 133 on the corporate use of derivatives as hedging instruments has been — and continues to be of great concern to our members and to regulators at FASB and the Securities and Exchange Commission (SEC). With these concerns in mind, AFP thought it timely to survey its members to gauge the degree by which FAS 133 has altered or may alter the behavior of corporate end-users of derivatives.

AFP's Research department conducted this survey with the assistance of Ira Kawaller, who developed the survey instrument and assisted in the preparation of this report. Kawaller is the founder of Kawaller & Company, LLC, a consulting organization that specializes in assisting commercial enterprises in the use of derivatives instruments. He is also a member of FASB's Derivatives Implementation Group (DIG), an advisory panel that offers guidance to FASB on FAS 133 implementation issues.

Prior to founding Kawaller & Company LLC, Kawaller was vice president-director of the New York office of the Chicago Mercantile Exchange. He holds a Ph.D. in economics from Purdue University and his articles have appeared in *AFP Exchange* and other AFP publications.

The project was carried out under the direction of the Financial Accounting and Investor Relations Task Force (FAIR) of AFP's Government Relations committee. The task force played a major role in providing input to the design of the survey instrument and analysis of the results.

The survey was mailed to treasury and finance professionals in early January 2001. More than 200 companies responded including a wide cross-section of businesses and revenue sizes. Approximately two-thirds were publicly traded; one-third were privately held. Responses came largely from the following job titles: treasurers (29 percent), assistant treasurers (23 percent), CFOs (16 percent) and risk managers (11 percent).

A majority of respondents reported that the primary responsibility for implementing FAS 133 in their companies resided in one of two areas: auditing and control (36 percent) or treasury (27 percent). Other functions responsible for implementation included the CFO, risk manager and financial reporting officer.

Executive Summary

The purpose of this survey was to assess the degree to which end users of derivatives have modified their behavior in response to FAS 133. The survey asked detailed questions pertaining to the types of exposures under the broad categories of interest rate, currency and raw material/commodity price risks. It also assessed the degree to which specific tools (e.g., swaps, forwards, futures, options, etc.) are used in connection with a wide range of applications.

A number of specific conclusions may be drawn:

- Two thirds of the respondents believe FAS 133 has imposed an "excessive burden" on reporting companies.

- Twenty-five percent of respondents indicated that they expected to apply regular derivatives accounting – as opposed to applying special hedge accounting – for a significant portion of their derivatives use, as a way to simplify their accounting processing.

- Required documentation that demonstrates that hedges must be expected to be highly effective as a precondition for hedge accounting appears to be most problematic in connection with hedges of variable interest rate funding.

- In virtually all categories of risk, it appears that the new accounting requirements fostered (or will foster) a small reduction in hedging activity, either in the recent past or in the near term. Even so, a significant number of respondents who currently do not use derivatives to manage risk plan to do so in the future. If these plans are carried out, the percentage that manages risk with derivatives after the implementation of FAS 133 eventually will exceed the pre-FAS 133 percentages for all categories of risk.

- Before FAS 133's adoption, hedgers showed a marked preference for interest rate swaps to hedge interest rate exposures and forward contracts to hedge currency and commodity price exposures. Although the change in instrument preferences post-FAS 133 adoption versus pre-adoption seems to be marginal, in general the original preferences for swaps and forwards seem to have been enhanced, at the expense of plain vanilla options, futures contracts and other derivatives.

- Fifty-eight percent of the respondents hedge exposures in both (1) firm commitments to buy or sell foreign goods and/or services and (2) variable interest rate liabilities. In all other exposure categories, firms that hedge with derivatives are in the minority.

- Only 25 percent agreed with the view that FAS 133 imposed a beneficial discipline on risk management activities.

- Two thirds of firms that had formal risk management policies in place before the adoption of FAS 133 reported that their existing policies had to be amended to accommodate the new standards.

- More than 70 percent of respondents have adapted or will adapt their existing systems to FAS 133 requirements, as opposed to purchasing or leasing a FAS 133 compliant system to meet some FAS 133 requirements.

- Auditors and consultants were reported to be the most favored source of information about FAS 133; bankers the least favored source.

Overview of the Impact of FAS 133

What follows is a discussion of the results of this survey. Because the topics covered in the survey were detailed and complex, the reader is urged to review the survey questions before reading the remainder of this document.

The survey indicates that respondents believe FAS 133 has caused significant problems for reporting companies. Two thirds agree with the view that it has imposed an excessive burden on risk management activities. Although 25 percent of the respondents believe that FAS 133 fosters a beneficial discipline on risk management activities, 47 percent disagree with this view.

Significant minorities of respondents indicated specific changes in behavior as a result of FAS 133:

- Twenty-five percent said they elected to mark a significant portion of derivatives to market through earnings, rather than devoting time and expense to the process of qualifying for special hedge accounting.

- Twenty-three percent said risk management activities became more centralized as a result of FAS 133.

- Twenty-nine percent said restrictions on hedging portfolios forced a significant change in their risk management approach.

- Eighteen percent said the restrictions on netting practices for internal derivatives resulted in a significant change in their approach to hedging.

Although most respondents did not experience a reduction in hedging activities as a result of FAS 133, more respondents reported decreases in hedging activities than increases. The percent who reported decreased hedging activities in connection with commodity or raw material prices was eight percent; for interest rate exposures, 17 percent; and for currency exposures, 12 percent.

The survey asked a series of questions designed to assess the level of companies' preparedness in connection with their risk policies and their systems capabilities. It also investigated general perceptions about hedging activities and the impact of FAS 133 requirements. Over half of the respondents indicated that they had a formal risk policy document in place prior to the implementation of FAS 133, but about two-thirds of those respondents felt that modifications or adjustments were needed. Sixty-two percent reported that they reviewed or modified their policies periodically, but only one-third of

these do so with a regular, prescribed frequency. The remaining two-thirds do so on an "as needed" basis.

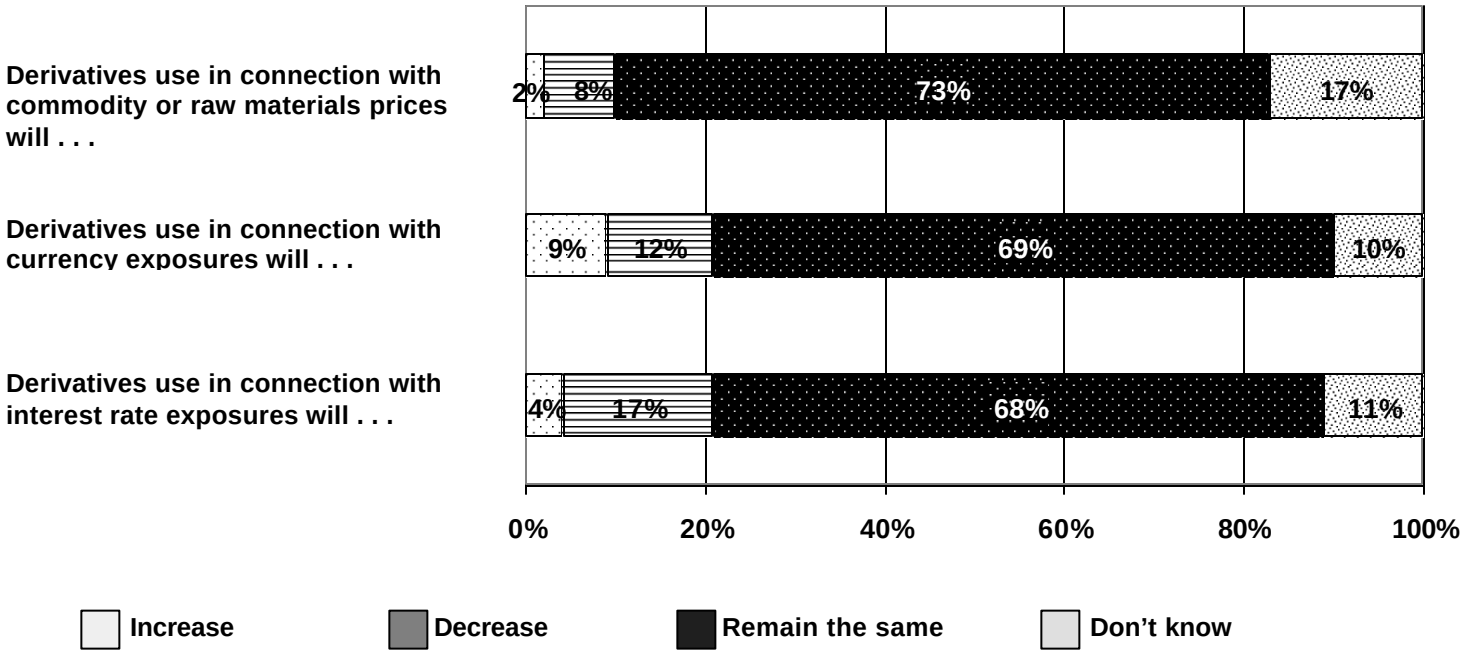
The survey results suggest a reluctance to rely on external systems expertise. Only 14 percent reported that they expected a new "FAS 133-compliant" system to fully satisfy their requirements. Twenty percent said that they intended to purchase or lease a FAS 133 system for all or part of their FAS 133 processing, and slightly less than 10 percent expected to contract for valuation and accounting services from a service provider. Better than 70 percent plan to adapt existing systems or create new stand-alone capabilities in-house.

Respondents were asked to rate the following sources of FAS 133 information: public conferences; private consultations with auditors or consultants; private consultations with bankers; and publications or Web sites (including the FASB). While all categories received a range of grades from the lowest (*not at all helpful*) to the highest (*very helpful*), consultations with auditors or consultants appears to be the most favored information source. Thirty-four percent rated this group in the highest category and only three percent rated it in the lowest. Consultations with bankers, on the other hand, rated only 10 percent in the highest category and 22 percent in the lowest.

Risk Management Practices

The survey segmented exposures into three categories: interest rate risks, currency risks and risks associated with prices of raw materials. Most respondents reported that their hedging activity for each category would likely remain about the same after implementation of FAS 133 versus before implementation (73, 68 and 68 percent, for the three risk categories respectively). However, a significant percentage of respondents did expect to change their level of hedging as a result of FAS 133. This indication was most dramatic for interest rate exposures, where 17 percent reported an expectation of lower hedging activity versus only four percent who reported an expectation of increased hedging activity.

Figure 1
Changes in Hedging Activities as a Result of FAS 133



Specific risk exposures were identified within each of the broad risk categories, and respondents were asked to identify those exposures that they managed prior to the adoption of FAS 133 and those that they manage (or intended to manage) after adoption. Table 1 provides a listing of the specific exposures in each category.

Perhaps the most surprising result of the survey is that in all but two cases, the majority of respondents indicated that their companies were *not* managing these risks using derivatives prior to FAS 133. The exceptions were (1) exposures in connection with variable interest rate liabilities and (2) exposures associated with currency exchanges where a firm commitment is in place for a prospective purchase or sale. In both instances, 58 percent of responding companies reported that they manage these risks. At the other extreme, the least managed risk was the risk associated with inventory values. (Only 21 percent reported that this risk was managed using derivatives.) Also, in *every* case, the percentage of those who managed these risks dropped by at least two percentage points with the implementation of FAS 133. The largest such drop was nine percentage points in connection with hedges of prospective debt issuances.

Despite the immediate reduction of hedging activity, the survey results show an appetite for hedging that is expected to grow *in the future*, across the board. Respondents indicated that the proportion of firms engaging in hedging activities would likely pick up and ultimately exceed pre-FAS 133 percentages. This phenomenon was most dramatic in connection with hedges of prospective debt issuances, which posted the largest figure (15 percent) in response to *plans to hedge.*

Figure 2

Management of Exposures Pre-FAS 133 Adoption and Post-FAS 133 Implementation

Exposure to Commodity Prices or Prices of Raw Materials

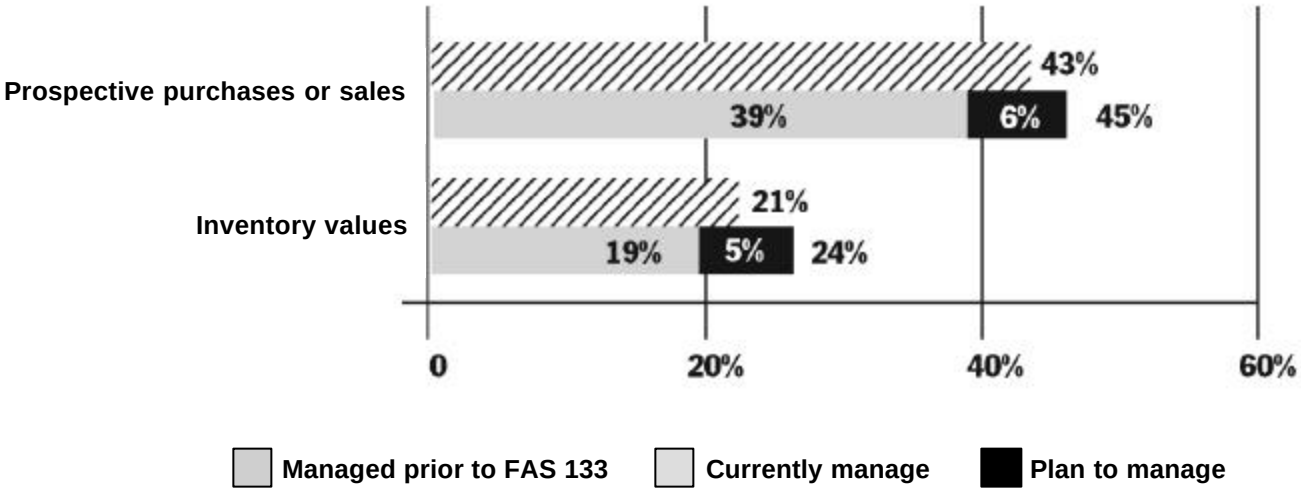


Figure 3

Management of Exposures Pre-FAS 133 Adoption and Post-FAS 133 Implementation

Interest Rate Exposures

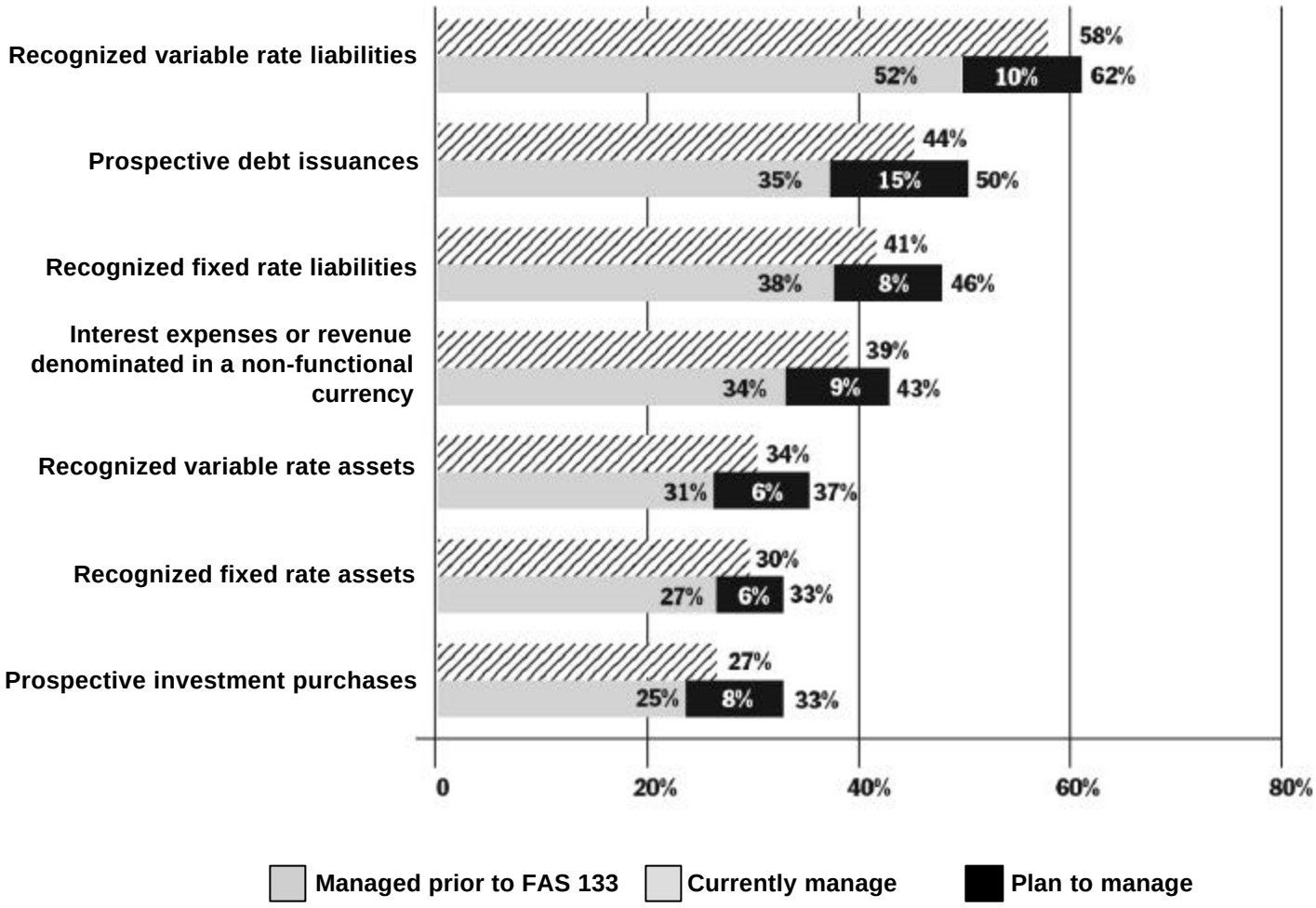
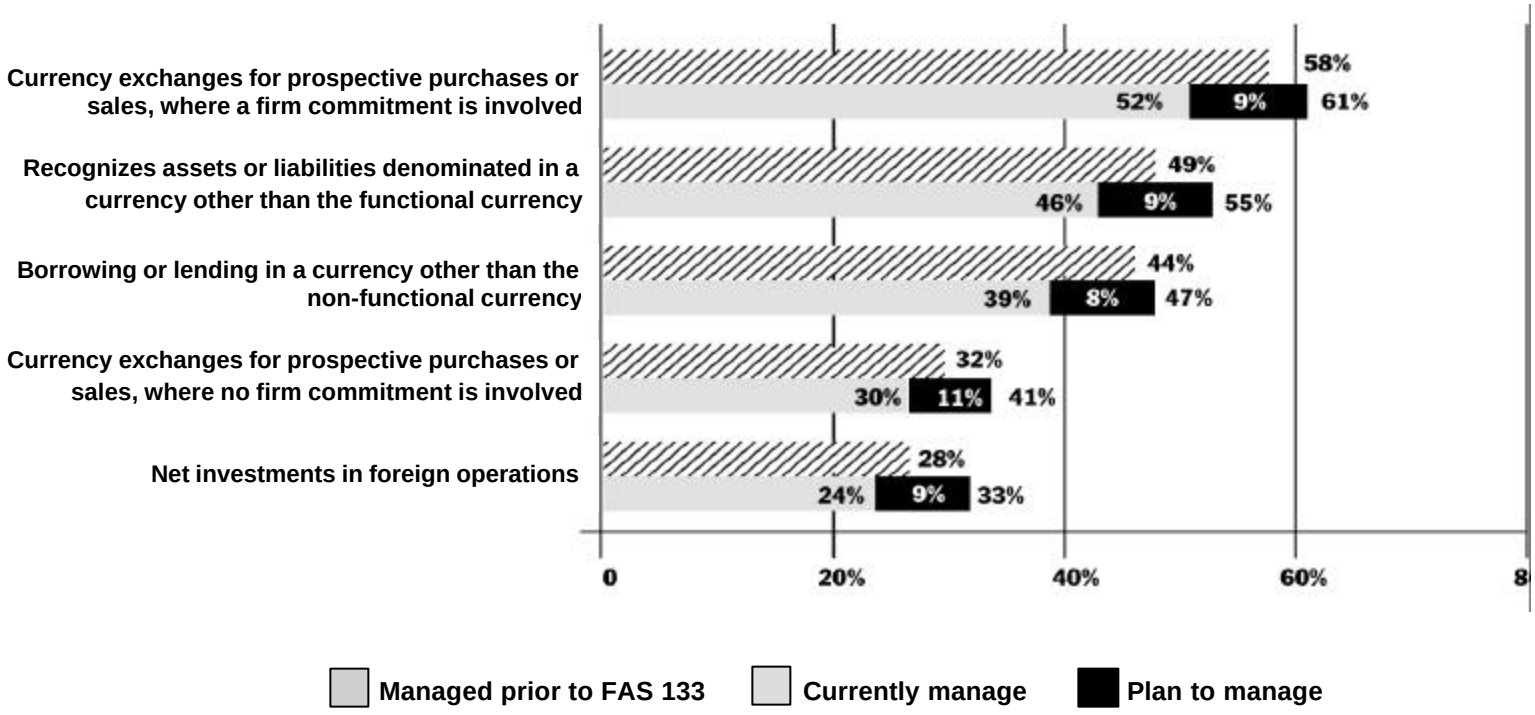


Figure 4

Management of Exposures Pre-FAS 133 Adoption and Post-FAS 133 Implementation

Currency Exposures



Risk management tools

In connection with each of the exposures identified in Table 1, hedgers were asked which derivative tool they used (or intend to use) pre-FAS 133 adoption versus post adoption. Adjustments were marginal. Use of forward contracts and interest rate swaps tended to hold steady or rise by three percentage points or less. In contrast, use of options (including swaptions, caps or floors, option combinations such as collars or corridors, and exotic options) generally edged down slightly, as did a miscellaneous category ("other derivatives").

The most dramatic difference was reported with interest rate option combinations used to hedge interest rate exposure on variable rate debt, which dropped from a response of 16 to 11 percent, pre-FAS 133 versus post-FAS 133.

Table 1: Risk Categories and Exposures		
Interest Rate Exposures	Currency Exposures	Commodities or Raw Materials Price Risk
• Recognized variable rate assets • Recognized variable rate liabilities • Recognized fixed rate assets • Recognized fixed rate liabilities • Prospective investment purchases • Prospective debt issuances • Interest expenses or revenues denominated a non-functional currency	• Currency exchanges for prospective purchases or sales, where *no* firm commitment is involved • Currency exchanges for prospective purchases or sales, where a firm commitment *is* involved • Recognized assets or liabilities denominated in a currency other than the functional currency • Borrowing or lending in a currency other than the non-functional currency • Net investment in foreign operations	• Prospective purchases or sales • Inventory values

Hedge effectiveness testing

The survey listed four alternative hedge effectiveness testing methodologies:

1. Dollar offset calculations/scenario analysis

2. Regression

3. Value-at-risk calculations

4. Other statistical means

Respondents were asked to respond qualitatively as to how frequently each approach would be used (*never, rarely, sometimes, often, always* or *not applicable*). In each case, at least 24 percent of the respondents selected "not applicable," suggesting that they expected to be able to avoid hedge effectiveness testing by using derivatives having terms that match those of the hedged item. When hedge effectiveness tests are required, however, results indicate that the above listing reflects the preference ordering for these respective methods. That is, dollar offset ratios/scenario analysis will be the most commonly used approach, while other statistical means will be the least used.

The standard allows for hedge effectiveness to be evaluated on a period-by-period basis or cumulatively. Respondents showed no particular preference for either method. Some concern was registered, however, about the capacity to qualify for hedge accounting. The survey asked for a qualitative assessment of how frequently hedge effectiveness tests were expected to preclude the application of hedge accounting. A

large proportion of respondents were unable to make the assessment (i.e., between 40 and 69 percent, depending on the specific risk in question), suggesting that these tests probably had not yet been performed in the majority of cases. Still, five to 21 percent reported having performed tests that precluded qualifying hedge accounting for at least some intended hedges. The biggest challenge appears to be in connection with hedges of variable interest rate liabilities.

One of the more controversial aspects of FAS 133 relates to the manner in which the time value of options is treated. Static, long option hedges essentially guarantee that the hedger will have the capacity to buy with a maximum or ceiling price, or sell with a minimum or floor price. At the time this survey was distributed, it appeared that when options were to be used in this way, time value (or volatility value) had to be excluded from the assessment of hedge effectiveness, in order to satisfy the high effectiveness expectation criterion. Since the survey results came in, however, the FASB has issued new guidance for options when used in cash flow hedging relationships (Derivatives Implementation Issue G20 – still tentative as of the time of this writing), which allows the full price change of an option to be allocated to other comprehensive income provided the option and the risk being hedged share the same underlying, notional amount, and the timing of the option conforms to the horizon of the forecasted exposure.

Many reporting entities had written to FASB asking for a modification of the rules to allow these excluded results to feed through earnings on a straight-line basis, thereby avoiding the income volatility that otherwise would result under the existing rules. The rationale for this position is that long option hedges work just like insurance, so they should be treated in a similar fashion. Given the controversy before the posting of this latest guidance, the survey asked whether reliance on options would differ if option premiums could be amortized. The majority reported that their use of options would likely be unaffected (59, 65 and 76 percent for interest rate, currency, and raw material price risks, respectively). For those that expected an increase in activity, one-fifth thought the increase would be "dramatic." The allowance to defer the entire option premium in most cash flow hedges also would mitigate – or even eliminate – income volatility during the hedging period, such that the concerns reflected by the responses to this question may, in fact, be moot.

FAS 133 is an important and complex accounting standard that affects different businesses in different ways. This survey represents a first step in measuring these impacts. Although it was conducted six months after FAS 133's adoption, for most companies (i.e., those that operate on a calendar year basis) the first quarter of 2001 was the first time the new standard actually affected their financial reports. Thus, the survey was circulated just as most firms were struggling to understand the rule and the best ways of dealing with it.

For many questions, a large percentage of respondents *checked 'Not Applicable," "Don't know," "Remain the Same,"* or *"Neither Agree nor Disagree."* These responses indicate a large degree of uncertainty concerning compliance with FAS 133. Over time, much of this uncertainty should be resolved. For that reason, the results of the survey should be considered preliminary. AFP expects to conduct a second survey on FAS 133's impacts in 2002 to assess how responses and attitudes may change with time and experience.