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Survey of Derivatives Usage by U.S. Non-Financial Firms

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CIBC WORLD MARKETS

1998 Survey of Financial Risk Management by U.S. Non-Financial Firms

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WHARTON/CIBC WORLD MARKETS 1998 SURVEY OF FINANCIAL RISK MANAGEMENT BY U.S. NON-FINANCIAL FIRMS

Executive Summary

This is the third in a series of surveys on financial risk management practice and derivatives use by non-financial corporations in the United States undertaken by the Weiss Center for International Financial Research of the Wharton School. This 1998 survey, written in partnership again with CIBC World Markets, extends the previous two surveys by asking new questions about certain aspects of derivative use and risk management practice. Among the key findings are the following:

(1) There is no evidence that the number of firms using derivatives has declined over time (as a result of well-publicized derivative losses at Proctor & Gamble and other firms). Among firms participating in one or more of our previous surveys, the proportion using derivatives is *unchanged*. Among firms using derivatives, 42% report that their usage has actually increased as opposed to 13% who report that their usage has decreased.

(2) As in past surveys, the use of derivatives is much higher among large firms (83%) than among small firms (12%), and higher among primary product firms (68%), and manufacturers (48%) than among firms in the service industry (42%). But, the intensity of use of derivatives by service firms is increasing significantly faster than for other firms.

(3) A surprisingly large percentage of firms (73%) report that FASB's new rule governing derivatives activity will have *no effect* on their derivative use or risk management strategy.

(4) A new question about revenue and expense exposure in foreign currency reveals a wide range of exposure across firms. For example, 40% of the firms with foreign exchange exposure report that their revenues in foreign currency are 20% or more of total revenues, and almost as large a percentage report foreign currency expenses to be 20% or more of their total expenses. On the other hand, 60% of the firms report that they have a *balance* between total foreign currency revenues and expenses (though this may not be true for revenues and expenses in each currency).

(5) Among firms with significant foreign exchange exposure that regularly hedge, there seems to be a general tendency to hedge *only a small fraction* of the total foreign currency exposure of the firm. Even in the case of payables and receivables, for example, the average firm hedges less than 50% of the perceived exposure.

The majority of hedges, moreover, are short-dated. 82% of firms use foreign currency derivatives with a maturity of 90 days or less and for 40% of firms, these account for the majority of their foreign currency derivative use.

(6) A wider variety of options have become common in the marketplace in the last few years, but firms continue to use standard European-style or American-style options much more than such exotic options as average rate, basket, or barrier options.

(7) When asked which best describes how the risk management function is evaluated, 40% of the firms chose increased profit relative to a benchmark or absolute profit rather than reduced volatility (40%) or risk adjusted performance (21%). In addition, 32 % of firms that use derivatives reported that their *market view* of exchange rates leads them to "actively take positions" at least occasionally. A similar result is found for the market view of interest rates.

(8) Most firms seem to have internal controls over derivative use. A large percentage of respondents, 86%, have either a written policy about the use of derivatives or a regular schedule for reporting derivative use to the firm's board of directors.

(9) Firms are concerned about counterparty risk, especially when longer-dated derivatives are concerned. 40% of the firms using derivatives insist on a credit rating of AA or better for their counterparty, an insistence that precludes derivative transactions with many U.S. banks.

WHARTON/CIBC WORLD MARKETS 1998 SURVEY OF FINANCIAL RISK MANAGEMENT BY U.S. NON-FINANCIAL FIRMS

I. INTRODUCTION

This is the third in a series of surveys on financial risk management practice and derivatives use by non-financial corporations in the United States undertaken by the Weiss Center for International Financial Research of the Wharton School and CIBC World Markets. The results of the two earlier surveys, carried out in 1994 and 1995, are published in *Financial Management* and have been widely cited in the business and academic press.[1] The 1998 survey, once again sponsored by CIBC World Markets, extends the previous two surveys by asking new questions about certain aspects of derivatives use and risk management practice. This report provides a summary of the responses to the questions on the 1998 survey, both in total and, when responses differ, conditional on size and industrial sector. Also, where appropriate, current responses are compared with responses to similar questions on previous surveys. However, caution is required in interpreting some of those comparisons as some differences may result simply from changes in the set of responding firms. A copy of the questionnaire with the response tallies is displayed in the Appendix.

As with the previous surveys, one of the primary objectives of this survey is the development of a database on risk management practices suitable for academic research. The survey results can be linked with industry and firm-specific characteristics of the respondents to allow economic analysis of the responses. However, as in the past, the firm-specific responses are confidential and known only to the researchers at Wharton.

II. USE OF DERIVATIVES

A. Sample Firms and Overall Derivative Usage

The six-page questionnaire was mailed in October 1997 to the same basic sample of firms used in the 1994 and 1995 surveys. The sample consists of the original randomly selected 2000 publicly traded firms used in 1994 plus the remaining 154 non-financial Fortune 500 firms added in 1995. Due to mergers, buyouts, and bankruptcies since 1994, this sample currently consists of 1928 firms. A second mailing of the questionnaire was done in March 1998. 399 firms returned a completed survey, yielding a response rate of 20.7%. Of these firms, 197 are from the manufacturing sector, 82 are from the primary products sector, which includes agriculture, mining, and energy, as well as utilities, and 120 are from the service sector. In terms of size, 160 firms are from the large category, consisting of firms with fiscal year 1996 total sales greater than $1.2 billion, 116 are from the medium-sized category, with total sales between $1.2b and $150m and 123 are from the small category, with total sales less than $150m.[2]

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[1] The report on the 1994 survey can be found in Financial Management 24, Fall, 1995, and the report on the 1995 survey can be found in Financial Management 25, Winter, 1996. These results of these studies have been cited in Barrons, Business Week, Financial Times, The Economist, Forbes, and the Washington Post, among others.

[2] These size groups were defined based upon cutoff points that divided the entire sample of 1928 firms into three equal sized groups. Given our response total, equivalent response rates across size groups would imply 133 responses per group.

The first question in the survey asks firms whether they use derivatives. 200 of the firms, 50%, report using derivatives. Table 1 displays the breakdown of the first question. In the "Full Sample" row of Table 1, we compare this usage rate with that of the previous two surveys. The results suggest that the percentage of responding firms using derivatives has increased each year. However, this increase over time may be a combination of the change in the sample in 1995 and/or variation in response composition. A better way to compare derivatives use over time is to compare the response of the same set of firms. In the second row of Table 1, we report the usage percentages for the 58 firms that responded to all three surveys. Interestingly, in all three years the percentage of derivative users from this group is 41%, although several firms switch between use and non-use across years. Because of the limited number of firms that responded to all three surveys, we also report the usage percentages for the 171 firms that responded to both the 1994 and the 1998 surveys. These percentages, reported in the bottom row of Table 1, are also the same in both years at 44%. Overall, these results suggest that the percentage of firms using derivatives has remained constant over the past three years.

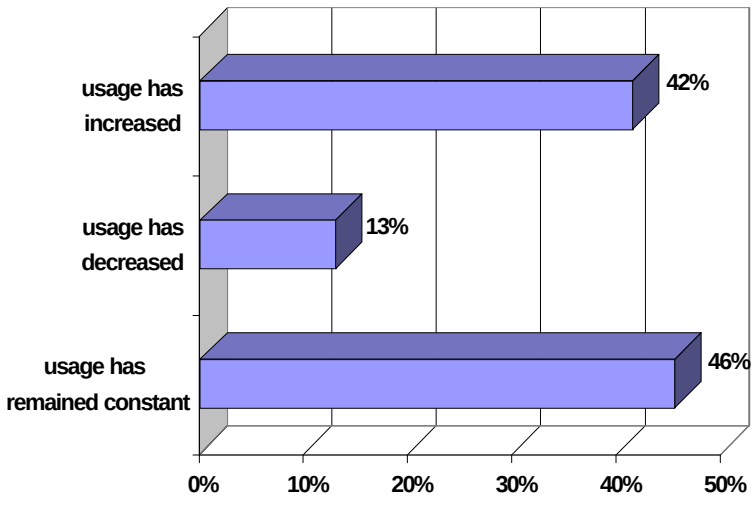
Table 1: Comparison of Derivative Usage Across Surveys

	Year of Survey	Percentage of Respondents using Derivatives
This Survey	1998	50%
Previous Years' Surveys	1995	41%
	1994	35%
Firms responding to all three surveys (58 firms)	1998	41%
	1995	41%
	1994	41%
Firms responding in both 1994 & 1998 (171 firms)	1998	44%
	1994	44%

B. Change in Usage Intensity

While the evidence suggests that the percentage of firms using derivatives has not changed noticeably, we were interested in determining whether there was any change in the intensity of usage among the firms that use derivatives. To consider this, Question 2 asks the derivative using firms to indicate how their derivative usage in the current year compared to usage in the previous year (based upon the notional value of total contracts). Figure 1 displays the response to this question. 42% of derivative users indicated that their usage had increased over the previous year, compared to just 13% who indicated a decrease. The remaining firms indicated that their usage had remained constant.

Figure 1: Firms' Derivatives Usage Compared to Previous Year



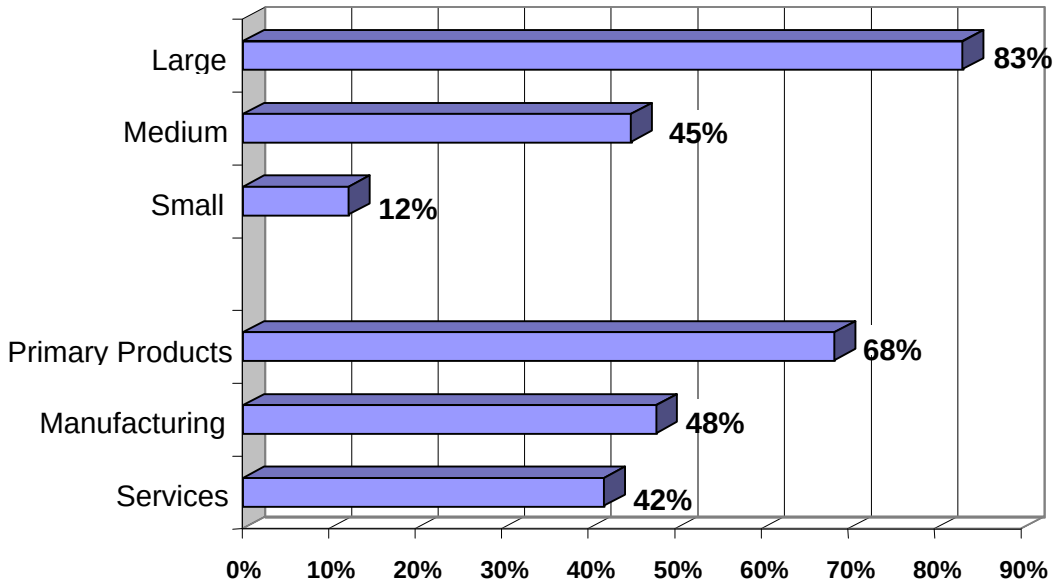
Overall, these responses suggest that a significant proportion of derivative users is finding derivatives helpful enough that they are choosing to increase their usage.

C. Derivative Usage Conditional on Size and Activity

Figure 2 presents the percentage of current derivative users broken down by size group and industrial sector. In the size dimension, usage is heaviest among large firms at 83%. The derivative usage rate drops to 45% for medium-sized firms and to 12% for small firms. That large firms are so much more likely to use derivatives is suggestive of an economies-to-scale argument for derivative use, with large firms better able to bear the fixed cost of derivatives use compared to small firms. In the industrial dimension, derivatives usage is greatest among primary product producers at 68%. Given that futures exchanges were originally established to help manage commodity risks, it is not surprising that such a large percentage of primary product producers use derivatives. Among manufacturing firms 48% use derivatives, much of this likely driven by foreign currency exposure arising from foreign operations or exporting/importing. But even among service firms, 42% use derivatives, most likely because of the increased internationalization of service firms and the growing need to manage foreign currency exposure.

The change in derivative usage also varies across these groupings. Service firms are nearly

Figure 2: Derivatives Usage Response Rates by Size and Sector

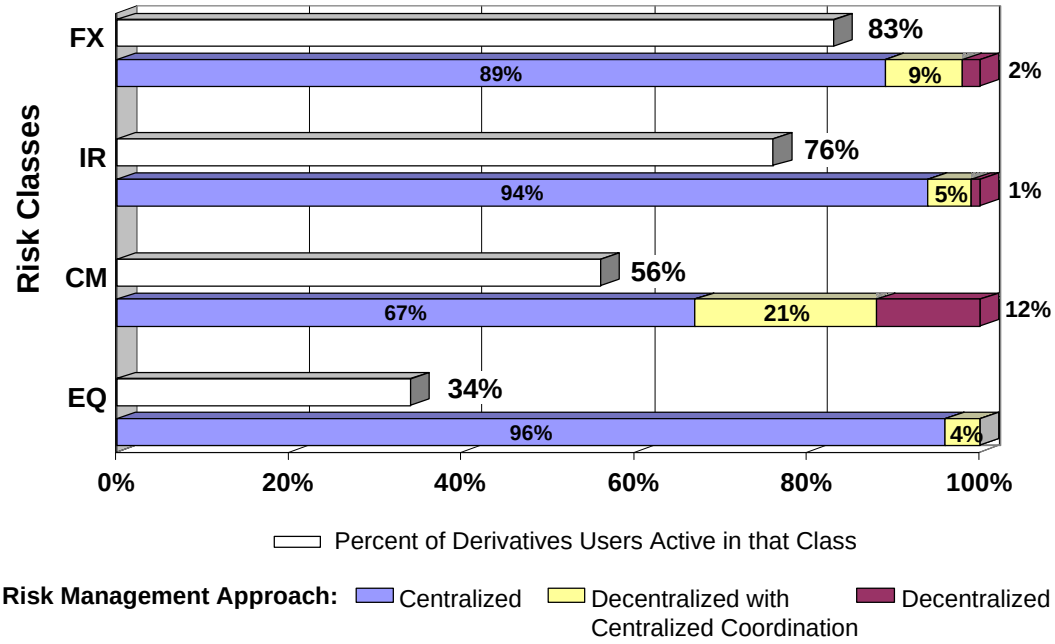


twice as likely to have increased derivative usage than manufacturing or primary product firms. Also, not a single small firm indicated that it had decreased its derivative usage over the previous year. These responses suggest that the usage rate is increasing most among groups where overall derivative usage is least common.

D. Approach to Risk Management Across Risk Classes

Financial price risk can be classified into four broad classes: foreign currency, interest rate, commodity and equity risk. We were interested in the percentage of firms that used derivatives to manage risk in each of these four classes. The responses to this question are displayed as the white bars in Figure 3. The figure reveals that of the firms using derivatives, foreign exchange (FX) is the risk most commonly managed with derivatives, being done so by 83% of all derivative users. Interest rate (IR) risk is the next most commonly managed risk with 76% of firms indicating IR derivatives use. Commodity (CM) risk is managed with derivatives by 56% of derivative users, while equity (EQ) risk is the least commonly managed risk at just 34%.[3] It should be noted that unlike EQ risk and IR risk, which are likely to be faced by all firms, some firms will not directly face FX and CM risk because of the nature of their activities. Consequently, the usage of derivatives in these classes, conditional on having an exposure, will be even higher than the numbers displayed in the figure.

Figure 3: Risk Management Approach Across Risk Classes



The responses to this question conditional on industry display an interesting pattern. Among primary product firms, commodity risk is the most commonly managed risk with 79% of these firms indicating CM derivative use. FX risk is most commonly managed by manufacturing firms with 95% of this group indicating FX derivative use. For service firms, IR risk was slightly more commonly managed with derivatives than FX risk, with derivative usage rates of 78% versus 72%, respectively. Equity risk was managed least frequently by service firms with only 22% indicating EQ derivative use.

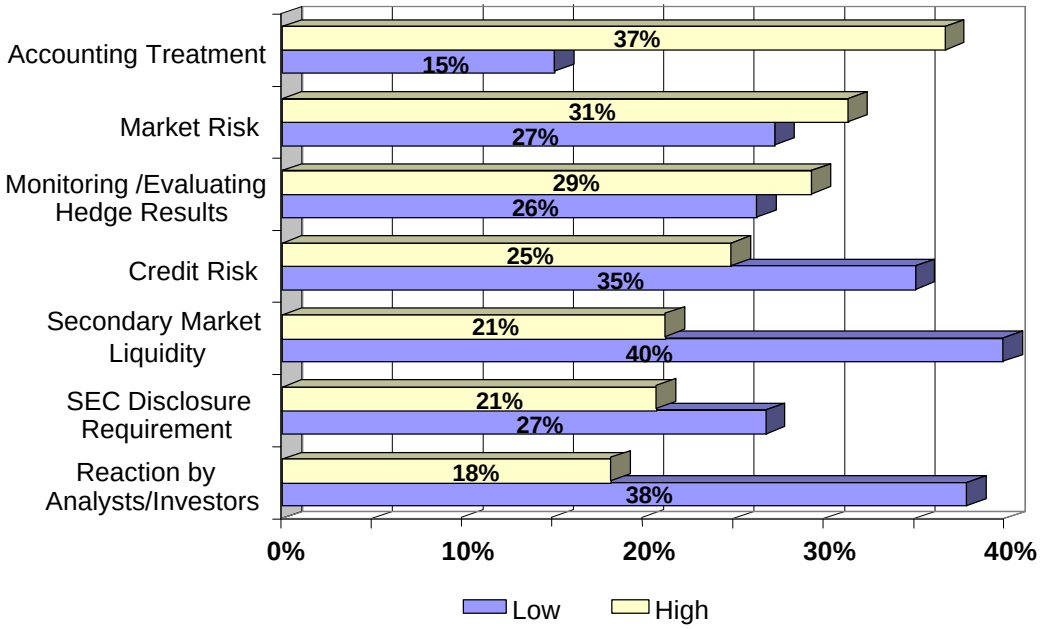
[3] Examples of equity risks that are commonly hedged with equity derivatives by non financial firms include using equity puts as part of a share repurchase program, or using total return swaps to monetize equity positions in other companies.

Because of the different nature of these risk classes and the fact that they are often managed separately within firms, we also asked the firms to indicate their approach, in terms of decision-making structure, to managing each class of risk. We allowed firms to choose between i) risk management activities being primarily centralized, ii) risk management decisions primarily decentralized with centralized coordination, or iii) risk management activities primarily decentralized. The responses to this inquiry are also shown in Figure 3 as the multicolored bars under each risk class. As can be seen, centralized risk management activities are overwhelmingly most common, with the only exception being commodity risk management where one-third of firms indicated some degree of decentralized structure.

E. Concerns about Derivatives Usage

The use of derivatives in today's market involves many issues. Question 4a asks respondents to indicate their degree of concern about a series of issues regarding the use of derivatives. These issues include: accounting treatment, credit risk, market risk (unexpected changes in price of derivatives), monitoring and evaluating hedge results, reaction by analysts and investors, SEC disclosure requirements, and secondary market liquidity (ability to unwind transactions). For each issue, firms are asked to indicate a high, moderate, or low level of concern or indicate that the issue is not a concern to them. Firms were also given the option of listing any other issues of high concern to them regarding derivative use. Figure 4 displays the responses. Given the propensity of a majority of firms to indicate a moderate concern with many issues, the figure displays the percentage of firms indicating a high or low degree of concern for the six issues.

Figure 4: Concerns Regarding Derivatives



Accounting treatment was the issue causing the most concern among derivative users, with 37% of firms indicating a high concern and only 15% low or no concern with this issue. Undoubtedly, this is the result of the August 1997 release by the FASB of a draft proposal for a

new accounting standard for the measurement and reporting of derivatives. Market risk, defined as unforeseen changes in the market value of derivative positions was the next issue most troubling firms, with 31% of firms indicating a high degree of concern and 34% of firms indicating little or no concern. This was followed closely by monitoring and evaluating hedge results with 29% of firms indicating a high degree of concern but 29% indicating little or no concern. The remaining four issues all had significantly more firms indicating little or no concern compared to high concern. In the case of credit risk, secondary market liquidity, and reaction by analysts and investors, more than 40% of firms indicated low or no concern with these issues. For credit risk, this result contrasts markedly with the 1995 survey in which it was the issue causing the most concern among derivative users. Among the "other issues" that some firms indicated high concern about were transaction costs and unauthorized trading.

We also asked firms to indicate their most serious concern from the items listed above. The percentage of firms indicating each concern as their most serious are displayed on the right hand edge of Figure 4. Interestingly, market risk came in first with 27% of firms indicating this as their most serious concern. This was followed closely by accounting treatment with 26% of firms ranking as their most serious concern. Despite the large percentage of firms indicating little or no concern about credit risk, 14% ranked this as their most serious concern just ahead of monitoring and evaluating hedges which was ranked the most serious concern by 13% of firms.

F. Likely Impact of FASB's New Accounting Rules

Given the degree of concern regarding the accounting treatment of derivatives, we were interested in investigating the potential impact of the FASB's new accounting standard, Statement No. 133, "Accounting for Derivative Instruments and Hedging Activities." This new standard, originally released in draft form in June 1996, then modified and re-released in August 1997, and then formally issued in June 1998, requires some significant changes to the way derivatives are measured and reported in the firm's financial statement. It also provides official recognition to the use of a broader array of derivative for use in hedging transactions. Roughly speaking, the new proposal requires all derivatives be recorded on the balance sheet at fair market value and marked to market each reporting period. Changes in market value are either reported in income each period, or directly in the equity section of the balance sheet, depending on the specific use of the derivatives. The rule also essentially covers all derivative instruments, including derivatives embedded in other securities, thus expanding the set of derivatives instruments for which accounting rules are explicitly stated.

In Question 5, we asked firms to indicate the most likely impact on their risk management activities of the FASB's new rule on derivatives accounting. Table 2 displays the results. For 73% of firms, the new rules will have no effect on their derivative use or their risk management strategies. Of the 27% of firms for whom the new rules will cause some change, the most likely effect is a change in the type of instruments used, with 55% of these firms indicating this change. Other commonly chosen effects include a reduction in the use of derivatives and a change in the timing of hedging transactions.

Table 2: Impacts of FASB's New Rule Governing Derivatives Accounting		
Most Likely Impact:	**Percentage of Firms Responding***	
No effect on derivative use or risk management strategy	73%	Firms Finding FASB effects
A reduction in the use of derivatives		38%
An increase in the use of derivatives		9%
A change in the types of instruments used		55%
A change in the timing of hedging transactions		38%
A significant change in the firm's overall approach to risk management		13%
* Percentages in right column are with respect to those firms not agreeing with the first statement.		

III. FOREIGN EXCHANGE EXPOSURE MANAGEMENT

A. Currency Exposure

The next section of questions addresses the issue of currency exposure and its management using derivatives. As shown above, foreign currency derivatives are the most commonly used class of derivatives with 83% of derivative-using firms utilizing them. Before asking detailed questions on foreign currency derivative use, we were interested in learning about the exposure of the sample firms. To do this, Question 7 asks firms to indicate their percentage of total revenues and costs in foreign currency. The responses to this question for revenues and expenses as well as net foreign currency position are displayed in Table 3.

As the table shows, a reasonable percentage of firms report either **no foreign currency revenue** or **no foreign currency costs**. On the other hand, 40% of firms report foreign currency revenues to be 20% or more of total revenues, while 36% of firms report foreign currency expenses to be 20% or more of total expenses. So there are many firms in the survey that have significant foreign currency exposure.

Table 3: Foreign Currency Revenues and Expenses Among Derivatives Users			
	% of Firms Responding in Each Category		
% of total	Revenues	Expenses	Imbalance
-50		8%	0%
-40		5%	1%
-30		11%	1%
-25		6%	0%
-20		6%	1%
-15		7%	2%
-10		12%	4%
-5		20%	6%
0	28%	25%	60%
5	14%		9%
10	11%		6%
15	6%		2%
20	6%		5%
25	6%		3%
30	9%		1%
40	7%		0%
50+	12%		0%
Table displays the frequency distribution of firm responses to the question: What percentage of your total revenues/expenses is denominated in foreign currency. Expenses are displayed as negative values. Third column is the imbalance of FC revenues and expenses for firms reporting both revenues and expense results.			

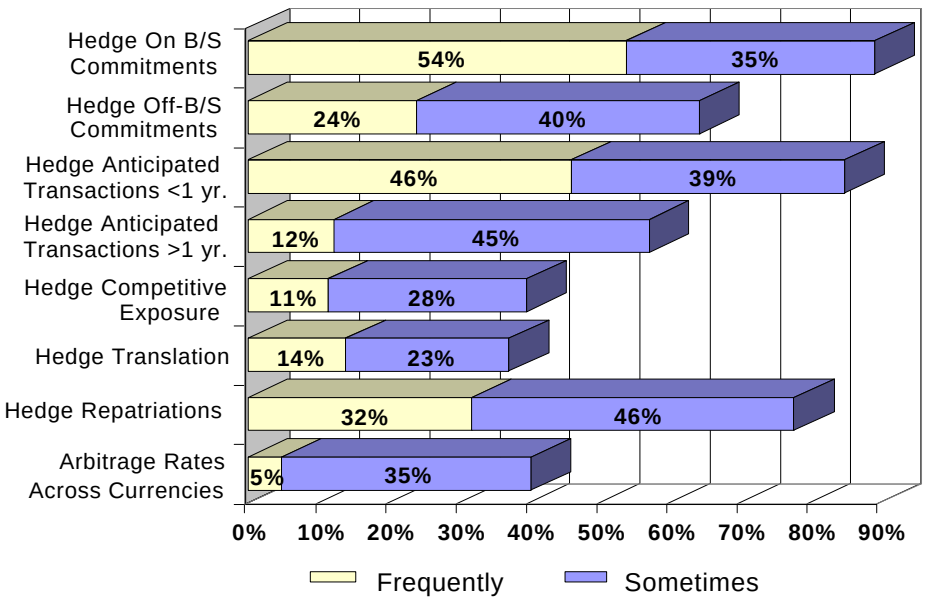
The fourth column of the table displays the net imbalance of foreign currency revenues and expenses for the firms. It is interesting that a majority of firms roughly balance out total foreign currency revenues with foreign currency expenses. Although the responses mask whether the expenses and revenues are in the same foreign currencies, and thus many of these balanced firms may have exposures to particular foreign currencies, this pattern suggests that natural hedging is a common way for firms to manage their exposure to exchange rates. Of the firms that report a net imbalance in total foreign currency revenues and costs, there are nearly twice as many firms with a net revenue exposure (26%) than a net expense exposure (15%).

Conditionally, these revenue and expense exposures exhibit several interesting characteristics. First of all, large and medium firms are both substantially net-revenue exposed, while the small firms are, on average, net-expense exposed. Across industries, manufacturing and service firms are heavily revenue exposed with more than three times as many net-revenue exposed firms as net-expense exposed firms. This is offset by a heavy net-expense exposure on the part of the primary product firms.

B. Transactions In Foreign Currency Derivative Markets

As in the previous two surveys, firms were asked to indicate how often they transacted in the foreign currency derivatives market for hedging eight frequently cited exposures. These were contractual commitments--both on-balance sheet (i.e., payables and receivables) and off-balance sheet (i.e., signed contracts pending), anticipated transactions within one year, anticipated transactions beyond one year, economic/competitive exposure, translation of foreign accounting statements, and foreign repatriations. As foreign currencies may be used for financing purposes, we also asked about the frequency of transactions to arbitrage borrowing rates across currencies. Figure 5 reports the percentage of firms who "frequently" or "sometimes" transacted in the foreign currency derivatives markets for each of these reasons (expressed as a percentage of firms responding to the question for whom the exposure was applicable).

Figure 5: Reasons for FX Derivatives Transactions



The figure shows that the most frequently cited motivations for transacting in the foreign currency derivatives markets are for hedging ***near-term, directly observable*** exposures. The most commonly hedged exposures were On Balance Sheet Commitments (89% hedge frequently or sometimes), Anticipated Transactions expected within one year (85% hedge frequently or sometimes) and Foreign Repatriations (78% hedge frequently or sometimes)[4]. Identifiable off-balance sheet commitments are substantially less likely to be hedged by these firms than on balance sheet commitments. Anticipated transactions beyond one year are frequently hedged by 12% of the firms but sometimes hedged by 45%, suggesting that a majority of firms using foreign currency derivatives at least sometimes hedge exposures over a longer horizon. The more amorphous and longer term competitive exposure is hedged frequently by just 11% of firms but sometimes by an additional 28%, which is a noticeable increase from past surveys. Hedging translation exposure was a reason for currency derivatives transactions for only a minority of firms, with 14% percent doing this frequently and another 23% doing so sometimes. Finally, transacting in derivatives to hedge exposures from arbitraging interest rates across currencies was done frequently by only 5% of firms; however, 35% of firms indicated that they do this sometimes.

C. Hedging Intensity

Not much is known about the extent to which firms hedge their various exposures, so in this year's survey we asked firms to indicate the percentage of the perceived exposure that they typically hedge across various categories of currency exposure. The responses were aggregated into four classes, firms that hedge 0-25%, 26-50%, 51-75%, and 76-100 of that particular exposure. Table 4 displays the percentage of firms that responded in each of the four groups for each of seven different categories of exposure. In each case, the percentages are taken only with

Table 4: Percentage of Foreign Currency Exposures Typically Hedged

Exposure Category	Percentage of firms responding in the following ranges for the proportion of exposure hedged				Average % of exposure hedged
	0-25%	26-50%	51-75%	76-100%	
On-B/S Commitments	40%	13%	12%	35%	49%
Off-B/S Commitments	72%	11%	5%	13%	23%
Anticipated Transactions < 1 yr.	42%	22%	9%	27%	42%
Anticipated Transactions > 1yr.	78%	11%	4%	6%	16%
Economic/Competitive Exposure	90%	6%	2%	3%	7%
Translation of Foreign Accounts	84%	6%	3%	8%	12%
Repatriations	50%	14%	5%	31%	40%

Percentages taken of all responding firms that indicated that the exposure was applicable to them.

[4] Given that not all firms using currency derivatives have foreign operations from which to repatriate, these numbers suggest that an even larger proportion of the set of multinational firms use currency derivatives hedge foreign repatriations.

respect to those responding firms that indicated that such an exposure was applicable in the previous question.

The table reveals that with the exception of three types of exposure--on-balance sheet exposures, anticipated transactions less than one year and foreign repatriations--the majority of firms hedge less than 25% of their perceived exposures. Even for these three heavily hedged exposures, the average proportion hedged, shown in the final column of the table, is less than 50%. Only for on-balance sheet commitments does the average percentage of the exposure hedged reach 50%. Thus, partial hedging appears to be ***normal practice*** for these firms. Even in the cases of these three types of exposures, only a third of firms indicated that they hedged more than 75% of the total exposure. Again, these three were the more easily identifiable, near-term, transaction-based exposures. For longer term exposures such as anticipated transactions beyond one year and economic/competitive exposure, less than 10% of firms indicated that they hedged as much as 75% of the perceived exposure. These results suggest that foreign currency hedging, rather than eliminating exposures, generally ***only reduces*** the exposures, but typically by less than half of the original outstanding exposure.

D. Maturity Structure of Hedging

In the 1995 survey, we learned that most firms use derivatives with short maturities. The percentage of firms using derivatives at longer maturities decreased significantly with the maturity of the derivatives; only 30% of firms reported any use of derivatives with tenor greater than three years. Again, we asked firms to provide some information on the maturity structure of their foreign currency hedging. Table 5 displays the results of our inquiry asking firms to indicate the percentage of their foreign currency hedging done with instruments of various original maturities.

Table 5: Percentage of Hedging at Various Maturities

	Proportion of responding firms indicating the percentage of their total foreign currency derivatives with various original maturities				
Derivative Maturity	**0%**	**1-25%**	**26-50%**	**51-75%**	**76-100%**
1 day - 90 days	18%	23%	26%	13%	21%
91 – 180 days	23%	44%	26%	3%	4%
181 days - 1 year	31%	41%	22%	3%	3%
1 year – 3 years	63%	26%	7%	0%	5%
More than 3 years	88%	9%	1%	0%	2%

There are several interesting things to note about Table 5. First, short-term derivatives are used by a vast majority of firms. 82% of firms utilize foreign currency derivatives with an original maturity of 90 days or less, and 77% use foreign currency derivatives with an original maturity of 91 - 180 days for less while only 12% use foreign currency derivatives with maturities of more than 3 years. Second, firms tend to concentrate most of their foreign currency derivatives usage at the short horizon, especially 90 days or less. In fact, when we combine the responses in the first two rows, nearly one-quarter of the firms do ***all*** of their foreign currency derivative activity in instruments with original maturities of 180 days or less. Finally, the intensity of usage drops off dramatically with the lengthening of the maturity of the derivatives. Very few firms use any instruments with maturities over one year. There is a small group, 7%, of firms, all large firms,

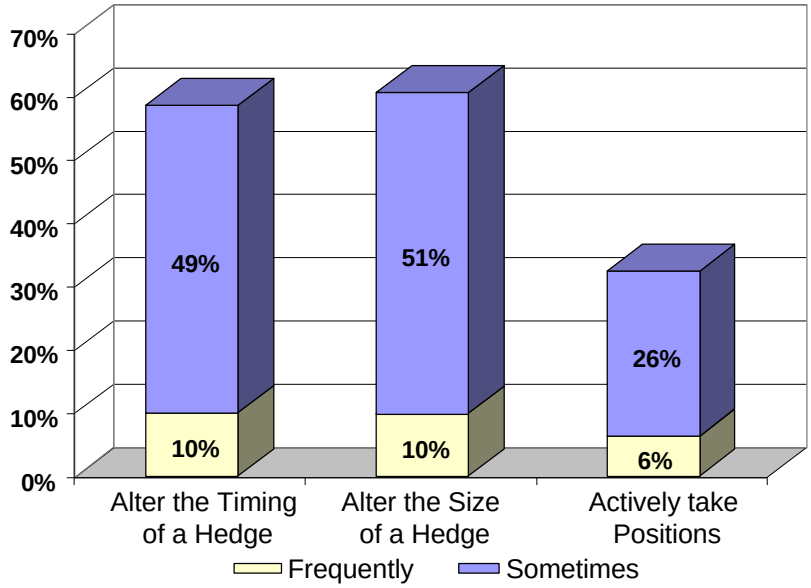
which concentrate their foreign currency derivative usage only in the long horizon instruments. However, this is a significant reduction from the previous survey when 16% of firms had more than half of their derivative activity in instruments with maturities longer than one year.

E. Impact of a Market View on Foreign Currency Derivatives Use

Although financial research has suggested that it is virtually impossible to outperform the expectations of future rates embedded in the market rates, financial managers have typically found it difficult to avoid letting their own view of the currency market affect their risk management activities. Just as in the previous two surveys, we asked firms to indicate the frequency with which their market view causes them to alter the timing or size of hedges or to actively take a position in the market using derivatives. The responses to this question are presented in Figure 6.

In response to the first two parts of the question, 10% of firms indicated that their market

Figure 6: Impact of a Market View on FX Risk Management

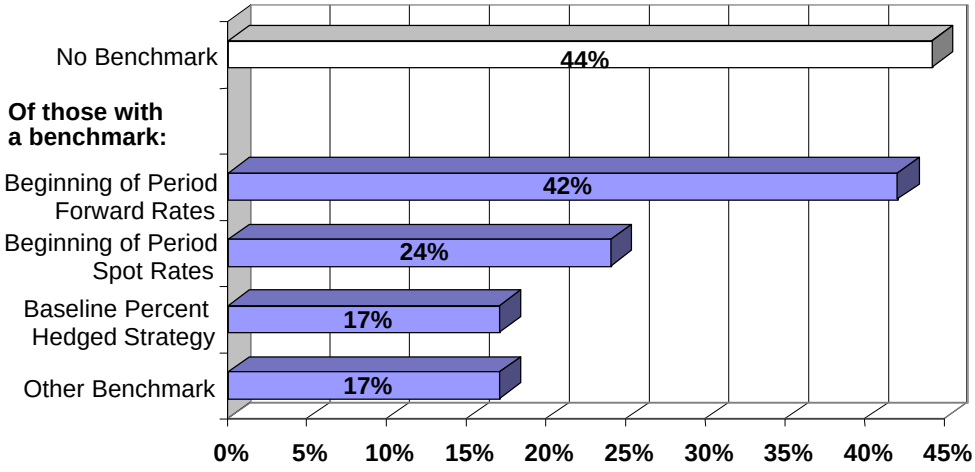


view on exchange rates "frequently" altered either the size or the timing of hedges that they made. A substantially larger number of firms occasionally incorporate their market view into their hedging decision, with 49% of firms sometimes altering the timing of their hedges and 51% sometimes altering the size of their hedges. Without entering the debate about what constitutes a hedge and what constitutes speculation, it is apparent that a majority of firms sometimes takes into account their opinion about market conditions when choosing a risk management strategy. A smaller, but still substantial, proportion of firms "actively take positions" based on a market view of the exchange rate. While only 6% of firms "frequently" take positions, another 26% do so at least "sometimes". While the percentage of firms that alter the size of their hedge is similar to the previous survey, the percentage of firms that sometimes alter the timing of a hedge or sometimes actively take positions has decreased from 33% to 26 %.

F. Benchmark for Evaluating Foreign Currency Risk Management

One of the new questions asked this year focuses on the benchmarks that firms use to evaluate the risk management process. For foreign currency risk management, we asked firms about the benchmark they use for evaluating foreign currency risk management over the budget/planning period. Figure 7 displays the responses.

Figure 7: Benchmark for Evaluating Foreign Currency Risk Management

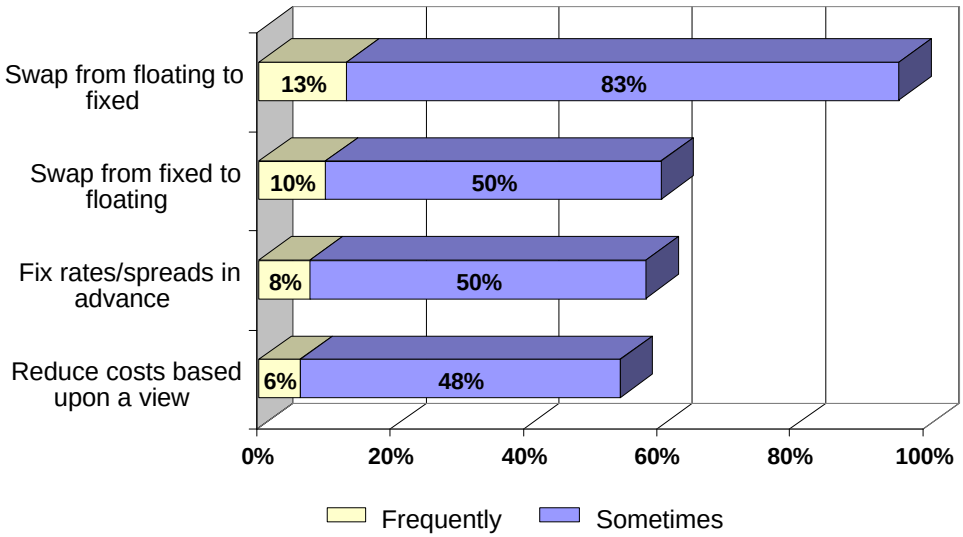


44% of firms indicated that they did not have a benchmark for evaluating the foreign currency risk management process. Of the remaining responding firms, the most common benchmark was the use of the forward rates available at the beginning of the budget/planning period. 42% of the firms with some benchmarking used the forward rates, which is a simple and reasonable approach to the question. 24% of the firms indicated that they simply use the spot rates available at the beginning of the period. This approach is questionable on theoretical grounds as the current spot rates do not incorporate any market expectations of currency movements over the period nor do they offer rates at which any risks could actually be laid off. 17% of the firms with some form of benchmark use a baseline percent hedged strategy. The firms indicated that the baselines for these benchmarks typically ranged from 50% - 100% hedged. Finally, 17% of the firms indicated the use of some other form of benchmark. Examples of these include comparison against fully open and fully hedged results, comparison against an average executable rate over a period, comparison against some combination of a forward and option hedge, and simple profit and loss on currency derivatives. While some of these ideas have more merit than others, it is disturbing that nearly half of the firms do not have a well-specified benchmark for evaluating whether their foreign currency risk management process is providing any useful service to the firm.

IV. INTEREST RATE EXPOSURE MANAGEMENT

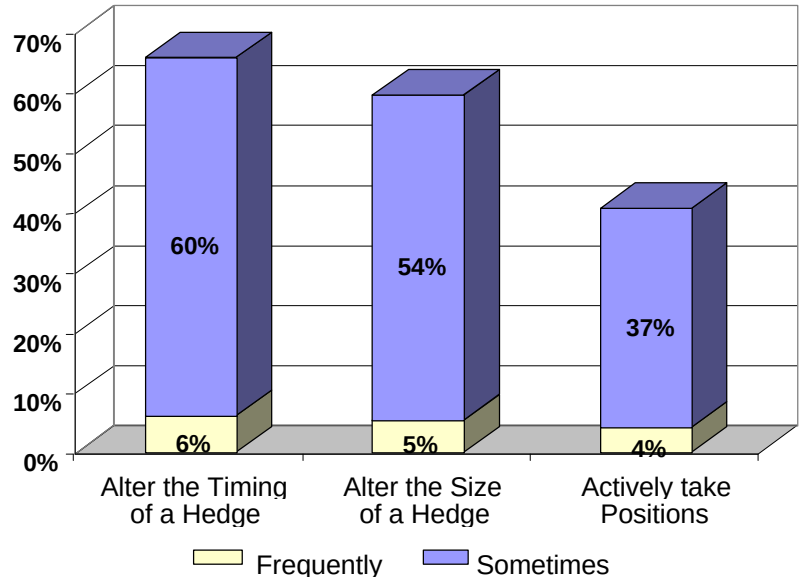
Figure 8 displays the results from our question about motivations for interest rate derivative transactions. Nearly all firms that use interest rate derivatives reported using them to swap from floating rate debt to fixed rate debt. While only 13% of firms indicated that they do this frequently, 83% of firms indicated that they use interest rate derivatives to do this sometimes. In contrast, just 60% of firms indicated that they use interest rate derivatives to swap from fixed rate debt to floating rate debt with most firms doing so only sometimes as opposed to frequently. Compared to the 1995 survey results for this question, there has been an increase in the use of floating to fixed swaps and a decrease in the use of fixed to floating rate swaps. It is interesting to speculate whether this shift in intensity is related to the general lowering of interest rates since 1995 and the resulting increased desire of firms to lock in what they perceive to be favorable low rates. In addition to swapping existing debt, interest rate derivatives are used by a majority of firms to fix the rate or spread on new or forthcoming debt issues as well as to take positions to reduce costs based upon a market view. While less than 10% of firms frequently use interest rate derivatives to take these actions, approximately half of the interest rate derivative using firms does so sometimes. These frequencies are very similar to those reported in the previous surveys. Lastly, it is interesting to note that the percentages of firms reporting that they "frequently" use interest rate derivative for various reasons are lower than in the foreign currency case. This is probably because interest rate derivative transactions are large and infrequent as they are typically associated with debt issuance, whereas most foreign currency derivatives use is transaction-based and these transactions occur more frequently than debt issuance.

Figure 8: Reasons for Interest Rate Derivatives Transactions



We also asked firms a similar question about whether their market view on interest rates causes them to alter their interest rate derivatives usage. Figure 9 displays the responses. The responses are quite similar to those for the impact of a view on the foreign exchange market. 66% of firms indicated that their view on interest rates causes them to alter the timing of a transaction, 60% of the firms doing so sometimes and just 6% doing so frequently. A slightly smaller

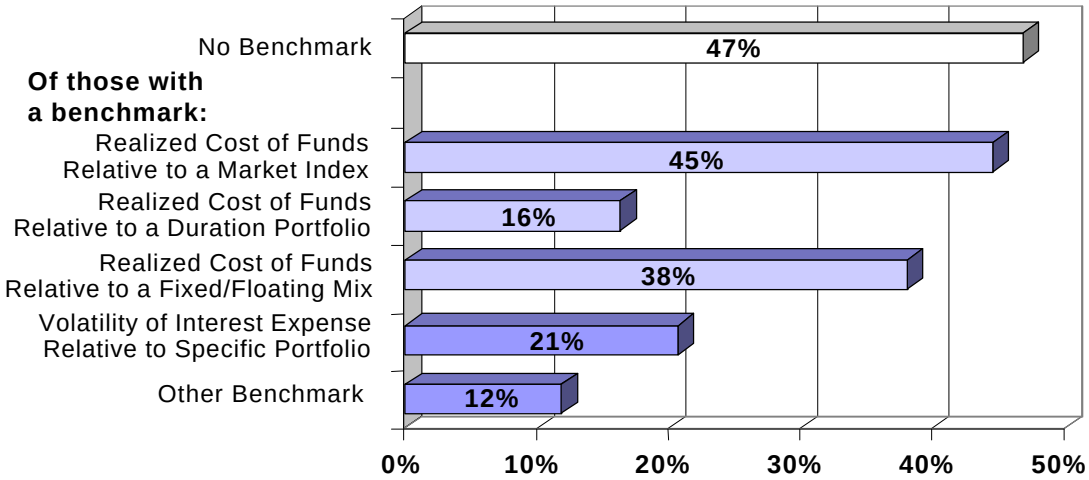
Figure 9: Impact of a Market View on Interest Rates



percentage, 59%, responded that their view affected the size of their derivative transaction, again, with the majority, 54%, doing so sometimes. 41% of firms indicated that their view on interest rates causes them to actively take positions, with 37% doing so sometimes.

Finally, we asked firms about the benchmark they use for evaluating the management of the debt portfolio and the use of interest rate derivatives. The responses are shown in Figure 10. 47% of the responding firms indicated that they did not use a benchmark. For firms using a benchmark we offered several pre-specified choices including an interest expense volatility benchmark, three versions of a cost of funds benchmark, and an open option for firms to indicate a different benchmark. Among the benchmark users, the three realized cost of funds benchmarks (as a group) were the most popular, with 45% of firms benchmarking realized costs of funds against a market index (e.g., LIBOR) and 38% benchmarking the realized cost of funds against a portfolio with a pre-specified fixed/floating rate. 16% of the firms benchmarked the cost of funds

Figure 10: Benchmark for Evaluating Interest Rate Management



against a portfolio with specific duration. Just 21% of the firms using a benchmark reported using a volatility based benchmark. The remaining 12% of firms with benchmarks indicated the use of some other form of benchmark. Among their choices were benchmarking against competitors cost of funds or relative to the previous period.

V. OPTION CONTRACTS

One objective of this year's survey was to gain a deeper insight into the use of options by U.S. non-financial firms. We have learned in past years that options are generally less popular than forwards in the FX area, swaps in the IR area and futures in the CM area. Option use tended to be concentrated in exposures that are longer term and more contingent. Firms limited their option usage either because they felt some other instrument was better suited to the exposure or they pointed to some obstacle to their use, such as excessive cost or lack of sufficient comfort with their behavior. This year, we were interested in exploring some other aspect of option usage. Rather than as in the past, when we treated options as a homogenous group, we decided to explore the usage of different flavors of options. The variety of options commonly used in the market today has increased dramatically over the past few years. In addition to standard options, average rate options, barrier options, and option combinations are widely available in the over-the-counter market. Thus, we decided to ask firms to indicate their usage over the past twelve months of a variety of different options across the three common classes of risk, foreign currencies, interest rates, and commodities. The results are displayed in Table 6.

Of the 200 derivative using firms, 68% indicated that they had used some form of option within the past 12 months. FX options were the most common, used by 44% of derivative using firms while IR and CM options were used by just 28% of derivative using firms. The results as to the percentages of firms using different types of options are also displayed in Table 6. The first column of the table displays the total percentage of users of each type of option relative to all derivative-using firms. The next three columns display the percentage of those firms using each type of option in each of the three risk classes.

Table 6: Options Usage

Types of Options	% of firms using	% of users in each class		
		FX	IR	CM
Any options	**68%**	**44%**	**28%**	**28%**
Standard European-style options	42%	67%	33%	30%
Standard American-style options	38%	41%	35%	44%
Average rate options	19%	39%	18%	45%
Basket options	9%	47%	29%	24%
Barrier options	13%	69%	19%	19%
Contingent Premium options	6%	42%	8%	42%
Option combinations	25%	42%	20%	48%
Others	5%	56%	56%	22%

The instrument-specific responses indicate that the standard European-style (exercisable only at maturity) and American-style (exercisable any time up to maturity) options are the most commonly used, with 42% of responding firms using European-style and 38% using American style. Option combinations such as collars, straddles, etc., are used by 25% of all derivative users. The most commonly used exotic option is the average rate option, which is different in that its payoff is based upon the difference between the strike price and some average of the history of prices. This type of option is used by 19% of derivative users. Barrier options, which come into existence or cease to exist when some price point is past, are used by 13% of firms, while contingent premium options, with deferred or contingent premium payments, have been used by just 6% of firms in the past twelve months. Among the "other" type of options used are compound options (i.e., options on options) and equity options generally. Another feature revealed by the table is that options usage is heaviest in foreign currencies and commodities. Currency option usage is heaviest in the European-style and the exotic basket and barrier options while commodity option usage is heaviest in the American-style and Asian options.

There are several notable conditional results to option usage based upon size and industrial sector. First, the percentage of firms using options is an increasing function of firm size. 74% of large firms that used derivatives indicated the use of some form of option within the past 12 months. This compares with 58% of medium firms and 47% of small firms. By industry, manufacturing firms were most likely to use options with 78% indicating some use compared to 67% of primary product firms and 50% of service firms. Manufacturing firms are substantially more likely to have used European-style relative to American-style options, while the opposite is weakly true for firms in the primary product and service sectors. Manufacturing firms are also more likely to have used barrier options, with most of this use being in the FX area. Finally, option combinations are most commonly used by primary product firms.

The derivative using firms that did not use options were asked to provide an explanation for this decision. The overwhelming explanation for not using options focused around their costs, with a substantial number of firms complaining that they were "too expensive". Among the other explanations for non-use were that options were not appropriate for the firm's exposure or that other instruments were better suited for their exposures, and that the firm lacked sufficient or adequately trained staff in order to use options.

VI. CONTROL AND REPORTING PROCEDURES

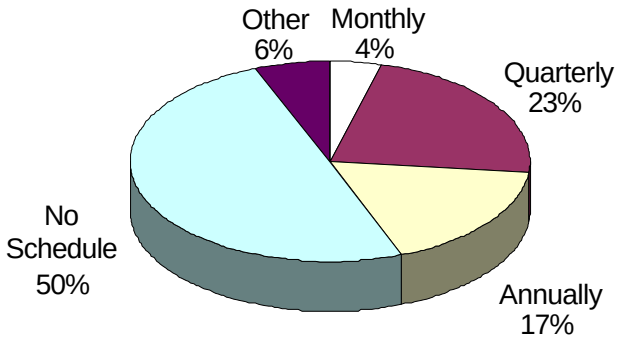
As we have done in the previous two surveys, we asked questions about internal policy regarding derivative usage and reporting as well as corporate policies regarding monitoring and evaluation of derivative risks. To provide a sense of the change in the control and reporting environment for derivative usage among US non-financial firms, we will contrast the current results with those found in the previous surveys.[5]

[5] Recall that differences in response frequencies across surveys can be influenced by differences in the set of responding firms.

A. Corporate Policy and Reporting

This survey asks two specific questions about internal procedures regarding derivatives. The first question asks whether the firm has a documented corporate policy with respect to the use of derivatives. 79% of the firms using derivatives report having such a documented policy. This is a slight increase over previous years. The second question asks how frequently derivatives activity is reported to the board of directors. Figure 11 shows that 50% of the firms have no preset schedule, while 27% report to the board either monthly or quarterly and another 17% only annually. By cross checking the answers to these two questions, we can determine how many firms have neither a documented policy nor a regular schedule for reporting to the board of directors. 27 firms or only 14% of the firms using derivatives indicate having neither a documented policy nor regular reporting of derivative activity to the board. This percentage is similar to that found for this same cross tabulation in the 1995 survey.

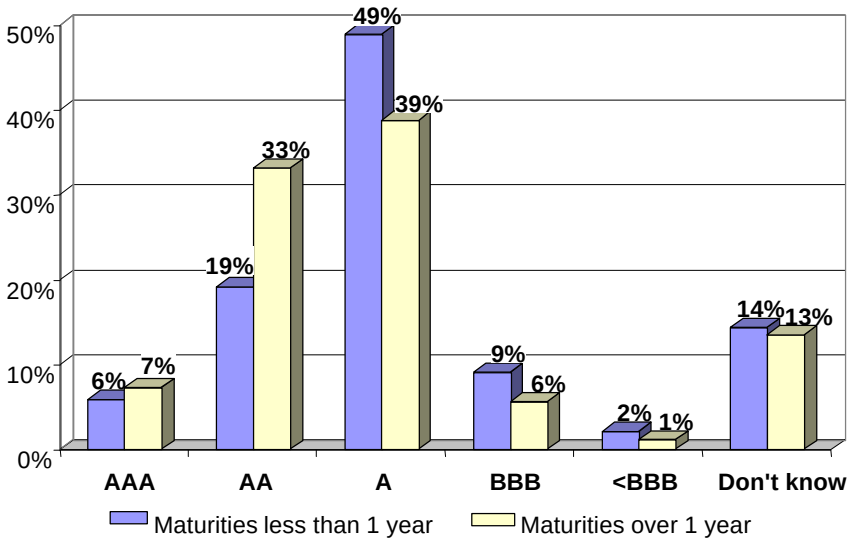
Figure 11: Frequency of Reporting Derivative Activity to the Board of Directors



B. Counterparty Risk

To investigate policies with respect to counterparty risk, we ask what is the lowest-rated counterparty with which the firms will enter a derivatives transaction. As shown in Figure 12, for derivatives with maturities 12 months or less, 25% of the firms insist on a rating of AA or above for the counterparty and 74% of the firms insist on A or above. Policies become even stricter for derivatives with maturities longer than 12 months. 40% of the firms insist on a rating of AA or above. These results are quite similar to previous years. The results suggest that a rating of A or

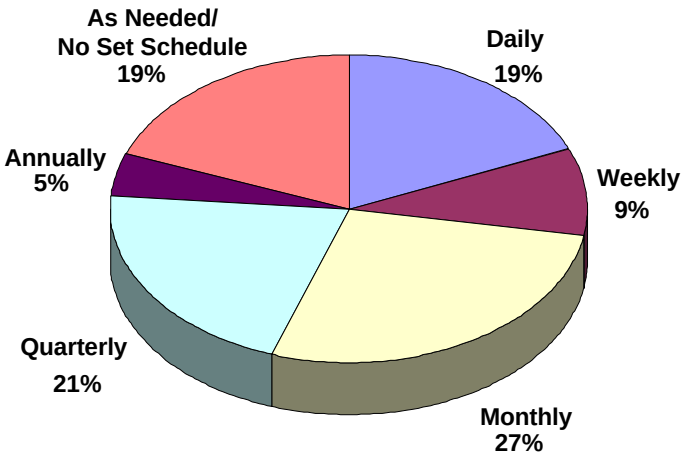
Figure 12: Lowest Rated Counterparty



below significantly handicaps a bank in offering derivatives, especially those with longer maturities.

C. Monitoring and Evaluation

Figure 13: How Frequently Do You Value Your Derivatives Portfolio

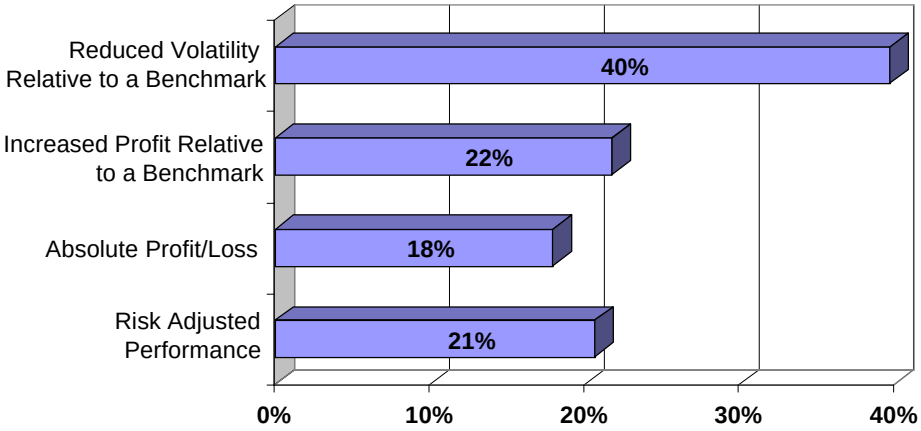


From previous surveys we have learned that an important issue in monitoring derivatives is to value them and measure their risk. Such monitoring helps keep the firms abreast of market changes as well as provides a basis for determining sudden change in value and whether such changes in value continue to constitute a sufficient hedge of the underlying exposure. To this end, we asked firms to indicate how frequently they valued their derivatives portfolio. Figure 13 reports that a significant proportion of the firms, 28%, are revaluing their derivative portfolio either daily or weekly, while another 27% revalue monthly. Compared to the 1995 survey there has been a shift towards valuing the derivatives portfolio less frequently. We were also interested in the source of the valuations for the derivatives portfolio. In contrast to previous results where the original dealer was the most important source for information about revaluing derivatives, firms now indicate that internal sources (such as software and simple spreadsheets with market data) are the most relied upon method for revaluing derivatives. 43% of firms indicated that in-house sources are the most important source for revaluing derivatives, with just 38% indicating that they still rely primarily on the original dealer. 26% of firms indicated a primary reliance on another dealer, consultant or professional price vendor. This increase in in-house valuations as the primary source of valuation does not seem surprising given the widespread availability of low-cost software for end-user pricing.

With regard to the risk of the derivatives portfolio, we asked firms to indicate if they calculate a "value-at-risk" measure. Value at risk (VAR) is a technique for determining the value loss that the derivative portfolio could hypothetically suffer with some given probability and assumptions about the statistical properties of the underlying price processes. It originated as a method for controlling trading risks at banks and financial institutions but has subsequently been marketed to non-financial corporations. 44% of the derivative users indicated that they calculated a value at risk measure for some or all of their derivative portfolio. Use of VAR was much more common among large firms and firms in the primary products sector.

Finally, we were also interested in the firm's philosophy for evaluating the entire risk management function within the firm. The survey asks firms to choose among four statements the one that best matches the practice within the firms. The results are displayed in Figure 14. The most popular choice was reduced volatility relative to some benchmark. This was the approach of 40% of the respondents. 22% of firms indicated that they evaluated the risk management function based upon its ability to increase profits relative to some benchmark, while 18% used an absolute profit or loss approach to risk management evaluation. Finally, 21% of firms indicated that they

Figure 14: Evaluation of Risk Management Function



prefer to examine a risk adjusted performance measure (profits relative to volatility change) to evaluate the risk management function. Given that the purpose of risk management is to reduce risk rather than increase profits, it is surprising that 40% of the firms (22% + 18%) have a profit based approach to risk management evaluation. Such an approach can provide incentives for risk managers to do take positions that may ultimately increase the total riskiness of the firm.

VII. NON-USE OF DERIVATIVES

Given that firms not using derivatives are as prevalent as firms using derivatives, we once again asked firms that did not use derivatives to provide some information on why they choose not to use them. To do this, we asked the non-users of derivatives to rank the three primary factors from a list of eight possible factors (including an "other" category) in their decision not to use derivatives. The responses to this question are shown in Figure 15.

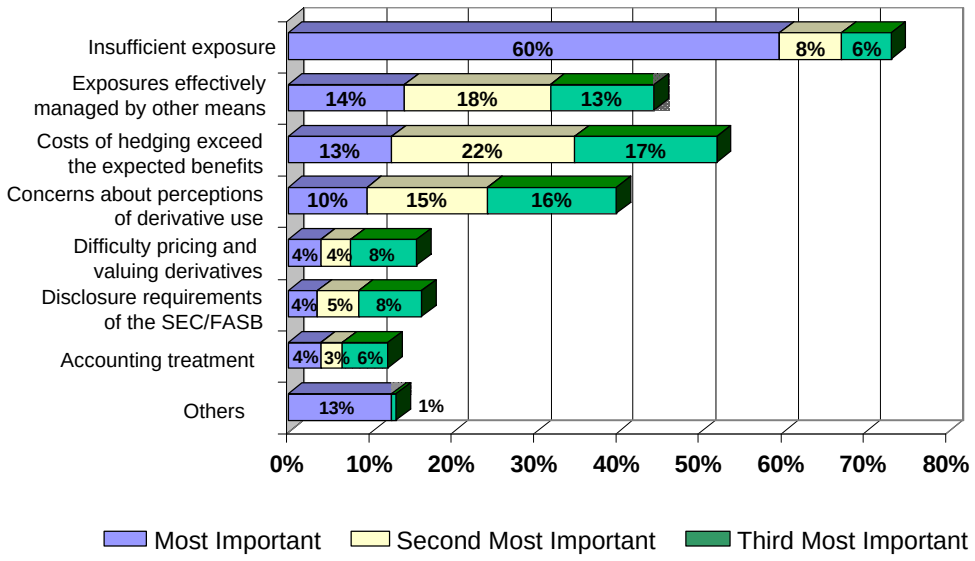
The figure reveals that the majority (60%) of firms do not use derivatives because their exposures are too small. An additional 14% of non-users with potentially large exposures indicated that the most important reason they do not use derivatives is that they can manage these exposures effectively by other means such as operational diversification or risk shifting/sharing arrangements.

Another group of non-users indicated that they did not perceive the benefits of derivatives use to exceed the costs, making their use a poor business decision. This was the most important reason for not using derivatives for 13% of non-users, but a secondary or tertiary reason for nearly an additional 40% of the non-users.

The only other concern receiving much weight was the concern about perceptions of derivatives use by others such as investors/analysts. 10% of the firms indicated that this was the primary reason in their mind for not using derivatives, with an additional 31% citing it as a supporting explanation.

The other three specifically mentioned issues, difficulty pricing and valuing derivatives, concerns over disclosure requirements of the SEC and concerns over the new FASB accounting treatment issues all generated only token measures of concern from the respondents. Among the other issues that more than one firm mentioned for not using derivatives were corporate

Figure 15: Importance of Different Factors in Decision Not to Use Derivatives



prohibition on their use, adverse prior experiences, and limited knowledge. Overall, these responses vary only slightly from the same question asked in the 1995 survey.

VIII. SUMMARY

Many of the results of this year's survey confirm and reinforce those found in previous surveys. In particular, derivative use is not widespread, with less than half of the population of firms using financial derivatives of any kind. While the intensity of derivative use appears to be increasing among the firms using derivatives, there is no compelling evidence that the total percentage of firms using derivatives has changed dramatically over the past four years. Foreign currency derivatives are the most commonly used, followed by interest rate, commodity, and equity derivatives, respectively. A constant thread of these surveys has been that firms overwhelmingly use derivatives for the purposes of managing risk and that the risks they manage tend to be easily identifiable, contractual exposures.

This year's survey also asks several new questions to add to our understanding of derivative use and financial price exposure among these firms. In particular, these questions helped us to discover more about the distribution of underlying currency exposures faced by these firms as well as the extent to which firms hedge the currency exposure they face. In addition, we investigated performance benchmarking for both FX and IR risk management use by these firms. We also measured the use of a variety of different option instruments.

Many of the questions on control and reporting are identical to those asked in previous years to allow tracking of the responses over time. From this exercise, we perceive only small changes in firms' policies regarding derivatives, most notably a movement towards in-house sources for valuing derivatives.

Thus, these Wharton/CIBC surveys on derivatives and risk management provide a unique insight into the use of derivative instruments by U.S. non-financial firms. From these survey

responses we can look towards the future. Will derivative use expand over time or has it reached a plateau defined by the economic activities of the firms? Among firms using derivatives, the usage rate is increasing, suggesting that these firms are generally finding derivatives useful for their business. While the percentage of firms using derivatives has remained roughly constant, there remains some reason to think that a portion of the firms currently not using derivatives will begin to use them as knowledge of these instruments increases and fear of negative public perception of derivatives dies down or volatility in the world's financial prices continues to increase. Finally, as firms face the implementation of a new accounting regime for derivatives and hedging, amount of hedging or the types of products employed may shift. As before, we intend to revisit many of these issues in a few years time when Wharton and CICB World Markets conduct a fourth survey of derivative usage among U.S. non-financial firms.

For additional copies of this survey report or for further information, please contact:
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IX. APPENDIX: Survey Questionnaire and Response Tallies

Wharton Survey of Financial Risk Management by U.S. Non-Financial Firms

Please complete the questionnaire by following the instructions following each question.

I. Use of Derivatives

1a. Does your firm use derivatives (forwards, futures, options, swaps)?
(*Please circle the appropriate response.)*

a. Yes - **200** b. No - **199** **Total firms responding……..399**

	Firms by Size				Firms by Industry		
	Yes	**No**	**Total**		**Yes**	**No**	**Total**
Large	133	27	160	Primary	56	26	82
Medium	52	64	116	Manufacturing	94		103
Small	15	108	123	Services	50		70

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*Please complete this section if you answered **NO** to question 1a.*

1b. Please indicate the *three* most important factors in your decision not to use derivatives.

(Please rank: 1 - Most important; 2 - Second most important; 3 - Third most important.)	**1**	**2**	**3**
a. Insufficient exposure to financial or commodity prices	118	15	12
b. Exposures are more effectively managed by other means	28	35	25
c. Difficulty pricing and valuing derivatives	8	7	16
d. Disclosure requirements of the SEC or the FASB	7	10	15
e. Accounting treatment	8	5	11
f. Concerns about perceptions of derivative use by investors, regulators and the public	19	29	31
g. Costs of establishing and maintaining a derivatives program exceed the expected benefits	25	44	34
h. Other	25	0	1

Total number of firms responding – 198

1c. What percentage of your consolidated operating revenues are in foreign currency?
(Please circle the response that is closest.)

a. 0% - **112** b. 5% - **41** c. 10% - **9** d. 15% - **6** e. 20% - **3** f. 25% - **6** g. 30% - **7** h. 40% - **5** i. 50+% - **4**

1d. What percentage of your consolidated operating costs are in foreign currency?
(Please circle the response that is closest.)

a. 0% - **97** b. 5% - **43** c. 10% - **20** d. 15% - **8** e. 20% - **9** f. 25% - **2** g. 30% - **6** h. 40% - **2** i. 50+% - **4**

Thank you. Please return your survey in the postage paid envelope

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2. Based upon the notional value of contracts, how does your firm's derivative usage compare to last year?
(Please circle the appropriate response.)

a. Usage has increased - **83** b. Usage has decreased – **26** c. Usage has remained constant – **91**

3. Which of the following statements best describes your organization's approach to the use of derivatives to manage each of the following forms of risk?
(Please indicate with a check in each column.)

	Foreign Exchange	Interest Rate	Commodity	Equity
Exposure not managed with derivatives	34	48	88	131
Risk management activities primarily centralized	136	149	72	55
Risk management decisions primarily decentralized with centralized coordination	13	8	23	2
Risk management activities primarily decentralized	3	2	13	0

4a. Indicate your degree of concern about the following issues with respect to derivatives.
(Please indicate your degree of concern with each issue by checking the appropriate box in each column.)

	No Concern	Low	Moderate	High
a. Accounting treatment	12	30	84	73
b. Credit risk	13	69	66	49
c. Market risk	14	54	68	62
d. Monitoring and evaluating hedge results	6	52	82	58
e. Reaction by analysts or investors	18	75	69	36
f. SEC disclosure requirements	11	53	93	41
g. Secondary market liquidity	18	79	59	42

4b. Indicate the three issues of greatest concern from the list in question 4a.
(Please enter the letter from Question 4a for your three most serious concerns.)

	a	b	c	d	e	f	g	h
Most serious	51	28	53	25	9	10	14	4
Second most serious	37	27	32	35	17	27	18	0
Third most serious	33	21	27	27	25	26	26	2

5. What will be the most likely impact on your firm of the FASB's new rules on derivatives accounting?
(Please circle all that apply.)

	Responses
a. No effect on derivatives use or risk management strategy	146
b. A *reduction* in the use of derivatives	20
c. An *increase* in the use of derivatives	5
d. A change in the *types of instruments* used	29
e. Alter the timing of hedging transactions	20
f. A significant change in the firm's overall strategy or approach to risk management	7
Total firms responding	199

6. Does your firm calculate the "value-at-risk" for some or all of its derivatives portfolio?

a. Yes - **87** b. No - **112**

II. Currency Exposure

7a. What percentage of your consolidated operating revenues are in foreign currency?
(*Please circle the response that is closest.)*

a. 0% - **55** b. 5% - **28** c. 10% - **21** d. 15% - **12** e. 20% - **11** f. 25% - **13** g. 30% - **18** h. 40% - **14** i. 50+% - **23**

7b. What percentage of your consolidated operating costs are in foreign currency?
(Please circle the response that is closest.)

a. 0% - **49** b. 5% - **38** c. 10% - **24** d. 15% - **13** e. 20% - **11** f. 25% - **11** g. 30% - **21** h. 40% - **10** i. 50+% - **15**

8. Which benchmark does your firm use for evaluating foreign currency risk management over the budget/planning period? *(Please circle the response that is appropriate.)*

	Firms Responding
a. Our firm does not use a benchmark	79
b. Forward rates available at the beginning of the period	42
c. Spot rates at the beginning of the period	24
d. Baseline percent hedged strategy (i.e. X% hedged	17
e. Other benchmark	17

If your firm does not use currency derivatives, please skip ahead to Section III.

9. How often does your firm transact in the currency derivatives markets to...
(Please circle the appropriate response for each exposure.)

	Not Applicable	**Never**	**Sometimes**	**Frequently**
a. Hedge foreign repatriations (dividends, royalties, interest payments)	23	27	56	39
b. Hedge contractual commitments				
i. on-balance sheet transactions (accounts receivable/payable)	4	15	50	76
ii. off-balance sheet transactions (unfilled or pending contracts)	12	46	52	31
c. Hedge anticipated transactions one year or less	4	21	55	65
d. Hedge anticipated transactions over one year	8	60	62	17
e. Hedge economic/competitive exposure	12	79	37	15
f. Hedge translation of foreign accounting statements	13	81	30	18
g. Arbitrage borrowing rates across currencies (currency swaps in association with foreign currency borrowings)	18	74	44	6

10. What percentage of the following categories of exposures do you typically hedge?
(*Please indicate the appropriate percentage under each exposure category.)*

(Responses categorized for display and reported only for responding firms indicating applicable exposure in question 9.)

Percentage of Exposure Typically Hedged	**On-balance sheet Transactions**	**Off-balance sheet Transactions**	**Anticipated Transactions 1 yr or less**	**Anticipated Transactions over 1 yr**	**Economic/ Competitive Exposure**	**Foreign Repatriations**	**Translation of Foreign Accounts**
>25%	55	95	57	103	120	76	113
25%-50%	17	15	29	15	7	15	7
50%-75%	15	8	12	5	2	6	3
75%-100%	45	16	34	9	3	35	9

11. For each of the following exposures, which best describes your typical hedging horizon?
(Please check the appropriate response for each column.)

Hedging Horizon	Contractual Commitments	Anticipated Transactions	Economic/ Competitive Exposure	Foreign Repatriations	Translation of Foreign Accounts
hedge shorter than the maturity of the exposure	9	16	11	8	7
hedge the maturity of the exposure	97	71	20	54	16
hedge longer than the maturity of the exposure	4	6	0	1	2
hedge to the end of the current period (budget period or fiscal year)	3	4	3	3	8

12. How often does your market view of exchange rates cause you to ...
(Please check the appropriate response for each column.)

	Never	Sometimes	Frequently
a. Alter the timing of hedges	58	68	14
b. Alter the size of hedges	56	72	14
c. Actively take positions in currency derivatives	96	37	9

13. What percent of your total foreign currency derivatives (by face value of contracts) have the following original maturities: *(Please enter the approximate percentage of currency hedging for each maturity.)*

(Responses categorized for display.)

Percentage of Foreign Currency Hedging Activity with Maturities of :	90 days or less	91 to 180 days	181 days to one year	One year to three year	Beyond three years
Zero	23	30	40	80	113
1% - 25%	29	56	52	33	11
25%- 50%	33	33	28	9	1
50% - 75%	16	4	4	0	0
75% - 100%	27	5	4	6	3

III. Interest Rate Exposure

14. Which statement(s) best describes the benchmark your firm uses for evaluating the management of the debt portfolio? *(Circle all that apply.)*

	Responses
a. Our firm does not use a benchmark for the debt portfolio	81
b. The volatility of interest expense relative to a specified portfolio	19
c. Realized cost of funds relative to a market index (e.g. Libor)	41
d. Realized cost of funds relative to a portfolio with a specified duration	15
e. Realized cost of funds relative to a portfolio with a specified ratio of fixed to floating rate debt	35
f. Other benchmark (please describe)	13
Total firms responding	173

If your firm does not use interest rate derivatives, please skip ahead to Section IV.

15a. How often does your firm transact in the interest rate derivatives market to...
(Please check the appropriate column for each row. Choose 'Not Applicable' if a reason is not relevant to your firm.)

	Not Applicable	Never	Sometimes	Frequently
a. Swap from fixed rate to floating rate debt	12	51	65	13
b. Swap from floating rate to fixed rate debt	11	13	107	17
c. Fix in *advance* the rate (spread) on *new* debt	14	52	65	10
d. Reduce costs or lock-in rates based upon a market view	12	56	62	8

15b. How often does your market view of interest rates cause you to ...
(Please check the appropriate response.)

	Never	Sometimes	Frequently
a. Alter the timing of hedges	50	87	9
b. Alter the size of hedges	59	79	8
c. Actively take positions in interest rate derivatives	86	53	6

IV. Option Contracts

16a. Please indicate which of the following types of option contracts your firm has used in the past 12 months for the indicated exposures.
(Place check marks in the appropriate columns for each type of option, leave blank is options are not used.)

		Types of Exposures			
		FX	IR	CM	ANY
a.	Standard European-style options	56	28	25	84
b.	Standard American-style options	31	26	33	75
c.	Average rate (price) options	15	7	17	38
d.	Basket options (options on two or more prices)	8	5	4	17
e.	Barrier options (knock-in/knock-out)	18	5	5	26
f.	Contingent premium (options with deferred or conditional premiums)	5	1	5	23
g.	Option combinations (i.e. collars, straddles, etc.)	21	10	24	50
h.	Other _____	5	5	2	9
Summay: Use of any form of options in the last 12 months		87	56	56	136

16b. If your firm does not use options, can you tell us why not? _____

V. Control and Reporting Procedures

17a. Does your firm have a documented policy with respect to the use of derivatives?
(Please circle the appropriate response.)

a. Yes – **158** b. No – **42**

17b. How frequently is derivatives activity reported to the Board of Directors?
(Please circle the appropriate response.)

a. Monthly - **8** b. Quarterly - **44** c. Annually - **34** d. As needed/No set schedule - **97** e. Other – **12**

18. What is the lowest rated counterparty with which you will enter a derivatives transaction?
(Please check the appropriate rating for each maturity.)

	AAA	AA	A	BBB	Less than BBB	No Set Policy/ Don't Know
a. Maturities 12 months or less	11	36	92	17	4	27
b. Maturities more than 12 months	13	59	69	10	2	24

19. How frequently do you value your derivatives portfolio?
(Please circle the appropriate answer.)

a. Daily 36
b. Weekly 18
c. Monthly 53
d. Quarterly 41
e. Annually 9
f. As needed/No set schedule 37

20. Rank your degree of reliance on each of the following for valuing your derivative positions.
(Please rank items; 1 - Most important, .., 3 - Least important; Use an "X" if a method is not used at all.)

	Rank 1	Rank2	Rank3
a. Dealer that originated the transaction	66	60	42
b. Another dealer, consultant, or price vendor (e.g. Bloomberg)	42	62	53
c. Internal source (e.g. software, spreadsheet, etc)	79	41	39
Total Firms Responding		184	

21. How do you evaluate the risk management function?
(Please circle the statement that best matches your practice.)

	Firms Responding
a. Reduced volatility relative to a benchmark	73
b. Increased profit (reduced costs) relative to a benchmark	40
c. Absolute profit/loss	33
d. Risk adjusted performance (profits or savings adjusted for volatility)	38

Thank you for completing the survey.
Please mail it today in the enclosed postage-paid envelope.

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If you have further questions or comments, please contact:
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