ISDA

INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION

A SURVEY OF FINANCE PROFESSORS' VIEWS ON DERIVATIVES

Survey Conducted by
The International Swaps and Derivatives Association
March 2004

19TH ANNUAL GENERAL MEETING
CHICAGO

INTRODUCTION

As part of its mission to encourage the prudent and efficient development of privately negotiated derivatives activity, the International Swaps and Derivatives Association actively seeks to advance public understanding of these instruments and their role in the financial marketplace.

To that end, ISDA conducted a survey in March 2004 of finance professors at the top 50 business schools* worldwide to explore perceptions of derivatives, as well as their impact on the global financial system. In some questions, we asked participants to rate their agreement or disagreement with a statement related to derivatives. In others we asked participants for their opinions on specific issues.

In conducting the survey, a web-based questionnaire was sent to finance professors at the top 50 business schools. A total of 84 professors, at 42 institutions, provided responses. Participants were able to choose whether they wished to have their quotes attributed or to remain anonymous.

We asked participants whether they strongly agreed, agreed, somewhat agreed, somewhat disagreed, disagreed or strongly disagreed with statements 1 through 6, and to respond to questions 7 through 9:

1. Managing financial risk more effectively is a way for companies to build shareholder value.

2. Derivatives help companies manage financial risk more effectively.

3. Derivatives will continue to grow in use and application.

4. Derivatives have not created new types of risk; they simply allow existing risks to be managed better.

5. The impact of derivatives on the global financial system is beneficial.

6. The risks of using derivatives have been overstated.

7. What contribution do derivatives make to the stability of the global financial system?

8. What are the most important benefits that derivatives offer companies?

9. Which areas will benefit most from innovations in derivatives in the next five years?

Respondents were also provided an opportunity to offer any additional insights they believed to be relevant.

*Financial Times, January 26, 2004

We would like to thank the following institutions for participating in the survey:

City University: Cass Business School
College of William and Mary
Columbia University: Columbia Business School
Cornell University: Johnson
Dartmouth College: Tuck
Duke University: Fuqua School of Business
Georgetown University: McDonough
Harvard Business School
IESE Business School
Institute for Management Development
Instituto de Empresa
London Business School
Manchester Business School
Massachusetts Institute of Technology: Sloan
McGill University
Michigan State University: Broad
Northwestern University: Kellogg School of Management
New York University: Stern School of Business
Northwestern University: Kellogg School of Management
Ohio State University: Fisher
Purdue University: Krannert
Rotterdam School of Management
Scuola di Diezione Aziendale dell' Universita Bocconi
University of California Los Angeles: Anderson
University of Chicago: Graduate School of Business
University of Illinois at Urbana-Champaign
University of Iowa: Tippie
University of Maryland: Smith
University of Michigan Business School
University of North Carolina: Kenan-Flagler
University of Oxford: Said Business School
University of Pennsylvania: Wharton
University of South Carolina: Moore School of Business
University of Southern California: Marshall
University of Texas at Austin: McCombs
University of Toronto: Rotman
University of Virginia: Darden Business School
University of Western Ontario: Ivey
Warwick Business School
Washington University: Olin School of Business
Yale School of Management
York University: Schulich School of Business

EXECUTIVE SUMMARY

Outlined below are the major findings of the ISDA Academic Survey:

SECTION I:

- Ninety-eight percent of respondents agreed that managing financial risk more effectively is a way for companies to build shareholder value.
- Respondents unanimously agreed that derivatives help companies manage financial risk more effectively.
- All respondents agreed that derivatives will continue to grow in use and application.
- Over half the respondents agreed that derivatives have not created new types of risk; they simply allow existing risks to be managed better.
- Ninety-nine percent of respondents agreed that the impact of derivatives on the global financial system is beneficial.
- Eighty-one percent of respondents agreed that the risks of using derivatives have been overstated.

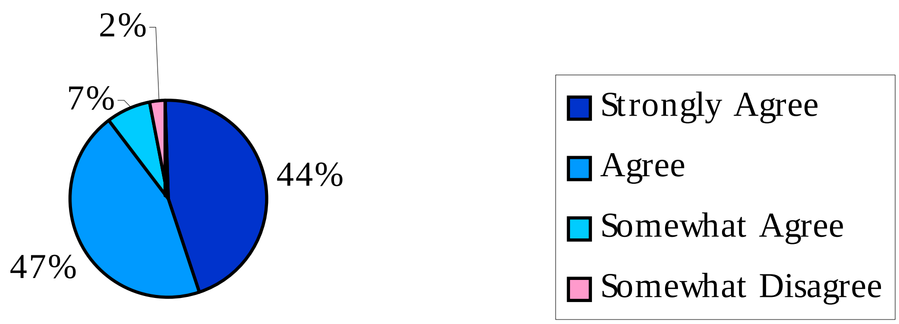
SECTION II:

- The use of derivatives by companies as a quick and efficient way to manage risks was commonly cited as a contribution to the stability of the global financial system.
- The flexibility derivatives offer in customizing a company's risk profile was commonly cited as a benefit the instruments offer companies. Many also noted that derivatives allow companies to assume only the risks that add value and enable them to concentrate on their primary products. Others described derivatives as important risk management tools that are inexpensive to utilize.
- Several respondents consider credit risk the area most likely to benefit from innovations in derivatives in the next five years. Other areas cited included financial services and international and emerging markets.

SURVEY RESPONSES

Participants were asked to rate each statement on a scale of “Strongly Agree” to “Strongly Disagree.”

Managing financial risk more effectively is a way for companies to build shareholder value.



Base: 81 responses

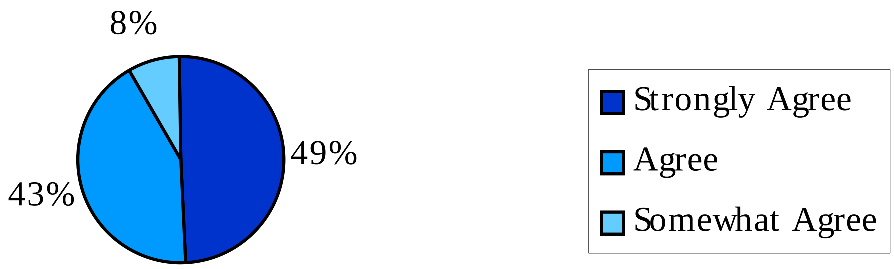
Ninety-eight percent of respondents agreed with the above statement.

Of the respondents, 44 percent strongly agreed, 47 percent agreed and seven percent somewhat agreed. Two percent of respondents somewhat disagreed.

Insights of value included:

“The transfer of risk from those parties who bear it at high cost to those who can bear it at a lower cost releases value. Those gains from trade in risk are massive and they are utterly dependent on properly functioning derivatives markets.”
-- Samuel Wylie, Assistant Professor, Dartmouth College: Tuck

Derivatives help companies manage financial risk more effectively.



Base: 84 responses

100 percent of respondents agreed with the above statement.

Of the respondents, 49 percent strongly agreed, 43 percent agreed and eight percent somewhat agreed.

Comments from respondents emphasized the key benefits provided by the use of derivatives. The most commonly cited benefit was the ability of companies to use derivatives to customize their risk profile and to assume only those risks that add value. Participants noted that by serving as effective risk management tools, derivatives enable companies to concentrate on their business operations:

"Derivatives allow companies to bear or assume only the risks that they want to take."
-- James Angel, Associate Professor of Finance, Georgetown University: McDonough

"The flexibility to match the financial risks a firm takes and the risk appetite of the firm."
-- Ronald Huisman, Assistant Professor, Rotterdam School of Management

"Flexibility -- *being able to target the risk that needs to be managed without having to devise a high-frequency hedging strategy."*
-- Michael W. Brandt, Associate Professor of Finance, Duke University: Fuqua School of Business

"Flexibility to alter risk profiles without changing underlying exposures."
-- Jan Ericsson, Assistant Professor of Finance, McGill University

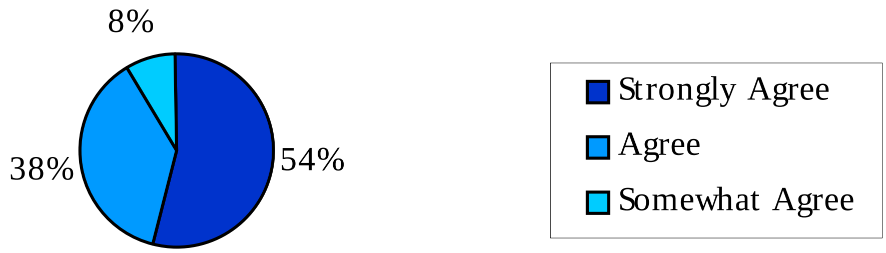
"[Derivatives] allow companies (with forex, industry, local or global interest rate, product or commodity price exposures arising in operations or in financing) to focus on their primary business or core competence instead of worrying about fluctuations in financial markets."
-- Mo Chaudhury, Faculty Lecturer in Finance, McGill University

"Derivatives allow companies to focus on their primary products and allow financial experts to control their financial risks in the interest rate and foreign exchange markets."
-- Robert Geske, Professor, University of California Los Angeles: Anderson

"Derivatives allow firms to eliminate those risks that they do not control and in doing so allows them to take additional risks that they believe contributes to their firm's values."
-- Sheridan Titman, Professor, University of Texas at Austin: McCombs

Quick and inexpensive risk management was another benefit noted by participants.

Derivatives will continue to grow in use and application.



Base: 84 responses

100 percent of respondents agreed with the above statement.

Of the respondents, 54 percent strongly agreed, 38 percent agreed and eight percent somewhat agreed.

The majority of participants who provided feedback cited credit risk as the area most likely to benefit from innovations in derivatives in the next five years:

"The credit derivatives market is likely to continue to grow. This will primarily benefit financial institutions. We can expect to see the pace of innovation in derivatives markets continue. Possibly there will be more products aimed at allowing private individuals to manage risk. At the other extreme we may see products aimed at managing the risks faced by governments."

"The management of exposure to credit risk will benefit from additional innovations and continued growth in the market for credit derivatives."

"FX, energy, and interest rate risk management are the traditional uses for derivatives, but newer products (e.g. weather derivatives and credit derivatives) will also provide major benefits."
-- James Angel, Associate Professor of Finance, Georgetown University: McDonough

Other respondents chose to indicate an industry that will benefit from innovations in derivatives, rather than a specific product area, and cited financial institutions, including the banking and insurance industries:

"Financial institutions and banking industry."
Javad Kashefi, Visiting Professor of Finance, University of Southern California: Marshall

"Pension funds, insurance."
-- Roel Oomen, Lecturer in Finance, Warwick Business School

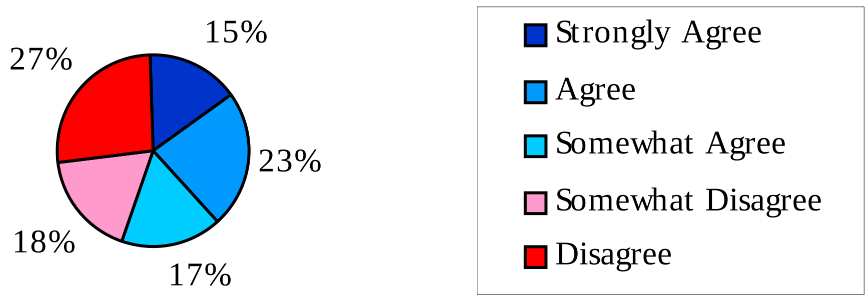
"Banking, real estate, insurance."

A few others cited international and emerging markets as areas likely to benefit from innovations in derivatives:

"Liquidity management in international markets, European capital markets."

"Small firms, firms in developing countries. As these products become more understood and therefore the markets more liquid, the benefits will be realized by these groups as well."

Derivatives have not created new types of risk; they simply allow existing risks to be managed better.



Base: 84 responses

55 percent of respondents agreed with the above statement.

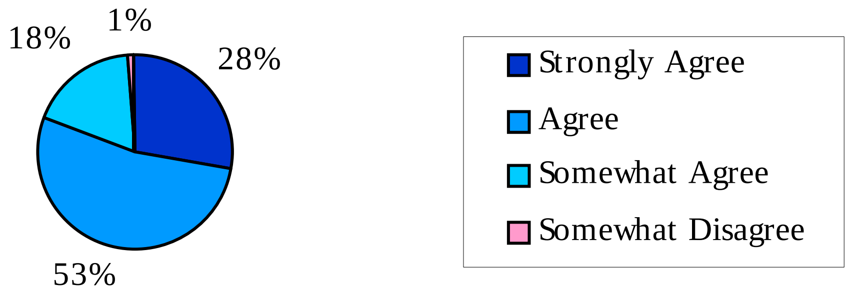
Of the respondents, 15 percent strongly agreed, 23 percent agreed and 17 percent somewhat agreed. Eighteen percent of respondents somewhat disagreed and 27 percent disagreed.

The question did not specify types of "new" risk, leaving it to the respondents to interpret. For example, it did not distinguish between the risk inherent in the bilateral relationship (i.e., counterparty credit risk) and other types of risk, particularly macroeconomic ones that are sometimes attributed to derivatives. In this regard, the virtually unanimous agreement on the question on the beneficial impact of derivatives on the global financial system and the strong belief of the respondents that the risks of using derivatives have been overstated are indications that, whatever the risks the respondents believe may arise in using derivatives, there is not cause for concern.

"On net derivatives are effective at better distributing financial risks. These benefits are largely outside the financial system. On net the benefits of derivatives are also positive for the financial system but there are additional (new) risks that need to be considered."

"Derivatives with high counterparty credits allow intermediaries and dealers to hedge their positions much more effectively, at a much lower cost and in a speedier fashion. This greatly reduces the insolvency/liquidity risk of intermediaries and dealers thereby adding stability to the global financial system."
-- Mo Chaudhury, Faculty Lecturer in Finance, McGill University

The impact of derivatives on the global financial system is beneficial.



Base: 83 responses

Ninety-nine percent of respondents agreed with the above statement.

Of the respondents, 28 percent strongly agreed, 53 percent agreed and 18 percent somewhat agreed. One percent of respondents somewhat disagreed with the statement.

Respondents commonly cited the use of derivatives by companies as a cost-effective means of risk transfer to be the key contribution derivatives make to the stability of the global financial system:

"Widely used derivatives offer the opportunity to transfer risk quickly and efficiently, providing the markets liquidity and less volatility."
-- Juan Fernandez, MD of Portfolio Management, Instituto De Empresa

"By allowing for a more efficient management of risk derivatives have resulted in a more efficient allocation of capital. An efficient allocation of our resources, including capital, allows for more rapid global economic growth. It is through economic growth that each generation has the ability to live better than past generations. Thus, an expanded efficient use of derivatives is an important component for future economic growth."
-- Michael Brandl, Lecturer, University of Texas at Austin: McCombs

"[Derivatives] manage routine risks more efficiently, and by securitization make it possible to spread risks more widely."
-- Geoffrey Heal, Professor, Columbia Business School

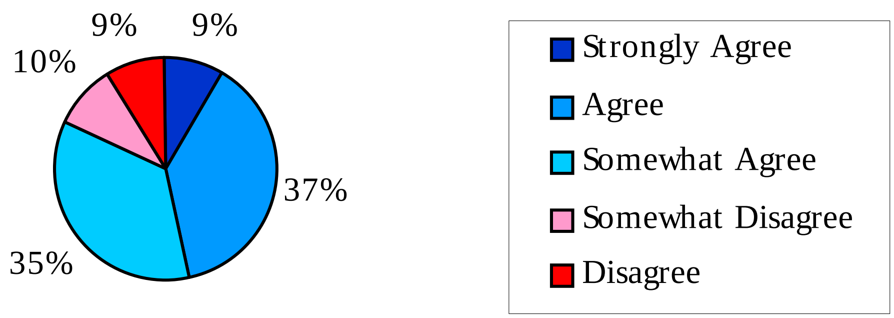
"They allow financial and non-financial corporations to manage their risks in a way that would not otherwise be possible. Sound risk management leads to more predictability and therefore more stability in the global financial system."

"By facilitating the transfer of risks from those who don't wish to bear risks to those who are willing to bear risks, derivatives make financial markets less volatile."

“By allowing firms to manage risks, they are no longer as susceptible to changes in market prices for currencies, commodities, etc. This has brought a lot more stability (esp. in smaller markets, like Canada, where these risks can have a big negative impact).”
-- Craig Dunbar, Associate Professor, University of Western Ontario: Ivey

“They allow the transfer of risk from parties that don't want to bear risk to parties that can. For example, credit derivatives make the banking system safer.”
-- James Angel, Associate Professor of Finance, Georgetown University: McDonough

The risks of using derivatives have been overstated.



Base: 82 responses

Eighty-one percent of respondents agreed with the above statement.

Of the respondents, Nine percent strongly agreed, 37 percent agreed and 35 percent somewhat agreed. Ten percent of respondents somewhat disagreed and nine percent disagreed.

Some respondents offered comments to support their agreement with the above statement:

"The problem is not with derivatives but with some market participants that use them extensively without a reasonable understanding of financial markets and especially derivatives."
-- Zvi Wiener, Visiting Professor, University of Southern California: Marshall

"As above, derivatives do not create risk; they merely enable its better management."
-- Dr. Paul Dawson, Senior Lecturer in Financial Derivatives, City University: Cass Business School

The need for better understanding of derivatives and their benefits among market participants was a common theme found in additional feedback submitted by respondents:

"Companies need a better understanding of the economics that should drive derivative use. In general companies understand that lower risk is a good thing but they need a better understanding of exactly what the benefits are. Many still believe they can gain significantly from trying to time markets with hedges."