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**Master's in  
Financial Engineering**  
University of California, Berkeley

## Haas School of Business, University of California at Berkeley: Making Opportunities for Graduates in an Increasingly Broad and Complex Field

By Duncan Wood

How do you measure the success of a masters program in financial engineering? For Linda Kreitzman, director of the Master of Financial Engineering offered through the Haas School of Business at the University of California at Berkeley, the answer is pretty straightforward. "As director, my role – among other things – is to develop and maintain contacts with firms to find opportunities for the students and place them in internships and full-time positions," she says. "The success of our graduates is the ultimate measure of the success of our program."

Given this criteria, you would expect Kreitzman to be pretty pleased with the program's results to date. The first class of Berkeley Master of Financial Engineering students, 46 of them in total, were all successfully placed in industry despite the fact that the class graduated in March 2002, not long after the September 11 attacks on the U.S., and while financial markets and institutions were still counting up the losses from Argentina's record-breaking default and the collapse of Enron. It was not a clement environment in which to be seeking a job in finance, but none



Linda Kreitzman

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of the holders of the new Berkeley Master in Financial Engineering were left out in the cold.

Since that first class, the program has maintained its record. "As of October 2005, I have placed 100 percent of students in roles, primarily on Wall Street and in the Bay Area, but also in Asia and Europe," she says. "Fifty percent of our students landed internships in I-banks on Wall Street and I expect a larger number to get full-time positions by March of 2006 when the students graduate. To date, we have several offers from Lehman Brothers, Goldman Sachs, Morgan Stanley, Fitch Ratings, BNP Paribas, Barclays Global Investors, Merrill Lynch . . . so far. Our students are outstanding."

*. . . as disciplines like corporate finance and industries like energy increasingly seek out staff with their distinctive skill set . . . any loss of opportunity in banking ought to be compensated for by new interest from elsewhere.*

— Linda Kreitzman, Director, Master of Financial Engineering Program, Haas School of Business, University of California at Berkeley

There are, of course, a host of factors that contribute to the program's success. Placing graduates requires strong links between the program and potential employers, for example — links that Kreitzman fosters by traveling extensively. "I travel five times a year at least to New York and other parts of the country. I also travel outside the U.S., to Paris and London to establish further contacts with the financial community."

This kind of contact is a key element in finding opportunities for Berkeley graduates, she says. "Although we use certain tools such as resume books and job fairs to help market our students to potential employers, it is the networking and frequent communication with decision-makers in the industry that allows us to find most of the opportunities for our graduates."

The close links with the industry also help in another, more fundamental way — the input and feedback from potential employers is used to tailor the course itself to meet the market's needs. "Establishing strong relationships with the industry has given me a thorough understanding of the needs and requirements of the marketplace, including potential employers," she says. "This is an active and ongoing process that started long before the MFE program was actually launched, and these relationships have been very valuable to the program in many respects. They have helped us to quickly establish a reputation, and we're able to identify the skills that are most likely to be in demand."

"Linda has established personal relationships with the decision-makers on Wall Street who value her knowledge and expertise tremendously," said Michel Crouhy, head of research and development and financial engineering for IXIS Corporate and Investment Bank in New York. "Linda's track record is impeccable and she is well respected and trusted by the management of Wall Street firms. She is uniquely qualified and talented to understand the specific needs and cultures of financial institutions. This allows her to place her students in key positions where

they can succeed so that it is a win-win situation for the firm and the student. Linda is becoming a force on Wall Street and is now extending her reach outside the U.S., especially in London and Asia."

At the moment, the Berkeley program is geared towards providing banks and other firms with staff who are both technically skilled and financially streetwise, she says — a blend of abilities that is engendered by the program's interdisciplinary structure. "The critical distinguishing feature of our program is that it is not taught primarily from a math or operations research department, but instead is exclusively linked to our finance faculty at the Haas School. This gives our students a stronger grounding in financial economics, and helps separate them from the pure quant people who sit in the backrooms."

If there has been one theme running through this year's special feature on graduate programs, it has been this: the idea that banks and other firms that need skilled quantitative staff are no longer going to be bowled over simply by a candidate with a firm grasp of stochastic calculus. They're looking for people who can meet their technical needs while simultaneously being comfortable in the world of professional finance. Kreitzman says that achieving this blend is something the Berkeley Master of Financial Engineering does particularly well.

"Global financial markets will always need pure quant people, but these folks are not hard to find. It's a lot harder to find people who have an intuitive mind, who are able to grasp the underlying financial economic concepts really well and that can also marry that with superlative quantitative skills," she says. "Individuals like this — and they're still pretty rare — are going to be more valuable to the firms and this is what makes our program the premier in the country."

The program at Berkeley was launched following the completion of two wireless labs in 2001, with backing provided by program sponsors that include: AIG Inc., Barclays Global Investors, BARRA Inc. (now MSCI BARRA), Gifford Fong Associates, Goldman Sachs, Moody's KMV, MBIA Inc., Morgan Stanley, Quantal International Inc., The Dean Witter Foundation, Wachovia Securities and WR Hambrecht + Co, LLC. Courses started in March of that year. The program now has an annual intake of 60 students from applications that number anywhere from 200 to 400 each year.

Kreitzman is looking forward in the expectation that recent growth trends will continue. "I'd say that financial engineering has come of age. It's a genuinely well-defined and mature discipline that's set to become even more important as global financial markets continue to grow and evolve," she says. "As such, we expect the demand for quantitative students who also have intensive training in finance to remain high for some time."

There is the possibility that the future evolution of financial markets won't see the same blossoming of complexity that has marked the last twenty years. Some program directors expect this to result in demand for qualified financial engineers to tail off somewhat, but Kreitzman isn't too concerned. She argues that tomorrow's financial engineers will have a broader range of opportunities, as disciplines like corporate finance and industries like energy increasingly seek out staff with their distinctive skill set. Any loss of opportunity in banking ought to be compensated for by new interest from elsewhere, she says. ■