Use of derivative instruments: Needs analysis, strategy

Dennis L. Heskel

Dennis L. Heskel, Ph.D., senior vice president of Quantitative Marketing for Forstmann-Leff International, is responsible for assisting the firm's public and corporate clients in understanding and developing quantitative investment guidelines. He was previously executive vice president of Refco Portfolio Management where for 12 years he evaluated and instructed public and private sector institutions on portfolio structure and risk management issues. As an adjunct professor of finance at the Illinois Institute of Technology, he helped construct and taught in a graduate program for financial industry professionals. He has conducted seminars throughout the world as well as written articles on a number of portfolio management issues. He serves as a financial consultant to a number of multinational institutions, government organizations and corporations.

Derivatives could play an important role in corporate investment strategy, Dennis Heskel told the Global Executive Forum. But the key word is "strategy," and how well the strategy succeeds depends on the analysis by the business manager.

"Derivative instruments allow you to implement your strategy at whatever level in a cost effective and flexible manner," said Heskel. "If they can't provide you a cheaper, easier way to operate, they have no purpose and they disappear.

"Their value is as a high-powered tool, neither good nor bad. Their success depends on the ability of the person who uses them."

This is a complex subject that is best grasped with prior knowledge of investment finance. What follows are highlights from Heskel's remarks.

The term "derivative" describes a broad class of trading instruments that have no tangible worth of their own, but "derive" their value from the claim they give their owners to some other financial asset or security.

Derivative instruments include:

- Forwards
- Futures and Options on Futures
- Caps, Floors, Collars and Corridors
- OTC Options
- Interest Rate Swaps
- Equity Swaps
- Currency Swaps

The primary focus of Heskel's presentation was not on the nature of the derivatives themselves, but on...

- "how to think about utilizing these instruments;
- "looking at risk management as a business principle -- the kinds of risks you may face and the derivative instruments, or tools, that allow you to address those risks."

Expanding on his explanation, Heskel said, "There are instruments that are cash-like. They have returns and risks that mirror almost exactly that of the cash market fundamental instruments themselves; for example, forwards and futures and swaps. These are agreements to exchange, to buy something or sell something at a future date at a price that you set today. That's really their fundamental value."
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The goal of risk management is not to reduce risk, but to increase return on equity capital.

"Risk management is an exciting and developing area of finance," Heskel said, adding there are associated pitfalls and dangers. "In today's world, it's important to think in terms of what risks you want to take, at what period of time, and what you can do to increase the return on your equity capital."

Failure to use appropriate risk management techniques can arouse shareholder ire. Heskel told of an Indiana company being sued by shareholders for not using derivative instruments to protect against their business risk. Their position is that this violated prudent business practices.

Hedging can be used to reduce the amount of shareholder equity used to cover the risk of highly volatile, but low-returning near-term commodity/foreign exchange/interest rate risk, and allow capital to be redeployed to higher-returning proprietary business opportunities.

Heskel talked about reducing the amount of low margin, high volatility risk and getting more of the long-term business strategy returns that shareholders want. Techniques you can use:

- Control the timing and quantity of debt equity raised as well as the opportunity to monetize assets.

EXAMPLE:

"You are in a cyclical business and have a pretty good idea of what that cycle is. You know that an extra dollar in a surplus period has little competitive impact. In contrast, a dollar in a deficit period can represent a significant competitive advantage. By shifting revenues from low-value periods to high-value periods, the firm can improve its overall ability to compete."

How is this accomplished?

- Sell expected surplus revenue to a time when you know that you are likely to face a deficit. This helps decrease the volatility of your cash flow, and keeps you out of the capital market when everybody is in the market. You are selling low and buying high through the cycle, reducing the level of risk and increasing the profit potential.
- Monetizing assets is another way to reduce low-margin, high-volatility risk. If you have a variety of different kinds of assets that are not earning anything but you have to hold on to them, whether they are capital reserves or inventory, if you can earn a return on those assets it is essentially found money in terms of your total corporate balance sheet year to year.
- Increase efficiency of the capital you do use so that you can allocate more to high-return projects and avoid having to sell assets at a bad time in the cycle.
- Shift excess cash flows into periods when they have greater value to the firm, including the current period, by selling options.

EXAMPLE:

Suppose, said Heskel, you have cash reserves in anticipation of risks and want to have liquid assets on hand to cover those risks. The best place to put these cash assets, you decide, is in two-year Treasury Notes that pay 6 percent interest.

After some consideration, you determine your risk and what risk you are willing to take. Next, you decide where you think interest rates are going to be in this range, between 5.75 percent and 6.25 percent, and...
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how you would like to benefit from the interest rates. Your strategy, then, might be to sell options at the relevant interest rates every month.

"A call option would stipulate that if interest rates were to decrease on the two-year note to 5.75 percent, the price of the instrument would increase as interest rates fell. I would be willing to sell," said Heskel. "On the other hand, if interest rates were to increase to 6.25 percent, I would take some of my liquid cash and buy more, using a put option, because I think that's a good return."

- **Put Option**: The buyer has the right, but not the obligation, to sell the underlying asset at a given price, at or before a specified expiration date. The put buyer pays a premium to the seller for these rights.
- **Call Option**: Buyer has the right, but not the obligation, to purchase the underlying asset at a given price, at or before a specified expiration date. The call buyer pays a premium to the seller for these rights.

**The option buyer has the potential for a large gain, but has a maximum risk of only the premium. The option seller can only earn the premium collected and risks the potential of large losses.**

"If yields didn't change, you would keep the premium," said Heskell.

The points add up quickly. "In the course of a year, you might add somewhere between 100 to 200 basis points to return on those assets. That is a very significant increase on reserve capital."

Depending on your goal, said Heskel, "You can use this mechanism to either increase the return on assets you must have, or reduce your borrowing costs."

**Options provide a number of important advantages, primarily because they allow flexible, low cost and efficient ways to alter the composition of a portfolio.**

"These kinds of programs can allow you to be proactive rather than reactive. They allow you to make the decision that you think is most appropriate, not only on a passive basis, but in a way that allows you to change as business conditions and your corporate structure changes."

Decisions have to be made with the goal of adding value in terms of shareholder equity. An increase in equity return of only 1 percent represents a very significant amount.

Derivative instruments are used every day, said a Forum participant. "If you have $500 million worth of exposure to the yen, and you know that the currency could move against you before you have a chance to repatriate it, you would use these types of instruments to lock yourself in."

Heskel agreed. "Daily, there is in excess of a trillion dollars that's traded in the currency markets. These are huge transaction markets, and that's why the transaction costs themselves are quite small."

**Risk management must be integrated with the firm's overall business strategy, both in the present and in the future.**

Heskel recalled a time in 1990 when oil prices were about $11 a barrel. He went to many of the major airlines and said, Good time to lock in your fuel costs. Every one of them said, Why should we worry about it when oil is so low? They all passed.
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"Then oil shot up to $25 and I got a call from every one of them, saying, We want to lock in and hedge our oil prices. They were afraid it would go to $100 a barrel. All I could say is, Too late. You can't lock it in after it goes up."

Heskel stressed that it's important to understand the fundamental mechanics and mathematics behind these derivative instruments in order to understand how to use them effectively. "It's like any high-powered tool," he said.

While you do have to have a pretty good conceptual base, "You don't have to know how to price an option or a swap. But you do have to understand what affects that pricing and what's fair and what isn't, and what those risks are."

Heskel admits that the subject of derivatives is very complex. "But the complexity is on the strategy side, not on the implementation side. If you're going to be competitive, you're going to have to think about your investment strategy as much as you think about the nature of the product you're producing and the marketplace in which you're selling it."

"Because you have to look for profit, or reducing costs, any place you can," said Heskel.

Derivative instruments at work

A forwards contract involves a contract initiated at one time with performance occurring at a subsequent time. It involves an exchange of one asset for another; the price at which the exchange occurs is set at the time of the initial contracting.

EXAMPLE: "A major gold mine was looking for international funding. To get the funding they had to think about:

- Currency exposure for the loan.
- Interest rate on the loan.

"In order to ensure repayment of the loan, they used a swap instrument to sell gold in the future at a price set today. However, they thought that gold would be selling at $500 an ounce by 1999 and they wanted to ensure they would be able to profit and not give away all of the upside.

"So they bought some call options, which gave them the right to buy the underlying gold asset by a specified date at a specified price. As the call buyer, they paid a premium to the seller for these rights.

"If gold prices increased, the mine owners would not be giving away all the upside and they would profit. If gold prices did not increase, they could walk away and the 1 percent (or so) premium would be the most they could lose."

Said Heskel, "This is a simple and cost-effective implementation of an important business strategy."