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## Regulate Hedge Funds

It's impossible to separate charlatans from talented wizards.

## BY DEAN P. FOSTER AND H. PEYTON YOUNG

magine that you are shopping for a high-performance car, but that you are not allowed to look under the hood. What's inside is a secret. Furthermore, you cannot find out how similar vehicles have performed, because there are none. Finally, the car carries no warranty.

The same logic applies to hedge funds: investors are typically not allowed to know how they work, and no warranties

are offered. Moreover, hedge fund managers can easily "fake" high performance without getting caught.

To see how high performance can be faked, consider a fairly rare event, such as the Standard & Poor's 500 index falling by more than 20 percent in the coming year. Such events are commonly priced in the derivatives market, which puts the price for the S&P event at ten cents on the dollar. An option costs ten cents now and pays \$1 if the event occurs by the end of the year, but nothing if it does not.

Enter Oz, who holds a doctorate in physics. He has no investment talent, but he knows about probabilities, and is running a

hedge fund worth \$100 million. He decides to sell options on the S&P event. In order to meet his obligations to the option holders if it occurs, he parks the \$100 million in one-year U.S. Treasury bills yielding 4 percent. He then sells 100 million covered options, which fetch ten cents on the dollar and thus net \$10 million. He parks this \$10 million in Treasury bills, too, and sells another ten million options. This nets him another \$1 million, which he uses to cover expenses.

At the end of the year, the probability is 90 percent that the event does not occur, so Oz owes nothing to option holders. The fund grosses \$11 million from the sale of the options plus 4 percent on \$110 million in Treasury bills, which represents a handsome 15.4 percent return before expenses.

Moreover, Oz's fee is the standard "two and twenty": 2 percent for funds under management plus a 20 percent performance bonus for returns that exceed some benchmark—say, 4 percent. He therefore gets more than \$3 million after expenses. Oz is happy that he left physics.

Since the probability of the event occurring is only 10 percent in any year, the chances are nearly 60 percent that more than five years will pass without the event occurring, in which

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case Oz makes more than \$15 million even if no new money comes into the fund. Of course, after several years of such returns, Oz's fund may grow enormously as new investors clamor for a piece of the action.

But investors do not know—and cannot tell—that Oz has no talent. They see what happened, not what could have happened. So when the event eventually does occur, investors who

leave their money in the fund lose everything, whereas Oz nets more than \$3 million in each year before the fund crashes.

Moreover, the outcome for investors is the same even if managers are honest and merely think that they can beat the market. Oz may not be a crook; he may merely think that the probability of the S&P plummeting is much less than 10 percent.

The bottom line is that hedge fund managers put their investors at risk, yet assume little risk themselves. If the fund blows up, investors cannot tell whether it was due to bad management or just bad luck.

This poses real challenges for regulators.

Fraud is difficult to prove, because managers can always say that they thought the odds were better than were. Nor will changing the incentives—say, by penalizing underperformance as well as rewarding high performance—solve the problem, because any fee structure that rewards true financial wizards also rewards charlatans.

Yet steps to protect investors can be taken. All hedge funds should be required to register immediately, and to report their returns regularly. Requiring managers to apprise investors of downside exposure would help even more. Alternatively, managers could guarantee limits on losses, similar to a car manufacturer's warranty.

It is in the hedge fund industry's interest to encourage greater regulation and transparency, lest a rising tide of failed funds cause investor confidence to collapse, putting both good and bad wizards out of business.

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