

You can't judge a money manager without knowing what kinds of chances he's taking with your money. Here's a new risk measure that could prove extremely valuable.

# The Graham-Harvey test

By Mark Hulbert

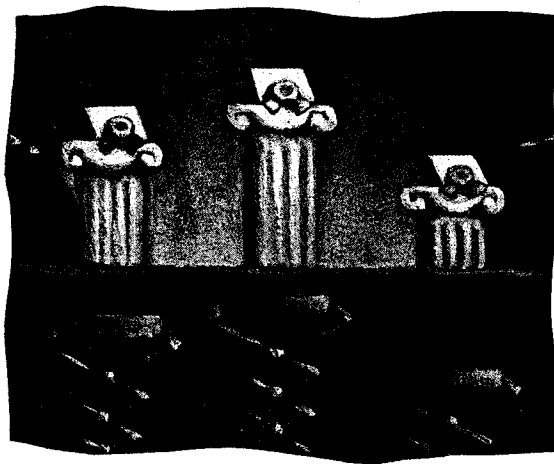
IMAGINE that you walk in on a poker game and someone asks you to guess which player will be the night's eventual winner. Would you automatically bet on the one with the highest pile of chips in front of him? Of course not. You'd first want to know how he won them. From just one lucky bet, after losing in every other round? Or had he been a consistent, if less spectacular, winner?

Precisely the same considerations apply when choosing a money manager or a mutual fund. For the past five years Fund A is well ahead of Fund B. How did it get there? With steady if unspectacular gains? Or with some aggressive bets that happened to pay off in a bull market?

Curiously, investors have no difficulty understanding the intimate relationship in poker between risk and winning. But when it comes to investing, they go for the big pile of chips—those funds in the newspaper stories headlined something like "Top Funds, five years through March."

The better way to compare stock pickers is to highlight risk-taking and give it equal billing with raw investment returns. FORBES does this in its mutual fund ratings by grading funds separately in up and down markets; the swingers might earn As in bull markets, but the high marks are tempered by glaring Ds and Fs for bear-market performance.

Another way, favored by pension fund consultants, is to calculate a



"Sharpe ratio" for all the funds. Named after William Sharpe, a Nobel Prize-winning Stanford economist, this ratio compares a manager's success in beating riskless Treasury bills with the amount of leverage he uses and price volatility of the securities he invests in. Under a Sharpe analysis, it won't do a portfolio manager any good simply to beat the market if in doing so he took on a large amount of debt and volatility risk.

Example: You put \$1 million in an index fund in January and by now you've made \$150,000, for a 15% return.

At the same time, you invested \$150,000 in a hedge fund. Jones, the hedge fund operator, used the cash to open a commodities account and went long four S&P 500 futures contracts. That represents about \$1 million worth of stock. Now you close out the account and Jones hands you a check for \$300,000.

To the naive, Jones looks like a genius. He made 100% on your money in the time that the sleepy index fund inched ahead 15%.

The Sharpe ratio (or anybody with any common sense) would say that Jones is a high-stakes gambler, not a genius. By leveraging your capital, he exposed you to the risks and rewards of owning \$1 million of stocks. You made 15% on that sum, the same return as with the index fund. But Jones also could have lost 15%, wiping out your capital.

The Sharpe ratio has been around for decades and done yeoman's service. Recently, however, two finance professors have come up with a new way to compare risk and performance. Their formula does a better job than Sharpe's of pinpointing advisers with genuine ability.

The two professors are John Graham of the University of Utah business school and Campbell Harvey of Duke University. While a graduate student at Duke, Graham, with Harvey's help, studied the *Hulbert Financial Digest's* database of investment letters' market timing signals. To evaluate the newsletters' results, the pair came up with their risk/performance formula.

Here's how it works. You construct a hypothetical index fund diluted with just enough cash—or levered up with just enough margin borrowing—that it has the same amount of volatility as the money manager's portfolio. If the manager beats this hypothetical fund, then he really accomplishes something. If not, not.

To illustrate, consider Fidelity's Select Financial Services fund. Over the last decade the fund has averaged a 14% annual return, edging out the Wilshire 5000 index's 13.7%. The fund achieved this performance with 33% more volatility (which the professors equate with being 33% riskier).

Did the fund perform well enough to justify this 33% greater risk?

The answer from the Graham-Harvey measure: No. To justify its greater risk, Select Financial Services would have had to make at least 15% a year. That's how much you could have made simply by buying an index fund

## Worth the risk

	10-year gain*	Gain of adjusted index portfolio	Excess return over index	Risk (market equals 1.00)
<b>Newsletter (portfolio)</b>				
MPT Review	25.8%	16.6%	9.2%	1.83
Stockmarket Cycles (Mutual Fund Portfolio)	16.7	13.5	3.2	0.97
Zweig Performance Ratings Report	14.4	11.7	2.7	0.71
NoLoad Fund X (Higher Quality Growth)	15.7	13.1	2.7	0.91
Zweig Forecast	14.5	12.1	2.4	0.78
Chartist (Traders Portfolio)	17.4	16.2	1.2	1.64
Systems & Forecasts (Regular Model Portfolio)	11.0	10.2	0.9	0.52
Dow Theory Forecasts (Income List)	12.6	12.2	0.4	0.78
Peter Dag Invest Letter (Model Vanguard Portfolio)	8.7	8.3	0.4	0.30
Personal Finance (Income Portfolio)	12.0	11.9	0.1	0.75
<b>Mutual funds</b>				
Twentieth Century Giftrust Investors	24.3	16.5	7.9	1.75
Seligman Communications & Information-A	22.2	15.9	6.3	1.55
Vanguard Specialized-Health Care	19.2	14.3	4.9	1.13
Fidelity Select-Health Care	20.1	15.4	4.7	1.40
Bergstrom Capital	18.6	14.1	4.5	1.08
Invesco Strategic-Health Sciences	20.1	15.8	4.3	1.53
Mutual Series-Beacon	15.2	11.5	3.7	0.69
Fidelity Contrafund	17.8	14.2	3.7	1.10
Invesco Strategic-Leisure	18.6	14.9	3.7	1.28
Mutual Series-Qualified	14.9	11.6	3.4	0.70
AIM Equity-Constellation	19.2	15.9	3.3	1.54
Berger One Hundred	18.1	15.0	3.1	1.28
New York Venture Fund-A	16.9	13.8	3.1	1.01
Fidelity Magellan	17.3	14.2	3.1	1.11
Mutual Series-Mutual Shares	14.6	11.5	3.0	0.70
Flag Investors Telephone Income-A	15.6	12.7	2.9	0.86
Fidelity Destiny Portfolio I	17.3	14.4	2.9	1.15
AIM Value-A	16.6	14.0	2.7	1.05
Pimco Advisors Opportunity-A1	17.9	15.2	2.7	1.36
IDS New Dimensions-A	16.5	14.0	2.6	1.05
Putnam Voyager-A	17.5	14.9	2.6	1.26
FPA Capital	18.0	15.5	2.5	1.43
CGM Capital Development	18.5	16.2	2.3	1.65
Janus Fund	15.2	13.0	2.2	0.90
Lindner Dividend	11.5	9.4	2.1	0.43
Wilshire 5000 Value Weighted Total Return Index	13.7	13.7	0.0	1.00

\*Annualized through Mar. 31. †Closed to new investors.

**These investment letters and mutual funds are standout performers under a new measure that compares a portfolio with a hypothetical index fund adjusted to match it in volatility.**

with 33% leverage. Three other funds that look good initially but fail to pass the Graham-Harvey test are: Twentieth Century Vista, ABT Investment Emerging Growth and Keystone Custodian S-4.

Now consider the Lindner Dividend Fund. It gained 11.5% a year over the last decade, 2.2 points below the Wilshire 5000. Disappointing?

But wait. This fund earned 84% of the market's return with just 43% of the risk of the market itself. According to the Graham-Harvey measure, if you deleveraged an index fund with enough cash so that it had only 43% of the market's volatility, it would have earned 9.4%. Lindner's 11.5% beat that hypothetical fund handsomely.

Here's another way of looking at

this. A cautious investor might have put half his money in the market a decade ago, leaving half in cash. This fellow would have been better off putting his entire wad in Lindner instead.

So much for hindsight. What does Graham-Harvey tell us about the future? Professor Graham told me that for the investment letters he and his colleague studied, their new measure yielded a correlation between early and later performance almost twice as high as the correlation generated by the Sharpe ratio.

So I decided to give Graham-Harvey a whirl. I applied it to the 326 U.S. equity funds that have been in existence for the last ten years.

First, I calculated for each fund a Graham-Harvey volatility-adjusted measure of performance over the five years from March 1985 through March 1990, selecting those that did better. I then examined how these selected funds performed over the next five years, from March 1990 to March 1995.

Results of this experiment: The chosen funds performed significantly better in the 1990-95 period. On average over the second five years, the chosen funds earned 12.1% a year, compounded, against 11.3% for rejected funds (and 11.4% for the market itself). And not only did the chosen funds do better, they did so with 10% less risk.

To be sure, 0.8% more per year with 10% less risk may not appear all that impressive. But from a statistical point of view it is. Something better than chance is at work in the Graham-Harvey rankings.

Furthermore, I'm willing to bet, Graham-Harvey winners will beat Graham-Harvey losers by an even greater margin during any period that includes a bear market—something we haven't seen for several years.

The table shows 25 funds and ten investment letter portfolios that stand out from their peers in Graham-Harvey performance since 1985.

Want to know more about this new way of comparing risk and performance? Graham and Harvey explain their methodology in "Working Paper No. 4890," published by the National Bureau of Economic Research in Cambridge, Mass.