minion Bond Rating Service, it holds less than a tenth of the branch market-share, in every state. It thus loses out to the likes of Wachovia and BOA, which dominate their favoured markets and enjoy operational efficiencies as a result.

For example, Citi's competitors can dip into a deep well of cheap deposits to finance their loans. Citi, by contrast, must raise money on the markets. It has thus suffered more than its peers from rising borrowing costs. To attract more deposits, Citi is offering generous interest rates to new customers of its online bank. It is also launching its first branches in places like Boston, on the untested theory that it can convince its brokerage and credit-card customers there to bank with it too.

Mr Prince is counting on such investments to help Citi grow organically. But investors are impatient. So are some of Citi's investment bankers. Despite losses in fixed-income trading in the third quarter, Citi's investment bank does quite well—its proud money-movers see themselves as peers of Goldman Sachs. But despite their relative success they have watched Citi's stock price flounder since 2001, dragged down by its flailing retail side. Worse still, they have recently seen their salaries squeezed in the name of controlling costs. Investment bankers—like Citi's investors—may wonder how long they have to suffer for the travails of Citi's consumer business. Golden parachutes, not red umbrellas, may be on their minds. ■

Buttonwood | Send in the clones

A cheap alternative to hedge funds

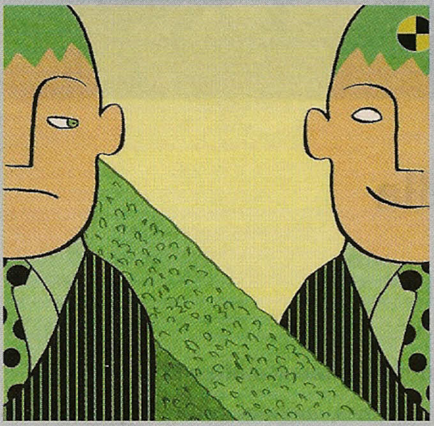
HEDGE funds profit handsomely from their mystique. The typical client imagines they generate lots of money, doesn't know quite how they do it, and is willing to pay their high fees as a result. But some academics now think it is possible to make cheap, knock-off versions of these expensive originals. Perhaps you can get Saks Fifth Avenue products at street-market prices.

Such a product would certainly be popular. Many investors would like to hedge their portfolios. They may have bet too much money on shares, but feel that buying bonds would lock them into low returns. Hedge funds seem to offer share-like returns with much lower volatility.

The problem is the cost. Funds routinely charge 2% a year on the money invested and claim a fifth of all profits. Often investors also have to pay a second layer of fees to fund-of-funds managers, who spread their clients' money across the vast hedge-fund universe.

But financial scholars are beginning to demystify hedge funds. They think they can replicate their performance using garden-variety financial products. The result could be a cheap competitor for the hedge-fund titans, akin to the index-tracking funds that have eaten into the market shares of active fund managers.

Replication is possible because hedge-fund managers are not as distinctive as they claim. They say their returns are based on skill, or "alpha", but in fact their performance is largely derived from market movements. A recent paper* by two academics at the Massachusetts Institute of Technology breaks down the returns



of 1,610 funds from 1986 to 2005. It finds that six common factors, such as the change in the S&P 500 index and the return on corporate bonds, explained a significant part of hedge-fund returns.

Investors can gain exposure to these factors through widely available liquid instruments. Thus it should be possible to build "clone" portfolios that resemble hedge funds. Such portfolios would not only avoid hedge-fund fees, but would also escape the risk of backing a mismanaged fund, such as Amaranth, which lost 65% of its value in September.

The authors suggest cloning a fund by dissecting its performance over the past year or two. One could sift and sort the factors behind its success, and allocate the clone's money accordingly. A back-tested clone portfolio returned an average of 12.8% a year over nearly 20 years compared with 14.2% for the typical hedge fund. And the copycat portfolio offered investors many of the same benefits of diversification as the fund it mimicked.

Not every academic is impressed by this approach, however. Harry Kat, at the Cass Business School, says that such "multi-factor" models fail to explain a large proportion of hedge-fund returns. But Mr Kat proposes his own cheap alternative†. It may be impossible to know the particular plays hedge-fund managers make. But, he says, you can devise a formulaic trading strategy in the futures markets that would duplicate the overall shape of their returns. His strategies would give investors two of the three things they look for from a hedge: a low correlation with their existing portfolio, at a level of volatility they can tolerate. The return would be out of their hands, but tests suggest profits can be decent: 10% a year in one example.

Alternatively, Benjamin Bowler of Merrill Lynch suggests investing in hedge-fund niches, such as merger arbitrage. Instead of spending time and money investigating which takeovers to back, a mechanical strategy could back all deals that met certain parameters. This, too, could be done at low cost.

Will such strategies be introduced in practice? Clones may be cheap to run, but you would need a big chunk of capital to set one up. Unfortunately, the financial institutions that have the money are quite happy with the status quo, which is highly profitable for both hedge-fund managers and the investment banks that service them. This golden goose is a highly protected species.

But the mystique enjoyed by hedge-fund managers may not last for ever. Another study‡, examining the performance of funds-of-funds from 1995 to 2004, found that their performance depended rather little on managerial skill, except during the dotcom bubble. Furthermore, those few managers who did distinguish themselves were then inundated with more money than they could handle. Often, the search for a skilful manager turns out to be a wild-golden-goose chase.

Investors may be suspicious of cheap reproductions. But originality comes at a price. Those who cannot afford the boutiques may one day throng to the knock-off merchants.

* "Can Hedge Fund Returns Be Replicated? The Linear Case", by Jasmina Hasanhodzic and Andrew Lo: ssrn.com/abstract=924565

† "Tell Me What you Want, What You Really, Really Want", by Harry Kat and Helder Palaro: www.cass.city.ac.uk/airc/papers.html

‡ "Hedge Funds: Performance, Risk and Capital Formation", by William Fung, David Hsieh, Narayan Naik and Tarun Ramadorai: ssrn.com/abstract=778124