

# Bigger is not always better

By **TEH HOOI LING**

A STUDY by the BNP Paribas Hedge Fund Centre at SMU has found that the larger the hedge fund, the lower its return.

An increase in fund assets under management from US\$20 million to US\$1 billion decreases fund alpha – outperformance above the benchmark – by 2.04 per cent per year, it was found. However, significant variation exists across funds when they are grouped by investment strategy and region.

Equity long/short, event driven, and macro funds are susceptible to capacity constraints, while fixed income and managed futures funds are largely immune to such concerns, says the author Melvyn Teo.

Mr Teo, a professor of finance and director of BNP Paribas Hedge Fund Centre, says that the finding that capacity issues impact macro fund performance raises fresh questions about the liquidity of the assets that macro funds trade. In terms of geographic regions, Prof Teo says that while the study finds that the diseconomies of scale are pervasive across the majority of the investment regions examined, it is surprising that funds operating in the Asian and Latin American markets are largely free of such constraints.

Since the 2008 financial crisis, institutional investors, motivated by career concerns, have eschewed smaller hedge funds and embraced larger, institutional quality hedge funds, he notes. “These investors probably understand they are sacrificing some performance when investing in larger funds. Small funds, either because they are managed by hungrier, more motivated fund managers who want to build a successful record or because their investment opportunity sets are not yet constrained by the liquidity issues confronting larger shops, are often able to harvest higher returns than their larger competitors.”

That hedge funds are susceptible to diseconomies of scale is consistent with the widely held view that liquidity concerns make it harder for funds to move significant amounts of capital in and out of financial securities.

But some financial markets are deeper and more liquid than others. So one would expect the commodity futures markets, for instance, to be more liquid than the equity market. Therefore capacity issues are likely to be more relevant for equity long/short than for commodity trading advisors. The results conformed to these expectations except for macro funds, which is a puzzle to Prof Teo. “This raises questions about the liquidity of the assets and instruments that they trade.”

Meanwhile for the different geographic exposures, there is a statistically unreliable relationship between size and fund returns for funds focused on Asia including Japan, Japan, Global, and Latin America. The results are counterintuitive as the liquidity hypothe-

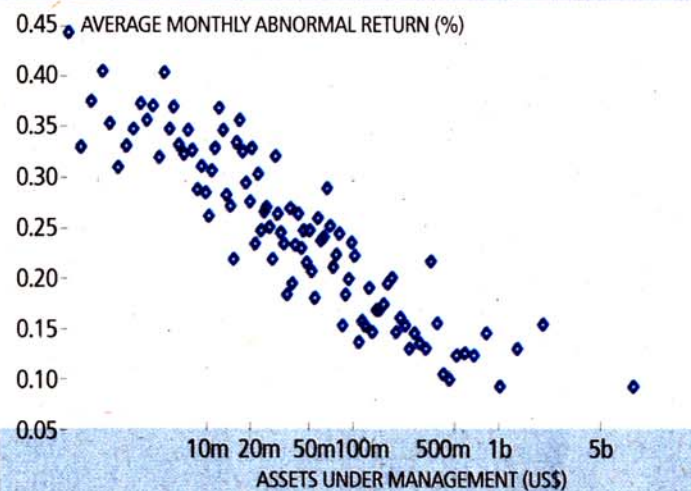
sis would suggest that funds face greater liquidity constraints in the relatively undeveloped emerging markets of Asia and Latin America. “Perhaps larger funds do not underperform smaller funds in such markets as the former expediently take on greater risks thereby increasing their expected returns,” speculates Prof Teo.

To find out, he studied the risk-adjusted returns or alpha of the various funds. The relationship between fund size and risk-adjusted returns largely echoes that between fund size and raw returns.

When the link between size and fund alpha for funds grouped by investment region is examined, Prof Teo found that capacity constraints are no longer confined to US- and Europe-focused funds only. Fund alpha decreases with fund size for funds focused

## Small is beautiful?

The relationship between size and fund risk-adjusted performance for the full sample of funds



Source: BNP Paribas Hedge Fund Centre, SMU

on Japan and the Global region as well. “Therefore, there is evidence that large funds operating in those regions take on greater fundamental risk so as to bolster their returns,” he says. “Still, it is surprising that funds in the more illiquid markets such as Asia including Japan and Latin America are relatively unaffected by capacity issues.” Perhaps in these markets, he adds, capacity constraints are counter-balanced by the smart money effect where investors astutely allocate capital to funds that subsequently perform well.

For the study, Prof Teo obtained the data from the TASS, HFR and BarclayHedge databases and on the 1994-2011 period. The sample includes 36,346 funds of which 22,725 stopped reporting by the end of the sample period in December 2011. That left him with 13,621 live funds at the end of the sample period.

BNP Paribas Hedge Fund Centre’s mission is to facilitate, encourage and sponsor high-level academic research on hedge funds.