Manager returns: That's about the size of it

Is bigger better? Or small superior?

Conventional wisdom holds that the size of an investment manager influences the relative level of its returns. **JUVANUS TJANDRA** challenges the theory.

The general perception in the investment community is that as an investment firm's funds under management (FUM) increase, its performance decreases. But perception and reality do not necessarily agree. If they did, we would expect a significantly large negative correlation between size and performance. In fact the correlations tend to lie between 0 and slightly positive. This supports the hypothesis that performance is independent of size.

To determine whether a manager's size has any effect on returns, we considered data on "balanced" funds and regressed returns against FUM over one, three and five-year periods.

Data on fund size and performance came from Towers Perrin, Mercers and Super CMS surveys for the period June 1991 to June 1996. Only funds in excess of $20 million which have existed for at least three years were considered. Fund size was proxied by the average funds under management, based on monthly data over the relevant measurement period. Returns were proxied by the (arithmetic) average annualised returns, based on monthly data over the relevant period.

Each manager's returns and size were ranked from lowest to highest. Spearman ranked correlation was used to measure the correlation of ranked populations. This is the natural way to correlate ranked samples. The results are not materially different if instead the usual correlation coefficient is used.

**CORRELATIONS**

Over the past five years, the one year correlations have steadily increased from -0.32 to 0.05, with an average of -0.15.

It is significant to note that the one-year figure (Table 1) does not give us an accurate picture of the reality. This is because there is noise in the data that can affect our calculations. For example, the recession in the economy could play a role in the correlation figure in 1992 and 1993.

A more meaningful result is gained from looking at the correlation over longer investment horizons (Table 2).

Over both three and five years the correlations between size and returns are essentially zero. Neither period supports the hypothesis that performance and size are inversely related. Further analysis shows that at the 5% level neither of these correlations is statistically significant from 0.

To test the sensitivity of our results to outliers, the analysis was repeated for

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Juvanus Tjandra is in the Business Development Team, AMP Asset Management Australia Limited.
Managers whose FUM exceeded $100 million (Table 3). The results were broadly similar and indeed the correlations slightly larger. Among larger managers size seems to have a positive effect on performance.

More refined analysis on the same data fails to support the hypothesis that size adversely affects managers' active added value, as proxied by the Jensen measure (see Table 4). The formula for active added value (Jensen Index) is:

\[ J_p = R_p - (R_f + (R_m - R_f)B_p) \]

where \( R_p \) = return on portfolio \( R_f \) = risk-free rate (measured by the average 10-year bond rate over the relevant period) \( R_m \) = market return (average volatility fund's return over the relevant period) \( B_p \) = Beta of the fund (based on average volatility fund from Towers Perrin).

This conclusion is supported by Sharpe, who, in a study of US mutual funds, concluded that the relationship between size and performance was "marginal at best". It also received support from a small manager who recently argued that performance does not depend on size but rather on the "capabilities of people employed by the organisation".

**PERCEPTIONS**

Although our research fails to support the existence of any relationship between size and returns, the contrary perception persists, due to a perceived bureaucracy effect. As size increases so does complexity and bureaucracy. The resulting layers of management impede the decision-making process, making it more difficult to enhance returns by taking advantage of the manager's research.

However, this effect may be mitigated by more sophisticated investment strategies, more effective use of technology, deeper human resources and greater market power. In an increasingly efficient market these may be crucial weapons in the battle for enhanced returns.

Conventional wisdom also has it that increasing size makes it more difficult for managers to quickly change the structure of their portfolios. Spreads widen against them and they are forced to hold a larger number of illiquid stocks. These effects tend to increase transaction costs and hence reduce overall returns. However, it is possible to avoid these diseconomies of scale and instead capture economies of scale. For example, AMP Asset Management has structured equities funds around a relatively passive core and active satellites. By providing liquidity to the market, the "core" operates at negative transaction costs. The active satellites are linked through a central data-base and dealing desk that disguises the source of the trades and hence controls spreads.

Further, it is possible to use size to advantage to reduce market impact by adopting a multi-style investment approach.

Transaction costs associated with a single-style approach used prior to 1993 were high, with market impact costs

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CONCLUSION

Our research dents the conventional wisdom that smaller managers necessarily perform better than larger managers.

Although some small managers have good short-term track records, investors need to be assured that their managers have the infrastructure, technology, human resources, experience and commitment to maintain that performance over the longer term, particularly through bear markets and in markets where informational efficiency is inexorably trending upwards.

NOTES

2. Sydney Morning Herald, Managed Funds, 10 January 1997.