

TABLE 3 AVERAGE RETURNS UNDER ALTERNATIVE PORTFOLIO CLASSIFICATIONS FROM 30 JUNE 1990 TO 30 JUNE 2006

Decile	Value-weighted Return		Equal-weighted Return	
	Arithmetic	Geometric	Arithmetic	Geometric
1	10.95%	10.67%	12.85%	12.52%
2	14.19%	13.37%	14.35%	13.46%
3–5 (Mid-Cap)	15.24%	14.23%	16.60%	15.05%
6–8 (Low-Cap)	20.74%	17.20%	25.27%	20.72%
9–10 (Micro-Cap)	53.86%	47.72%	72.63%	63.79%

Australian companies. In fact, portfolios 4 to 10 in this study would sit below portfolio 10 in the US study, highlighting the vast difference between the two markets. Consequently, direct comparisons between the countries at any particular portfolio decile would be misleading.

Summary

This article examines whether the size effect has been apparent in Australia in recent years. We find strong evidence of the size effect in the Australian stock market over the past 16 years. The evidence discovered suggests that total shareholder returns are inversely related to company size, with the relationship strongest for stocks of lower market capitalisation.

Based on previous literature, these results may be driven by a variety of factors. The most basic is that size may be interpreted as a measure of risk, where smaller firms are more risky and hence are priced to provide higher returns.

The very high returns to the lower capitalisation portfolios may dissipate (to some extent) when transaction costs are accounted for. The lower liquidity of the smaller stocks may prohibit such high returns from being achieved in reality, where the bid-ask spread may result in less profitable buying and selling opportunities than the closing prices employed in this study may suggest.

Nevertheless, the size effect is apparent in the sample examined and this has a variety of implications. In the simplest form, small capitalisation stocks appear to be a viable investment, with high average returns compensating for additional risks borne. Further, when assessing investments or arriving at a valuation conclusion, practitioners and finance managers must have regard for the size of the investment when determining a suitable discount rate for a DCF valuation.

For practical applications however, it is important to realise that there is no 'exact premium' in existence that should be applied to companies of any specific size. All findings are in part a result of the methodology adopted (i.e. the use of size decile portfolios) and would be different if the number of

portfolios used in the study were different and/or if a different definition of size (i.e. enterprise value, net assets, earnings) were used to determine the portfolios.

References

- Anderson, D., Lynch A. and Mathiou N., (1990), 'Behaviour of CAPM Anomalies in Smaller Firms: Australian evidence', *Australian Journal of Management*, 15, pp1–38.
- Banz, R.F., (1981), 'The Relation Between Return and Market Value of Common Stocks', *Journal of Financial Economics*, Vol. 9, pp 3–18.
- Black, Fischer, (1972), 'Capital Market Equilibrium with Restricted Borrowing', *Journal of Business*, July, pp 444–455.
- Faff, R., (2004), 'A Simple Test of the Fama and French Model Using Daily Data: Australian Evidence', *Applied Financial Economics*, 14, pp 83–92.
- Fama, E. F. and French, K. R., (1992), 'The Cross-section of Expected Stock Returns', *Journal of Finance*, 47, pp 427–465.
- Fama, E. F. and French, K. R., (1993), 'Common Risk Factors in the Returns on Stocks and Bonds', *Journal of Financial Economics*, 33, pp 3–56.
- Fama, E. F. and French, K. R., (1996), 'Multifactor Explanations of Asset Pricing Anomalies', *Journal of Finance*, 51, pp 55–84.
- Halliwel, J., Heaney J. and Sawicki J., (1999), 'Size and Book to Market Effects in Australian Share Markets: A Time Series Analysis', *Accounting Research Journal*, 12, pp 122–137.
- Horowitz, J., Loughran, T. and Savin, N. (2000), 'Three Analyses of the Firm Size Premium', *Journal of Empirical Finance*, 7, pp 143–53.
- Lintner, J., (1965), 'The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets', *Review of Economics and Statistics*, February, pp 13–37.
- Lintner, J., (1969), 'The Aggregation of Investor's Diverse Judgements and Preferences in Purely Competitive Security Markets', *Journal of Financial and Quantitative Analysis*, December, pp 347–400.
- Sharpe, W.F., (1963), 'A Simplified Model for Portfolio Analysis', *Management Science*, January, pp 277–293.
- Sharpe, W.F., (1964), 'Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk', *Journal of Finance*, September, pp 425–442.
- Stocks, Bonds, Bills and Inflation (SBBI) Valuation Edition Yearbook* (2005), Ibbotson Associates. **J**

THE JASSA PRIZE

All original articles published in JASSA are eligible for the JASSA Prize of \$1,000 awarded annually for the article judged as making the best contribution to the financial services industry.

If you are interested in submitting articles or further details, email: JASSAcontent@finsia.edu.au