



The weakening value premium in the Australian and New Zealand stock markets[☆]



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ABSTRACT

Some recent studies document that the value or size anomaly has reversed, weakened or disappeared in a number of major stock markets since the 1990s. Two risk-adjusted methods, the Sharpe ratio and the CAPM model, and a non-risk-adjusted method, the stochastic dominance (SD) approach, are used to examine whether the value premium still exists in two Oceanian stock markets, the Australian and New Zealand (NZ) markets, in recent times in this study. Our main findings demonstrate that the value premium of the Australian and NZ markets has become weak in the recent period.

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1. Introduction

Many empirical studies have found that value stocks with higher figures for the ratios of book-to-market (B/M), earnings-to-price (E/P), cash flow-to-price (CF/P), or dividend-to-price (D/P) dominate growth stocks with lower figures for these ratios. This phenomenon is known as the value premium or value strategy.¹ Important studies demonstrating the existence of the value premium in the US have been carried out by Capaul et al. (1993); Lakonishok et al. (1994); Fama and French (1992, 1993, 1995, 1996, 1998) and Abhyankar et al. (2009). Chan et al. (1991, 1993); Capaul et al. (1993) and Abhyankar et al. (2009) have also found that the value premium exists in the Canadian and/or Japanese equity markets. Moreover, Ding et al. (2005) and Huang (2011) indicate that the value premiums are mainly positive in Hong Kong, Japan, Malaysia, Singapore and Taiwan.

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¹ Two explanations have been put forward for the value premium. The risk-based explanation, asserted by Fama and French (1993, 1995, 1996) and Chen and Zhang (1998) argues that the market is efficient and the premium is a compensation for risk. Furthermore, Petkova and Zhang (2005); Zhang (2005), and Xing (2008) show that value stocks are riskier than growth stocks, especially in bad times when the price of risk is high. Next, the behavioral-based explanation is presented by De Bondt and Thaler (1985); Lakonishok et al. (1994); Haugen (1995); La Porta (1996) and La Porta et al. (1997). They ascribe the value premium to investors' judgment biases and to the forecast errors while extrapolating past stock returns.

The value premium is also found in the Australian market by Fama and French (1998); Bauman et al. (1998); Halliwell et al. (1999) and Gharghori et al. (2013). Hyde and Beggs (2009) also indicate that the value premium–spread relationship is stronger for small cap than large cap portfolios, and Gharghori et al. (2009) and Gharghori et al. (2009) document the size, B/M, E/P and CF/P effects for the Australian stock market. In addition, Gharghori et al. (2010) point out that small-cap value stocks that stay in the same group account for large portions of both the size and value premiums. Besides, an empirical analysis of Australian stocks by Gray (2014) shows that the simple averaging approach tends to overstate B/M premium. Furthermore, Chin et al. (2002) document that value strategies produce superior cumulative returns for the New Zealand (NZ) stock market over the 1988 to 1995 period, which is consistent with most existing evidence drawn from the U.S. and Japanese markets.

Different findings can also be found in the previous literature. For example, the evidence presented by Fama and French (1998) and Bauman et al. (1998) shows that the value premium generally does not exist in Italy's stock market prior to 1996.² Li et al. (2009) document that higher B/M stocks do not beat lower B/M stocks in the UK over the 1975 to 2001 period. Recently, Abhyankar et al. (2009) also indicate that no significant dominance relationship is found between value and growth portfolios for some major European stock markets. Furthermore, it seems that the famous size effect also has reversed, weakened or disappeared since the 1990s in the literature.³ However, few empirical studies investigate the value premium with various indicators by means of different methodologies for the Australian and NZ markets in the literature. Four indicators, the B/M, E/P, CF/P, and D/P ratios, are used to examine whether the value premium still exists in the two markets via three methods in recent times in this study.

Two traditional methods, the Sharpe ratios and CAPM alphas, are first used to compare the relative performance of value and growth stocks in this study. However, there are some doubts as to the validity of the CAPM on both empirical and theoretical grounds (see Roll (1977) and Levy and Lerman (1985)). Thus, it is understandable that value anomalies are interpreted as rejecting the CAPM hypothesis rather than the efficient market hypothesis. Therefore, this study also uses the stochastic dominance (SD) approach to compare the performance among various portfolios. Unlike the CAPM, SD rules are theoretically unimpeachable: They are known universally valid for all investors in certain well-defined risk preference classes, such as all risk-averse, risk-neutrals or risk-lovers.

Our main findings show that the value premium of the Australian and NZ markets has become weak in the recent period. The findings are consistent with the literature of some major European stock markets. The phenomenon of weak value premium is also similar to literature documenting that some firm anomalies have weakened or disappeared in the recent period. The possible reasons may be due to investors' awareness of anomalies, the asset allocation of mutual funds, deregulation of the financial markets, and the improvement of information technology.

The remainder of this paper is structured as follows. Section 2 introduces the data and methodology. The empirical results are presented in Section 3. Section 4 is the discussion of the findings and Section 5 presents the conclusion.

2. Data and methodology

This study employs the monthly returns data of value and growth stocks defined on the basis of the B/M, E/P, CF/P, and D/P ratios.⁴ All of the related data are sourced from the Datastream database.⁵ The sample period is from 1998 to 2014 for the two stock markets.⁶

The value and growth portfolios are constructed at the end of June each year by sorting on these four indicators. Next, the portfolios returns are calculated for the following 12 months. Stocks in the top 30% of each ratio are defined as value portfolios, while stocks in the bottom 30% are defined as growth portfolios.

Table 1 shows some statistics of the distributions of value and growth stocks for three different periods for Australia. Panel (A) shows that the mean monthly returns on value stocks are higher than those on growth stocks for the full sample period. From Panels (B) and (C), the findings of the two sub-sample periods also show the same phenomenon. However, the value premium in recent times seems to have grown weak from the test of difference in the mean between the high and low ratio portfolios. As for the Sharpe ratios, the results indicate that value and growth stocks all have positive values for three periods, implying that portfolios sorted by each of the four proxies all have better performance than the risk-free assets. The three panels also show that value portfolios have higher Sharpe ratios than their corresponding growth portfolios, indicating that the value premium exists for each of the four indicators in the Australian market.

For the NZ market, from Panels (A) and (B) of Table 2 for the full and first sub-sample periods, the returns on value stocks have larger means than those on growth stocks for each indicator. However, from Panel (C), the results of the second sub-

² The sample periods of the two studies are slightly different. The period of Fama and French is 1975–1995, while that of Bauman et al. is 1990–1996.

³ For example, Horowitz et al. (2000a, 2000b) and Gompers and Metrick (2001) have documented that the size premium is disappearing in US stock markets.

⁴ Some previous studies, such as Fama and French (1998); Fama and French (2006); Fama and French (2007); Fama and French (2012); Li et al. (2009); Abhyankar et al. (2009), Kenneth R. French Data Library and so on, use the value-weighted method to calculate the portfolio returns in their studies. Following the prior studies, the value-weighted method is also employed in our study. Next, firms that report negative book equity, negative earnings, negative cash flows, and firms that don't pay the dividends are all excluded from the sample.

⁵ The Datastream defines book equity as net tangible assets at the company's fiscal year end, cash flows as the net cash receipts and disbursements resulting from the operations of the company, and earnings as net profit after tax before abnormal.

⁶ The number of sample firms is on average only 80 from Australia in the study of Fama and French (1998). The issue with the data is that it is heavily focused on the larger stocks on the exchange, and this makes it difficult to make generalizations on the value and growth premiums in the market. However, in our study, the related data of the Australian and NZ markets are taken from the Datastream. The average number of firms is 945 during the sample period, and the average number of firms reaches a high number, 1366 during the 2006 to 2012 period for the Australian market. Furthermore, the average number of firms is about 79 during the sample period, and the average number of firms is 104 from 2006 to 2012 for the NZ market.

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