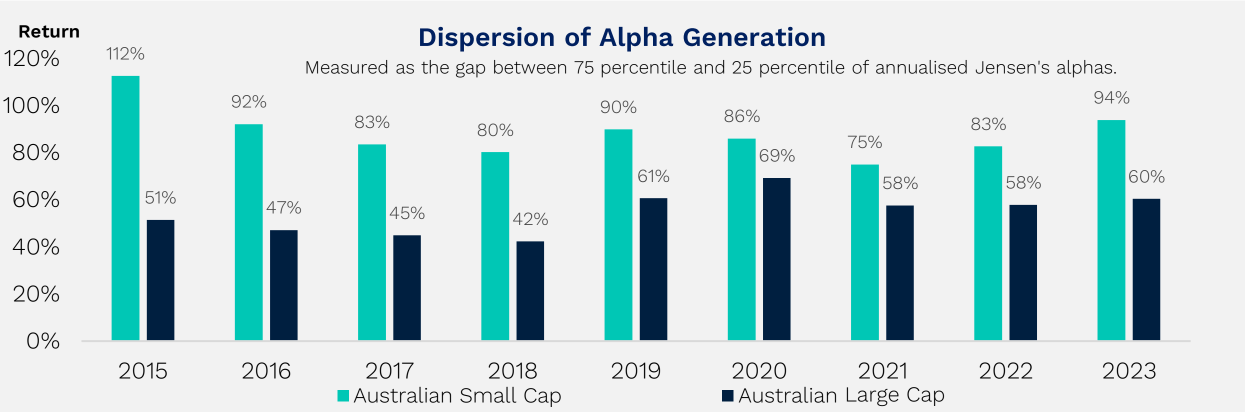
Small Versus Large Cap Stocks:
Exploring the Size Premium

Brigette Leckie
Chief Economist, Koda Capital
Bi Zhou
Investment Analyst, Koda Capital

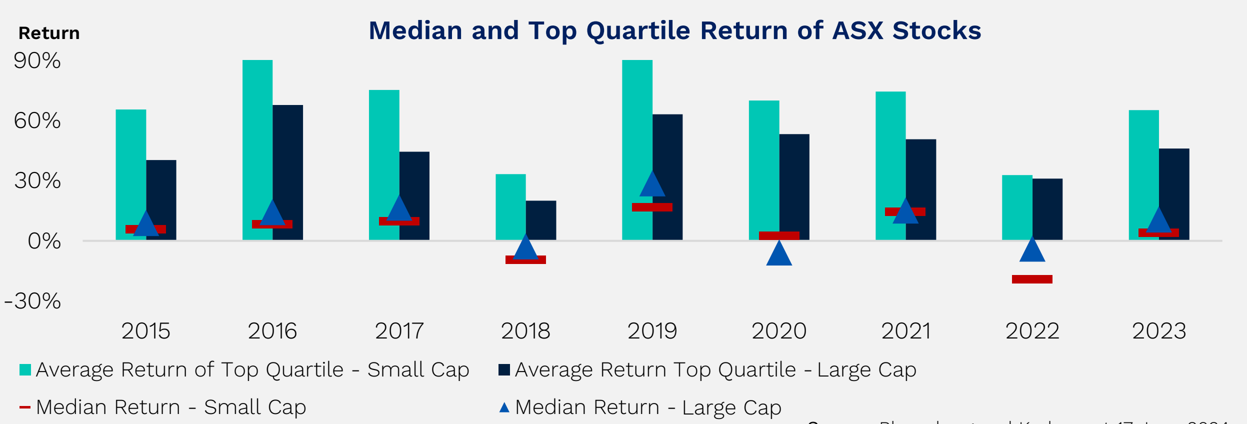
June 2024

Key Points

- US small cap stocks have outperformed large-cap stocks by an average of 0.19% per month since 1962.
- Key reasons for this size premium include i) small firms are more adaptable and have higher growth potential, ii) higher risk warranting greater compensation, and iii) takeover premiums.
- The size effect does have significant time variations which are typically driven by economic cycles (interest rates) and investor sentiment.
- Small caps typically underperform in the stages of an economic cycle and during recessions and outperform early in economic recoveries when sentiment is optimistic.
- In Australia, small caps have historically underperformed large caps by 0.26% per month since 1995, which is contrary to the US size premium.
- Despite this long term relative index underperformance, Australian small caps provide large alpha opportunities for active managers due to the market inefficiencies and high dispersion in this segment of the stock market.
- The Australian median manager, according to most studies, beats their benchmark by around 5% p.a. This is highly dependent on the commodity cycle, as the typical manager has a quality bias and is underweight Resources. Coupled with recent accelerated divergence in favour of large caps, we consider Australian small caps a core portfolio allocation.



Source: Bloomberg and Koda as at 17 June 2024



Source: Bloomberg and Koda as at 17 June 2024

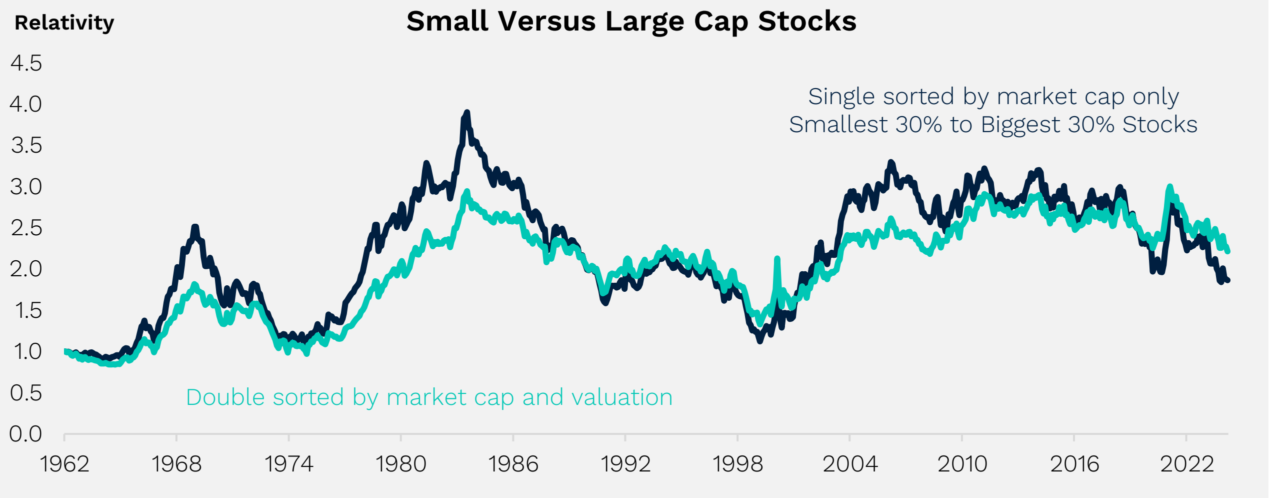
Investment Thesis: Small Versus Large Cap Stocks

The belief that small cap stocks should outperform their larger counterparts has long been held in the investment world since Rolf Banz first revealed the size premium in 1981. Historical data from 1962, as analysed by Fama and French in their 1992 paper, shows that the smallest 30% of US stocks have outperformed the largest 30% by an average of 0.19% monthly. Even after controlling for valuations, the size premium remains robust at 0.17% monthly.

Theoretically, there are three main explanations for this size premium:

1. Risk and Compensation: Small cap stocks bear increased risk due to greater volatility and higher sensitivity to economic cycles, warranting greater risk compensation.
2. Adaptability and Growth: Small firms are more adaptive to the evolving economic environment and have higher growth potentials; structural growth is not fully captured by markets that focus on earnings during a 2-year forecastable horizon.
3. Takeover Premium: Small firms are more likely to be acquired, resulting in a takeover premium above fundamental value.

Of these, the first implies comparable Sharpe ratio and is only fair compensation for the additional risk. The other two imply that long-term excess return (alpha) can be extracted, even on a risk-adjusted basis.



Source: Ken French Library and Koda as at 17 June 2024

However, the concept of the size premium has been empirically challenged in recent years due to significant time variations. For example, during the late 1960s and early 1970s, small caps significantly underperformed large caps, driven by the substantial valuation expansions of large companies, known as the "Nifty Fifty," which saw average P/E ratios reach 40x by 1972. This phase was followed by a period of normalization in valuations, leading to small cap outperformance in the 1970s. More recently, small caps significantly outperformed big caps in the early 2000s, but this trend reversed after the Global Financial Crisis.

Our empirical analysis indicates that the time variations of the size effect are largely driven by economic cycles (proxied by interest rates) and investor sentiment. Small companies typically underperform during the late stages of an economic cycle when the economy slows or enters a recession, as seen in the late 1980s, late 1990s, during the GFC, 2018-2019, and 2022-present. Conversely, they tend to outperform in the early stages of an economic cycle, benefiting from optimistic investor sentiment, as was the case in the early 1990s post-recession, the early 2000s, and in 2021.

Cycles tend to align to mega-trends in globalisation – usually around major technological advances. These initially drive stock prices of tech leaders: In turn IBM, Microsoft and Amazon. Eventually, SMID companies derive efficiencies and new markets, leading to a second wave of stock gains.

Monthly Return Spread Between US Small Caps and Large Cap Stocks

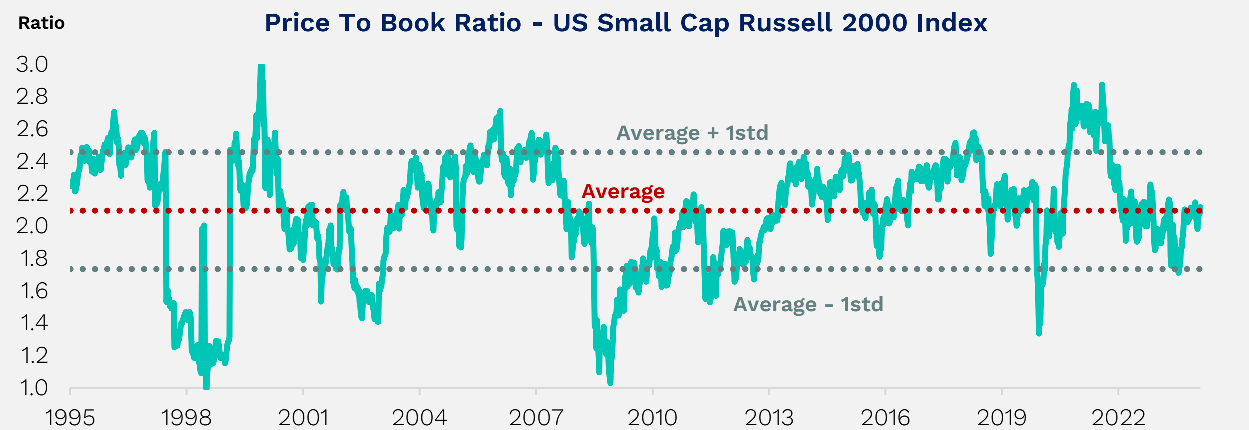
	Unconditional Average	When US 10Y bond yields are		When yield curve is (10Y – 3M)		When yield curve is (10Y - 3M)		When investor sentiment[1] is	
		Going Up	Going Down	Steepening	Flattening	Normal (positive)	Inverted (negative)	Optimistic	Pessimistic
Since Jan 1962	0.19%	0.65%	-0.35%	0.43%	-0.06%	0.30%	-0.53%	-	-
Since July 1987	0.02%	0.71%	-0.70%	0.48%	-0.39%	0.18%	-1.24%	0.51%	-0.71%
Since Jan 2010	-0.15%	0.57%	-1.06%	0.39%	-0.63%	0.07%	-1.41%	0.39%	-0.88%

Source: Ken French Library and Koda as at 17 June 2024

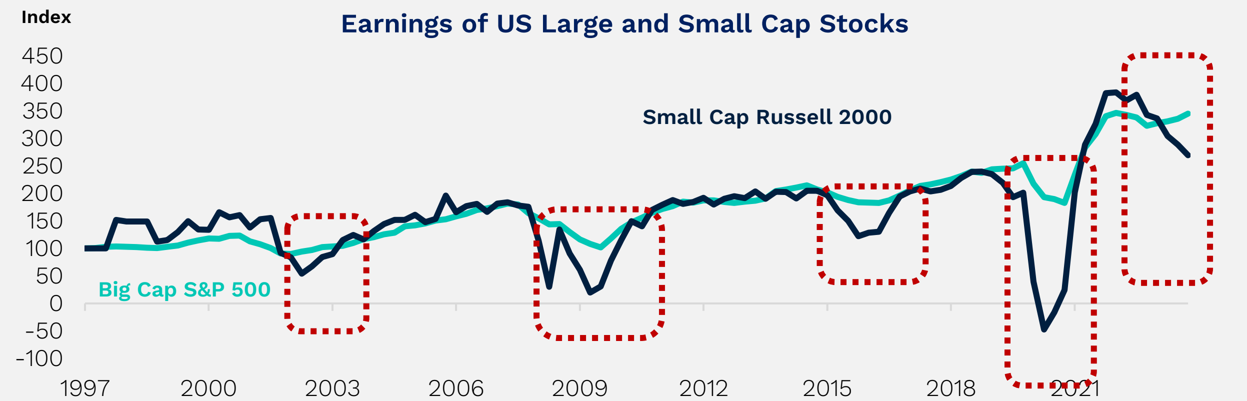
Since 2022, US small caps have lagged their larger peers by 16%, driven by both slower valuation expansions and softer earnings growth. The price-to-book value ratio of the US small cap Russell 2000 index is near the long-run average at 2.1x, while the S&P 500 is 1.5 standard deviations more expensive than fair value. In Q4 2023, earnings for the US small cap Russell 2000 index declined by 13% year-on-year, while earnings for the big-cap S&P 500 grew by 7%. For the ongoing Q1 2024 season, earnings of the Russell 2000 are expected to decline 7% from one year ago, compared to a 7% growth for the S&P 500.

[1] Proxied by AAII Net Bullish Reading

We look to be in the latter stages of the "first wave" in which the Magnificent 6 (the 7, ex-TSLA) have rerated to a new level. The parabolic phase has apparently levelled off after an average +50% 12 month return. This points to the next wave likely to favour smaller beneficiaries of the productivity advances, and the potential takeovers as the leaders use their expensive scrip as currency.



Source: Bloomberg as at 17 June 2024



Source: Bloomberg as at 17 June 2024

Conclusion

Despite the overall underperformance, Australian small caps remain an investable asset class due to abundant alpha opportunities. Small caps are often under-researched with limited broker coverage, leading to significant market inefficiency. Accordingly, market dispersion is high. For instance, the spread between the 75th and 25th percentile of annualised Jensen's alpha (i.e., excess returns adjusted for market risks) stands over 80%, compared to only 50% for ASX large caps. This market inefficiency and dispersion highlight the importance of stock selection and provide a golden opportunity for active stock managers. The average annual return of the top performing quantile of small caps is 20% higher than that of big caps, even though the median return is lower in most years.

Given these inefficiencies, passive investment strategies are often not appropriate for Australian small cap stocks. The high dispersion in performance means a passive approach may miss the upside offered by the best performing stocks. **Active managers can exploit these inefficiencies by conducting thorough research, engaging with company management, and leveraging local market knowledge.** This hands on approach allows active managers to construct portfolios that can significantly outperform the market, as evidenced by the substantial alpha generated by top performing small caps.

About the Author

Brigette Leckie
Chief Economist

Brigette Leckie has worked in financial markets since the early 1990s.

Previous roles have included Chief Strategist, Chief Economist and Head of Research at Australian, New Zealand and multinational firms including BNY Mellon, Alliance Bernstein, Perpetual and BNP. She has also worked in New Zealand Treasury and served on numerous public and private sector committees.

Bi Zhou
Investment Analyst

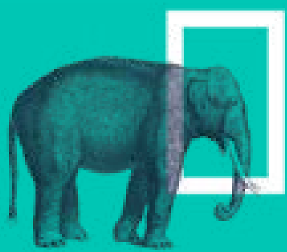
Bi Zhou is responsible for undertaking macro-economic, portfolio and multi-asset research at Koda Capital.

Bi received a Master Degree of Research on Applied Finance from Macquarie University, a Master degree of Professional Accounting from the University of Sydney and a Bachelor degree of commerce from Shanghai University of Finance and Economy.

Prior to Koda Capital, Bi gained experience in analysis and consulting at Aon Hewitt, LVMH Fashion Group and Nike.

Bi holds the Chartered Financial Analyst designation (CFA) and is a Paraprofessional Interpreter (Mandarin and English) of NAATI in Australia.

Important Information



kodacapital.com