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Are we there yet? What to do when the bottom of the market is unknown

The current equity market environment reflects soaring inflation, increasing interest rates and the first half of calendar year 2022 saw a double-digit decline in most major indices. The popularity of large-cap U.S. equities decreased significantly in the wake of their 2020 high point and the volatility of mid-cap and small-cap stocks has been dramatic. Even central bank responses are hard to predict, with investors in the U.S. market fretting over how aggressively the U.S. Federal Reserve will act to address the economic malaise. With the price-to-earnings ratio considered an indicator of a stock's popularity, the question on everyone's minds is whether we have reached the bottom of the latest volatility cycle? It is our view that price-to-earnings ratios will, sooner or later, re-rate. This paper suggests a framework that can help investors navigate the current situation – and more importantly, any period of market volatility.

By Roger Montgomery
Montgomery Investment Management
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In the six months to June 2022, the U.S. S&P 500 stock market index declined by 20.6 per cent, the worst performing June half-year since 1970, as it entered an area that retrospectively defines a bear market. Once again, investors in the United States fretted over now soaring inflation (8.6 per cent), and how aggressively the U.S. Central Bank – the Federal Reserve – will act to apprehend it.

After more than a decade of low inflation and accelerating growth, fueled in no small part by zero interest rates and unconventional measures such as Quantitative Easing, the stock market is now casting its shadow ahead of a much less certain future. Indeed, it is a future where even central bank responses have become an ambiguous variable.

With inflation accelerating at its swiftest pace in over four decades, the U.S. Federal Reserve is neither able nor willing to rescue markets with significant rate cuts. And this fundamentally differentiates previous periods of rate rises. They were followed by rapid rate cuts and the stock market surged. This time nervous investors don't appear to be able to hang their hats on a central bank bail-out. Part of the reason more is expected from the Federal Reserve is that fiscal policy remains accommodative. Raising taxes and cutting spending would curtail demand and relieve supply chain bottlenecks by, for example, removing Trump-era tariffs on China's exports are unpalatable.

The problem

The question on everyone's mind is: have we reached the bottom? Underlining that question of course is the problem of returns. If we are at the bottom, investors won't endure further drawdowns of their wealth and they can be certain of wealth creation.

Of course, long-term wealth creation can occur in the absence of certainty about the short-term direction of markets. Indeed, it is amid uncertainty investors are rewarded for taking risks.

With that in mind, it is perhaps worth considering a different framework, one useful for navigating the current malaise.

Price-to-Earnings Ratios – the pulse of popularity

That investors swing from periods of optimism to gloom and back to optimism is one of the most, if not the most, reliable maxims for investors.

Indeed Ben Graham, the intellectual dean of Wall Street, noted while the market is a "**weighing machine**" in the long run, in the short-term the market is a "**voting machine**" merely a popularity contest. His student, and arguably investing's most successful contestant, Warren Buffett, subsequently added; "*…votes count in the short term… Unfortunately, they have no literacy tests in terms of voting qualification…*"

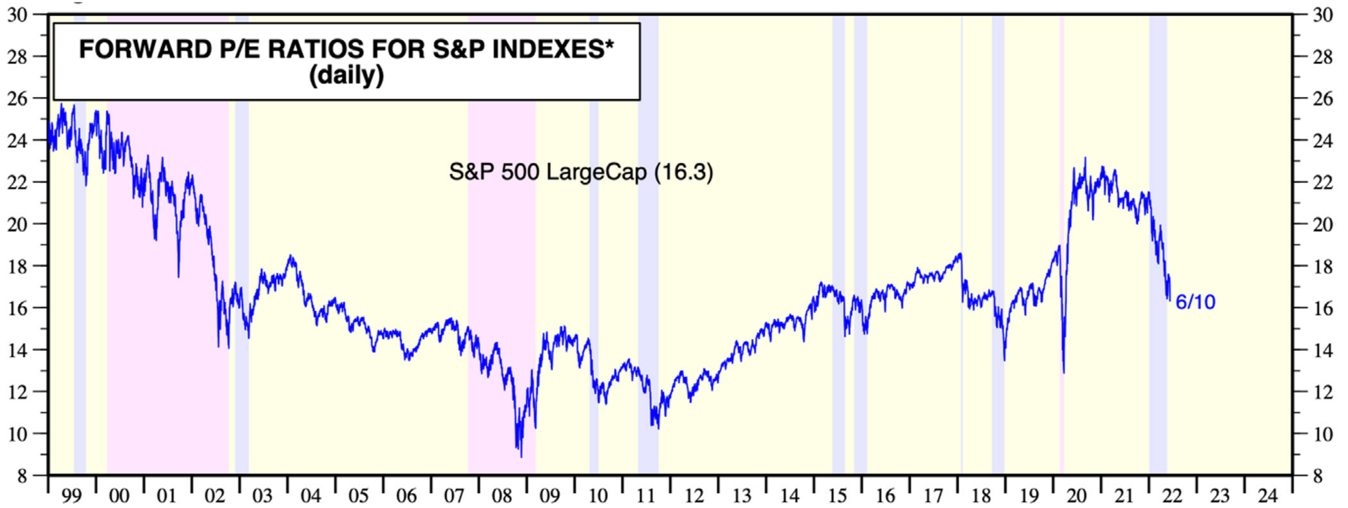
In the absence of any qualifications, emotions drive votes and therefore the wavering popularity of equities. This hysterically shifting sentiment is arguably best captured by Benjamin Graham's Mr Market allegory, explained by Warren Buffett in his 1987 letter to Berkshire Hathaway shareholders; "*you should imagine market quotations as coming from a remarkably accommodating fellow named Mr. Market who is your partner in a private business. Without fail, Mr. Market appears daily and names a price at which he will either buy your interest or sell you his.*

"Even though the business that the two of you own may have economic characteristics that are stable, Mr. Market's quotations will be anything but. For, sad to say, the poor fellow has incurable emotional problems. At times he feels euphoric and can see only the favorable factors affecting the business. When in that mood, he names a very high buy-sell price because he fears that you will snap up his interest and rob him of imminent gains. At other times he is depressed and can see nothing but trouble ahead for both the business and the world. On these occasions, he will name a very low price, since he is terrified that you will unload your interest on him.

"Mr. Market has another endearing characteristic: He doesn't mind being ignored. If his quotation is uninteresting to you today, he will be back with a new one tomorrow Transactions are strictly at your option. Under these conditions, the more manic-depressive his behavior, the better for you.

That the popularity of stocks changes frequently is arguably best captured by a series of charts published weekly by Ed Yardeni Research (Figure 1-2).

Figure 1 Price-to-Earnings Ratio for S&P500 Large Caps



Price divided by 52-week forward consensus expected operating earnings per share.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Blue shaded areas are correction declines of 10% to less than 20%. Yellow areas are bull markets.
Source: I/B/E/S data by Refinitiv and Standard & Poor's.

Figure 1 reveals a 30 per cent decline in the measured popularity of large cap U.S. equities since their 2020 "euphoria." Since then, earnings have initially grown (reducing the Price to Earnings multiple) and subsequently price-to-earnings ratios have contracted in response to accelerating inflation and rising interest rates.

Importantly, large cap price-to-earnings ratios are now roughly their average level since 2011. They don't however appear compellingly cheap, suggesting investors haven't become completely "depressed." The story is however somewhat different for mid-cap and small companies.

Figure 2 Price-to-Earnings Ratio for S&P400 Mid Cap and S&P600 Small Cap equities

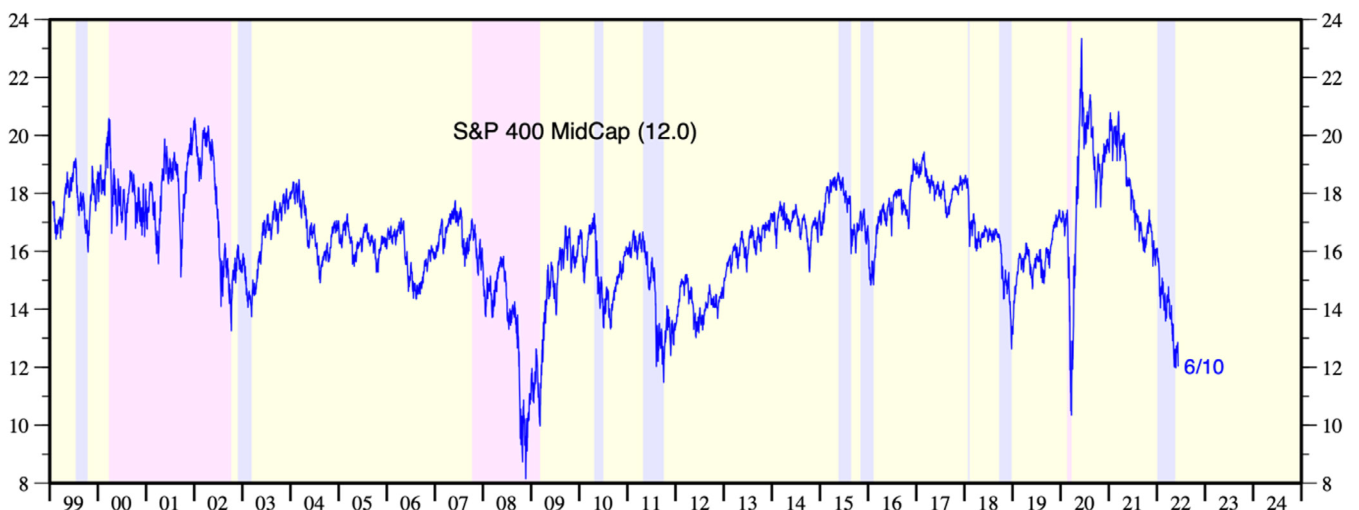
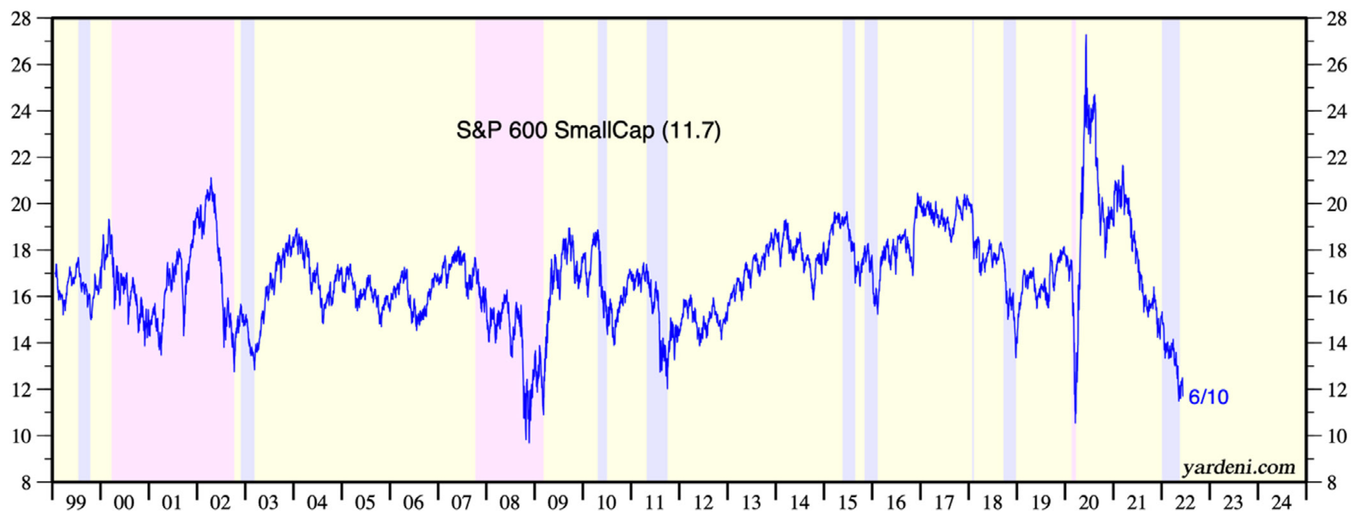


Figure 2 Continued price-to-Earnings Ratio for S&P400 Mid Cap and S&P600 Small Cap equities



Price divided by 52-week forward consensus expected operating earnings per share.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Blue shaded areas are correction declines of 10% to less than 20%. Yellow areas are bull markets.
Source: I/B/E/S data by Refinitiv and Standard & Poor's.

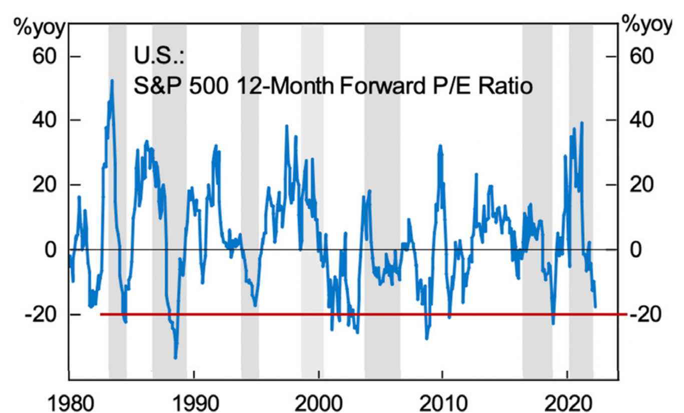
As can be seen in Figure 2 investors in U.S. mid-cap companies have been somewhat more despondent about the outlook. This is natural among investors in smaller companies because they also fear a reduction in liquidity, which may prevent an elegant exit. Consequently, a higher level of volatility is experienced.

The price-to-earnings ratio plots for both S&P400 mid-caps and S&P600 small caps display a similar range with the large caps however the swings tend to be more frequent and more dramatic.

Importantly, the price-to-earnings ratio for both mid-caps and small caps is now approaching the lows of the 2020 COVID sell-off, having exceeded the lows experienced during late-2018 when the Fed raised rates several times.

Remember one thing; however, the circumstances surrounding each previous price-to-earnings low was different. For example, when the stock market sold off aggressively in 2018, the U.S. Federal Reserve quickly changed tack and ceased raising interest rates before cutting them again. And of course, in 2020 the COVID lockdowns prompted unprecedented fiscal and monetary stimulus. According to the Fed today, that is unlikely to be the case this time. The Federal Reserve wants inflation back to around two per cent.

Figure 3 The Pace and extent of P/E compression



Source: AlpineMacro

Figure 3 shows the percentage change in price-to-earnings ratios for the S&P500 over a 12-month period and reveals the extent of the current bout of P/E compression is historically significant. It is also nearing a point (red line) from which P/Es have historically expanded again.

For our purposes at this juncture, it is most helpful to observe the frequency with which sentiment changes. It is additionally rather useful to note that following every period of 'depression', price-to-earnings ratios eventually reflect a resumption of buoyancy and optimism. The current episode will be no different. Prices reflect a somber outlook and Mr. Market currently remains convinced there is a tough period ahead and possibly a recession but as sure as the dawn itself, Figures 1 and 2 reveal a return to unbridled enthusiasm will ensue. In other words, Mr. Market always recovers.

With that in mind, it is worth understanding the relationship between price-to-earnings ratios and returns.

A framework for navigating the current malaise

The investor's internal rate of return will equal the Earnings Per Share (EPS) growth rate, when a company retains all of its profits and the investor purchases and sell the shares on the same price-to-earnings.

Let's dwell on that momentarily. If an investor buys a stock this year on a price-to-earnings of 10 times earnings, and the company grows its earnings per share at 15 per cent per annum, while retaining all of its profits (by paying no dividends) all the investor has to do to generate a 15 per cent gross annual return, is sell the shares in a future period on a price-to-earnings of 10 times earnings.

The first example in Table 1., demonstrates this arithmetic.

Table 1 Low P/Es (for quality companies) are an investor's friend

PE = 10, EPSg = 10%

Year	1	2	3	4	5
PE	10	10	10	10	10
EPS Growth		10%	10%	10%	10%
EPS	$10.00	$11.00	$12.10	$13.31	$14.64
Share Px	$100.00	$110.00	$121.00	$133.10	$146.41
Cash Flow	($100.00)	0	0	0	$146.41
IRR	10%				

PE = 10, EPSg = 20%

Year	1	2	3	4	5
PE	10	10	10	10	10
EPS Growth		20%	20%	20%	20%
EPS	$10.00	$12.00	$14.40	$17.28	$20.74
Share Px	$100.00	$120.00	$144.00	$172.80	$207.36
Cash Flow	($100.00)	0	0	0	$207.36
IRR	20%				

PE = 10, EPSg = 25%

Year	1	2	3	4	5
PE	10	10	10	10	10
EPS Growth		25%	25%	25%	25%
EPS	$10.00	$12.50	$15.63	$19.53	$24.41
Share Px	$100.00	$125.00	$156.25	$195.31	$244.14
Cash Flow	($100.00)	0	0	0	$244.14
IRR	25%				

Source: Montgomery Investment Management

If a share of a company is first acquired on a price-to-earnings of 10 times earnings, and subsequently sold on the same price-to-earnings ratio of 10 times, the investor's return (IRR) will equal the earnings per share growth rate the company produces.

In the first example in Table 1 the company pays no dividends, and the earnings grow at ten per cent per annum. The investor's cash flow is therefore represented by an outflow of $100 (10 times $10 EPS) in Year 1, and the receipt of $146.41 in Year 5 (10 times $14.64 EPS). Because no dividends are paid, there are no cash flows received by the investor in the intervening years. The return therefore equals the EPS growth rate, or 10 per cent per annum.

In the second example, the investor again buys and sells shares on a price-to-earnings ratio of ten times. On this occasion however the company grows its EPS by 20 per cent per annum.

Purchasing in Year 1, at 10 times earnings, and subsequently selling in Year 5, at 10 times earnings, the investor generates a gross return of 20 per cent, equivalent to the rate of growth of EPS. Again, because no dividends are paid, there are no cash flows received by the investor in the intervening years. The return therefore equals the EPS growth rate.

The final example in Table 1 is like the first two, only with earnings growing at 25 per cent per annum.

Warren Buffett once wrote;

> *"Your goal as an investor should simply be to purchase, at a rational price, a part interest in an easily-understandable business whose earnings are virtually certain to be materially higher five, ten, and twenty years from now."*

Given price-to-earnings ratios have now compressed significantly, and given they might stay lower for some time, it is more important than ever to seek to acquire shares of quality companies able to demonstrate strong and reliable growth rates. This way, even if price-to-earnings don't re-rate, the investor can still secure an attractive return.

Of course, it is our view they will – sooner or later, re-rate.

Completing the framework

Recently our global equity partner, Polen Capital, produced a table illustrating the investor's return for a variety of scenarios including a further compression in price-to-earnings ratios, an expansion of price-to-earnings ratios, and the average EPS growth rates required to produce acceptable, and even attractive, rates of return.

Table 2 Annualised return scenarios

Compounded Earnings Growth Rate (% 5 Year EPS CAGR)	% Change in P/E Multiple - Contraction (-), Expansion (+)						
	-67%	-50%	-33%	-25%	-10%	0%	+10%
0.0%	-20%	-13%	-8%	-6%	-2%	0%	2%
1.3%	-19%	-12%	-7%	-4%	-1%	1%	3%
2.5%	-18%	-11%	-5%	-3%	0%	2%	4%
3.8%	-17%	-10%	-4%	-2%	2%	4%	6%
5.0%	-16%	-9%	-3%	-1%	3%	5%	7%
6.3%	-15%	-8%	-2%	0%	4%	6%	8%
7.5%	-14%	-6%	-1%	1%	5%	8%	10%
8.8%	-13%	-5%	0%	3%	6%	9%	11%
10.0%	-12%	-4%	2%	4%	8%	10%	12%
11.3%	-11%	-3%	3%	5%	9%	11%	13%
12.5%	-10%	-2%	4%	6%	10%	13%	15%
13.8%	-9%	-1%	5%	7%	11%	14%	16%
15.0%	-8%	0%	6%	9%	13%	15%	17%
16.3%	-7%	1%	7%	10%	14%	16%	18%
17.5%	-6%	2%	8%	11%	15%	18%	20%
18.8%	-5%	3%	10%	12%	16%	19%	21%
20.0%	-4%	4%	11%	13%	17%	20%	22%
21.3%	-3%	6%	12%	14%	19%	21%	24%
22.5%	-2%	7%	13%	16%	20%	23%	25%
23.8%	-1%	8%	14%	17%	21%	24%	26%
25.0%	0%	9%	15%	18%	22%	25%	27%

Source: Polen Capital

Akin to Table1, Table 2 demonstrates, for example, the return for a hypothetical company generating 15 per cent compounded EPS growth over five years (row highlighted). If there is no change in the price-to-earnings ratio, its change is zero per cent (0 per cent column). The expected return matches the EPS growth rate, and the investor receives 15 per cent per annum (assuming a zero percent dividend payout policy).

If a company with the same 15 per cent growth rate is selected but over the investment period the price-to-earnings contracts by 25 per cent, the investor will receive a nine per cent return per annum.

And finally, if the same company is selected and the price-to-earnings ratio falls by 50 per cent during the period it is held, only then will the investor receive a zero return. Of course, if the price-to-earnings ratio compresses by fifty per cent early and stays there, the investor will need to hold the company's shares for the period to ensure the earnings growth offsets the price-to-earnings decline and produces a zero return.

Of course, this is an unlikely scenario as we have already demonstrated price-to-earnings ratios swing frequently to reflect the "manic depressive" nature of Mr Market. Over five years, it is likely the price-to-earnings ratio would recover somewhat.

If investors can select companies whose earnings are likely to grow over five years at least by 20 per cent per annum (and there are plenty of companies we believe can achieve that here in Australia, and especially globally), investors can still generate double-digit returns even if price-to-earnings ratios compress by another third. Of course, if price-to-earnings expand again, which history says they eventually will, investors can enjoy even higher returns.

It all comes back to investing in quality, profitable companies with growth and remembering the lower the price one pays, the higher one's subsequent return.

From classroom to real world

Thanks to a focus on quality growth and the compression of price-to-earnings ratios, the Montgomery Small Companies Fund's portfolio of carefully curated quality growth companies is displaying a curious combination of characteristics.

Table 3 More growth for less (the Montgomery Small Companies Fund)

Growth V Value V Risk	2yr Growth CAGR			Valuation (Yr2)			Risk	
	Sales	EBITDA	NPAT	EV/EBITDA	PE	Yield	Liquidity	SDev
Portfolio	8.5%	10.3%	13.4%	6.6	11.7	2.6%	8.0	3.1
Benchmark	2.7%	2.4%	1.8%	7.8	12.9	3.9%	9.0	3.1
Relative	**313%**	**437%**	**765%**	**85%**	**91%**	**66%**	**89%**	**101%**

Table 3 reveals investors today are paying lower-than-market valuation multiples for sales growth that is three times faster than the overall market, EBITDA growth that is four times faster than the market average, and Net Profit growth that is nearly eight times faster than the market average.

While such conditions can persist for a time, eventually the indiscriminate selling that produced such curiosities, gives way to discernment. Eventually investors begin to carefully pick through the entrails of a market rout to uncover the gems. We cannot predict when that will be, and it is highly likely investors will want to see central banks end their rate hiking cycles, but eventually, high-quality growth companies become popular again.

A final thought

Price-to-earnings ratios are a function of prices and earnings. As we demonstrated in Figure 3 price-to-earnings ratios have not only compressed rapidly, but they are also now approaching a level from which, historically, they have recovered.

Before diving in, consider the way price-to-earnings ratios behave when earnings fall; If earnings decline and prices remain unchanged, the price-to-earnings ratio will rise. A rising price-to-earnings ratio however doesn't mean investors enjoy a capital gain under this scenario because prices remain unchanged. Conversely, if earnings decline, and prices decline in line with earnings, the price-to-earnings ratio will remain unchanged, but investors lose capital because prices have fallen.

And so, it is important, again, to appreciate the importance of investing in businesses whose earnings one is certain will be materially higher in coming years. At that point investors may enjoy a capital gain commensurate with the earnings uplift, and possibly also receive the bonus that accrues from a price-to-earnings expansion.

Investors to whom the idea of buying, at rational prices, businesses whose earnings will be materially higher in the future, need only to remember the 'earnings growth' is provided by the companies selected, either by you, or by your portfolio manager, and the 'rational price' is provided by the massive compression in price-to-earnings ratios we have just witnessed.

A concluding thought

Eventually, the fears that inspired the market sell-off will abate, markets will then recover, and stocks will become popular again. This whitepaper may them then seem dated. But it won't be. In due course, another sell-off will be knocking on the door of your portfolio. When that happens be sure to have this whitepaper at the ready. It's a framework to help you navigate any crisis, no matter what inspired it.

Do you want to get in contact with the team at Montgomery?

Private Clients: Please call David Buckland or Toby Roberts on **02 8046 5000** or visit our website www.montinvest.com

Advisers/ Researchers/ Consultants: Please call Scott Phillips (NSW) on **02 8046 5005** or David Denby (VIC, TAS, SA) on **0455 086 484** or Michael Gallagher (QLD) on **0409 771 306** or Dean Curnow (NSW, ACT, WA) on **0405 033 849.**

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