The Economic Costs of Excessive Short-termism

Short-termism is a pandemic that continues to flourish unchecked within financial markets, resulting in significant long-term economic costs to investors. This research paper examines the economic costs of excessive short-termism by corporate management, active fund managers, asset consultants, super fund trustees – and by their principals, 'mum and dad' investors. Despite repeated warnings on short-term speculation from investment luminaries, factors such as behavioural biases and increasing specialisation ensure the costs associated with myopic behaviour continue to adversely affect long-term investor returns.

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Introduction

The incidence of short-termism in general life and financial markets continues to increase with significant costs to investors. Over 75 years ago, John Maynard Keynes contrasted speculation ("forecasting the psychology of the market") with enterprise ("forecasting the prospective yield of an asset") and Benjamin Graham differentiated between investment and speculation ("an investment operation is one which, upon thorough analysis, promises safety of principal and an adequate return. Operations not meeting these requirements are speculative").

Yet, there continues to be significant and increasing evidence of short-termism in the market today, including:

- the trend from long-term fundamental based investing to short-term trading;
- index hugging by fund managers;
- corporate managers' focus on achieving short-term EPS and DPS growth targets, potentially at the expense of long-term growth; and,
- super fund trustees and individual investors focus on short-term investment performance in determining whether to hire and fire fund managers.

Pre-disposed to short-termism

Humans have an inherent focus on the short-term. Behavioural finance research indicates that it is human nature to have a preference for short-term activity and outcomes, and for factors such as emotion to influence investment decision making.

There are a number of published literature reviews and related texts on behavioural finance (Demirag, 1995; Shiller, 2001; Shefrin, 2007; Basu et. al., 2008; Subrahmanyam, 2008), with a growing body of literature identifying a number of relevant human cognitive biases, including overconfidence (Daniel et. al., 2001; Shiller, 2001), representative bias (Hibbert et. al., 2008) and under and over-reaction (De Bondt and Thaler, 1985 and 1987; Brown and Harlow, 1988; Campbell, 1990; Barberis et.al., 1998).

People tend to over-emphasise the importance and sustainability of recent events and trends. This bias often results in investors projecting current conditions and recent trends into the future when making forecasts, even when the current economic and financial conditions are unlikely to represent normalised conditions in the long-term.

People like immediacy and gratification and prefer positive outcomes to occur sooner rather than later. Humans like to track progress in the smallest time segments as is practicable, even when the data gathered is not relevant in assessing whether the desired goals are likely to be achieved. For example, corporate managers and investors place undue emphasis on periodic (quarterly) earnings, in part, as a simple metric that captures corporate performance (Graham et. al., 2005). Many decisions are heavily influenced by emotional factors (such as fear, greed, impatience and regret) that potentially result in suboptimal decisions being made. These emotional factors are particularly dangerous when combined with an excessive focus on irrelevant short-term factors when making decisions.

Humans tend to be overconfident regarding their ability to correctly predict future events (Shiller, 1996). Overconfidence can be increased through information gathering (short-term data tends to be the focus as this information is available more frequently than long-term data). This additional information makes us feel we are better prepared to make decisions, even if the information is unlikely to improve the quality of our decision (Gray, 2006).

Excessive short-termism by corporate management

Corporate managers are responsible for imposing significant agency-related costs on shareholders. A component of these agency costs relates to management teams being too focused on short-term financial objectives. Corporate management's focus on achieving short-term EPS and DPS growth targets at the expense of long-term profitable growth is an example of excessive short-termism reducing long-term shareholder value.

Examples where management may attempt to boost short-term EPS and DPS include:

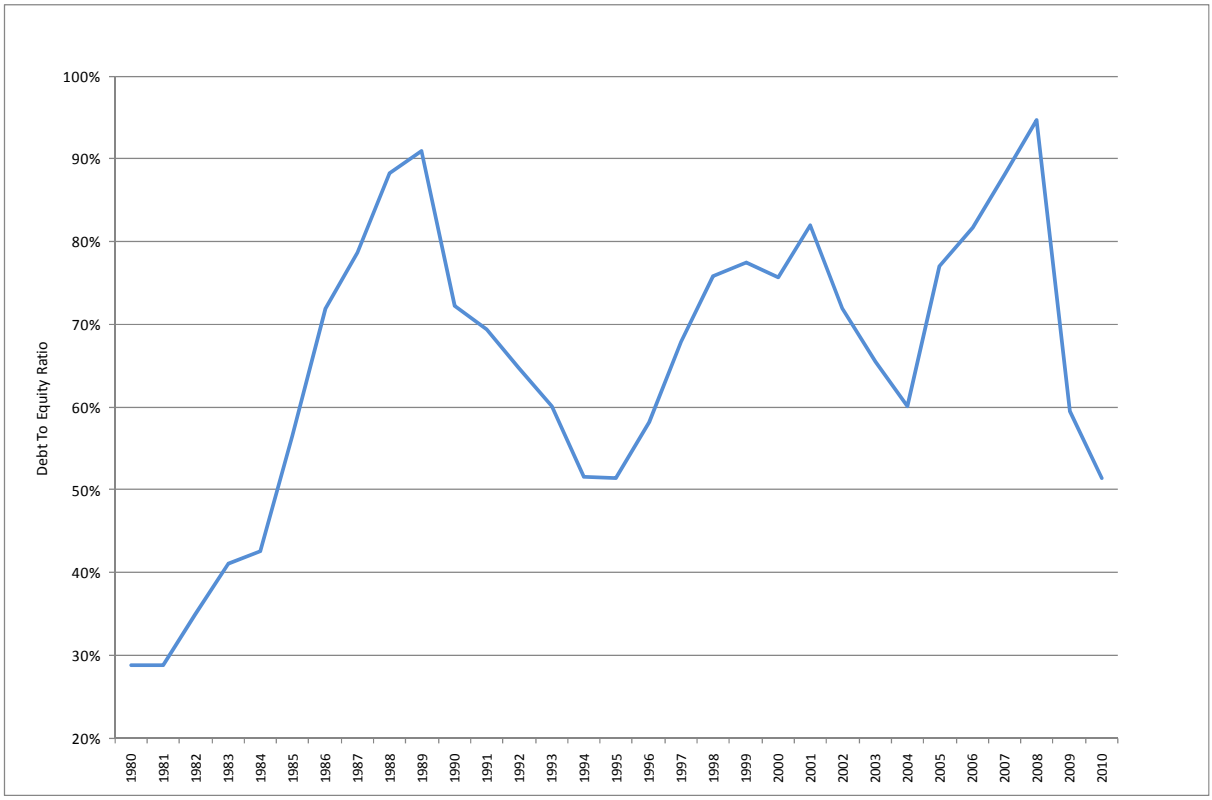
- over-use of financial leverage during strong economic conditions;
- under-spending on essential R&D, marketing and key staff; and,
- deferring attractive long-term capital investments because of a likely short-term negative impact on earnings.

The focus on short-term financial goals reflects the life cycle of the professional manager's career progression rather than the long-term goals of equity owners. Haldane (2010) highlights studies showing declining executive tenure. The mean duration of departing CEOs from the world's largest 2,500 companies declined from 10 years in 1995 to eight years in 2000 to six years in 2009. Furthermore, CFOs believe that missing earnings targets (both guidance and analyst consensus) is seen as a managerial failure and if repeated can lead to career-threatening dismissal (Graham et. al., 2005, 2006). The turnover of executives in Australia is significantly higher than global standards with an average tenure of 4.4 years versus 8.6 years globally in 2003 (BCA, 2004). It is difficult for domestic executives to focus on delivering long-term value over a five- to ten-year time horizon when the average tenure of CEOs who leave because of underperformance is just 3.6 years (BCA, 2004). In the absence of clear results, a CEO's position is arguably under threat after just two years. This focus on short-term financial goals is reinforced by high levels of short-term-based remuneration structures.

Excessive use of financial leverage during buoyant economic conditions

An example of short-termism is the way corporate managers view the cost of debt. In benign economic, industry and market conditions, the cost of debt is represented by the interest rate charged by debt holders. In reality, the economic costs of financial distress (direct and indirect costs) are significantly larger than headline interest rates. Debt levels tend to rise significantly in buoyant markets, with debt to equity levels peaking at 95% in 2008 (refer Figure 1).

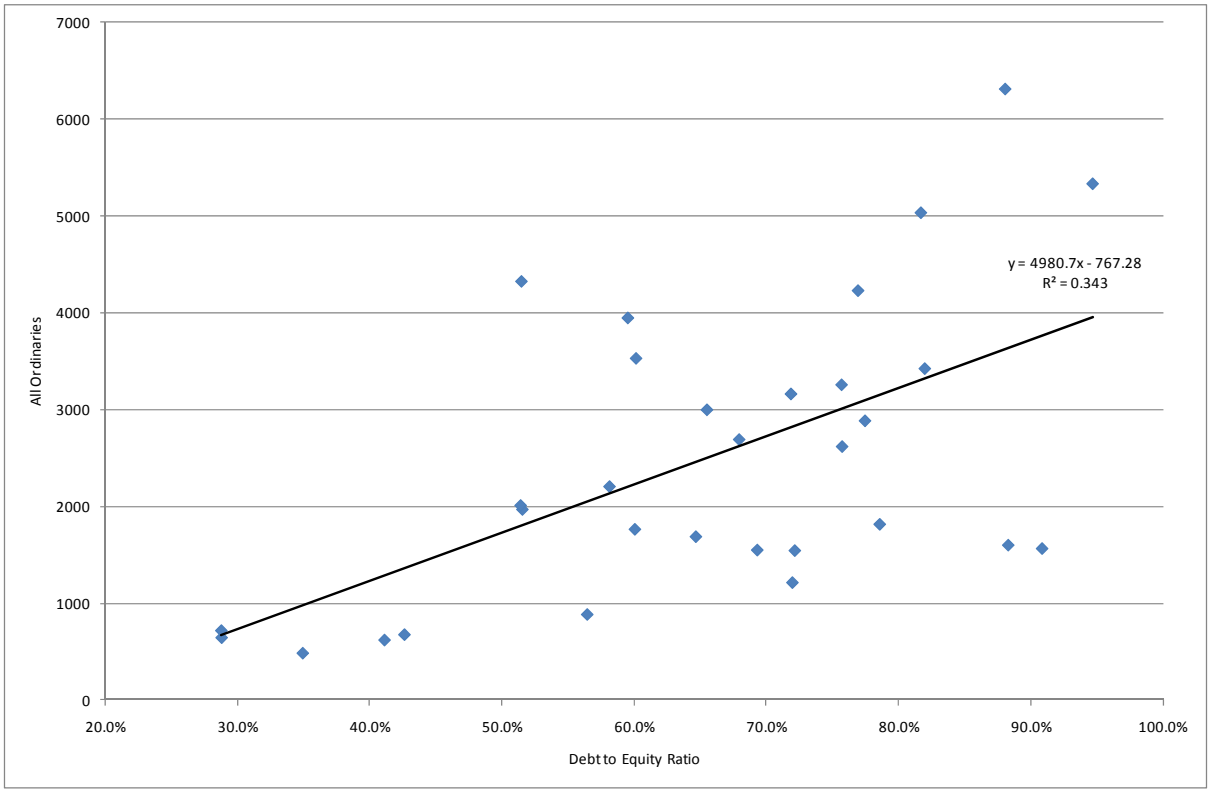
Figure 1: Debt to Equity Ratio for Domestic Equities (excl Banks)[1]



Source: ThomsonReuters Worldscope; IRESS; Hyperion Asset Management

Figure 2 illustrates the positive relationship between an executive's willingness to increase financial leverage and the strength of the domestic equity market (with an R^2 of 0.34 for years 1980 to 2010).

Figure 2: All Ordinaries versus Debt to Equity[1]



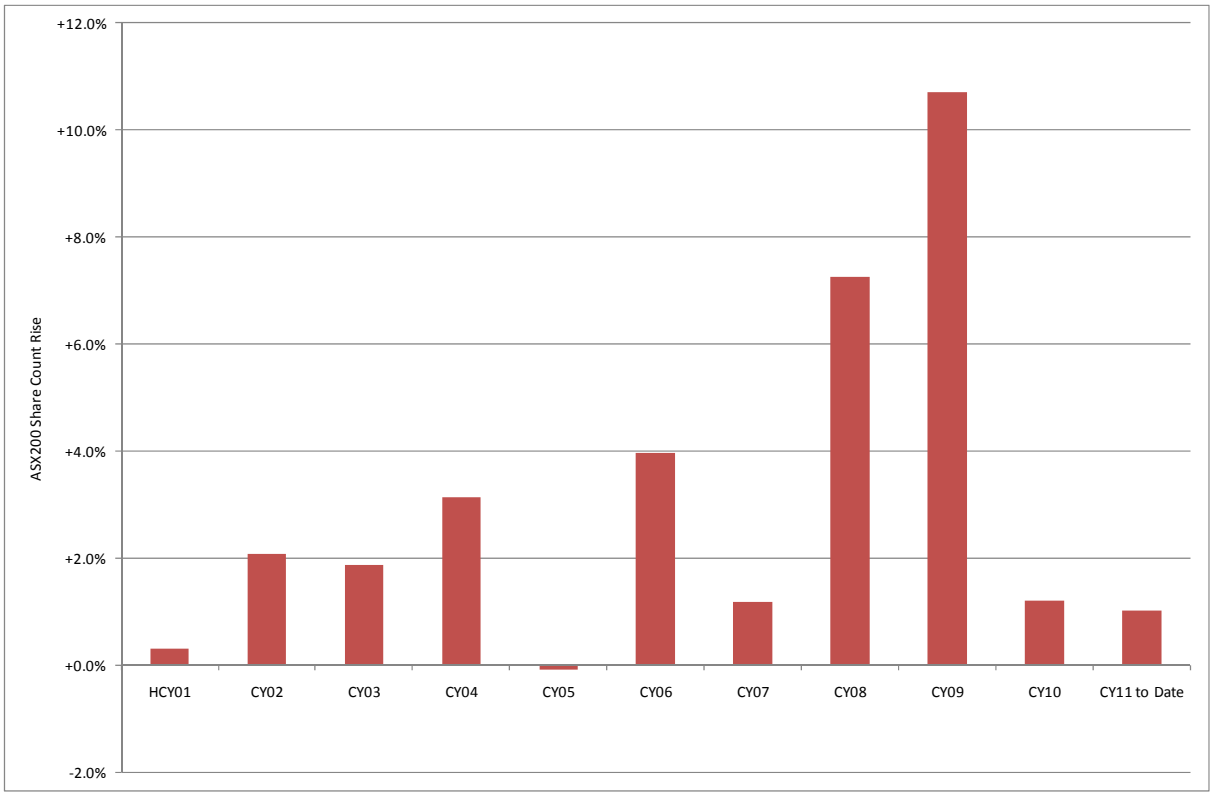
Source: ThomsonReuters Worldscope; IRESS; Hyperion Asset Management

During times of economic and market stress, the debt capital imposes additional costs on the equity owners of a business. This additional cost of debt normally takes the form of debt holders acting to protect their loan exposure from the risk of default. A common way for debt holders to reduce the risk of default is to force business owners to raise additional equity. The cost of this new equity can be extremely high because it is normally raised at depressed prices. Thus, the permanent dilution to existing shareholders can be significant.

[1] ASX-listed companies with an indexed market capitalisation of over $250M in their listed financial year.

The overall number of shares on issue in the Australian equity market rose by 7.2% and 10.7% in calendar 2008 and 2009, respectively (Refer Figure 3). By sector, the largest increase in share count in 2009 was Industrials (17.1%), Utilities (15.4%) and Financials (13.8%). There are a number of factors that drive market share count, but analysis suggests movements after the global financial crisis (GFC) were dominated by dilutive capital raisings.

Figure 3: Share Count Rise for Domestic Equities

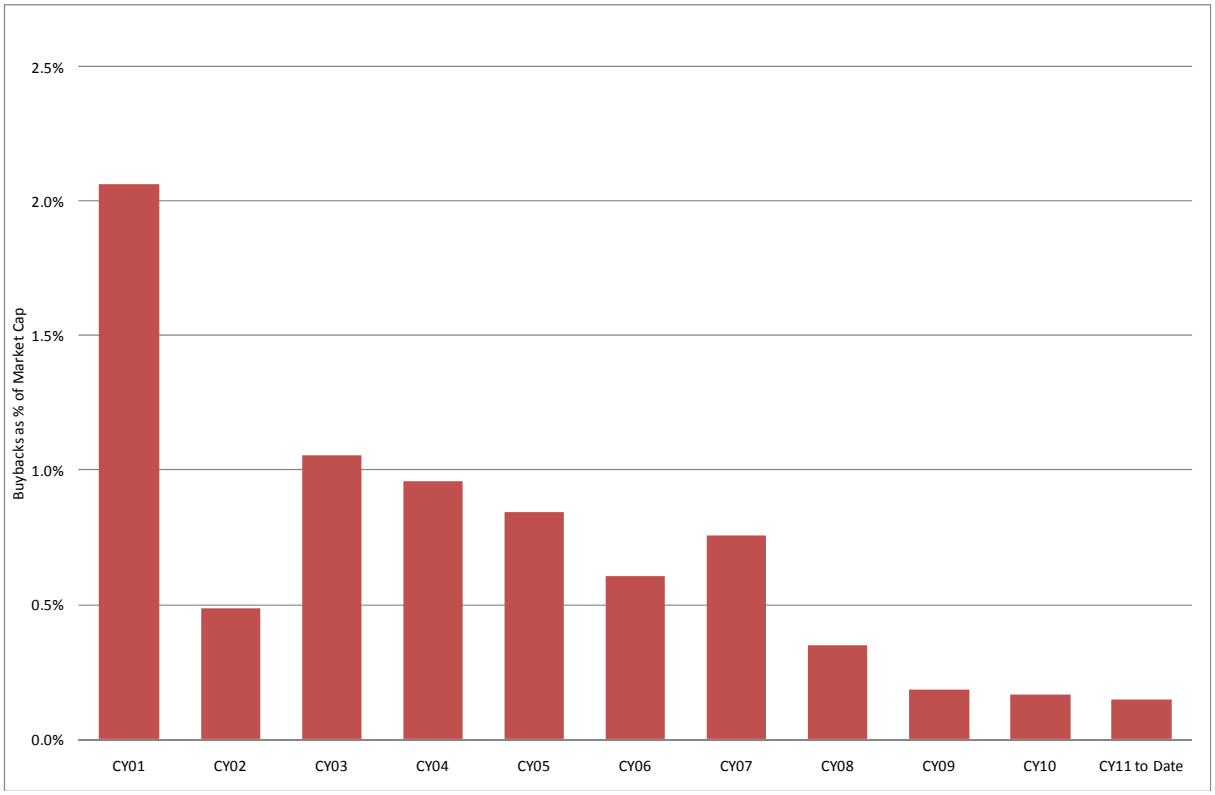


Source: UBS; Hyperion Asset Management

Equity capital is a long-term secure funding source for businesses. However, as discussed, it can be extremely expensive if it is raised during depressed economic and market periods.

On the other hand, share buybacks can be value dilutive (accretive) if they are undertaken in inflated (depressed) market conditions. Share buybacks averaged $7.5B per annum over the past decade, while only $2.1B and $2.4B were repurchased in calendar 2009 and 2010, respectively. Despite depressed market levels, companies did not have the capacity or confidence to repurchase their shares cheaply through the GFC (Refer Figure 4).

Figure 4: ASX Market Buybacks (as % of Market Capitalisation)



Source: UBS; Hyperion Asset Management

Clearly, constrained firms also have less ability to invest in growth. A December 2008 survey of 1,050 CFOs in 29 countries confirms that capital constrained firms will reduce spending by more than unconstrained firms, sell more assets and will miss attractive investment opportunities (Campello et al, 2009). It found that, in the fourth quarter of 2008, constrained (unconstrained) US firms planned to reduce technology spend by 22.0% (9.0%), marketing spend by 32.4% (4.5%), employee numbers by 10.9% (2.7%) and capital expenditure by 9.1% (0.6%).

Debt funded acquisitions are popular in boom periods

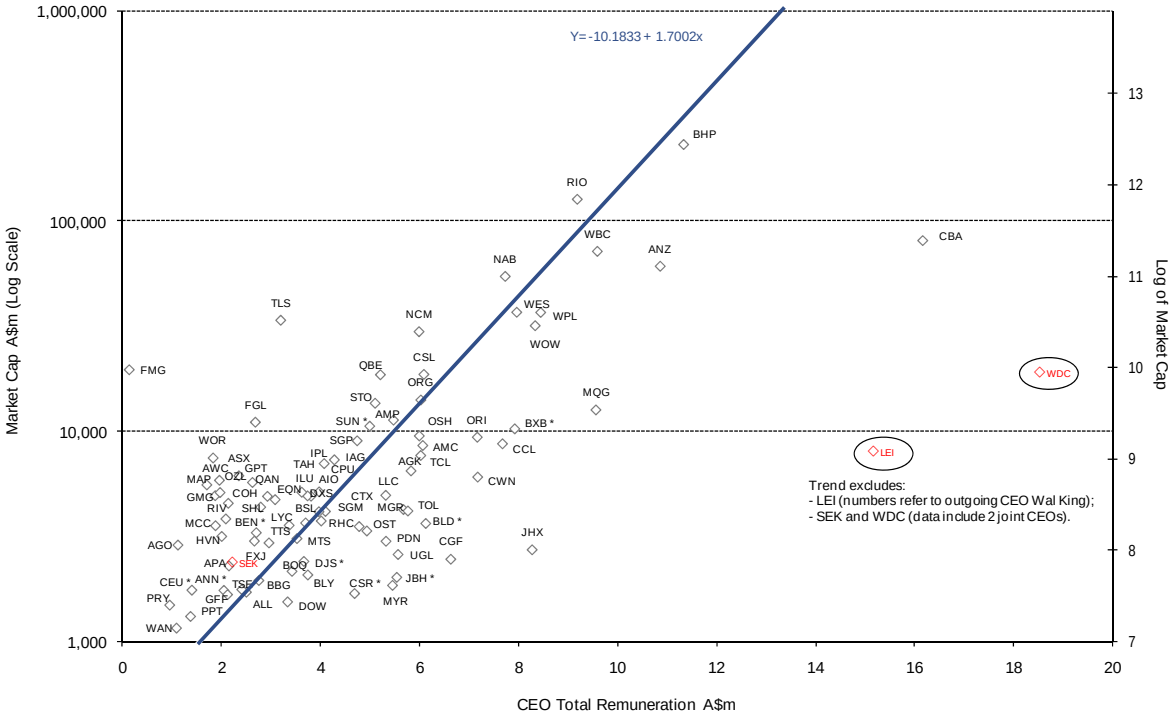
Excessive debt is normally taken on during periods of strong economic growth, associated with over-priced acquisitions. Corporate managers suffer from behavioural problems similar to those suffered by equity markets participants during bull markets. Key behavioural concepts include the winner's curse and managerial hubris (Roll, 1986). Managers make acquisitions based on recent

comparable earnings multiples and justify the high price paid through optimistic forecast cash flow assumptions predicated on current benign operating conditions continuing in the long-term.

Strong relationship between executive remuneration and firm size encourages acquisitions

Corporate managers also have an extra incentive to expand the size of the business because there is a direct relationship between firm size and manager remuneration levels. Other incentives for management expanding the asset base include the increased status involved in managing a bigger firm and the herd mentality of wanting to do what other firms are doing.

Figure 5: ASX 100 Companies' CEO Remuneration FY10 vs Market Capitalisation (31 May 2011)



Source: Citi Investment Research & Analysis

Excessive focus on short-term earnings destroys long-term value

An excessive focus by management on short-term financial performance normally results in reducing the ability to execute long-term value accretive strategies. Examples of companies that

pushed earnings management beyond acceptable limits to meet expectations (overvalued equity) and ended up destroying part or all of their value include Enron Corporation, Nortel Networks and eToys (Jensen, 2005). There are numerous ways management can boost short-term earnings without creating long-term value (Rappaport, 2005), including accounting adjustments, underinvestment, investing at a rate below its cost of capital, and share buybacks at prices above estimated fair value or when better investment opportunities exist.

In a survey of 401 senior US financial executives (Graham et al., 2006), 80% said they would decrease discretionary spending (e.g. R&D, advertising) and 55% would delay starting a new project, to meet a short-term earnings target. The study also concluded that executives believe the market rewards predictability (97% indicated they preferred a smooth earnings path). The reality is the creation of long-term value is very rarely smooth in practice and managing short-term earnings has no sustained benefit on intrinsic value. Warren Buffett has argued for many years that listed companies should not provide short-term earnings guidance.

In the same survey, an alarming 59% of financial executives said they would reject a positive NPV project if it would mean missing short-term earnings targets. This is supported by Bhojraj and Libby (2005) who found that under strong capital market pressure, financial executives will choose higher year-to-date earnings, but lower cash flow. Studies by Haldane (2011) show leading UK and US companies (1980-2009) also engaged in excess discounting of between 5% and 10% per year when establishing discount rates applied to future cash-flows. This excessive discounting implies potentially value-adding projects (positive NPV) are being rejected.

Addressing excessive short-termism at the corporate level

Suggestions to address short-termism at the company level include:

- management should set long-term strategic goals and produce its own list of metrics that the market can assess with time;
- management should not provide short-term earnings guidance;
- remuneration structures need to move from short-term earnings to long-term sustainable value accretion for equity holders; and
- management should not benefit from cash bonuses tied to short-term growth in earnings figures that potentially reverse in subsequent years.

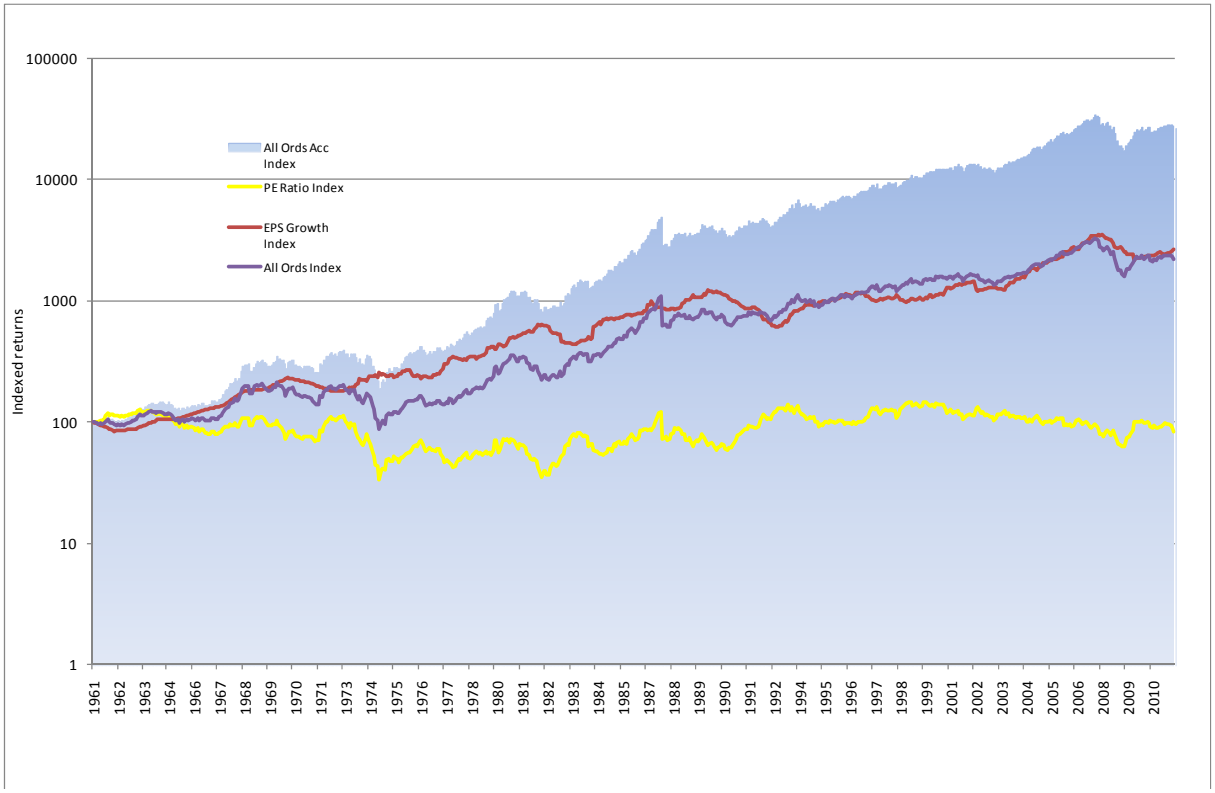
Excessive Short-termism by Active Fund Managers

In the long-term, share prices tend to approximate fundamental value but in the short- to medium-term, this can break down and large gaps between price and intrinsic value occur.

> "In the short run, the market is a voting machine; in the long run it is a weighing machine".
> [Benjamin Graham]

The strong long-term relationship between EPS growth and stock returns is illustrated in Figure 6 which also clearly shows the diminishing influence of changes in PE ratios as the investment horizon is extended to a very long time period[2].

Figure 6: Earnings Drive Long-term Market Returns



Source: Credit Suisse, Hyperion Asset Management

[2] However, the influence of PE ratio changes on long-term returns is reasonably strong if the entry and/or exit PE ratios are at extreme levels (refer Figure 15).

Active fund managers should sustainably exist only if they can produce returns (after costs) over the long-term that are higher than comparable index-based funds. There are many studies citing the inability of the average fund manager to meet index returns after costs (Bogle, 2005)[3].

Most active equity-based fund managers who survive over the long-term have investment philosophies focused on exploiting mispricing events, where price and long-term intrinsic value have moved apart. Different fund managers place emphasis on different factors or attributes, where some place more or less emphasis on franchise quality, financial risk, low earnings multiples, growth potential or business improvement potential. However, most are still attempting to exploit gaps between price and intrinsic value. It is the process of the price moving towards intrinsic value that provides active managers with alpha. For reasonable quality businesses, intrinsic value should be fairly stable over the short to medium term and actually trend higher over the very long-term. Therefore, selling of stocks should normally occur when the price/value gap has closed or another more attractive opportunity becomes available.

Despite this, most active fund managers are pushed towards short-term thinking. The inherent long-term approach to exploiting gaps between price and intrinsic value is not compatible with the structure of most mandates. The majority of portfolios that fund managers manage are in the form of opened-ended mandates and therefore the investor has the ability to withdraw some or all of the funds at anytime. The typical active fund manager is attempting to exploit gaps between price and intrinsic value that generally take extended periods of time to close and produce alpha. Thus, the timing of the alpha production is uncertain over short periods of time.

Index hugging produces poor long-term investment outcomes

Given that benchmarks are market capitalisation and liquidity based (not fundamentally based), the short-term relative performance of active fund managers can be significantly above or below the benchmark return. This short-term relative underperformance risk, combined with investors' ability to withdraw funds at any time, causes many fund managers to undertake activities to reduce this risk. This is where short-termism can act to reduce the long-term value-add achievable by active fund managers.

Length of tenure also leads to a short-term focus with the average tenure of the head of an Australian equity team being less than three years (BCA, 2004). It is difficult for managers to

[3] John Bogle is the founder and retired CEO of index manager, Vanguard Group. He wrote the book "Common Sense on Mutual Funds" and advocates the use of index funds over active funds.

deliver significant alpha over a five- to ten-year time horizon when they are likely to be in charge for much shorter periods.

The widespread use of index hugging is the result of managers attempting to minimise short-term underperformance risk and maximise funds under management capacity. That is, index hugging is used by managers to reduce the probability of suffering from significant short-term relative underperformance and thereby reducing the risk of clients terminating mandates.

> "It is better for reputation to fail conventionally than to succeed unconventionally".
>
> [John Maynard Keynes]

Portfolio managers argue that "failure to achieve acceptable benchmark performance in the short run could lead to large fund withdrawals and their possible dismissal" (Rappaport, 2005). Managers believe that quarterly relative performance monitoring contributes to an adoption of short-term attitudes (Baker, 1998). However, periods of short-term underperformance relative to peers or the benchmark is to be expected, even for portfolios that perform well over the long-term. Funds that produce alpha over a 10-year period can be expected to underperform significantly in quarterly, yearly and even rolling three-year periods (Brandes Institute, 2005).

Moreover, basing stock weights in a portfolio on market capitalisation and liquidity factors rather than underlying business quality and long-term likely returns helps increase funds under management and thus potential profits of the funds management business. However, this is a key agency cost for superfund members and investors. Bogle believes an industry focus on profitability and salesmanship has superseded trusteeship, citing an industry focus on asset gathering and return on shareholder funds (Bogle, 2005).

> "As a group, we veered off-course almost 180 degrees from stewardship to salesmanship, in which our focus turned away from prudent management and toward product marketing."
>
> [John Bogle]

Over the long-term, funds under management will be driven by sustained outperformance, not astute marketing.

Unintended consequences of specialisation

Increased levels of specialisation have tended to result in more frequent performance reviews and thus, an automatic increase in the level of focus on short-term performance. This includes

increased questioning of fund manager decision-making by asset consultants and their trustee clients. Unfortunately, behavioural biases often result in managers being hired after a short period of strong performance and eliminated prematurely after a short period of underperformance. This occurs despite significant empirical evidence showing the downfall of chasing recent short-term outperformance. In theory, it takes between 25 to 40 years for a manager's track record to reach statistical significance (Donoho et. al., 2010; Philips, 2003). This is too long in practice, but highlights the need to focus on longer rolling performance records.

There appears to be some evidence of performance chasing by asset managers. Krehmeyer cites a number of studies where asset managers are fired just before performance improves and hired immediately before performance declines (Krehmeyer et. al., 2006). A more recent study by Goyal and Wahal (2008) examined the selection and termination of investment management firms by 3,400 plan sponsors between 1994 and 2003. They found that plan sponsors hire investment managers after superior performance but on average, post-hiring excess returns are zero. Furthermore, post-firing excess returns are frequently positive and sometimes statistically significant.

Switching costs are significant and consist of both transitional and relative return costs (poor timing). Estimates of transition costs in the public press suggest that average costs range between 2% and 5% of the portfolio while private estimates by large transition management firms are between 1% and 2% (Goyal and Wahal, 2008).

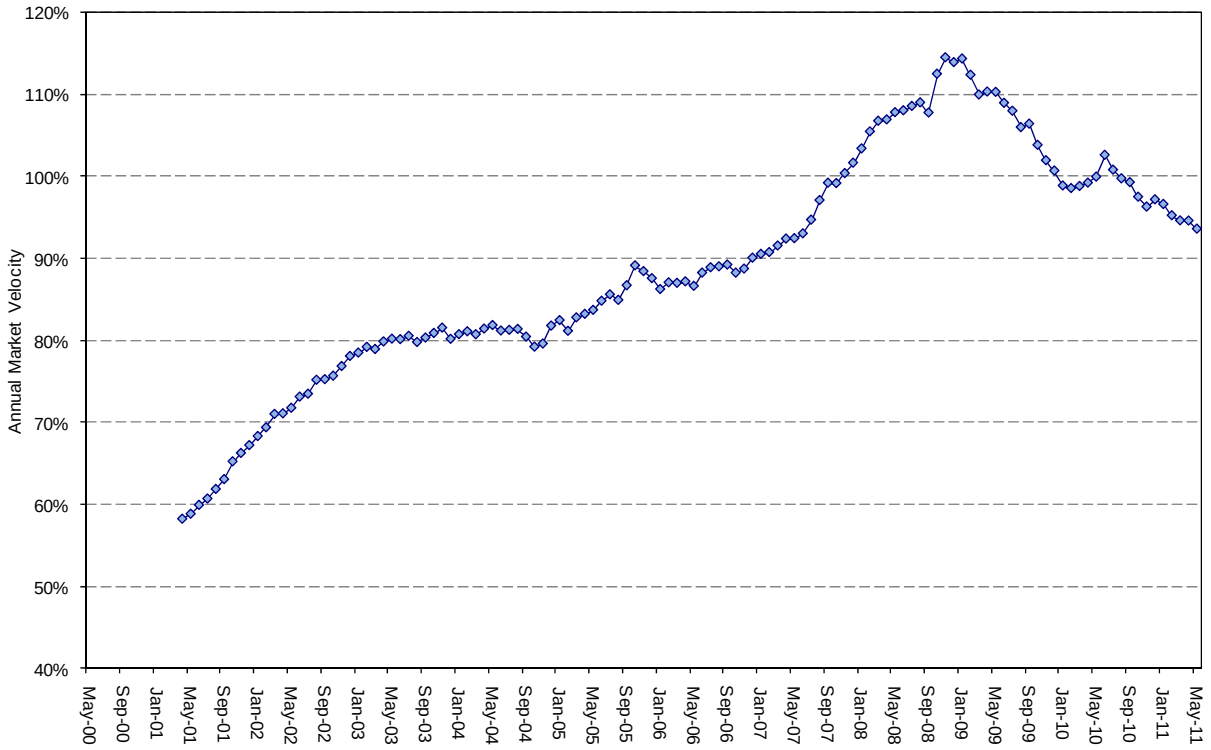
More activity is not the answer

Another way active fund managers attempt to reduce short-term underperformance risk is by being more active – that is, by undertaking more short-term trading activities. However, trying to exploit price/value gaps in the short-term is unlikely to produce alpha consistently. Short-term trading normally involves using momentum or news flow based techniques that are unrelated to fundamentally based long-term investment approaches.

Not many active equity fund managers that have been successful over the long-term talk about trading-based strategies being a core part of their philosophy. Yet stock market velocity has moved significantly higher over the past 20 years. Day traders and some hedge funds have trading based strategies, so there has likely been some influence from these parties particularly prior to the GFC.
In 1955, the average US fund held its portfolio for seven years; 50 years later, the average stock held by the average fund was 11 months (Bogle, 2005). The average holding period for Australian

equities has declined from more than six years in 1986 to under one year currently. Figure 7 supports the growing propensity for domestic investors to accept short-termism.

Figure 7: ASX Market Velocity (12mth Total Liquidity / 12mth Average Market Capitalisation)

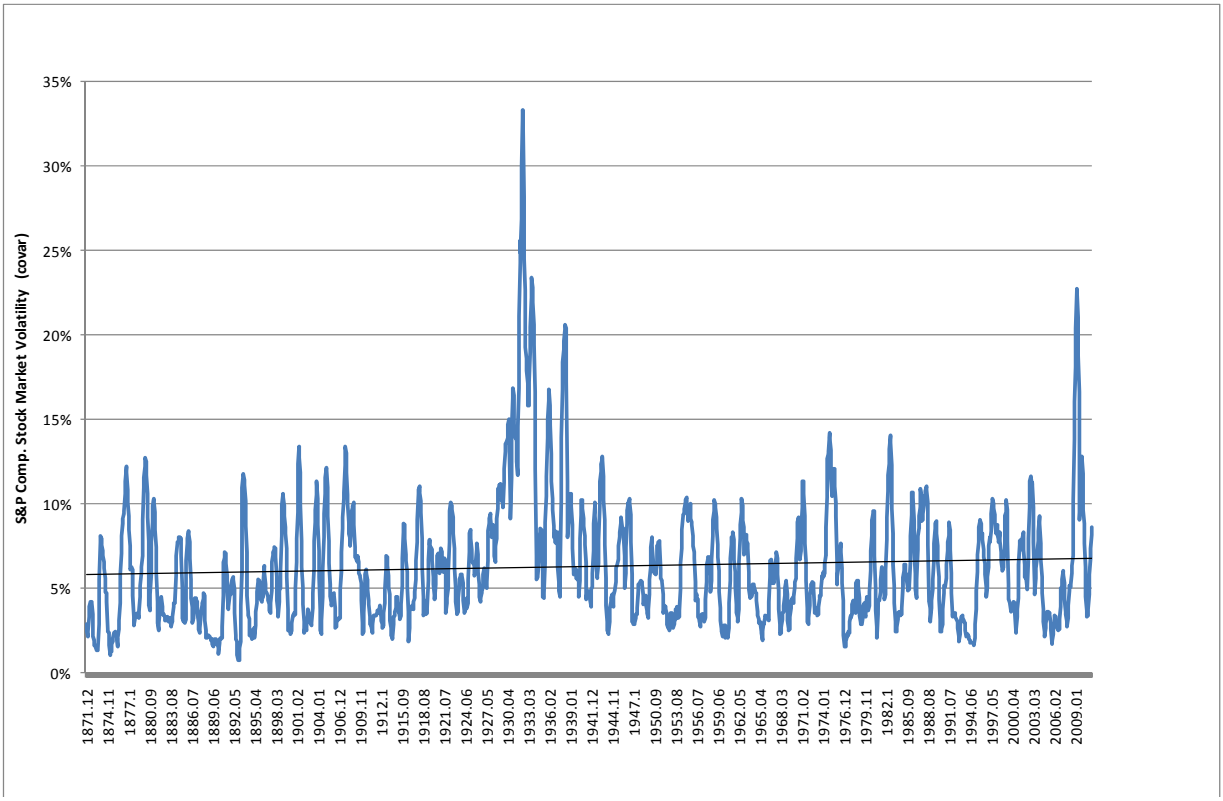


Source: Hyperion Asset Management; IRESS

This appears to indicate that active fund managers have increased trading based activities significantly over the past few decades. Much of this is likely to have subtracted long-term value for clients particularly after taking into account the increased taxation and other costs associated with higher levels of portfolio turnover. An increase in market velocity should correspond to an increase in competitive intensity over shorter time horizons. Thus, the probability of outperforming is higher by basing investment actions on longer time horizons (five to ten years rather than six to 12 months). Miller (2006) refers to this as time arbitrage and Gray (2006) explains how this can persist, as very few managers are willing to accept the high level of career and business risk. Rappaport (2005) described short-termism as a disease and short-term earnings and tracking error as the carriers.

Market participants tend to believe short-term stock returns are more predictable than long-term returns because the relevant factors and outcomes are closer in time. The reality is that short-term stock returns are extremely difficult to forecast accurately because of inherent market volatility. Market volatility cannot be fully explained by fundamental factors (Gerlach, 2005). This short-term volatility has always been a feature of equity markets as shown in Figure 8.

Figure 8: S&P Comp. Stock Market Volatility (covar) since 1871



Source: Hyperion Asset Management, Robert J. Shiller (www.econ.yale.edu/~shiller/)

This ubiquitous volatility is a function of:

- behavioural factors (i.e. emotional and social factors that influence risk premiums and in-turn PE ratios); and,
- changes in fundamental factors (i.e. long-term forecast free cash flows and forecast risk free discount rates).

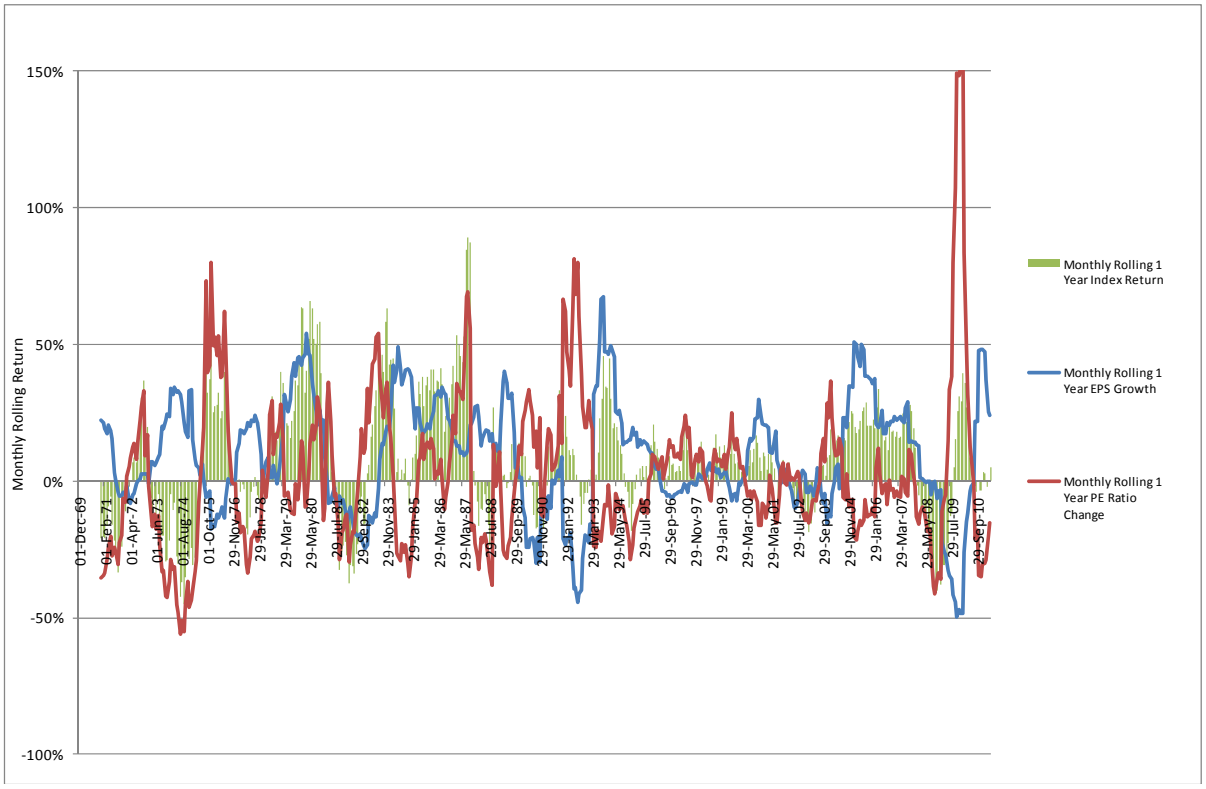
A key driver of this volatility is the market's perception of risk or uncertainty attached to future free cash flows. Volatility is also caused by changes in the market's perception of the mean levels

and timing of future free cash flows to equity holders. Changes in long-term forecast free cash flows and the risk or uncertainty attached to these forecasts can be seen in the significant volatility in price earnings ratios that occur in the stock market. In the short-term, price earnings ratio for stocks are volatile because of the significant influence of behavioural factors in investor's assessment of risk and uncertainty. During periods of strong economic growth and bullish stock markets, investor perception of the risk and uncertainty declines and optimism relating to the timing and quantum of the likely future free cash flows increases. These two factors result in expanding price earnings ratios and higher stock prices. The reverse happens in depressed economic circumstances and bearish stock markets.

The linear projection of recent conditions in setting risk premiums and forecasting future free cash flows adds to the volatility of stock markets. This linear thinking, based on recent trends and themes, tends to overemphasise the sustainability of downturns or abnormally strong market conditions because of behavioural factors such as fear, greed and herding.

The volatility that is caused by changes in perceived risk premiums and, in turn, PE ratios is illustrated in Figure 9. The monthly rolling one-year change in the market PE ratio (red line) is more volatile than one-year EPS growth (blue line). These largely emotional-based responses to short-term and non-fundamental factors make it extremely difficult to consistently predict stock returns over short periods of time. Figure 9 below indicates that even if the investor correctly forecasts the EPS growth rate over the short-term, the short-term change in the PE ratio generally has a greater influence on short-term market returns. This makes forecasting short-term share price movements more difficult than merely getting short-term EPS forecasts correct. There is a much tighter positive relationship between short-term PE ratio change and price change, compared with EPS growth and price change. The R^2 between the 12-month change in the PE ratio and the 12-month market change is 32% (correlation of 56%) compared with an R^2 of 6% (correlation of 25%) for 12-month EPS growth.

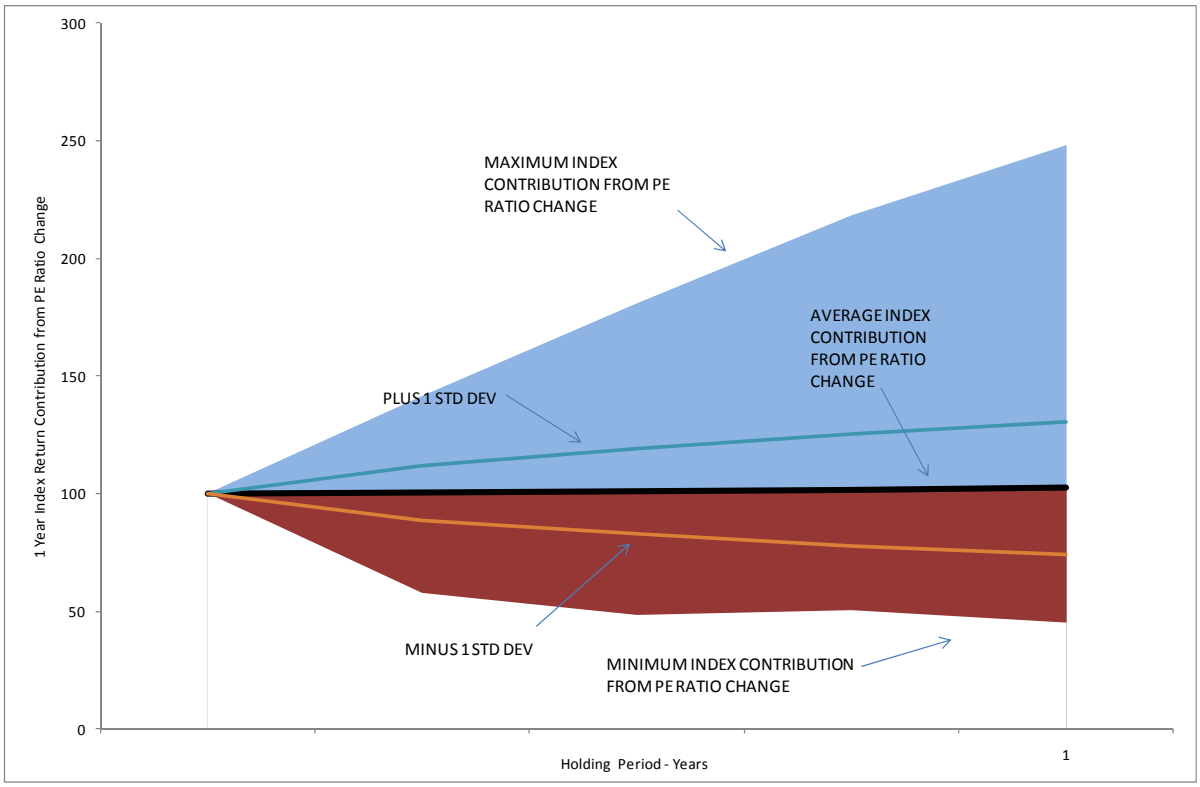
Figure 9: Earnings and PER contribution to Rolling Returns



Source: UBS, Hyperion Asset Management

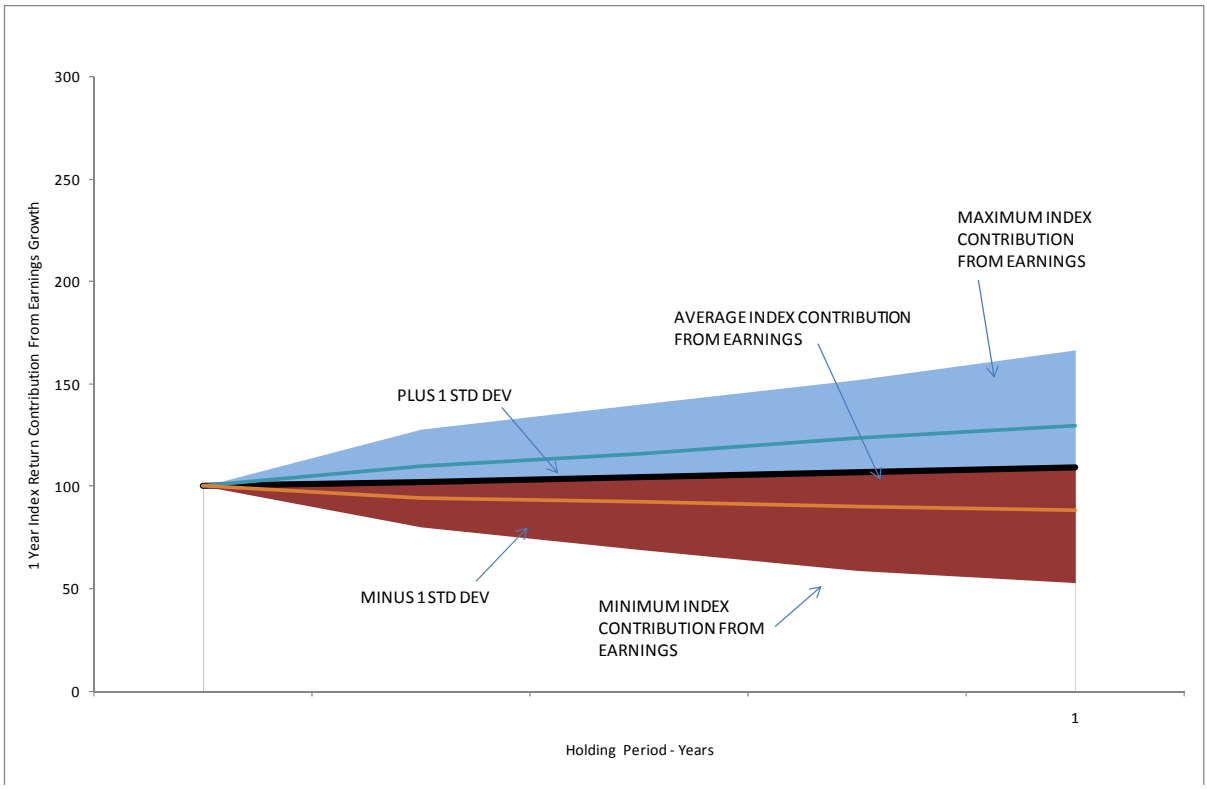
Shiller (1981) found that market returns are more volatile (uncertain) when measured over short periods of time than when measured over more extended windows. Figures 10 and 11 further illustrate the significant short-term volatility derived from changes in PE ratios. Figure 10 illustrates the contribution to market returns over rolling 12-month periods from 1969 to 2011 due to changes in historical PE ratios. Even though the mean 12-month change in the market's PE ratio was close to zero, the spread of return contributions was very wide and significantly wider than the spread of return contributions for short-term EPS growth. It is also worth noting that the mean contribution to short-term returns from earnings growth was also close to zero.

Figure 10: PE Ratio change contribution to Australian index returns (one-year periods) – Quarterly rolling data 1969 to 2011



Source: UBS, Hyperion Asset Management

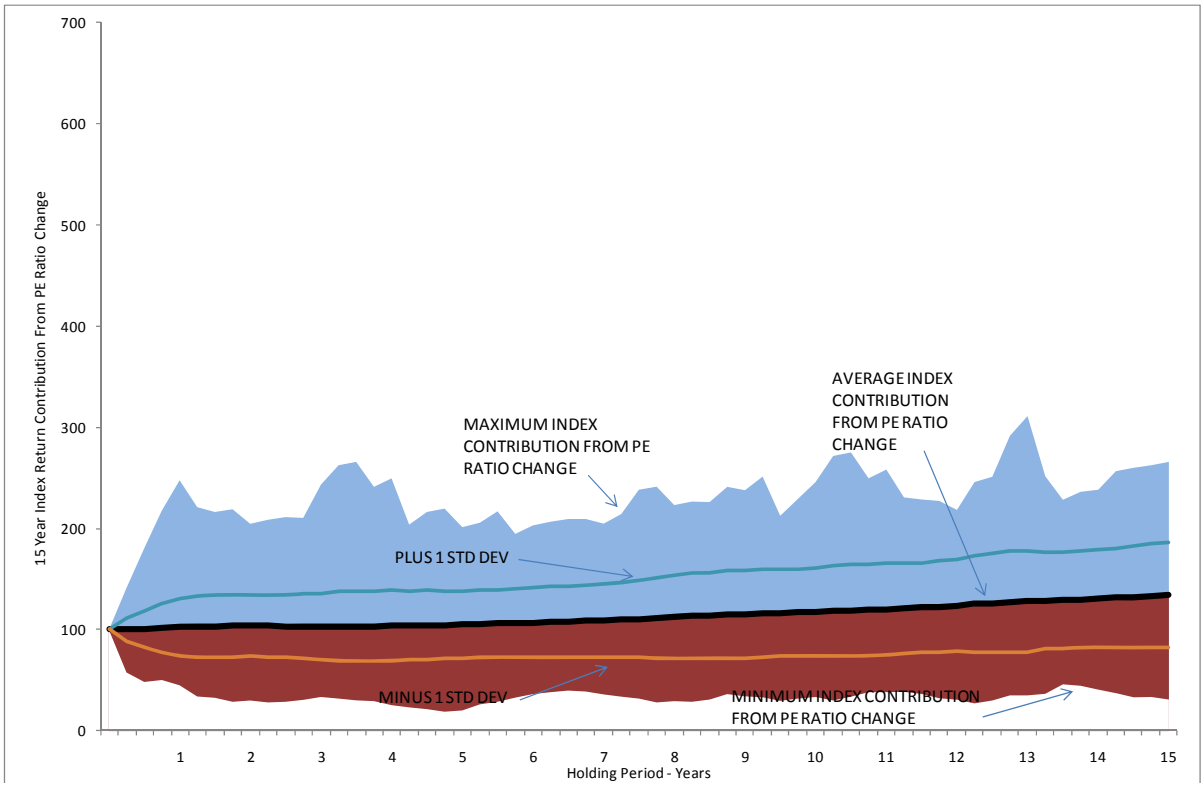
Figure 11: Earnings growth contribution to Australian index returns (one-year periods) - Quarterly rolling data 1969 to 2011



Source: UBS, Hyperion Asset Management

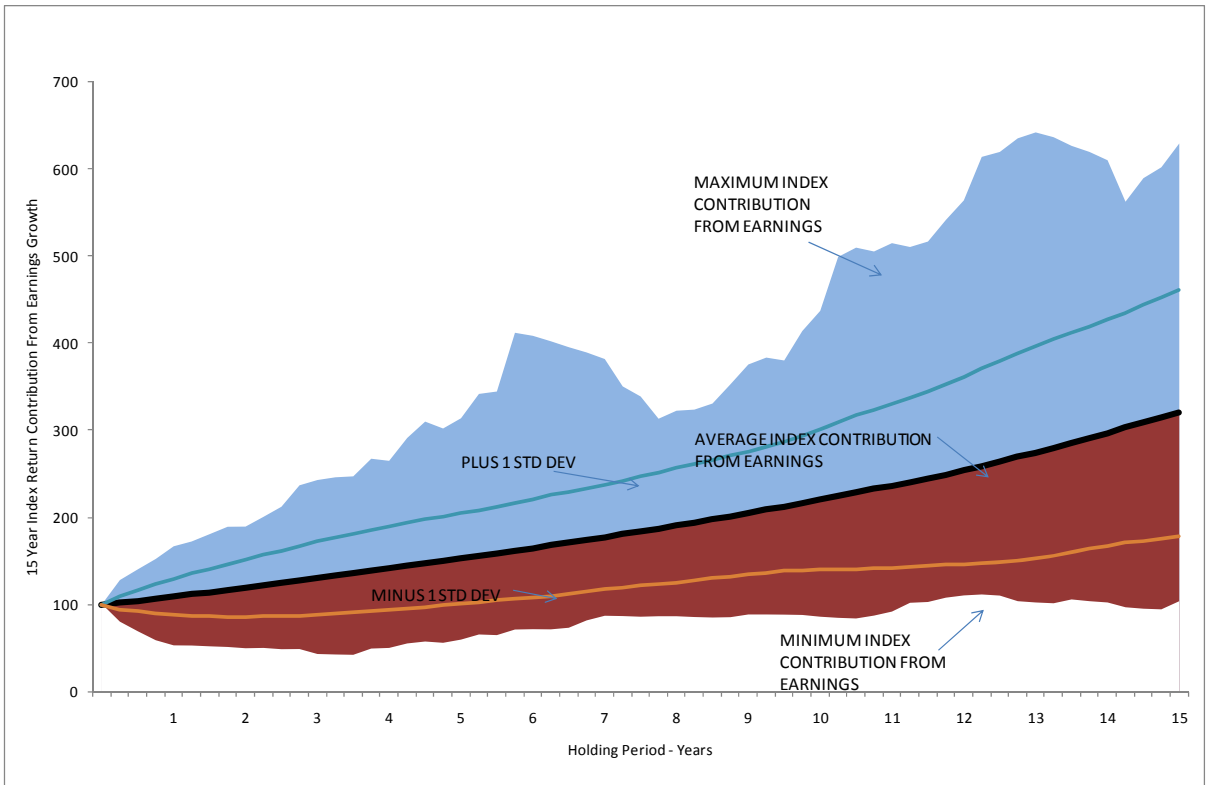
Figures 12 and 13 illustrate that over longer periods, the absolute range of the PE ratio change stays fairly similar to its contribution to returns over the short-term. However, the long-term chart for the return contribution from EPS growth shows a significant increase in the contribution to positive market returns. Both the upper limit of the EPS return range and the mean move significantly higher whilst the downside contribution is similar to that seen in the 12-month return contribution chart. The ability of EPS growth to positively bias long-term stock returns is a key reason why the risk of investing is reduced by taking a longer term approach to the market.

Figure 12: PE Ratio change contribution to Australian index returns (15-year periods) – Quarterly rolling data 1969 to 2011



Source: UBS, Hyperion Asset Management

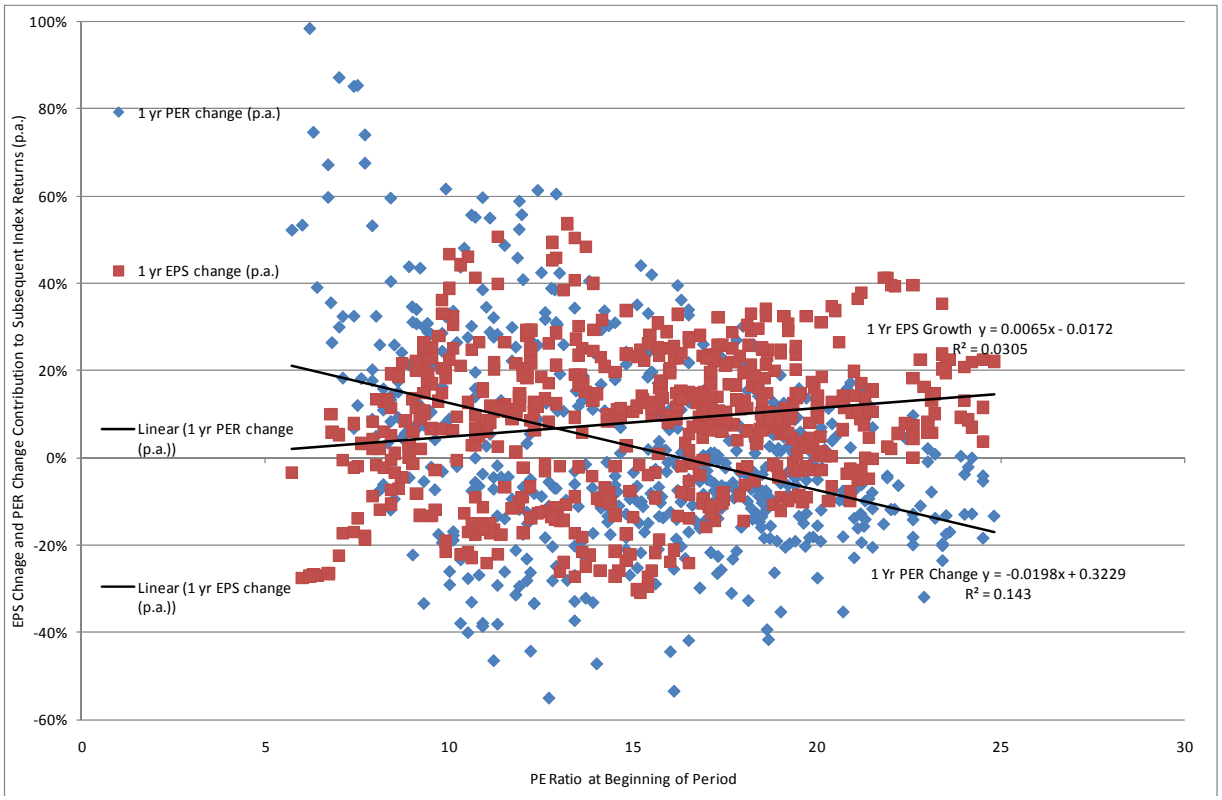
Figure 13: Earnings growth contribution to Australian index returns (15-year periods) – Quarterly rolling data 1969 to 2011



Source: UBS, Hyperion Asset Management

At an aggregate stock market level, buying when PE ratios are high (low) relative to sustainable or normalised earnings will normally result in poor (good) subsequent long-term returns to the investor. However, over short-term periods of time, the stock market's PE ratio is not an accurate predictor of future returns (Refer Figure 14). Figure 14 also illustrates that earnings growth is not a good predictor of short-term market returns either.

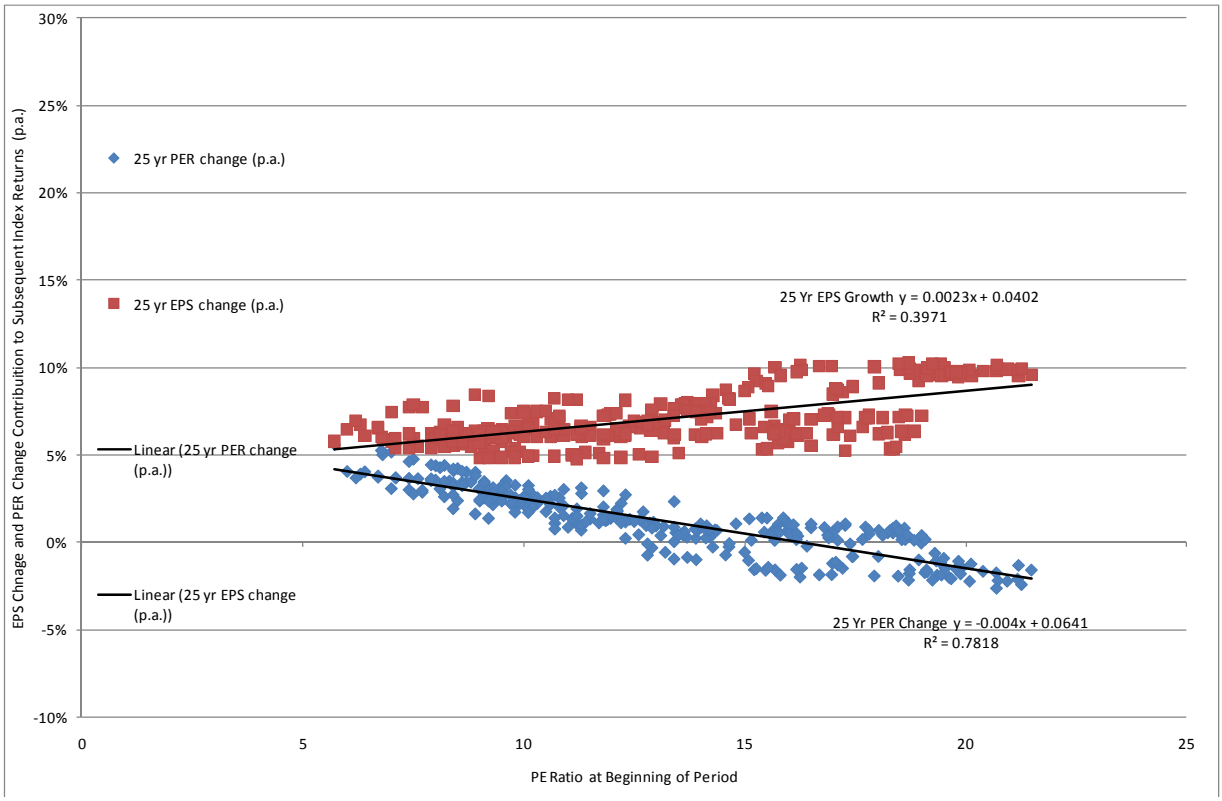
Figure 14: Weak relationship between fundamentals and one-year returns



Source: Credit Suisse, Hyperion Asset Management

Figure 15, illustrates that the two fundamental factors (PE ratio change and earnings growth) have strong explanatory power for long-term market returns. Long-term earnings growth has a consistently positive influence on future market returns at different initial PE ratio levels whereas PE ratio change has a positive influence at low initial PE ratio levels and a negative influence at high initial PE ratio levels. At low initial PE ratio levels, both earnings growth and PE ratio change have a positive influence on future long-term returns. At high initial PE ratio levels, earnings growth continues to have a positive influence on future long-term returns but PE ratio change has a large negative influence on future returns.

Figure 15: Very strong relationship between fundamentals and 25-year returns



Source: Credit Suisse, Hyperion Asset Management

A key benefit of taking a long-term fundamental valuation approach to investing is that short-term volatility of stock pricing can provide additional incremental returns. By increasing (decreasing) exposure to equities during cyclical downturns (booms) when PE ratios are low (high), patient investors can receive excess returns.

Addressing excessive short-termism at the fund manager level

Suggestions to address short-termism at the fund manager level include:

- committing funds for a defined period would be ideal although unlikely to be practical;
- extending performance measurement to five years (or more). Monthly, quarterly and yearly performance figures are not a sensible basis on which to make decisions on whether an active fund manager has performed well;
- pay annual bonuses on the basis of rolling medium to longer term performance; and,
- require portfolio managers to make meaningful investments in their fund.

Excessive short-termism by super fund members and Mum and Dad investors

The ultimate cost of excessive short-termism is borne by the Mum and Dad investors who entrust their retirement savings to corporate managers, fund managers and super fund trustees.

The investment industry contains many agents and their associated fees and costs. Most investors and super fund members should have long investment horizons given their main objective in investing their savings (particularly in super) should be to have sufficient savings for retirement. Therefore, their decision-making should be framed based on the key factors that drive long-term investment returns. In respect of equity market investment, they should attempt to create portfolios that are likely to produce attractive long-term returns and also minimise the probability of large return shortfalls. Therefore, individual investors and super fund members should have agents who make decisions that attempt to focus primarily on the factors that are critical to the achievement of long-term financial goals, rather than focusing on non critical shorter-term factors. Unfortunately, the key principals and their agents (to varying degrees) appear to have an excessive focus on short-term factors.

Suffering from short-term behavioural biases

In addition, Mum and Dad superfund members are also prone to suffer from short-termism biases when making their investment decisions. In Shiller's 2001 literature review on behavioural principles, he cited evidence of overconfidence by individual investors noting that if investors believe they are above average and have speculative insights, they will have reasons to trade often. In "Irrational Exuberance" (2005), Shiller refers to a 1996 survey in which 40% and 50% of participants, respectively, believed they could effectively time an individual stock or managed fund investment decision, but only 11% believed they could time the market.

According to Bogle (2005), annual US returns from 1983 to 2003 were 13%, 10.3% and 7.9% for the S&P500, average equity fund and average fund investor, respectively. He believes the poor performance of average fund managers was based on costs, while for individual investors it was "largely accounted for by counterproductive market timing and fund selection".

Liquidity reduces investor fear

Paradoxically, the acceptance of the efficient market hypothesis may give investors permission to remove any guilt associated with not doing fundamental analysis. Higher liquidity also unlocks the 'impatience gene' (Haldane, 2010). Liquidity reduces investor fear because it allows them to quickly and easily reverse prior buy decisions at any time in the future. The investor feels more in control of his investments and thus his action in initially buying is perceived to be lower risk than it would be if the stock was illiquid. However, the problem is that liquidity actually facilitates short-term return volatility and investors generally dislike short-term volatility.

Over-reliance on technology and media

Retail investors have also been impacted by technology gains that have increased access to the financial markets while lowering execution costs. If the decision to buy is easily and cheaply reversible, it tends to reduce the incentive to do significant fundamental work before buying the stock while encouraging a short-term trading mentality. This reversibility of buy decisions encourages investors to focus on short-term share price movements because those movements could provide a quick profit. News flow and momentum based trading is much more difficult in less liquid markets.

Studies by the Australian Stock Exchange suggest that 30% to 40% of retail investors gained the majority of their market information from the media (ASX, 2003; 2006). However, changes within the media industry are also contributing to a heightened sense of short-termism. As a result of dramatic increases in the accessibility to mainstream as well as social media, outlets face an environment of tougher competition. As a result, the focus has moved towards producing more entertaining and exciting financial news on an ever shortening news cycle. The quality of the information is deteriorating. Furthermore, 37% of domestic Mum and Dad investors did not understand (in essence) that good investments can underperform in the short-term (ANZ, 2003).

Trading strategies risk being blindsided

Trading based portfolio management involving momentum, technical signals and short-term news flow approaches may sometimes work in benign market conditions, but they have two key problems:

- When long-term valuation and business quality are not the major determinants in the fund manager's investment process and a speculative bubble occurs, there is a real risk of

the portfolio suffering significant permanent losses when the bubble bursts. Any portfolio construction process that ignores or does not have a strong focus on the relationship between price, fundamental business quality and long-term value runs the danger of being blindsided by a collapse in a speculative bubble. This is because it tends to be the lowest quality and most speculative type stocks that have the strongest momentum and most positive news flow characteristics in the lead up to the bursting of the bubble.

- Trading based strategies by their very nature involve significant portfolio turnover. High portfolio turnover has negative tax implications for many investors and can substantially reduce or even eliminate alpha at the post fees and post-tax return level.

Addressing excessive short-termism at the investor and trustee level

Suggestions to address short-termism at the investor level include:

- superfund investors need to lengthen time periods in which they provide reports and focus their commentary on the long-term returns achieved by the fund and relevant benchmarks; and,
- providing realistic and fundamentally based long-term return estimates. Quarterly reporting to super fund members is providing information noise.

Conclusion

Behavioural finance research indicates that it is human nature to have a preference for short-term activity and outcomes, and for emotion to influence investment decision-making. With corporate executive and CIO tenure arguably under threat after just two years, decision-making often reflects career progression rather than the long-term goals of equity owners.

An example of short-termism is the way corporate managers view the cost of debt. In benign market conditions, the cost of debt is represented by the interest rate with little thought of the permanent share dilution that can follow in a difficult climate. In the Australian market, domestic debt to equity levels peaked at an estimated 95% in 2008, but were subsequently reduced through the GFC by raising additional equity (market share count increased 7.2% and 10.7% in calendar 2008 and 2009, respectively). Furthermore, based on a survey of senior US financial executives by Graham (2006), 80% would decrease discretionary spending and 59% would reject a positive NPV project if it would mean missing short-term earnings targets. Clearly, some corporate executives are focused on short-term expectations at the expense of growing the long-term intrinsic value of a business.

Market participants tend to believe short-term stock returns are more predictable than long-term returns. Annual ASX market velocity was below 60% ten years ago but peaked at over 100% prior to the GFC. This suggests that active fund managers have increased their trading based activities over time, which increases transaction costs but not necessarily performance. This paper argued that short-term stock returns are extremely difficult to forecast accurately because of inherent market volatility and are not explained by fundamental factors. An increase in competitive intensity over shorter time periods should increase the probability of outperforming by basing investment actions on longer time horizons.

Most investors and super fund members have long-term investment horizons given their main objective should be to have sufficient savings for retirement. The investment industry contains many agents and their associated fees and costs. Unfortunately, specialisation by the key principals appears to have resulted in an excessive focus on short-term factors. There are a number of studies indicating that poor timing (chasing performance) by asset managers and investors can have a significant negative impact on long-term returns.

There is considerable evidence of short-termism in financial markets and its associated costs. However, developing a cure for the pandemic is harder and initial suggestions are included in this research paper.

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