LIFECYCLES, RISK TOLERANCE AND LEVERAGE

BetaShares Exchange Traded Funds

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Human capital in asset allocation

Most readers and investment professionals will accept that "time in the market" beats "timing the market" as the key to wealth generation over the long run. Despite this, we tend not to think too much about the accumulation process, often making investments on the assumption of a static lump sum that doesn't receive frequent cash injections – i.e. the discretionary cash flows from our salaries can often be ignored when developing our investment strategies and asset allocations. In this post I discuss the role of 'human capital' and how such capital should be considered when making asset allocation decisions, as well as how the often misused tool of leverage can play into such a decision. In particularly, I explore the role that careful use of leverage can play in capital efficiency and life cycle asset allocation.

Part of the reason that young people are encouraged to take on more risk is due to their investment horizons, which at 30+ years in the case of people in their late 20's or early 30's, is long enough to ride out much of the volatility along the way. It could be argued an even better reason for greater risk tolerance is young people have a very large, but intangible buffer: their human capital. Defined as the present value of their expected future salary earnings, human capital can be a fairly substantial asset if an investor is fairly early in their working careers. Depending on the nature and stability of a particular career, a future salary stream may resemble an inflation-linked bond exposure, an equity exposure or somewhere in between. In addition, technological changes like automation have the potential to disrupt some industries and the future of work, so keep all this in mind when selecting the appropriate asset allocation mix for you or your clients, particularly those in younger generations.

Contributions matter!

Due to a lack of time in the market, young people often have a relatively small amount of accumulated wealth relative to their disposable incomes. While it can make it difficult to undertake capital-intensive investments (such as a deposit for a home), it also means that even large equity market corrections can be offset by a few pay slips. This is definitely not the case for someone nearing or already in retirement, who may lose the equivalent of years' worth of savings during a severe downturn. Depending on the stability of their salaries and expected wage growth as they progress in their careers, young investors shouldn't necessarily fear large equity market corrections. After all, contributions matter far more than returns at the beginning of one's investment journey.

A role for leverage?

An incredible amount of wealth has been generated through residential property in Australia over the past 20 years, with house prices gaining well in excess of inflation and wages, particularly in Melbourne and Sydney. However, one could argue it's not the observed returns to property that has been the key to wealth (as many other asset classes have delivered far greater returns), but rather the leverage investors have taken on and the financial discipline enforced by a mortgage. When an investment returns above the financing cost and is leveraged many times over (up to 10 times in the case of property), significant returns on equity are to be expected.

Whether property continues to deliver real returns over the next 20 years is debatable, but the end of a property bull market doesn't mean the end of wealth creation for younger investors starting out in their careers. Leverage can be employed across a variety of asset classes, either through derivatives, margin loans or internally geared exchange traded products. One of the key advantages of leveraged funds is access to wholesale borrowing costs, which are significantly lower than what a retail investor would face from a margin loan. Regardless of your preferred flavour of leverage, the key point is to try to maximise asset accumulation early on and ensure the returns compound as much as possible – in this regard, leverage is one way of increasing the effective pace of asset accumulation.

Using leverage intelligently

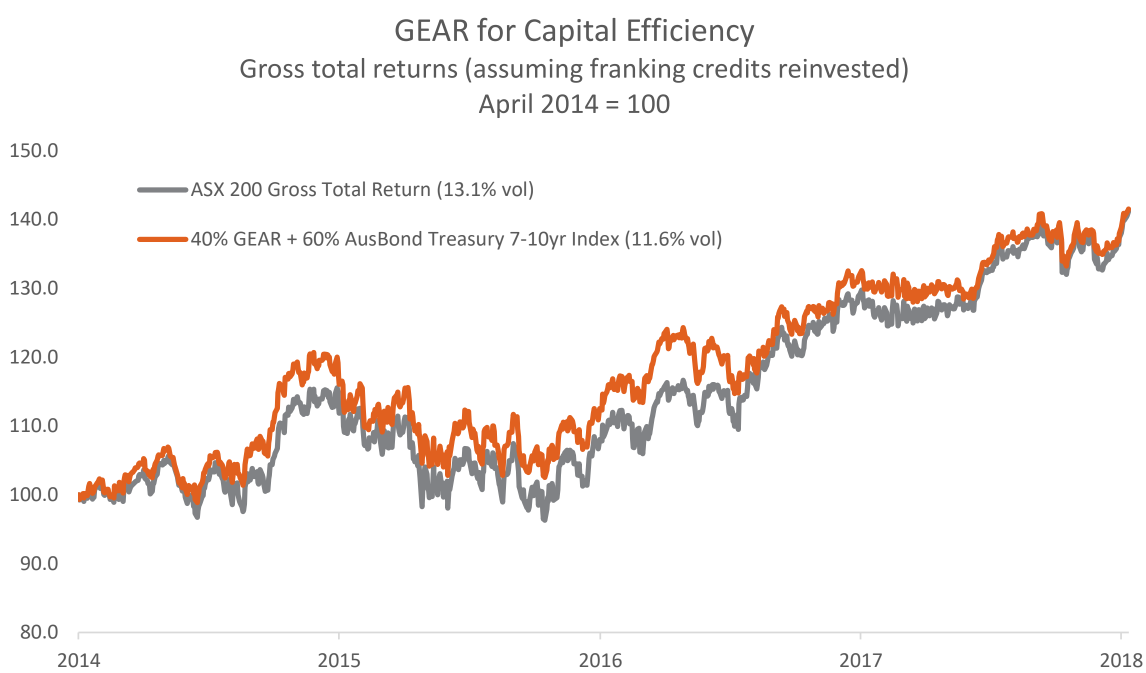
Far too often leverage is simply thought of as a tactical trading tool – a way to magnify market moves in directional bets. In my opinion, long-term investors should not think of leverage the same way a trader does, but should view it as a way of accelerating asset accumulation, which should return in excess of the costs of financing over the investment horizon, particularly if such time horizon is long term. Our Geared fund ASX code: GEAR, for example, is a positively geared broad Australian market exposure, physically holding all the stocks that comprise the S&P/ASX 200 Index and receiving the accompanying dividends and franking credits, resulting in a gross yield (9.5% at the time of writing) significantly above the cost of borrowing and fees.

That said, leverage will undoubtedly increase the volatility of your net asset position and even if you have a relatively high risk tolerance, one should use sensible leverage limits and stay diversified – not just across securities but also asset classes. A product like GEAR can help free up capital to be used towards more defensive asset classes like bonds or hybrids while still being 'fully invested' in the broad sharemarket (from an exposure and franking credit perspective). Leverage and concentration can be a very dangerous combination, but leverage in the aid of diversification can potentially improve the portfolio's risk-return characteristics compared to an unlevered exposure in a single asset class.also asset classes. A product like GEAR can help free up capital to be used towards more defensive asset classes like bonds or hybrids while still being 'fully invested' in the broad sharemarket (from an exposure and franking credit perspective). Leverage and concentration can be a very dangerous combination, but leverage in the aid of diversification can potentially improve the portfolio's risk-return characteristics compared to an unlevered exposure in a single asset class.

Leveraged ETPs for capital efficiency

A big question in asset allocation and portfolio construction is - are you using your capital most efficiently? If leverage enables greater investment in uncorrelated asset classes that are expected to return above the funding cost, then there is an argument for its use as superior returns for a desired level of risk could be be achieved. Alternatively, if leverage allows for a more efficient way of mimicking a desired unlevered exposure, then leverage should also be considered. The great advantage with leveraged or geared exchange traded products is they provide geared exposures at very low funding costs (typically at a modest spread above the 1-month bank bill rate). GEAR, for example, could be employed to give full exposure to equity upside and franking credits at a 35 to 50 per cent allocation, freeing up capital to be used towards an equity diversifier, such as long term government bonds. For example, based on a historical scenario analysis, GEAR in combination with the Bloomberg AusBond Treasury 7-10 year index, in a 40:60 weighting scheme (rebalanced monthly) would have provided superior returns at lower levels of volatility than the unlevered S&P/ASX 200 exposure on a gross total return basis (i.e. assuming franking credits reinvested).

Chart 1: GEAR and long-term government bonds, 40:60 weighting, monthly rebalancing



Source: Bloomberg; Betashares Capital. Illustration only, not a recommendation to adopt any particular investment strategy. Past performance is not indicative of future performance. You cannot invest directly in an index.

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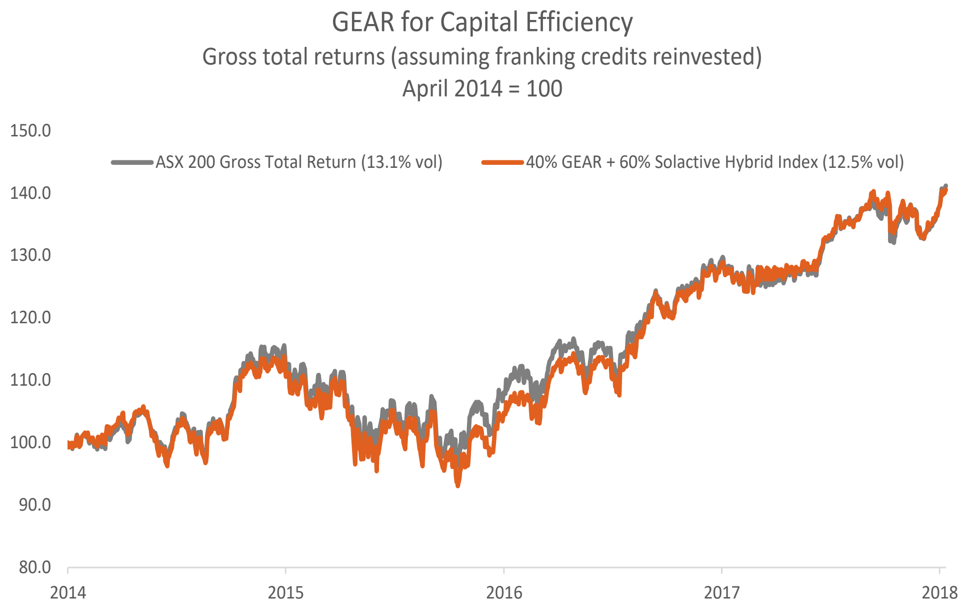
If long duration government bonds are not the desired complement to Australian shares, then the freed up capital could potentially be used towards floating rate credit, such as ASX-listed hybrids. Although hybrids have not historically provided the same diversification benefits as government bonds, they typically have a much higher gross yield due to franking credits. For example, a 40:60 portfolio of GEAR and the Solactive Australian Hybrid Securities Index would have given similar returns to an unlevered S&P/ASX 200 exposure, but at slightly lower levels of volatility and at a slightly higher franked yield, which is important if income is a priority.

Chart 2: GEAR and ASX-listed hybrids, 40:60 weighting, monthly rebalancing



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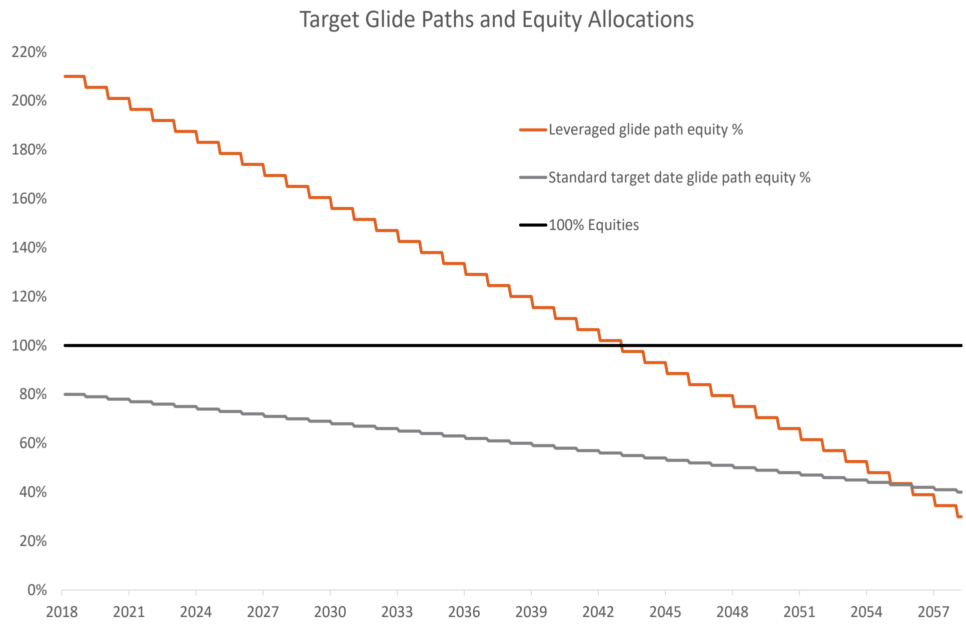
Leveraged glide paths for lifecycle planning

The whole challenge with lifecycle investing is to optimise your equity allocation so you have the most wealth possible, while also having enough of defensive assets towards retirement to minimise drawdown risk in absolute dollar terms i.e. a $3,000 drawdown on a $10,000 portfolio for a 25y/o isn't as damaging as a $300,000 drawdown on a $1 million portfolio for a 50 year old. This is made even more complicated amid increasing life expectancy and heightened "longevity risk", or the risk of outliving your capital.

The typical "glide paths" recommended involve increasing the share of defensive assets and reducing the share of growth assets over time towards retirement, with a common heuristic being "Age less 20" to determine one's appropriate allocation to equities. Can a leveraged exposure such as GEAR accommodate human capital and generally increased appetite for risk among young investors to allow for "better" life cycle allocation strategies? Let's explore this question by comparing 3 possible glide paths, assuming the hypothetical scenario of a 20-year old today at the start of their working lives who is looking for an asset allocation strategy over the next 40 years.

One option is to remain fully invested in equities throughout, which might be beneficial in the early years but may pose significant capital drawdown risk in absolute dollar terms as retirement approaches. Another approach is to employ a linear glide path that commences at an equity allocation of 80 per cent and reduces the equity weight by 1 percentage point each year to 40 per cent in 40 years' time. The final approach involves leverage in the early years and aggressively deleverage and de-risk into the later stages.

Chart 3: Life cycle glide paths and equity allocation over time



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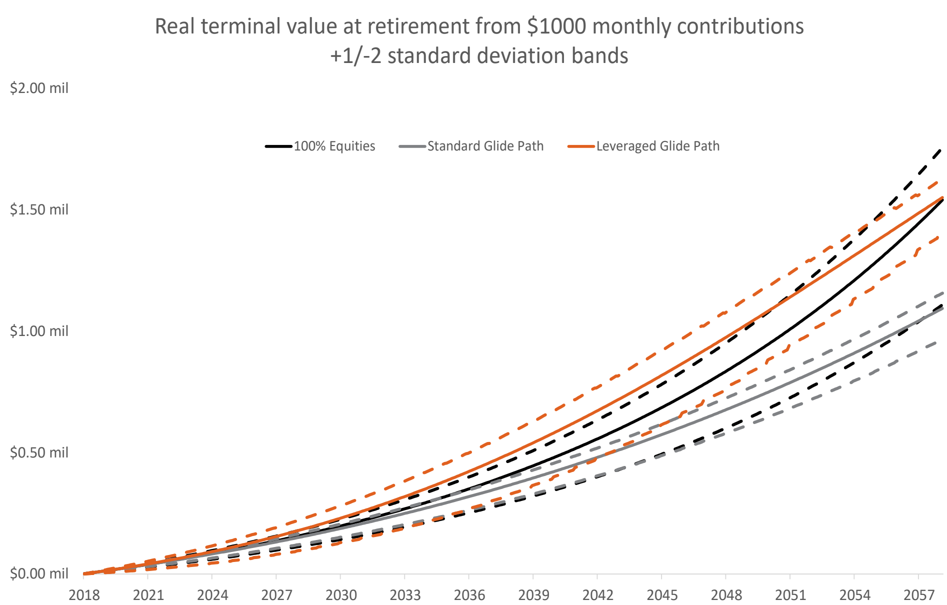
For simplification, let's assume real returns (i.e. adjusted for inflation) as follows: equities are assumed to return 5 per cent at a volatility of 14 per cent, while the cost of financing is assumed to be a real rate of 2 per cent. Also, for simplicity, bonds are assumed to have a correlation with equities of zero and deliver a long term real expected return of 2 per cent, equal to the cost of financing. This is very conservative as it assumes no capital efficiency or net diversification benefits, but it does simplify the life cycle analysis (i.e. we leverage into equities only and not bonds). Fees are also ignored. To illustrate drawdown risk (and also unexpected upside potential), +/-2 standard deviation dotted bands have also been included around the solid "expected return" lines.

Chart 4: Hypothetical outcomes from different glide paths



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As we can see, careful use of leverage allows a much faster growth in capital during the accumulation phase before de-risking into retirement to reduce the absolute drawdown risk for a 2 standard deviation shock ($137k on $1.55m expected ending capital) relative to a 100 per cent equity allocation ($430k on $1.54m ending capital). Drawdown risk is similar in absolute dollar amounts to the conventional target date glide path ($125k), but on a much larger expected ending capital value ($1.55m against $1.1m). The point of this analysis is not to quantify the benefits (as many simplified assumptions have been made in the hypothetical scenario), but to highlight the flexibility modest use of leverage allows for in lifecycle investing. In reality, risk preference can evolve in a non-linear way, life expectancies can move up or down for individuals and expected returns, risk premia and asset class correlations can also change. In addition, given the rising longevity risk and the relatively low yields on fixed income, there may even be a role for maintaining growth allocations for longer than what has traditionally been prescribed or shown in the above chart.

Conclusion

We want to maximise our time in the market and we also want to maximise how hard our assets work for us to build wealth. This means accumulating growth assets at a pace that our risk tolerance supports. Young investors in the early stages of their careers can use their future incomes as shock absorbers for market volatility, allowing leveraged strategies to be pursued judiciously with less harmful effects than for older investors. Geared exchange traded products provide a simple, cost effective way of obtaining leveraged exposures, which can both aid in capital efficiency and assist in constructing flexible life cycle investing glide paths.

Please note: Gearing magnifies gains and losses and may not be a suitable strategy for all investors. Investors in geared strategies should be willing to accept higher levels of investment volatility and potentially large moves (both up and down) in the value of their investment. Geared investments involve significantly higher risk than non-geared investments. Investors should seek professional financial advice before investing, and monitor their investment actively. An investment in a geared fund should only be considered as a component of an investor's overall portfolio. BetaShares Geared Funds do not track a published benchmark.

BetaShares GEAR product suite at a glance:

BetaShares Geared Australian Equity Fund (hedge fund) (Ticker: GEAR)

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BetaShares Geared U.S. Equity Fund-Currency Hedged (hedge fund) (Ticker: GGUS)

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