

Achieve better portfolio balance with the BetaShares S&P 500 Equal Weight ETF (QUS)

KEY TAKEOUTS

<p>Equal weighting offers the potential for long-term outperformance</p>	<p>Market concentration, in the form of exposure to a small number of mega-cap stocks, is currently high by historical standards</p>	<p>The BetaShares S&P 500 Equal Weight ETF (QUS) offers a convenient, cost-effective way to obtain exposure to the S&P 500 Equal Weight Index</p>
<p>The S&P 500 Equal Weight Index has outperformed the market cap-weighted S&P 500 Index by over 2% p.a. over the last 20 years¹.</p>	<p>Historically, an equal-weighted approach has tended to outperform a market cap-weighted approach when there is a return to lower market concentration.</p>	<p>QUS can be used as a core allocation to U.S. equities, or as a part of a 'barbell' strategy in combination with, for example, a Nasdaq-100 exposure.</p>

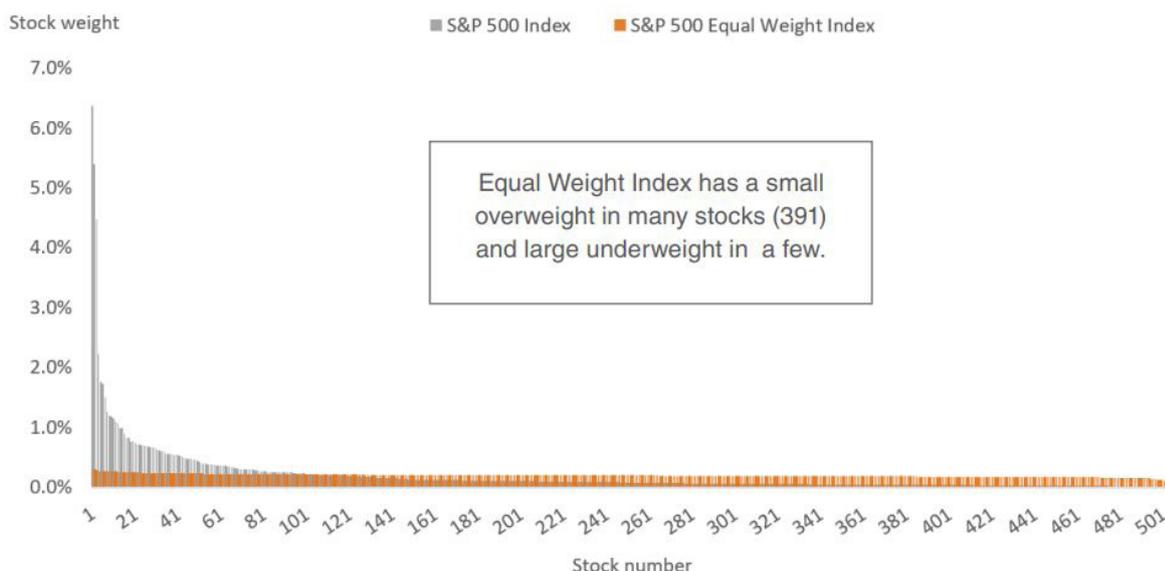
The most popular form of passive investment benchmarks are those where constituent stocks are weighted by market capitalisation, such as the S&P 500 Index and the S&P/ASX 200 Index.

Critics of market capitalisation-weighted indices highlight the fact that investors using such indices end up having exposure to more of the over-priced and less of the under-priced stocks.

Equal weighting provides an alternative approach.

The S&P 500 Equal Weight (EW) Index includes the same constituents as the market cap-weighted S&P 500 Index, but each company in the S&P 500 EW Index is allocated an equal portfolio weight of 0.20% (1/500) of the index total at each quarterly rebalance. As a result, the S&P 500 EW Index will have a small overweight in many stocks, and a large underweight in a few stocks, compared to the S&P 500 Index.

Chart 1: Distribution by weight



Source: S&P Dow Jones Indices, BetaShares, data as at 30 November 2020

1. To 30 November 2020.

Historical performance of Equal Weight

Indices based on equal weight historically have produced long-term outperformance relative to their market cap-weighted equivalents.

In the case of the S&P 500 Indices, the outperformance over the past 20 years has been +2.17% p.a.² The outperformance of equal weight over the long term has not been confined to the U.S. and has also been evident in many other regions and countries³.

Chart 2: Performance



Source: Bloomberg, BetaShares. Data as at 30 November 2020 and in AUD. Chart is provided for illustrative purposes only and reflects hypothetical historical performance. Prospective application of the methodology used to construct an index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of an index. You cannot invest directly in an index. Index performance does not take into account any ETF fees and costs. **Past performance is not indicative of future performance of any ETF or index.**

That said, over the shorter run, the equal weighted index has gone through periods of underperformance. The chart below shows the rolling 3-year relative returns since 1993, and whilst there have been periods of equal weight underperformance (including the most recent period), equal weight has outperformed the majority of the time (62%). What is also evident is the magnitude of the excess returns over such periods, even though both indices comprise the same stocks.

Chart 3: Rolling 3-year relative returns



Source: Bloomberg, BetaShares. Data as at 30 November 2020 and in AUD. Chart is provided for illustrative purposes only and reflects hypothetical historical performance. Prospective application of the methodology used to construct an index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of an index. You cannot invest directly in an index. Index performance does not take into account any ETF fees and costs. **Past performance is not indicative of future performance of any ETF or index.**

2. To November 2020

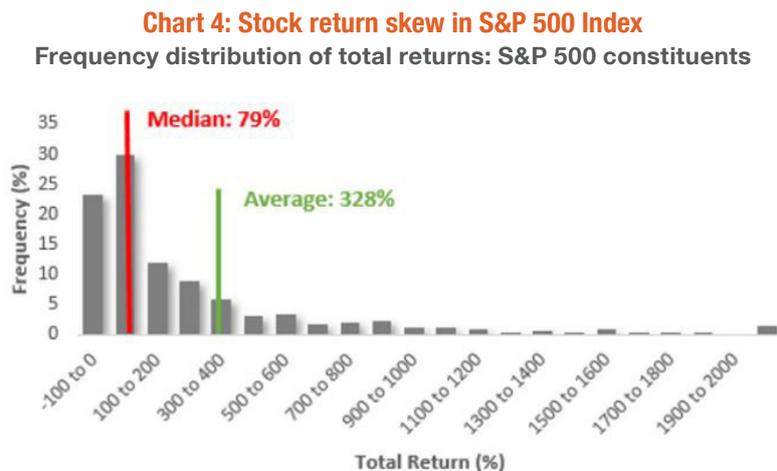
3. Edwards T (2019): There's Nothing Equal About Equal Weight Performance

What has driven the long-term outperformance of the S&P 500 EW Index?

What have been the drivers of this outperformance?

1. Stock Return Skew

Empirical evidence finds that the majority of returns within an index are clustered at the lower end of the return distribution, and that a small subset of stocks typically delivered very large positive returns⁴. This means that the **average return** will generally be greater than the **median return**. In statistical terms, stock returns are not normally distributed, but rather display a positive skew⁵.



Source: S&P Dow Jones Indices, Factset, March 2003 to October 2020. Past performance is not indicative of future performance.

The relevance and implication for equal weighting is significant.

Given that the average return is higher than the median return, it means that more than half the stocks delivered a return below the average. Equal weight indices such as the S&P 500 EW Index, where 400 out of the 500 stocks have a higher weighting than the equivalent market cap index, have a higher probability of an overweight position in the smaller subset of stocks with outsized returns.

2. Rebalancing Impact

The S&P 500 EW Index is rebalanced quarterly, which means that stocks that have risen in value are sold and stocks that have fallen in value are bought on a quarterly basis. This systematic 'buy low, sell high' rebalancing strategy has tended to be value-accretive over time, especially during times of mean reversion⁶.

Momentum strategies, on the other hand, do exactly the opposite. Winners are generally added to, and losers are sold. It is for this reason that equal weight strategies have tended to display negative-momentum properties.

3. Size Impact

The size premium refers to the empirical evidence that smaller companies have tended to outperform larger capitalisation stocks over the long run^{7,8}.

An equal weighting approach has the effect of overweighting smaller companies and underweighting larger cap stocks compared to a market cap-weighted approach.

Over the last two years, larger companies have outperformed strongly against a global backdrop of lower economic activity and greater uncertainty regarding the growth outlook. Smaller companies tend to be more cyclical in nature and the relative performance may well mean-revert in the event of an increase in global economic activity.

4. Bessembinder H (2018). "Do Stocks Outperform Treasury bills?" Journal of Financial Economics

5. A normal distribution displays symmetrical properties with similar shaped left and right tails, the majority of returns clustered around both the average and the median.

6. Perold, A. and Sharpe W. (1995), "Dynamic Strategies for Asset Allocation" Financial Analysts Journal

7. Banz, R.W. (1981). "The Relationship between Return and Market Value of Common Stocks." Journal of Financial Economics

8. Fama, E. F.; French, K. R. (1992). "The Cross-Section of Expected Stock Returns". The Journal of Finance

4. Increased Diversification/Lower Concentration

Equal-weighting benefits by avoiding the susceptibility of market cap-weighting approaches to occasionally become overly concentrated in large stocks that have enjoyed strong price momentum for some time, and so are at increasing risk of an eventual performance reversal if their valuations get too extreme.

In recent times, the market-cap weighted approach has tended to outperform equal weighting, given the very strong performance of the largest stocks in the S&P 500, including Apple, Amazon and Facebook.

However, historical evidence suggests equal-weighting has more than made up lost ground when such price trends have reversed – and the relative performance of these large ‘hot’ stocks have begun to reverse (market concentration declines).

Market concentration is currently high by historical standards, with the top 5 stocks accounting for well over 20% of the S&P 500 Index⁹ – a level of large-cap stock concentration even higher than during the ‘dotcom’ bubble of the late 1990s, and not seen since the early 1970s.

The chart below shows the clear negative correlation between the relative performance of the S&P 500 EW Index vs. the S&P 500 and the level of market concentration to the top five stocks.

Chart 5: Relative performance vs. market concentration
S&P 500 vs Equal Weight: Total return monthly indices



Source: Bloomberg, S&P Dow Jones. Provided for illustrative purposes only. You cannot invest directly in an index. Index performance does not take into account any ETF fees and costs. **Past performance is not indicative of future performance of any ETF or index.**

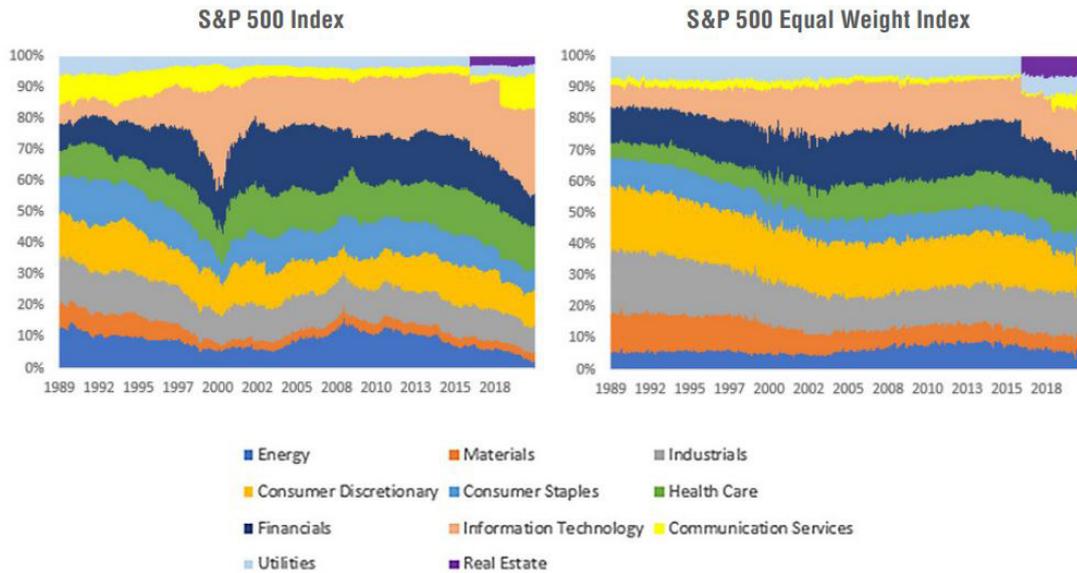
History suggests such an extreme level of market concentration is at growing risk of reversal, in which case the equal-weighted index may once again re-commence its trend outperformance against its market-cap weighted counterpart.

Equal weight indexing does not necessarily mean equal sector weights. However, it’s worth noting that the S&P 500 Equal Weight Index’s sector weight distribution is more closely aligned with equally weighted sectors, and so on this basis is considered more diversified than the market cap-weighted index.

The chart over the page shows the more consistent distribution of sector weights over time for the S&P 500 EW Index compared to the S&P 500 Index.

9. As at 1 March 2021

Chart 6: Sector weights over time



Source: S&P Dow Jones Indices, BetaShares. Data as at 30 October 2020. Real Estate was added as a separate GICS sector in September 2016.

The BetaShares S&P 500 Equal Weight ETF (ASX: QUS)

The **BetaShares S&P 500 Equal Weight ETF (ASX: QUS)** is Australia's first equal weight U.S. shares ETF, and aims to track the performance of the S&P 500 EW Index (before fees and expenses). Management costs are just 0.29%¹⁰.

How can advisers use QUS within client portfolios?

QUS can be used as a long-term core component of a global equities allocation, offering the potential to outperform the market cap-weighted S&P 500 Index over the long term.

It can also be used as a short/medium term tactical allocation for clients seeking to take advantage of periods where they believe mean reversion will benefit an equal-weighted approach.

Another potential application is to combine the equal-weighted approach of QUS with a momentum-based approach, in a 'barbell strategy'.

This strategy reflects a view that if both approaches tend to produce relatively good returns over time, but at different points in the cycle, a blended exposure could help to reduce the overall volatility of portfolio returns.

As an example, the Nasdaq-100 Index has tended to outperform the S&P 500 Index over time, and could benefit from strong price momentum effects as successive generations of a dynamic new companies succeed and grow.

As the chart over the page shows, there has tended to be a negative correlation between the relative performance of the Nasdaq-100 Index and the S&P 500 EW Index versus the S&P 500 (market-cap weighted) Index, such that a blended exposure to both historically has resulted in a 'smoother' trend of outperformance.

10. Other costs, such as transaction costs, may also apply. Refer to the PDS for more information.

Chart 7: NASDAQ-100/S&P 500 EW barbell
Relative performance vs S&P 500 (market-cap) Index
Ratio of return performance relative to the S&P 500 (Market-cap) weight Index



Source: Bloomberg, S&P Dow Jones. As at 30 November 2020. Provided for illustrative purposes only. Not a recommendation to make any investment decision or adopt any investment strategy. You cannot invest directly in an index. Index performance does not take into account any ETF fees and costs. **Past performance is not indicative of future performance of any ETF or index.**

Conclusion

The power of equal weighting has been demonstrated in the long-term outperformance of the S&P 500 EW Index vs. the market cap-weighted S&P 500 Index.

Recent years have seen relative underperformance from the equal weighted strategy due to significant price appreciation and momentum in a narrow set of U.S. megacap, sector-specific stocks. However, an exposure to the S&P 500 EW Index has the potential to outperform upon any mean reversion. Historically, excess returns of equal-weighted approach have tended to be significant during such reversion events.

The **BetaShares S&P 500 Equal Weight ETF** trades under the ASX code 'QUS'.

There are risks associated with an investment in QUS, including market risk, index methodology risk, country risk and currency risk. For more information on risks and other features of QUS, please see the Product Disclosure Statement, available at www.betashares.com.au. This information is not a recommendation to invest or adopt any investment strategy.

Licensed adviser use only. Not for distribution to retail clients.

BetaShares Capital Limited (ABN 78 139 566 868 / AFS Licence 341181) ("BetaShares") is the issuer of the BetaShares Funds. This information is general only, is not personal financial advice, and is not a recommendation to invest in any financial product or to adopt any particular investment strategy. It does not take into account any person's financial objectives, situation or needs. Investments in BetaShares Funds are subject to investment risk and the value of units may go down as well as up. Any person wishing to invest should obtain a copy of the relevant PDS from www.betashares.com.au and obtain financial advice in light of their individual circumstances.

"S&P" and "S&P 500 Equal Weight" are registered trademarks of Standard & Poor's Financial Services LLC (S&P) and have been licensed for use by BetaShares. The Fund is not sponsored, endorsed, sold or promoted by S&P or its respective affiliates, and none of such parties make any representation regarding the advisability of investing in the Fund nor do they have any liability for any errors, omissions or interruptions of the Index.