Building Better Equity Portfolios for Investors

Case For
Active Quantitative Equity

July 2019

- Remove benchmark constraints
- Better manage risk
- Unhook your return potential

State Street Global Advisors' Active Quantitative Equities team has created active equity solutions that put many investors' financial goals at the centre of portfolio construction. The State Street Australian Equity Fund and State Street Global Equity Fund aim to achieve strong risk-adjusted returns, facilitating a smoother ride for investors.

Investors' Primary Objectives

Individual investors often define their primary investment objective as the "highest risk adjusted returns". They think of "return" as capital growth over time and "risk" as capital loss or a large variability in capital value over time.

Many actively managed equity funds respond by trying to minimize risk defined instead as "tracking error" or deviation from the benchmark. They construct portfolios so the portfolios' securities and sectors stay close to benchmark weights. As a result, the funds' performance also stays close to the benchmark. This means that risk and return stay close to benchmark outcomes, which some see as a benefit. However, evaluating return and risk relative to a market hurdle or benchmark return can leave investors vulnerable to major market movements.

Investor Objectives:

1 Grow My Assets
2 Guard My Assets

What Is True Success?

While some may say that a benchmark-relative approach is the best way to select and assess active equity managers, we believe investor objectives, not benchmarks, belong at the centre of portfolio construction.

At State Street Global Advisors, the Active Quantitative Equities team defines true success as not only producing "alpha",[1] but also managing total portfolio risk. We believe there is a better, more efficient way to deliver risk-adjusted returns and to reduce the impact of market losses.

Why the Traditional "Benchmark-Aware" Approach Is Limited

Market capitalisation-weighted indices, the most common benchmarks in equity investing, pose some risks. For example, there may be stock, sector and country concentration risk in market-cap-weighted indices. This is particularly true for the S&P/ASX 200 Index, which tracks Australia's largest 200 listed companies ranked by market capitalisation.

Active Equity portfolios constructed around a benchmark rest on a belief that the index offers the greatest return for a given level of risk. Anchoring stock selection and portfolio construction to the index minimises the risk of deviating too far from the market performance. These active managers try to limit the risk of making wrong decisions about which stocks to buy by evaluating a stock's return and risk relative to the benchmark rather than considering its absolute return and risk potential. These portfolios generally limit stock, sector and country weights within predetermined ranges relative to the benchmark.

State Street Global Advisors research suggests that market capitalisation-weighted benchmarks may not offer investors the optimal balance of risk and return. As a result, it may be possible to manage an active equity portfolio to deliver returns with less risk than that of a portfolio tied to a benchmark.

Also, a portfolio that's not tied to a benchmark may avoid risks from "crowding" around a benchmark. The benchmark's largest stocks and sectors can experience volatility due to the movements of large, benchmark-constrained institutional investors. This concentrated exposure can limit a manager's ability to appropriately diversify, enhance returns and manage risk for market volatility and declines.

Does Your Success Hinge on Only 10 Stocks? The top 10 stocks of the S&P/ASX 200 have an outsized impact. By market capitalisation, they make up 43.8% of this 200-stock index (Figure 1), making index returns vulnerable to their gyrations, even if other stocks in the index do well. Moreover, the top six stocks are especially lopsided, representing 34.1% of the total market capitalisation and just under half of the Australian equity market's risk.* A benchmark-constrained active manager must hold these four banks, a miner and a health care company at significant weights even if the companies' fundamentals appear poor. This may contribute to portfolios holding higher sector weights than justified by fundamentals. Financials make up 36% of the total risk of the Australia market (the ASX 300 Index), while Materials which are more cyclical and sensitive to commodity demand and supply factors, account for 18% of the total risk.*

Figure 1 **Top 10 Stocks of the S&P/ASX 200**

Stock	**%**
CBA	7.6
BHP Group	6.9
Westpac	5.4
CSL Limited	5.4
ANZ Banking Group	4.6
National Australia Bank	4.2
Macquarie Group Limited	2.5
Woolworths Group	2.4
Telstra Corporation	2.4
Wesfarmers	2.4
Top 10 Stocks:	43.8
Remaining 190 Stocks:	56.2

* Source: FactSet, Axioma, S&P as of 31 March 2019.

The Opportunity Unhook Your Return Potential

State Street Global Advisors' Active Quantitative Equities Team believes that you don't have to take on extra risk for the sake of tracking a traditional benchmark. Nor should you sacrifice return opportunities to manage risk as defined by deviations from a benchmark.

An opportunity exists for investment managers to remove benchmark constraints, and construct a portfolio of shares based on their individual merits. This type of strategy should be benchmark unaware, be agile to market movements and explicitly manage risk in order to deliver a more balanced outcome of return and risk.

Now Is The Time To Ask: Is There A Better Way To Invest?

Why Risk Management Matters For Equity Portfolios
In traditional portfolio construction, equities have been assigned the "Grow My Assets" objective and defensive investments such as cash or fixed income have been given the "Guard My Assets" objective. But what if we could incorporate both of these objectives into our approach to managing the equities portfolio? In investment terms, this can be referred to as "maximising the Sharpe ratio",[2] or "maximising total return while minimising total volatility".

An explicit focus on volatility management in equity portfolio construction may ease the effect of volatility and negative returns. Portfolios can suffer significant losses during crises that elevate volatility and deliver negative returns that aren't easy to make up. The percentage return required to recover from a loss is significantly bigger than the original percentage lost. For example, an investment portfolio that loses 10% of its value requires an 11.1% return to break even over a one-year period. A portfolio that loses 30% of its value requires a 42.9% return to recover over a one year period.

We believe a winning strategy "makes more by losing less".

An Alternative Way to Invest

The team has developed an alternative approach to managing equity portfolios. This approach seeks to capture value whilst explicitly managing total portfolio risk. A benchmark's exposure to stocks, sectors or countries has no relevance to our portfolio construction process. This means the portfolio management team has the flexibility to buy stocks in any sector at any time, so long as they are supported by strong fundamentals. In other words, **every stock in the portfolio has a purpose.**

Complement Your Equity Portfolio

The Funds are designed for investors seeking a diversified exposure to Australian or Global Equities. They may serve as a core equity holding, potentially providing upside participation in rising markets, with an explicit focus on managing total portfolio risk.

Given the benchmark unaware nature of the Funds, they may be complemented by index and benchmark-aware active funds, and direct share holdings. Their unconstrained investment approach materially differentiates their stock and sector positions from the index, and in turn, many actively managed investment strategies. In addition, the Funds' lower risk profile and competitive fees profile could free investors' fee and risk budgets for opportunistic allocations to higher risk or performance fee strategies such as hedge funds, concentrated equities or small/micro-cap equities.

The "Low Volatility" Phenomenon

We have observed a long-term phenomenon of higher-volatility stocks underperforming lower volatility stocks over many different time periods across regions and asset classes. This is not a new phenomenon or a short-term play. Potential explanations come from behavioural finance which tries to determine why people make irrational financial decisions.

They point to:

- the effect of asset managers incentivised to generate high returns by taking on more risk
- the glamour effect of investing in stocks that attract the headlines
- the herding effect due to tracking error constrained managers, which encourages market-like portfolios

However, assessing volatility is only one part of aiming to deliver risk-adjusted returns as part of a diversified portfolio. It's also important to assess company-specific factors that contribute to potential returns, such as valuation, earnings, growth prospects and sentiment when constructing a diversified portfolio. Weighting up stocks' return potential with the accompanying risks, in a benchmark unaware manner, can offer powerful benefits.

Our Approach

Research — Explore The Market's Full Opportunity Set Rigorous and ongoing research is the first step in our active investment process. Global research professionals, portfolio managers and strategists work collaboratively to generate new ideas that refine and develop our investment process for exploring all opportunities across the entire investment universe.

The team does not screen out any companies before forming a view. Through our sophisticated systems and access to vast amounts of company data, we monitor **daily** every stock in the investment universe on its **return and risk** characteristics. We form comprehensive views on thousands of stocks and seize opportunities in all sectors and countries.

Stock Selection Effective active stock selection requires skill and technique, vigorous research and sound risk management. By monitoring the market each day, we assess every stock based on its return and risk characteristics. This active stock selection serves as the first layer of risk management.

What we look for:

Return	Risk
We focus only on the best investment ideas, with stocks that exhibit: • High quality • Reasonable value • Sustainable earnings and dividends • Ability to generate internal growth • Positive outlook We also incorporate the impact of global investor behaviour and macroeconomic events into the stock selection model.	Estimating the risk of stocks in the universe happens on three levels: • Estimate the risk associated with a company's exposure to common characteristics such as its industry or fundamental themes like size, liquidity, value and leverage. • Assess the stock-specific risk not explained by these common characteristics. The risks unique to an individual company could include management corruption or environmental disasters (e.g., a mine collapse or oil spill). • Incorporate how the common characteristics move together. If groups of companies are uncorrelated, combining them can reduce overall portfolio risk.

Portfolio Construction When constructing the portfolio, we consider the return potential of a stock as well as expectations for its future volatility. We seek out stocks whose expected risk is appropriately compensated with expected return. Expected return being equal, we would typically favour a stock with a lower risk. But low historic volatility itself does not equal safety.

- **Fundamentals Matter** If your historically low-risk investment exhibits, for example, poor quality of earnings, a deteriorating growth outlook or weak momentum, the past may not be a reliable guide to the future.
- **Valuations Matter** If you overpay, it is unlikely you will reap a substantial return on your investment — no matter how safe the investment.
- **Risks Matter** If your portfolio is diversified across sectors such as consumer discretionary, industrials, utilities, healthcare and telecommunications, as well as financials and resources, it is more likely to successfully weather the ups and downs of the market.
- **Currencies Matter** We manage currency risk using State Street Global Advisors's Dynamic Strategic Hedging programme ("DSH"). Rather than choosing the Fund to be unhedged or fully hedged, we adjust the hedge ratio for each currency in the portfolio according to our medium to long term assessment of that currency's economic value relative to the Australian dollar.

Where the Fund's assets are invested in foreign securities, our approach of dynamic strategic hedging means there will not be a constant full hedge of currency risks. Currency movements relative to the Australian dollar can cause changes in the value of your investments. Currency losses are possible and, if this occurs, it will have a negative impact on the Fund's investment returns.

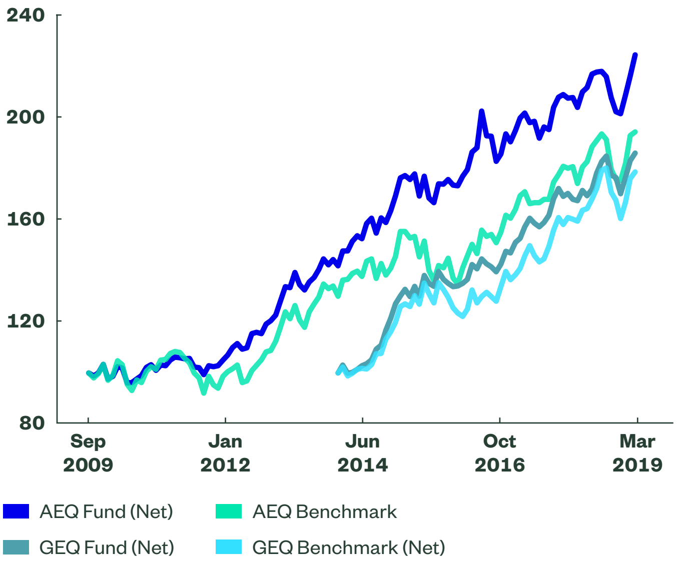
Why Invest With State Street Global Advisors Active Equities?

The team has a proven track record in delivering strong and consistent performance while minimising losses in periods of market stress.

Maintain and Grow Your Portfolio The Funds focus on delivering strong total returns to investors whilst managing the total level of risk. Through a full market cycle it is expected that this approach will result in strong capital appreciation for investors, owing to active stock selection.

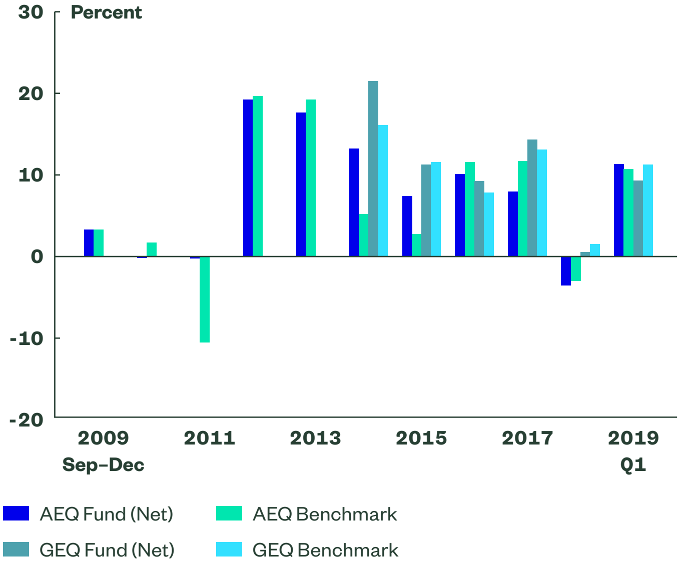
The charts below show the Funds have achieved higher return than the broader market and performed strongly through a range of market environments since inception.

Figure 2 **Growth of $100 Since Inception**



Source: State Street Global Advisors, as at 31 March 2019, net of fees. 'AEQ Fund' refers to the State Street Australian Equity Fund, 'AEQ Benchmark' refers to S&P/ASX 300 Accumulation Index, S&P/ASX 200 All Australian Accumulation Index prior to February 2013. 'GEQ Fund' refers to the State Street Global Equity Fund and 'GEQ Benchmark' refers to the MSCI World ex Australia NR Index. The inception dates for the AEQ Fund and GEQ Fund are 30 September 2009 and 31 January 2014, respectively.

Figure 3 **Calendar Year Returns**

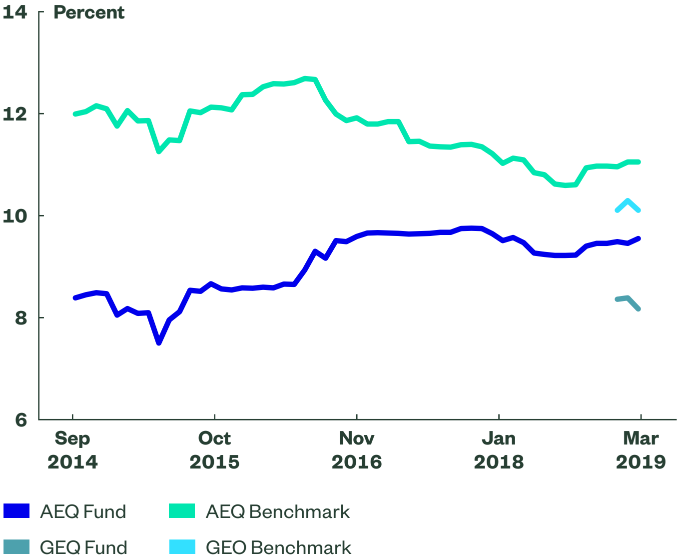


Source: State Street Global Advisors, as at 31 December 2019, net of fees. 'AEQ Fund' refers to the State Street Australian Equity Fund, 'AEQ Benchmark' refers to S&P/ASX 300 Accumulation Index, S&P/ASX 200 All Australian Accumulation Index prior to February 2013. 'GEQ Fund' refers to the State Street Global Equity Fund and 'GEQ Benchmark' refers to the MSCI World ex Australia NR Index. The inception dates for the AEQ Fund and GEQ Fund are 30 September 2009 and 31 January 2014, respectively. Performance figures are calculated using end-of-month exit prices, assume the reinvestment of distributions and make no allowance for tax. Funds that incepted before 1 January 2010 have the 'Since Inception' return calculated using NAV prices for the pre-1 January 2010 period and end-of-month exit prices thereafter. Performance figures for other time periods are calculated using end-of-month exit prices. Net performance figures are after management and transaction costs. Gross performance figures are before management costs but after transaction costs. Index returns are unmanaged and do not reflect the deduction of any fees or expenses.

Smoother Return Path Smoother returns are achieved for investors in two ways: 1) actively picking stocks with high quality attributes that fundamentally exhibit lower risk and 2) adopting a portfolio construction approach that seeks to deliver an optimal balance of return potential and risk reduction.

Due to a strong focus on total portfolio risk, the portfolios have delivered higher returns than the broader market and, more importantly, meaningfully lower risk.

Figure 4 **Rolling 5 Year Volatility**



Source: State Street Global Advisors, as at 31 March 2019, net of fees. 'AEQ Fund' refers to the State Street Australian Equity Fund, 'AEQ Benchmark' refers to S&P/ASX 300 Accumulation Index, S&P/ASX 200 All Australian Accumulation Index prior to February 2013.
Volatility is measured by standard deviation. Standard deviation is a historical measure of the degree to which a fund's returns varied over a certain period of time. The higher the standard deviation, the greater the likelihood (and risk) that a fund's performance will fluctuate and have greater potential for volatility; a lower standard deviation indicates past returns have been less volatile.

Figure 5 **AQE Fund Drawdown Since Inception**

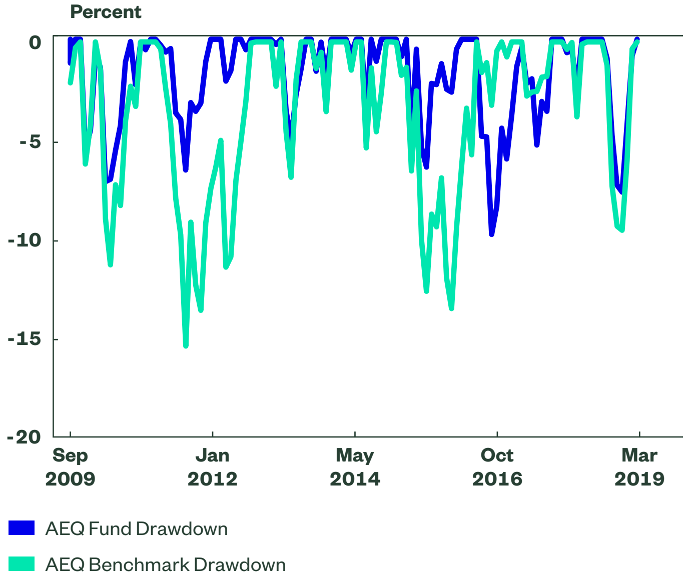
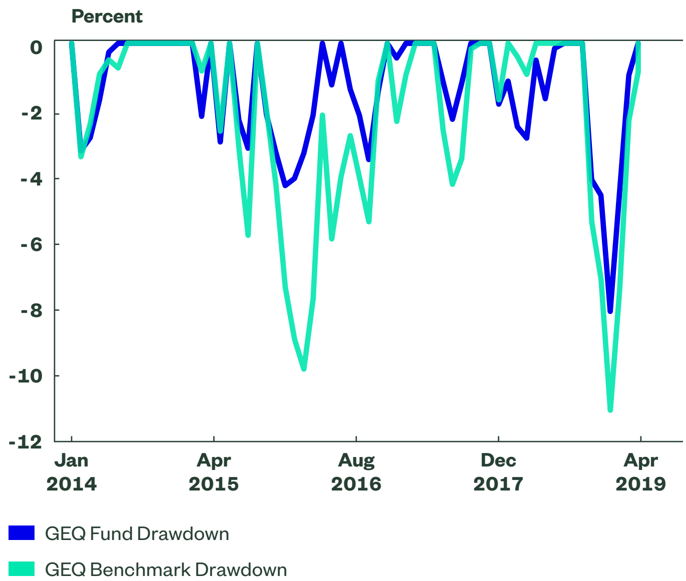


Figure 6 **GEQ Fund Drawdown Since Inception**



Source: State Street Global Advisors, as at 31 March 2019, net of fees. 'AEQ Fund' refers to the State Street Australian Equity Fund, 'AEQ Benchmark' refers to S&P/ASX 300 Accumulation Index, S&P/ASX 200 All Australian Accumulation Index prior to February 2013.
'GEQ Fund' refers to the State Street Global Equity Fund and 'GEQ Benchmark' refers to the MSCI World ex Australia NR Index. The inception dates for the AEQ Fund and GEQ Fund are 30 September 2009 and 31 January 2014, respectively.
Drawdown: The decline between the peak and trough during a specific period of time for an investment. It is usually quoted as the percentage difference between the peak and trough.

Investment Team and Resources State Street Global Advisors is a global leader in asset management. Sophisticated investors worldwide rely on us for their investment needs. For more than three decades, we have contributed experience, depth of resources, strength and dedication toward a single goal: to achieve our clients' goals.

We currently manage in excess of US$32 billion[3] in a range of active quantitative global equity strategies across the risk spectrum. Our team is backed by a strong research foundation, and our core investment philosophy and process rests on practices developed over 30 years of experience. We continuously look to evolve our approach, as a result of ongoing change in both market structures and regulatory environments. Our global investment team shares insights and experience with one another so the nuances associated with different markets can be understood and exploited appropriately.

1 In the Investment management industry, "alpha" means an excess return over a benchmark, adjustment for exposure to the benchmark.

2 Sharpe ratio is calculated by dividing the funds excess return over the risk-free rate by its standard deviation. The higher a fund's Sharpe ratio, the better its returns have been relative to the amount of investment risk it has taken.

3 Source: State Street Global Advisors, as at 31 March 2019.

Meet The Team

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About State Street Global Advisors

Our clients are the world's governments, institutions and financial advisors. To help them achieve their financial goals we live our guiding principles each and every day:

- Start with rigor
- Build from breadth
- Invest as stewards
- Invent the future

For four decades, State Street Global Advisors has served the world's governments, institutions and financial advisors. With a rigorous, risk-aware approach built on research, analysis and market-tested experience, we build from a breadth of active and index strategies to create cost-effective solutions. As stewards, we help portfolio companies see that what is fair for people and sustainable for the planet can deliver long-term performance. And, as pioneers in index, ETF, and ESG investing, we are always inventing new ways to invest. As a result, we have become the world's third-largest asset manager with US $2.9 trillion* under our care.

* AUM reflects approximately $36 billion (as of June 30, 2019), with respect to which State Street Global Advisors Funds Distributors, LLC (SSGA FD) serves as marketing agent; SSGA FD and State Street Global Advisors are affiliated.

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References to the State Street Global Equity Fund and State Street Australian Equity Fund ("the Funds") in this communication are references to the managed investment schemes domiciled in Australia, promoted by SSGA Australia, in respect of which SSGA, ASL is the Responsible Entity.

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Investing involves risk including the risk of loss of principal. Equity securities are volatile and can decline significantly in response to broad market and economic conditions.

Investments in small-sized companies may involve greater risks than in those of larger, better known companies.

Investing in foreign domiciled securities may involve risk of capital loss from unfavourable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations.

Currency hedging involves taking offsetting positions intended to substantially offset currency losses on the hedged instrument. If the hedging position behaves differently than expected, the volatility of the strategy as a whole may increase and even exceed the volatility of the asset being hedged. There can be no assurance that the Funds' hedging strategies will be effective.

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