Insights
Active Quantitative Equity (AQE)

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Systematic Equity Investing in 2020 — Why a Style Neutral Approach?

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As an active investor who has been around since the 1980's, we've spent a great deal of resources over the last 30 years developing how we view and select stocks to build high conviction and risk-aware portfolios. Since equity markets are dynamic in nature, the drivers of return will evolve over time. This means we must continuously research, test and refine our investment process as the environment changes.

Covid-19 has had an unprecedented impact on both the real economy and financial markets, and has once again led us to re-assess our approach to analysing company fundamentals — which involves the use of several core themes (or factors) that we believe are predictive of future price performance. We seek a balanced set of return drivers to find reasonably valued, quality businesses with improving prospects. Broadly, these can be broken down to:

- Company Quality
- Investor and Company Sentiment
- Company Value
- Company Catalyst & Events

In this paper, we provide an overview of our stock selection process and show why our **balanced, risk-aware approach** to investing is particularly relevant for the current market environment.

The 3 Core Components of a Balanced Approach

1. Begin with a Fundamental Assessment of Company Quality

What do we mean when we talk about company Quality? To us, a quality company is one that we can objectively identify and measure as being profitable, and has the potential to grow sustainably or maintain steady returns to shareholders over a long time. Quality attributes can be found in any sector, whether in Growth names or Value names, and tend not to change much over the long-term. Importantly, these high quality companies have historically demonstrated their greatest outperformance during slowdown and contraction phases.

Assessing company quality is important in all market environments, and becomes paramount during a global pandemic. Quality companies tend to be more profitable and less susceptible to economic shocks, and investors are willing to pay a premium for this during economic downturns. While we have little to go on when it comes to predicting the duration of the current economic downturn, what we do know is that the collapse in activity from Covid-19 is severe. Cash burn, higher debt levels and falling revenue are ongoing sources of risks for the foreseeable future. When bond yields are expected to remain at all-time lows for the foreseeable future, defensive, high quality companies that can generate free cash flows and pay predictable dividends should continue to be in great demand.

Our proprietary Quality metrics include a diversified group of quality assessments. These have not only helped us avoid value traps but also positioned our portfolios towards companies with relatively lower levels of financial leverage and stronger economic moats. Below we highlight some major aspects of company quality that we've incorporated into our systematic stock analysis based on strong economic rationale and their ability to generate excess returns:

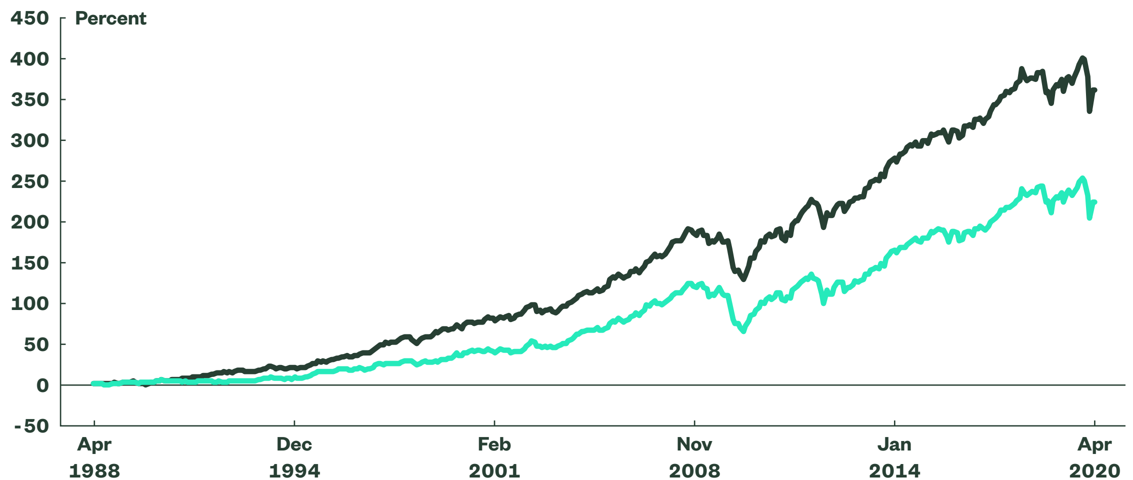
- **Profitability** — such as (operating) return on assets
- **Leverage, liquidity and source of funds** — such as long-term debt ratios and new share issuance
- **Operating efficiency** — such as profit margins and asset turnover
- **Other signals of quality** — such as metrics derived from textual analysis of company conference calls or drug pipeline for pharmaceutical and biotech companies

Why Does Quality Work?

How can we use Quality signals to find mispriced stocks? Academic research[1] shows that mispricing can occur because analysts tend to underappreciate the importance of certain quality metrics in price forecasts — despite these metrics being good predictors of future returns. In other words, there is a persistent disconnect between what analysts expect from less profitable, poorer quality firms vs the actual revival in their fundamentals.

To get an idea about how much added value our Quality metrics have generated over the long term, we can compare its simulated model performance against the simulated performance of a more generic measure of Quality. In Figure 1, we illustrate cumulative performance generated by our model — achieved by simply purchasing the top quintile of stocks that ranks best on our proprietary Quality metrics and selling short those that rank the worst. We then compare this with a smart beta version of Quality, with stocks ranked using Piotroski F-Score — a composite measure of company Quality that includes profitability, operating efficiency and balance sheet health. We do this across all large cap stocks in global developed markets every month and accumulate the returns over time.

Figure 1
Cumulative Model Results of State Street Global Advisors Quality vs. Smart Beta Quality



Source: State Street Global Advisors as at 31 August 2020.
Universe: Developed Market Large Cap.
The results shown represent current results generated by our G5 model. The results do not reflect actual trading and do not reflect the impact that material economic and market factors may have had on State Street Global Advisor's decision-making. The results shown were achieved by means of a mathematical formula (i.e. going long the top quintile of stocks and going short the bottom quintile of stocks as ranked by G5 on a particular dimension), and are not indicative of actual performance which could differ substantially.

Taking a Holistic Approach

Of course, simply assessing company quality isn't enough. As part of our ongoing research we look for return drivers that are different and complementary to each other. By balancing Quality metrics with company Sentiment, Valuation and Event based metrics, we attain a more holistic understanding of company fundamentals and what market participants are likely to do. For example, we use various Event based signals from alternative data sources to provide another dimension into company sentiment and quality that are less explored and understood by market participants. Valuation metrics are there to ensure we hold attractively valued companies in our portfolio to maximise potential upside and minimise drawdown risk.

2. Add a Dose of Sentiment

The main purposes of Sentiment based metrics is to:

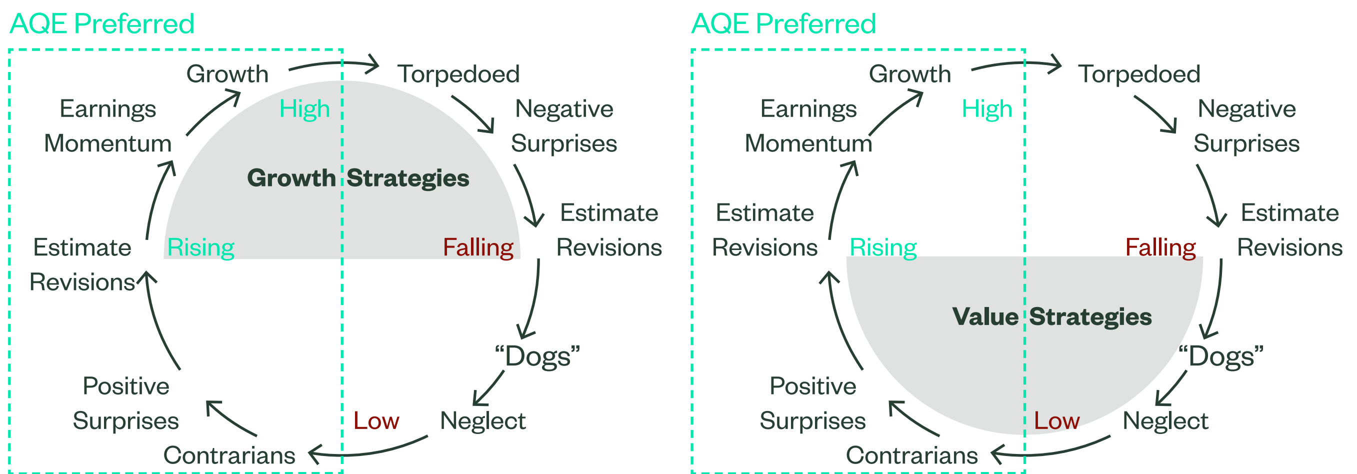
1. Find companies that have improving prospects so that we can better time our entry and exit points
2. Capture additional sources of excess returns from human behavioural biases

One of the most basic and widely used measures of Sentiment is price momentum — or the tendency for assets that have performed well (poorly) in the recent past to continue to perform well (poorly) in the future, at least for a short period of time. There is strong empirical evidence in support of the Momentum anomaly. It has been documented in over 40 countries, and over a dozen asset classes.[2] While some signals within our proprietary Sentiment family are closely linked to price momentum, our Sentiment group has a diverse range of signals that are typically faster moving than Quality or Value based signals. **What we consider as Sentiment can range from price momentum based signals, to linkages between suppliers and customers, to analyst earnings and sales forecasts.**

Analyst forecasts, for example, is a signal that not only works on a standalone basis, but is also highly complementary to other signals in our investment process — such as Value. Taken together alongside Value and Quality, Sentiment signals like analyst forecasts push us towards companies that are expected to see improvement in earnings, cashflows, dividends and growth. As a result, our timing into and out of positions can be quite different to the typical growth or value oriented manager.

Growth and Value oriented strategies take on different perspectives. While Growth managers typically prefer stocks with strong earnings momentum and analyst forecasts, Value managers spend more time attempting to distinguish the true 'cheap for a reason' companies from those that are simply out of favour but has a high probability of rebound. We can visualise this by looking at the '**earnings expectations life cycle**' of a stock — which portrays investors' changing expectations towards a stock over time. As Figure 2 (a) and (b) suggests, growth-oriented investment strategies tend to be in the top half of the life cycle, while value-oriented strategies tend to be in the bottom half.

Figure 2a and 2b
Earnings Expectations Life Cycle of a Stock



Source: The information contained above is for illustrative purposes only. AQE = Active Quantitative Equity Team.

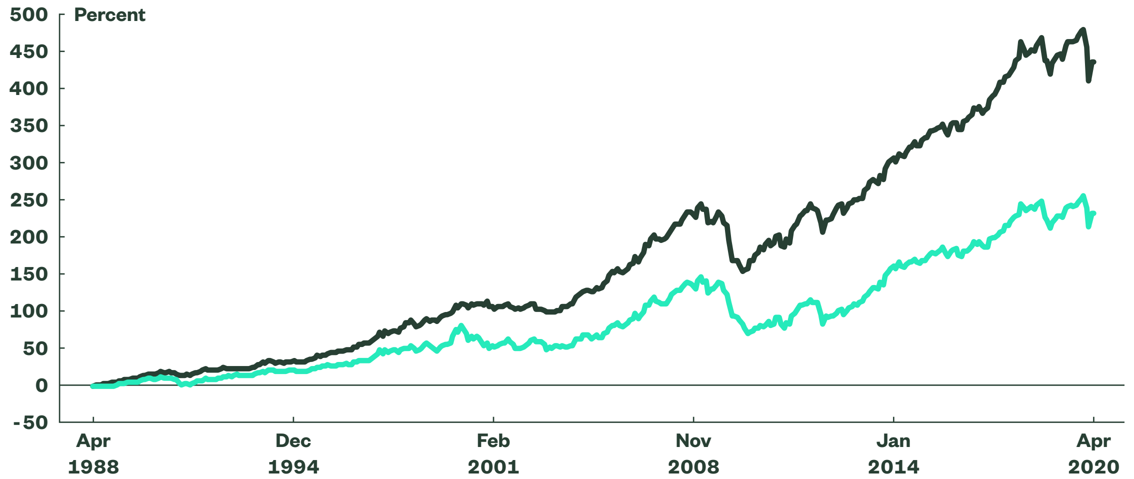
Earnings expectations life cycle suggests that the hardest thing for a growth manager to do is to time the sale of a stock, because it can be challenging to find companies whose earnings momentum is secular and not simply a result of cyclical influences. On the other hand, the hardest thing for a value manager to do is to time the purchase of a stock because they often need to be contrarian in their outlook. Our view is that a good value-oriented manager is likely to be buying stocks later than peers, whereas a good growth-oriented manager is likely to be selling stocks earlier than peers.

Our approach to buying and selling stock positions straddles an area between the two extremes in earnings expectations. Of course, there will be instances when we go outside of these bounds — for example when a stock is particularly attractive from a valuations perspective or when it provides great diversification benefits to the portfolio. But in general, when it comes to Sentiment related indicators our preference is for stocks that sit in the 'Goldilocks zone' (highlighted as 'AQE Preferred' in Figure 2 (a) and (b)). We will further explore the Goldilocks zone in the latter section of this paper.

How Does Our Approach Compare to a Simple Approach of Buying Last Year's Winners?

To estimate the 'value-add' of our proprietary Sentiment signals, we once again created a simulated long/short model portfolio[3] in Figure 3, and compare it against a simple price momentum model portfolio (an approach which systematically buys last year's winners and sells last year's losers). Once again we show the cumulative results generated by our models over time, applying this across all large cap stocks in global developed markets.

Figure 3
Cumulative Model Results of State Street Global Advisors Sentiment vs. Smart Beta Momentum



Source: State Street Global Advisors as at 31 August 2020.
Universe: Developed Market Large Cap.
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3. Price is What You Pay, Value is What You Get

Just as Warren Buffet advocates buying quality companies when prices are marked down, we prefer quality companies that trade relatively cheaply to its peers (all else considered). Combining Value with Quality, Sentiment and Event based signals, we are able to avoid overpaying for fundamentally strong firms where the most optimistic outcomes have already been priced-in.

We are constantly evolving our valuation factors to better assess the true worth of companies. In recent years, for example, as business models evolve to be more service and intellectual property oriented, we have made substantial changes to our investment process to better assess intangible assets that do not have physical or financial embodiment. We ask, for example, how do we best capture the R&D expenditure of a Biotech company in a systematic way? In Figure 4, we illustrate examples of Value factors that can be used to evaluate the fundamental worth of a bank.

Figure 4
Bank Specific Valuation Factors

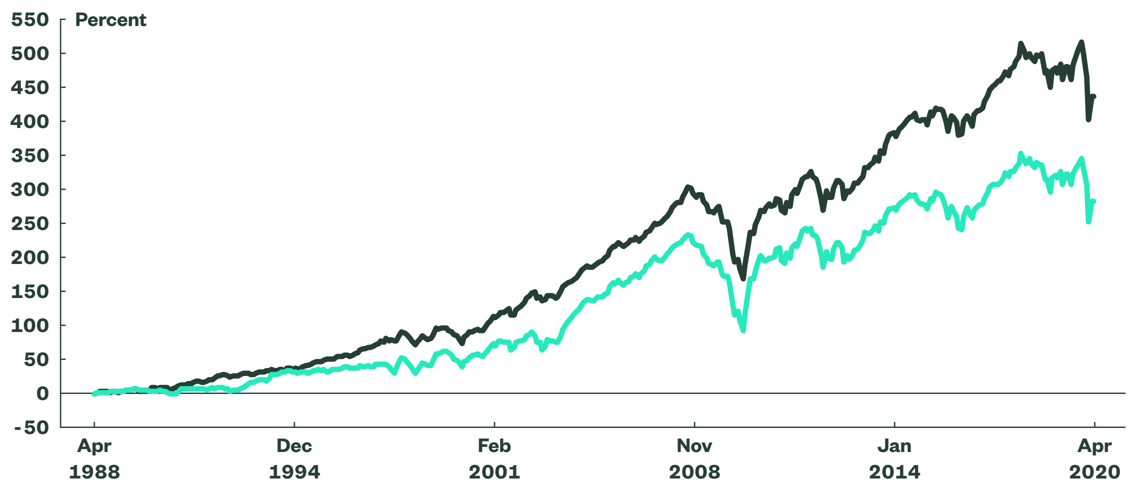
Quantitative Factor For Banks	What We're Looking For	Description
Common equity ratios	Banks with robust financial strength	Banks with significant 'core capital' will keep it functioning through all forms of risky transactions
Tangible valuation metrics (related to loans and leases, deposits, net interest margins etc.)	Quality of a bank's lending business	Banks with higher quality lending practices (e.g. loan standards) are more likely to outperform
Intangible valuation metrics (e.g. investment banking or mortgage lending fees and related operating costs)	Value created in non-traditional activities by a bank	Measures of a bank's non-core/ intangible activities, which may or may not be linked to deposit activity, allow us to better measure its true value

Source: State Street Global Advisors. The information contained above is for illustrative purposes only.

These considerations greatly separate our systematic approach from those of smart beta strategies. By incorporating more nuanced factors, our proprietary Value signals have shown to add significant alpha (or excess returns) beyond what can be achieved with generic smart beta factors like Price to Book (P/B). Figure 5 shows the simulated cumulative returns that can be achieved by buying the cheapest quintile of stocks and short selling the most expensive — based on our proprietary Value measures. We do this across all large cap stocks in global developed markets, and compare these model results against those ranked on a simple P/B measure.

Figure 5
Cumulative Model Results of State Street Global Advisors Value vs. Smart Beta Value

State Street Global Advisors AQE Value
P/B



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Is Value Investing Dead?

Since 2019, the equity market has been challenging for anyone with a Valuation discipline, regardless of how sophisticated their approach to valuation. Extremes in investor preference for expensive growth was further exacerbated by impacts of Covid-19 (which has favoured stay-at-home sectors and tech names that were already trading at elevated levels), this has now pushed the cheapness of Value past the 100th percentile against the long-term history. While we recognise that headwinds facing Value have been real and may continue for some time, we do not prescribe to the view that value investing is no longer relevant. Over the short to medium term, we believe that some level of mean reversion will eventuate, possibly even without a catalyst given how extreme valuation differentials (between expensive and cheap) have become in all major sectors of the economy. Further, several other catalysts could trigger a renewed focus on valuations and fundamentals — including a reflationary scenario, an upturn in the profit cycle and further regulatory scrutiny of big tech.

The Goldilocks Zone — Balanced and Risk Aware

At the time of writing, the global economic reality remains very challenging, with negative impacts likely to persist well into 2021 and 2022. Yet equity markets have erased all of their losses during the initial Covid-19 sell-off and valuations look undoubtably stretched in relation to forward earnings.

We believe this is not a time to let loose one's guard on market risks. While we prefer resilient companies that can weather the storm and preserve capital, current market prices are increasingly reflecting irrational exuberance — which has been exacerbated by a record influx of retail investors into zero commission platforms like Robinhood. While this can be uncomfortable for active investors, mis-pricings are a necessary ingredient for long-run outperformance. Given the significant unknowns (being largely driven by the Covid-19 situation) and their broad economic impacts, we stand firmly by our belief that building a balanced, style-neutral equity portfolio is best positioned to weather a number of likely scenarios.

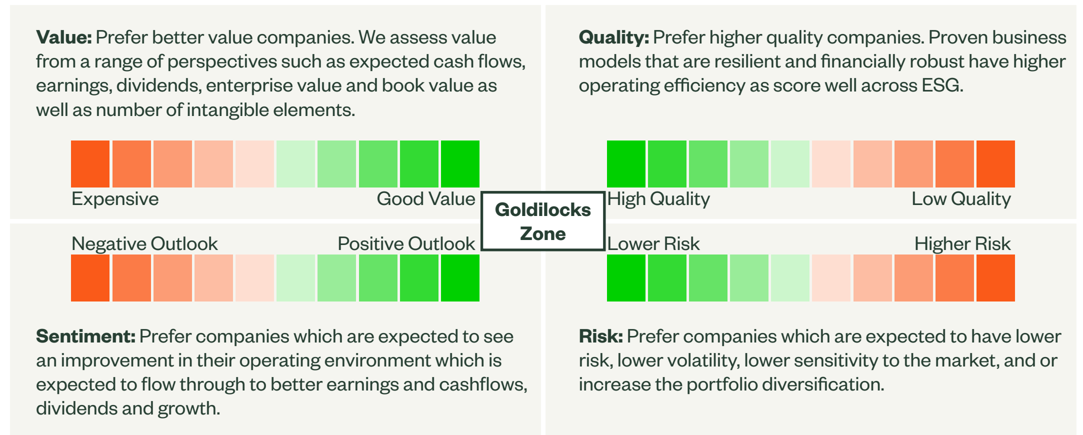
Key to a Balanced Portfolio

The key to a balanced approach to stock selection involves assessing companies from all perspectives that can impact future returns. For us, this means assessing a diverse range of factors that can be grouped under:

- Value
- Quality
- Sentiment
- Event/catalyst
- Risk

We want to be able to buy quality businesses at reasonable value, with improving growth prospects that have advantageous risk characteristics and we want to assess these elements in an unemotional manner. Through this relatively style neutral combination, we look to find those 'goldilocks stocks' mentioned earlier. Figure 6 summarises this framework:

Figure 6
Finding the Right Combination of Value Quality, Outlook/ Sentiment and Risk



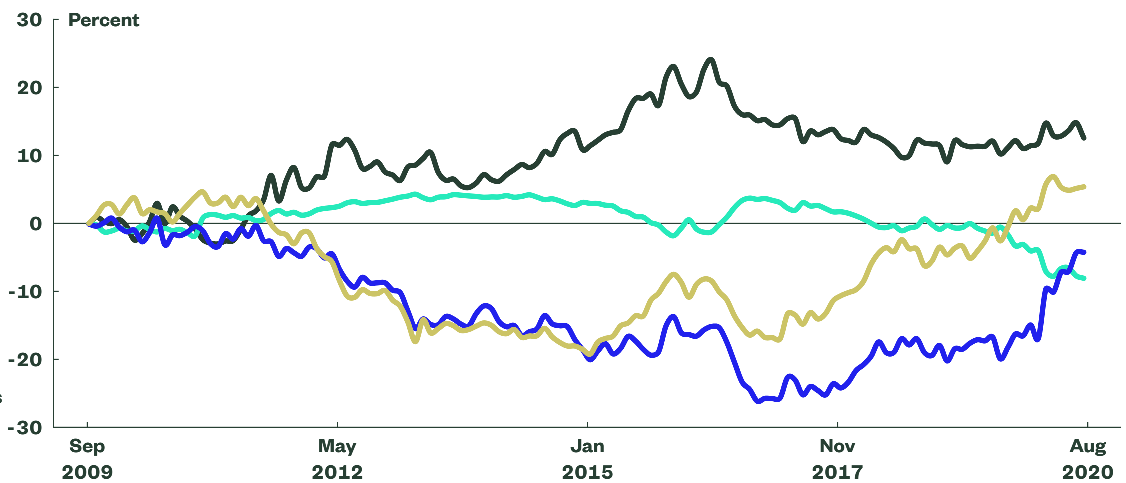
Source: State Street Global Advisors. The information contained above is for illustrative purposes only.

Of course, it may be impossible in some market environments to find a diversified collection of stocks that each tick all of the boxes — the current environment is one such example. But what's more important is to end-up with a portfolio that balances attractive valuation, positive sentiment, high quality and lower risk. For example, there may be times where we seek to hold select companies that have become relatively expensive if the operating environment is sufficiently positive and the quality and risk elements are also supportive enough to justify the higher valuations.

Can a More Balanced Approach Achieve Superior Risk-Adjusted Returns?

Figure 7 examines the cumulative excess returns for the MSCI styles of Value, Quality and Growth compared to the cumulative excess returns of the State Street Australian Equity Fund. In any given year a single (smart beta) style index may dominate but over time an approach that draws from all underlying styles should be more consistent. As shown below, the State Street Australian Equity Fund has accumulated greater excess returns (after fees[4]) compared to individual MSCI style indices, and achieved it in a more consistency manner. Note we have not applied any fees to the MSCI style indices. In reality, investors should also consider current fees charged by major ETF providers.[5]

Figure 7
Drawing on the Strengths of Multiple Styles to Produce More Consistent Outcomes
Cumulative Excess Returns — State Street Australian Equity Fund vs. MSCI Australia Style Indices



Source: Bloomberg Finance L.P., State Street Global Advisors, FactSet, MSCI, as at 31 August 2020.
As at: 31 August 2020.
Excess returns of the State Street Australian Equity Fund is relative to the S&P/ASX 300 Index. Excess returns of the MSCI Australian style indices are relative to the MSCI Australian Index. The performance figures for the State Street Australian Equity Fund reflect Total Returns and are provided on a net of fees basis. Net performance figures are after management and transaction costs. The fund performance includes the reinvestment of dividends and other corporate earnings and is calculated in Australian Dollars. Past performance is not a reliable indicator of future performance. Index returns reflect capital gains and losses, income, and the reinvestment of dividends. Index returns are unmanaged and do not reflect the deduction of any fees or expenses.

Conclusion

Great football teams know that a strong offensive strategy alone is not enough; that defense is critical in winning. In funds management, having a great defense is the ability to reduce capital losses. In an unprecedented environment that is most analogous to the post-depression period of the 1930's, investors are facing enormous risks associated with ongoing economic recessions, high levels of debt, unlimited central bank liquidity injections (and associated inflation risks) and extreme bond/equity valuation differentials. This environment calls for a more holistic and risk-aware approach to equity investing.

In this paper, we demonstrated our balanced approach to finding profitable, resilient companies that trade at reasonable valuations. This allows us to then build portfolios that **can both generate strong returns AND minimise losses** for investors. In a post-Covid-19 world, we believe this approach is particularly relevant as equity allocations not only provide for long-term growth, but increasingly play a role in downside protection and management of sequencing risk.

Endnotes

1 "The Excess Returns of "Quality" Stocks: A Behavioral Anomaly — Jean-Philippe Bouchaud, Ciliberti Stefano, Augustin Landier, Guillaume Simon and David Thesmar.

2 Tobias Moskowitz — "Explanations for the Momentum Premium" (2010).

3 Buying the top quintile and short selling the bottom quintile.

4 Net returns prior to August 2013 include larger, fluctuating MERs on the initial SSGA seed money. In August 2013, the MER on the fund was capped at 79bps p.a. and as of July 2020 was reduced to 70bps p.a.

5 An iShares Edge MSCI Australian Multifactor ETF, for example, currently has a management fee of 30bps p.a.

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

For four decades, these principles have helped us be the quiet power in a tumultuous investing world. Helping millions of people secure their financial futures. This takes each of our employees in 30 offices around the world, and a firm-wide conviction that we can always do it better. As a result, we are the world's fourth-largest asset manager* with US $3.90 trillion† under our care.

* Pensions & Investments Research Center, as of December 31, 2020.
† This figure is presented as of June 30, 2021 and includes approximately $63.59 billion of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.

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A "Quality" style of investing emphasizes companies with high returns, stable earnings, and low financial leverage. This style of investing is subject to the risk that the past performance of these companies does not continue or that the returns on "quality" equity securities are less than returns on other styles of investing or the overall stock market.

A "Sentiment" style of investing emphasizes companies that have improving prospects so that we can better time our entry and exit points and capture additional sources of excess returns from human behavioural biases.

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