

How Our Quantitative Investment Process Adapts to Changing Fundamental Data

- Over long periods of time, and applied to hundreds of stocks, building portfolios based on valuation measures alone can add substantial value — but in the short term, especially in times of crisis, key valuation metrics can take time to respond to market disruption.
- We seek to account for current and forward-looking information that may be benefiting or undermining a company by gauging market sentiment toward stocks.



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The sudden shutdown of key components of the global economy in the COVID-19 crisis has created a challenge for investors, as fundamental data has taken time to respond to the abrupt change in economic activity. In this commentary, we'll focus on how our quantitative investment process adapts, by design, to scenarios in which data has become stale or backward-looking.

Shifting Price-to-Earnings Multiples

The price-to-earnings (PE) ratio, a key measure of valuation derived from historic annual earnings, is an especially notable instance of a lagging fundamental metric. Since February, airlines have seen trailing PE multiples drop from around 11 to less than 6, because prices have fallen by about 45% on average and reported earnings have not changed. Even forward PE ratios for airlines started at around 9 in February and dropped to about 6.5 in mid-April. Since then, forecasts of 2020 earnings have started to adjust downward, sending the forward PE ratio upward to end April at around 45.

So are airlines cheap, or are they expensive? If only answering that question were as simple as using a PE ratio. Over long periods of time, and applied to hundreds of stocks, building portfolios based on PE alone can add substantial value, but an emphasis must be placed on both the length of time and the breadth of application. In the case of airlines, those that survive the crisis without being nationalised or going bankrupt will undoubtedly be a great investment, but a lot more information is required to identify which airlines are most likely to make it.

This is where we start to peel back the onion of forecasting stock returns, going beyond PE ratios to consider other, more nuanced measures of valuation, and combining these with an assessment of company quality that includes balance sheet strength (e.g., solvency, operating efficiency, liquidity, leverage), sustainability, asset growth, and more. In the case of airlines, stronger companies will be more likely to survive the earnings downturn than those facing debt levels that will prove to be unsustainable in the near term. Unfortunately, getting accurate data on the state of a company's balance sheet can be somewhat backward-looking, too.

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Sentiment as a Forward-Looking Theme

We seek to account for current and forward-looking information that may be benefiting or undermining a company by gauging market sentiment toward stocks. This can take the form of measuring how prices are changing; how forecasts of earnings, sales, and dividends are changing; how hedge funds are changing their positioning; inferring changes in a company by assessing changes in information about customers and suppliers; and examining how company managers are talking about the company in their earnings calls. These are all near-term drivers of a stock's performance, with their own horizon for effectiveness in an investment process. In the case of airlines, the fastest changing sentiment indicators have been those connected to the downward adjustment of sell-side analyst forecasts, but all sentiment indicators have dropped quickly in that industry group.

We find that when such dramatic changes happen to a company's outlook, the change of market sentiment has more impact on our forecast return than changes in valuation or quality measures.

Portfolio Management as Validation of the Process

We are confident that a combination of longer-term value and quality measures and shorter-term measures of market sentiment are ideal for navigating all sorts of economic and market environments, including the current crisis. At the same time, we constantly stress test our process as we manage our portfolios. In the current crisis we are using data and modelling to investigate outsized risk exposures that we may not have captured historically.

One example of this occurred early on in the crisis, as the virus spread through China. In that case, we created a metric to check portfolios for outsized exposure to companies impacted by a shutdown of the supply chain in China, using a data set to map the complex linkages between suppliers and customers across the world. We also systematically monitored the language used in company earnings briefings to look for references to the coronavirus using natural language processing.

As the virus spread to the rest of the world and began to threaten the financial system, we cast an additional risk lens over portfolios to measure exposure to credit risk, illiquidity, excessive debt, and probability of credit default, particularly for companies whose predominant attractive characteristics were value metrics. This was most relevant when we looked at some potential positions in the REIT sector.

Within Real Estate, retail REITs have become a lot cheaper on valuation, but also suffered a very large decline in sentiment. Industrial REITs, by contrast, have become a lot more expensive as a group, with greatly improving sentiment. In general, we see some good contrarian opportunities in retail REITs, if care is taken to diversify the exposure and overlay additional scrutiny with regard to credit or debt risk. Other specialised REITs dealing with storage or data centers also offer attractive opportunities.

Where sentiment is Strong in Developed Markets

Right now, we are seeing the strongest market sentiment in Pharma and Biotech, Software and Services, Utilities, and Health Care Equipment and Services. We see the weakest sentiment in Autos, Banks, Transport, Energy, and Insurance.

The biggest changes in sentiment (either up or down) have occurred in the following industry groups across global developed market equities:

	Improving Sentiment	Declining Sentiment
Good Value	Telecommunications	Banks Insurance
Neutral Value	Utilities Pharma & Biotech Staples Retailing	Consumer Services Consumer Durables and Apparel Semiconductors and Equipment
Poor Value	House & Personal Products	

Source: State Street Global Advisors analysis, as of 7 May 2020. Sectors highlighted in green are currently our most preferred; those highlighted in red are our least preferred.

Financial stocks now appear cheaper than they did at the start of the year, but our overall forecasts have not improved for financial firms because sentiment has declined so dramatically. We still prefer insurers (where sentiment has declined, but less steeply) over banks.

The Bottom Line

By incorporating short-term sentiment signals, in addition to longer-term value and quality metrics, our investment process is designed to adapt to rapidly changing market conditions. In addition, we consistently stress test our portfolios on an ongoing basis, which also adds a dimension of adaptability to our process in ordinary as well as in distressed market environments.

Portfolio Positioning and Performance²

In April, global stock markets surged while the global economy plunged into its deepest downturn since the great depression. The former has been fueled by a dizzying array of monetary and fiscal counter-measures, with the Fed's actions extending far beyond those deployed in the Global Financial Crisis (GFC). Global markets have recovered much of the ground lost in February and March, with the S&P 500 Index already back to August 2019 levels. All global developed market sectors rose, with the cyclical Consumer Discretionary, Energy and IT sectors outperforming, while Utilities, Consumer Staples and Financials underperformed.

The State Street Global Equity Fund outperformed its benchmark during the month. Currency hedging had a positive impact on relative performance, with DSH³ adding towards relative performance in April as the AUD regained much of its losses (against the USD) during March. The Australian dollar remains below our fair value estimate as at the end of April. From a sector perspective, good stock picking within Materials (Newmont Corp and Barrick Gold) was the key contributor towards relative performance. On the other hand, negative stock selection within IT (not holding Fujifilm and Apple) and Communication Services (Nippon Telegraph, Swisscom and Facebook) were key detractors.

²Bloomberg Finance, L.P. SSGA as at 30 April 2020. Past performance is not a reliable indicator of future performance. This information should not be considered a recommendation to buy or sell any security or sector shown. It is not known whether the securities or sectors shown will be profitable in the future. Characteristics are as of the date indicated, subject to change, and should not be relied upon as current thereafter. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income.

³The State Street Global Equity Fund manages currency risk using SSGA'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.

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Investing involves risk including the risk of loss of principal. Actively managed funds do not seek to replicate the performance of a specified index. Equity securities may fluctuate in value in response to the activities of individual companies and general market and economic conditions.

Quantitative investing assumes that future performance of a security relative to other securities may be predicted based on historical economic and financial factors, however, any errors in a model used might not be detected until the fund has sustained a loss or reduced performance related to such errors.

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Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries.

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