Glenmede
Investment Management

At Glenmede Investment Management, we have a long history investing for impact, having managed environmental and socially responsible quantitative portfolios for the past two decades. Our on-going analytical research allows us to continuously discover and incorporate new factors that we believe will be additive to the overall investment process.

As champions for active investment management, we strongly believe in a multifaceted approach to securities assessment. Our teams use a variety of quantitative and qualitative metrics when evaluating potential investments for inclusion across portfolios. As we continuously refine and update our research capabilities, we recognize the ever-increasing importance and relevance of Environmental, Social and Governance (ESG) evaluation as part of our analytical tool box.

The article below is the first in a collection dedicated to ESG and impact investment themes. Our goal is to explore the various ways in which these themes can be integrated into portfolios regardless of asset class, as well as how ESG's growing sphere of influence has affected corporate business practices. In this inaugural article, we examine how ESG Momentum factor analysis can be indicative of the overall performance potential of a stock.

MOVING INTO THE MAINSTREAM:
THE VALUE OF ESG MOMENTUM

The accessibility of environmental, social, and governance (ESG) performance data is allowing asset managers to continually evolve how this type of information is used in investment analysis. A company's absolute ESG rating score (as typically defined by MSCI, Thompson Reuters and Sustainalytics) has traditionally served as a starting point for impact investor assessment. Now, the tracking of changes in ESG rating scores to determine ESG Momentum is emerging as a strong and differentiated input for a broader set of investment models.

The potential strength of ESG Momentum as an investment factor makes it relevant for general stock selection — a use that goes well beyond thematic impact investing models. We believe the factor shows an ability to produce annualized excess returns comparable to traditional characteristics, such as valuation metrics, fundamental ratios, and earnings signals. In addition, ESG Momentum has demonstrated the ability to deliver results that are uncorrelated to other factors, which could improve a portfolio's risk-return profile.

Past performance is not indicative of future results.

CAPTURING A MARKET INEFFICIENCY

Similar to other types of factors used in momentum investing, ESG Momentum may allow investors to anticipate changes in the price of a company's publicly traded securities by tracking trends in ESG scores. However, clear, widely accepted definitions of absolute ESG ratings have yet to crystalize. Data providers have published rankings calculated in a variety of ways, and new suppliers continue to emerge. With lack of consensus in how ESG scores are determined, it is likely that ambiguity surrounding ratings will continue for some time.

A lack of consensus on ESG ratings and widespread differences in data quality may result in market inefficiencies. Consequently, this could create opportunities to capture these discrepancies through the use of investment models incorporating ESG momentum data. For example, companies with emerging ESG risks have the potential to experience shifting ESG scores long before the investment community digests this new information and rerates the stock. Looking at changes in ESG scores could therefore allow investors to anticipate eventual changes in price.

INCORPORATING ESG MOMENTUM

To get a quantitative picture of the impact that ESG Momentum might have when added to multi-factor stock selection models, we chose to use MSCI's score data* for our analysis, given the strong quality of the firm's library and the depth of historical information. In calculating ESG Momentum, on a monthly basis we took the change in ESG scores from ratings 12 months prior for all constituents in the Russell 1000 Index. This created a factor comparable to Price Momentum that has become a commonly accepted standard in the investment community. The equal-weighted top quintile of ESG Momentum was tested on its own and versus an equal-weighted combination of Price/Earnings, ROE, EPS Estimate Revisions and 12-Month Price Momentum.

Our analysis indicates that ESG Momentum has the potential to merit use across mainstream investment models, not just in those specifically designed for impact investing. The top quintile of ESG Momentum delivered an annualized excess return of 1.6% above the equal-weighted index over the past nine years (12/31/2009-12/31/2018), as shown in Exhibit 1.[1]

MSCI Score Data is updated on a monthly basis.
Past performance is not indicative of future results.

EXHIBIT 1: ESG Momentum vs Equal Weighted Russell 1000

	Top Quintile ESG Momentum	Russell 1000 Equal Weight	Difference
Annualized Return	14.6	13.1	1.6
Standard Deviation	14.9	13.8	1.1
Return/Risk	0.98	0.94	0.04

Sources: FactSet *Data from 12/31/2009 - 12/31/2018*
Past performance is not indicative of future results.

The low correlation of ESG Momentum with other factors also underscores its additive potential to general investment models. ESG Momentum had a near zero correlation with the average stock selection factor in our Russell 1000 constituent library, which includes valuation metrics, fundamental ratios, earnings revision signals, and technical indicators. As detailed in Exhibit 2, even using sector neutral factor rankings, ESG Momentum had a very low correlation average close to 0.01 relative to other factors. Of note, MSCI produced a study on ESG Momentum in 2015, with similar results.[2]

EXHIBIT 2: ESG Momentum -
Average Correlation with Other Investment Factors

	ESG Momentum	Sector Neutral ESG Momentum
Value	-0.004	-0.002
Fundamental	0.003	0.006
Earnings	0.001	0.009
Technical	-0.002	0.006
ESG Score	0.016	0.016
Overall	0.000	0.005

Sources: FactSet *Data from 12/31/2007 - 12/31/2018*
Past performance is not indicative of future results.

EXHIBIT 3: ESG Momentum can Enhance Performance of Multifactor Models

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Highest	EPS Est 29.3%	ESG Mom 3.3%	ESG Mom 21.5%	P/E 50.6%	Russell 1000 13.2%	Russell 1000 0.9%	P/E 20.2%	ROE 25.0%	Russell 1000 -4.8%
	Momentum 27.6%	Russell 1000 1.5%	P/E 21.5%	ESG Mom 44.5%	ESG Mom 12.1%	Momentum 0.7%	Avg Stock 16.1%	Russell 1000 21.7%	Momentum -5.8%
	ESG Mom 25.5%	ROE -0.1%	Momentum 19.4%	Momentum 43.3%	ROE 11.5%	EPS Est -1.4%	ESG Mom 15.2%	Momentum 21.1%	ROE -7.2%
	Avg Stock 24.9%	EPS Est -1.2%	ROE 19.1%	ROE 40.7%	Avg Stock 11.1%	ESG Mom -2.3%	ROE 12.1%	EPS Est 20.8%	Avg Stock -8.7%
	P/E 21.3%	Avg Stock -1.9%	EPS Est 18.9%	EPS Est 38.6%	EPS Est 11.0%	ROE -2.8%	Russell 1000 12.1%	Avg Stock 19.0%	EPS Est -11.2%
	ROE 21.0%	Momentum -3.5%	Avg Stock 18.2%	Avg Stock 36.9%	P/E 10.6%	Avg Stock -3.7%	EPS Est 10.0%	ESG Mom 17.5%	ESG Mom -11.7%
Lowest	Russell 1000 16.1%	P/E -6.5%	Russell 1000 16.4%	Russell 1000 33.1%	Momentum 6.8%	P/E -6.0%	Momentum 6.2%	P/E 17.1%	P/E -18.2%

2010 - 2018

Return	Risk	Return/Risk
ESG Mom 14.6%	ESG Mom 14.9%	ESG Mom 0.98
ROE 14.0%	ROE 14.0%	ROE 1.00
Momentum 13.5%	Momentum 15.7%	Momentum 0.86
EPS Est 13.3%	EPS Est 15.7%	EPS Est 0.85
Russell 1000 13.3%	Russell 1000 12.6%	Russell 1000 1.06
Avg Stock 13.1%	Avg Stock 13.8%	Avg Stock 0.94
P/E 12.0%	P/E 17.2%	P/E 0.70

Sources: Glenmede Investment Research, FactSet and MATLAB (Russell 1000 Universe, monthly rebalancing with no transaction costs)
Top Quintile returns are based on equally-weighted total returns of most attractively ranked stocks (top 20%) for each factor every year.
Multifactor model is the equal-weighted 4 factor combination of traditional factors, while Multi/ESG is the 5-factor equal-weighted model

Our internal research shows ESG Momentum performed better than a set of representative factors during the past nine years as detailed in the chart in Exhibit 3. The right side of the chart shows that ESG Momentum had a return of 14.6% versus the Russell 1000 of 13.3%. At the same time, portfolio risk, measured by standard deviation, was lower for ESG Momentum compared to Momentum, EPS estimates and P/E.

In the main body of the chart, the performance of various factors in our general stock selection model are ranked for contribution to excess return each year. In five of the nine years, ESG Momentum delivered returns in excess of the Russell 1000 benchmark.

In practice, we use different criteria for each sector, drawn from a library of more than 80 factors. We find that ESG Momentum is particularly additive when applied to specific sector/industry models. The performance of the factor has value when assessing either buying or short selling opportunities.

LOOKING AHEAD

In the near term, the maturation of ESG information use will be driven by investment managers continuing to look critically at the details of the ESG data sets available to ensure they understand and select the inputs that are right for their models. For example, two widely used ratings systems — MSCI's IVA and Morningstar's Sustainalytics — are noticeably different, with a correlation ratio of approximately 0.25. Newer providers that produce ESG ratings based on news, rather than on fundamental characteristics, are equally differentiated.

Perhaps part of the solution moving forward will be drawing inputs from multiple sources. For this analysis, we focused on 12-month data from MSCI's IVA ratings, but filtered the issues by the Sustainability Accounting Standards Board (SASB) Materiality Map™. In order for an issue to be included in our signal, it must be deemed material by both SASB and MSCI. This additional filter significantly improves the momentum signal, a result that has been confirmed in academic literature.[3]

Past performance is not indicative of future results.

The implementation of ESG factors within investment strategies is still in its early stages. ESG Momentum is showing promise as an input into models and undoubtedly will continue to evolve, especially as data availability, quality and consistency improve.

From our analysis we believe ESG Momentum is a compelling signal relevant well beyond the scope of ESG/impact oriented investment strategies and has the potential as a powerful factor for improving risk-adjusted returns for general multi-factor models.

INSIGHT is a Glenmede Investment Management LP research paper.
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[1]The performance information included in this table is hypothetical, included merely for illustration of theory and model structure, and does not represent the investment performance of any actual product. Choices of what to include in this article have been selected with the full benefit of hindsight, after performance over the period was known. Results achieved in simulations do not guarantee future investment results. It is possible that the assumptions here are wrong, and that the actual results will be better or worse than what is discussed here. Although the information contained herein has been obtained from sources believed to be reliable, accuracy and completeness cannot be guaranteed. Simulated results do not include actual trading, so there is no guarantee that any actual account could have achieved comparable results if managed during the relevant timeframe.

[2]Zoltán Nagy, Altaf Kassam, Linda-Eling Lee. "Can ESG Add Alpha? An Analysis of ESG Tilt and Momentum Strategies". MSCI Research, June 2015.

[3]Khan, Mozaffar, George Serafeim, and Aaron Yoon. 2015. "Corporate Sustainability: First Evidence on Materiality." Harvard Business School. Working Paper 15-073.

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