

THE PERFORMANCE IMPACT OF ESG INTEGRATION

The past few years have seen a dramatic increase in the attention paid to Environmental, Social and Governance (ESG) criteria in the investment process. In this article, our Rosenberg Equities team looks to answer the question of whether there is a trade-off between ESG goals and investment returns. By looking back at the historical relationship between ESG concepts and investment inputs, and looking forward at the increasing importance of ESG, we conclude that equity portfolios can be built to exhibit improved ESG profiles without sacrificing important return and risk characteristics.

Establishing a baseline requirement for ESG integration

As asset managers, we have been motivated by what we believe to be valuable sources of company-level information that are complementary to traditional financial statement items. Simultaneously, we are urged by many asset owners and consultants to investigate and, when appropriate, integrate ESG considerations into our portfolios. The result for the industry as a whole has been widespread adoption - to varying degrees of ESG concepts in investing.

But what about the concern expressed by some investors about a perceived trade-off between ESG goals and investment return? In building ESG-integrated portfolios, our requirement is that the inclusion of the ESG criteria should not meaningfully change the predicted risk, return, and other hallmark characteristics relative to the same strategy without an explicit ESG component. This is not to say that a portfolio containing ESG

considerations will be identical to one without, but in the absence of forward-looking return assumptions for ESG characteristics (net of all other attributes, like industry or country) we believe that an ESG-integrated portfolio need not make sacrifices along traditional risk and return dimensions.

The interaction between stock fundamentals and ESG criteria

To build an ESG portfolio that has similar investment characteristics to a strategy without an explicit ESG component, it is very helpful to start with a large universe of investment opportunities from which to choose. This requires breadth of security coverage with respect to both traditional financial criteria, like fair value, earnings changes, quality and riskiness, and detailed E, S, and G metrics. Ample coverage along both traditional (fundamental) and ESG dimensions ensures that investors will not find themselves at a loss for attractive candidates.



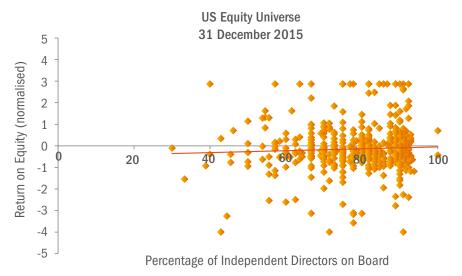
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Next, investors must consider how traditional stock fundamentals and ESG criteria interact. Even in the presence of ample coverage, were the ESG characteristics to be in stark opposition to the fundamental characteristics favoured by our investment process, building a portfolio with a dual emphasis would be difficult. Looking at both longitudinal and cross-sectional data beginning in 2008, we see very low correlations between E, S, and G data and key fundamental metrics. For example, in Figure 1 below we give an example of the orthogonal, or statistically independent, relationship between a granular ESG concept, percentage of independent board directors (a Governance measure), and a traditional investment model input, normalised return on equity (ROE). It is clear from the scatter plot that no strong relationship exists¹. We see similarly low correlations between ESG concepts and virtually all of the fundamental measures we follow, including those used in valuation, earnings forecasting, and quality assessment across global developed markets.

"The absence of a strong relationship [between ESG factors and fundamental measures] is a good thing when it comes to portfolio construction."

Figure 1: Independent Directors vs. ROE, Cross-Sectional Observation



Source: Rosenberg Equities, AXA IM. Exhibit based on 573 US large and mid-cap stocks on 31 December 2015. Exhibit created 25 February 2016. Observations are equal-weighted.

It may not be immediately intuitive, but the absence of a strong relationship is a good thing when it comes to portfolio construction, making it easier for investors to achieve the goal of constructing ESG-integrated portfolios that do not sacrifice hallmark risk and return characteristics. If the correlation were dramatically negative, the ESG criteria would be 'fighting' with the traditional metrics. On the other hand, if the correlation were strongly positive, we would conclude that the ESG data are not complementary (and perhaps even unnecessary).

It is true that when we isolate the extremes along some dimensions we see more strongly positive relationships. No surprise that much of the literature devoted to the study of ESG has revealed similar results. Generally, though, across large populations, we observe that the correlations of ESG concepts to traditional stock fundamentals are low.

¹ The correlation on 31 Dec 2015 was +0.05

Looking back at historical performance

We put these relationships to the test in the form of strategy simulations. While we have a limited time series with which to work, the back-tested performance of the same strategy, with and without ESG considerations, supports our core thesis that 'sacrifice' of traditional portfolio attributes is not necessary when one seeks to improve a strategy's ESG footprint.

In the exhibits below, we use simulations of our ESG Smart Beta Global Equity strategy to illustrate the point that the addition of ESG considerations need not necessarily 'harm' the portfolios' risk and return profile as measured along traditional dimensions. The summary statistics in the first two columns of Exhibit 2 are nearly identical. For convenience we also show the market cap-weighted MSCI World Index and its ESG analogue – note that they are also very similar when viewed in this way.

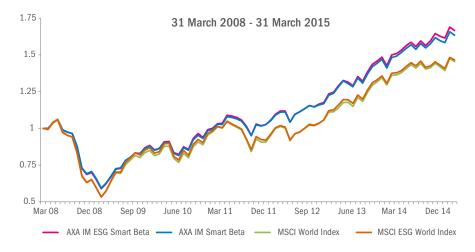
"Our core thesis is that 'sacrifice' of traditional portfolio attributes is not necessary when one seeks to improve a strategy's ESG footprint."

Exhibit 2: Summary Risk and Reward Statistics - Global Equity Smart Beta Simulations 31 March 2008 - 31 March 2015

	AXA IM ESG Smart Beta	AXA IM Smart Beta	MSCI World Index	MSCI ESG World Index
Annualised Return	7.5%	7.2%	5.4%	5.5%
Annualised Risk	15.2%	14.9%	18.1%	18.2%
Return/Risk	0.49	0.48	0.30	0.30
Max. Drawdown (total)	-44.4%	-44.1%	-49.8%	-49.7%

Source: Rosenberg Equities, AXA IM, MSCI. This information is based on hypothetical back-testing. It is not an actual portfolio reflecting actual past performance, does not represent actual, current recommendations and is not a guide to the future. Please note that it also relates to a timeframe when the strategy was not available for investment. Max. Drawdown refers to maximum peak-to-trough loss. All returns are shown gross of management fees, USD. Investors are strongly urged to review the 'Important Information'.

Exhibit 3: Cumulative Return of SmartBeta Strategy, with and without, ESG Considerations



Source: Rosenberg Equities, AXA IM, MSCI. This information is based on hypothetical back-testing. It is not an actual portfolio reflecting actual past performance, does not represent actual, current recommendations and is not a guide to the future. Please note that it also relates to a timeframe when the strategy was not available for investment. All returns are shown gross of management fees, USD. The tracking error between two AXA IM portfolios is 0.76% over the period of analysis. Investors are strongly urged to review the 'Important Information'.

Simulations like this lend support to the thesis that investors don't have to sacrifice return when considering ESG criteria. However, we must acknowledge that back-tests over such a short window are likely not representative of what investors might achieve over the long run. Importantly, we do not believe that the rear-view mirror can tell us much about whether ESG is, itself, a source of excess return as it has only been very recently that ESG has entered our collective lexicon. There is no reason to believe that the past (even the very recent past) reflects future thinking about the role of ESG in investment analysis.

Looking forward

If the rear-view mirror is not a sufficient guide, what can we say about the future? Looking forward, we expect that the importance of ESG considerations will increase for two key reasons:

 On the reporting front, there are more and more companies voluntarily reporting on E, S, and G criteria as they perceive it to be in their best interest as shareholders and prospective investors are increasingly demanding this information. There are also important initiatives aimed at standardising ESG reporting. 2. Greater amounts of capital are being pushed toward companies with more attractive ESG profiles as asset owners continue to demand ESG-integrated solutions.

Our expectation is that the addition of ESG criteria into an investment process will be additive to return in some quarters and may have the opposite effect in others. We leave the door open to the idea that ESG may, indeed, turn out to be a long-run 'alpha' idea but are convinced that, at a minimum, it need not impact the risk or return of a well-constructed portfolio. To this end, we benefit from an investment process that is flexible and accommodative to new sources of information – as investors adjust their views on company attributes (for any reason, including ESG considerations) our models are well-placed to pick up on those shifts.

Until then, investors should be confident in knowing that portfolios can be built that exhibit their required risk and reward characteristics and that come with improved ESG profiles. To achieve this, investors should look for strategies that access broad and complementary data sets, and align themselves with providers that share their deeply-held belief that information on company Environmental, Social, and Governance characteristics should be part of a robust investment strategy.

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Back-test Disclosures: AXA IM Equity Smart Beta and AXA IM Equity Smart Beta ESG Strategies

This performance information was derived from hypothetical back-testing of the AXA Investment Managers' Equity SmartBeta strategy and/or AXA Investment Managers' Equity SmartBeta ESG strategy for the period(s) indicated elsewhere in this article. The investment strategy was not available to clients during the back-test period (or a portion thereof).

Back-testing is conducted by a computer program that starts on the first day of the back-test period and estimates the return that the strategy would have achieved if the output from the SmartBeta and/or ESG screening and portfolio process, as relevant, had been fully implemented. The performance data shown has not been verified by an independent calculation agent. The actual strategies that will be made available to investors going forward may use different trading frequencies than was used in the back-tests, and the universe of securities that will be used in an actual portfolio may not reflect the universe of securities used in these back-tests.

Since trades have not actually been executed, results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity. No cash balance or cash flow is included in the calculation.

The back-tested performance shown is gross of management fees. An investor's actual return will be reduced by management fees and other expenses the investor may incur. Past (or back-tested hypothetical) performance does not equate to future performance. © 2016 AXA Investment Managers.

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