



LFIS
CAPITAL

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SUSTAINABLE INVESTING

White Paper #1:

ESG Implementation Challenges

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ESG is an important, but challenging topic. If the majority of investors take ESG criteria into account when selecting assets, this can ultimately lead issuers to act for a better world. However, to quote Denis Diderotⁱ, “it is not enough to do good; you need to do it well.” It turns out that doing ESG well is challenging, especially when it comes to alternative portfolios with long and short positions. ESG investing seeks to concurrently optimize non-financial (i.e., improving the ESG score of the investment) and financial (i.e., maximizing the risk-adjusted return) objectives. Measuring non-financial indicators requires setting up a “thermometer” that depends on many subjective choices, including the scope of asset classes concerned, how to treat short positions, the metric itself (E, S and/or G), etc. As

non-financial and financial objectives may contradict, balancing them requires setting up a common objective function. Indeed, classic ESG filtering approaches have failed to consistently outperform their benchmarks and the time horizon to realize many non-financial benefits of ESG investing is long. As an illustration, the MSCI World ESG Total Return USD Index has delivered the same annualized performance since its inception, 5.9% (Sept. 2007 to Dec. 2020) as the MSCI World Net Total Return USD Index. In the first three white papers on ESG, LFIS Capital discusses: (i) main ESG implementation challenges, (ii) expected risk-adjusted returns of a classical ESG approach, and (iii) LFIS’ innovative approach developed over a 4-year collaboration with French FinTech firm SESAMm.

There are diverse approaches to integrating ESG criteria into portfolio construction.

In today’s context of increasing social and economic unrest, what is important may differ widely from one investor to another. Initially, investing with an ESG focus meant applying negative or positive screens to the investment universe. For example, “Impact Investing” favors projects that directly seek to achieve positive social change. Some common examples include community outreach programs or investing in sustainable energy. On the other hand, “Ethical Investing” excludes issuers in sectors like tobacco, gaming, and controversial weapons. Interestingly, such filters have negatively impacted performance over a long horizon. For example, the MSCI World Tobacco Net Total Return USD Index has delivered an annualized return of 10.9% over the past two decades (Dec. 2000 to Dec. 2020), significantly higher than that of the MSCI World Net Total Return USD Index at 6.0%. This is not surprising. To quote Wayne Winegardenⁱⁱ, “options have value [so that] anytime you restrict your options, you’re going to be harming your potential performance.”

As a consequence, we have seen a move towards ESG integration. Integration of ESG factors seeks to enhance traditional financial analysis by identifying additional potential risks and opportunities, i.e., going further than technical valuations. While social consciousness plays a role here, the main objective of ESG integration remains financial performance. Besides, this approach is the only possible one in the case of certain retirement plans. Thus, the U.S. Department of Labor’s (DOL) guidance on ESG investing states that fiduciaries must focus on the economic interest of plan beneficiaries and be careful not to put too much weight into ESG considerations. LFIS already excludes tobacco, weapons, and coal companies across the board and uses an ESG integration approach for certain funds.

Exhibit 1: The different approaches to sustainable investing

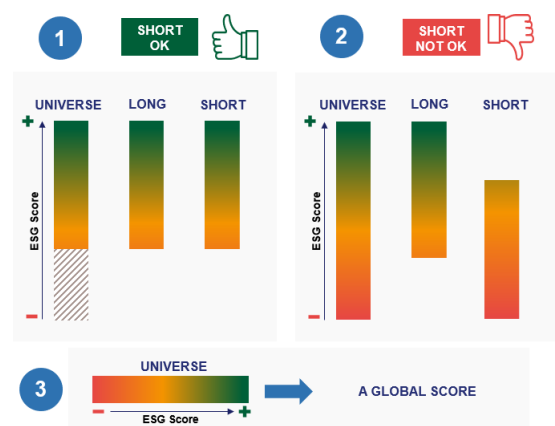
Impact Investing	Ethical Investing	ESG Integration
<p>Select</p> <p>projects with positive environmental, social, and governance outcomes.</p>	<p>Avoid</p> <p>companies or sectors with increased ESG risk or which violate the asset owner's values</p>	<p>Enhance</p> <p>risk-adjusted return through integration of ESG data</p>

For asset managers like LFIS who manage alternative portfolios that may include leverage and long/short positions, and which invest across asset classes, ESG considerations raise additional questions.

For example, which investment universe should be eligible for short selling? If short selling is considered in a ‘positive’ sense as contributing to market liquidity (“Short OK” in Exhibit 2), the universe eligible for shorting would include companies with relatively better ESG scores. In this case, both long and short legs would comprise companies in the same universe of best ESG scores. Those with the worst ESG scores would be excluded entirely. If, however, short selling is considered as negative or penalizing (“Short Not OK” in Exhibit 2), high ESG scorers would only be present in the long portfolio and low ESG companies would only be present in the short portfolio. The existence of ESG indices and futures (i.e. the ability to short) on these indices indicates that the industry currently favors the first option. Rather than these two “exclusion” options, one can favor an ESG “integration” approach where long and short positions depend on each company's overall score, a score that combines both financial and non-financial (i.e., ESG) criteria, without any prior filter.



Exhibit 2: The different approaches to ESG short-selling



The three methods described above do not require the portfolio to have a specific overall ESG score. Indeed, determining such a score requires a robust method to calculate it which is less obvious than it appears. Morningstar proposes a weighted average

approach: the overall score of the portfolio is the product of the matrix of individual asset weights and their individual scores. This method works well for a long-only, fully invested portfolio. Unfortunately, it cannot be extended to more complex portfolios. For example, according to this method, the contribution of a short position to the ESG rating of a portfolio would be negative. Another example is a portfolio positively exposed to a given oil company and negatively exposed to another oil company. In this case, the long and the short positions should hedge each other with regards to oil-specific risk, but not necessarily with regards to other ESG risks (e.g., governance). Practitioners are starting to come up with alternative calculation methods. Gausse *et al*ⁱⁱⁱ indicate a useful framework by introducing the notion of ESG risk and define the ESG rating as the ratio between the portfolio’s ESG risk and its total risk. But this field of study is only at its inception.

Not all asset classes and instruments are natural candidates for ESG investing.

ESG investing is well suited to portfolios of individual stocks and corporate bonds. Investors can decide to remove or underweight the lowest rated sectors or securities from the investment universe without the portfolio becoming overly concentrated. However, not all asset classes or instruments are natural candidates for ESG investing.

Exhibit 3: Not all underlying are natural candidates for ESG investing



A telling example is assets issued by countries, such as sovereign bonds and currencies. If a given ESG framework excluded countries which manufacture nuclear weapons, buy controversial weapons, allow the death penalty, derive a large part of their GDP from oil-exports, etc. the universe of eligible sovereign bonds and currencies would be very limited indeed. Green bonds, where cash raised is invested in projects with environmental and climate benefits, are a solution. However, despite rapid growth, the green sovereign bond market remains very small at approximately \$100bn. In the OECD area, green sovereign bonds account for only 0.1% of all government debt securities. The result is very limited liquidity, hence derivatives on green bonds (e.g., interest rate swaps) are almost non-existent. In recent years, demand for green bonds has outstripped supply as many thematic green funds struggle to find investments. Green bonds that are oversubscribed are often issued with a negative premium compared to conventional bonds. This could encourage governments to be more active in this segment. LFIS’ current policy is

not to further restrict our geographical investment universe, which is already limited to G10 countries. Long-only commodity allocations also present challenges. They help drive net demand for commodities, especially those associated with environmental damage including carbon emissions or deforestation, and with potentially adverse social and governance impact, e.g., by creating upward pressure on food prices. The petroleum sector represents the greatest share, by far, of traditional benchmarks (~30% and ~60% in the BCOM and S&P GSCI indices respectively). Commodities have always been a peripheral diversification asset as gaining exposure requires trading listed (e.g., futures) or OTC (e.g., swaps) derivatives. The ESG trend has further reduced investor appetite for the asset class. Many who remain invested now restrict the universe to non-agricultural commodities for ethical reasons. LFIS implements commodity strategies both with and without agricultural commodities, guided by our clients’ internal policies. Our strategies are implemented mostly through calendar spreads (i.e.,



simultaneous long and short positions on different futures on the same commodity). Strategies implemented with outright positions are always long and short within the same sector (e.g., energy), thereby limiting the ESG footprint.

Investing in indices, via derivatives, is also a controversial topic when it comes to ESG. Since the launch of the first ESG index in the U.S. in 1990, ESG indices have become increasingly popular. There are now more than 1,000 ESG indices. According to the Index Industry Association, the universe of ESG indices grew by 40% in 2020 (after 14% in 2019), the highest year-on-year increase in any single major index class in the survey’s history. Assets under management in ESG index funds recently reached \$300 billion. The proliferation of ESG indices and the lack of consensus as to their construction limits liquidity for simple derivatives like futures and plain vanilla listed options. LFIS continues to monitor these developments and will participate in the derivatives market on ESG indices once transaction costs and liquidity are no longer an obstacle. Natural candidates to progressively include derivatives on ESG indices are multi-asset funds which we see as an alternative to traditional 60/40 strategies.

The lack of consistent and comprehensive ESG data is a major problem.

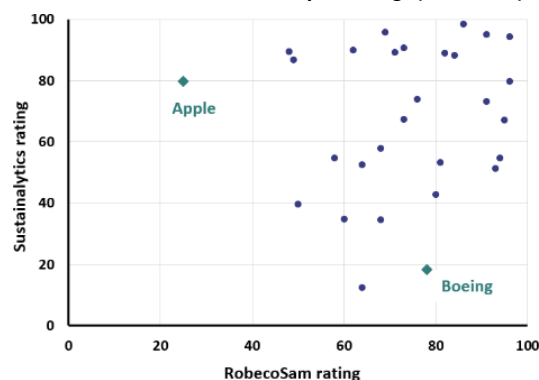
Technology firms and data providers have rushed to meet the demand for ESG data, from specialized providers that calculate specific ESG metrics like carbon scores (e.g., the “Carbon Disclosure Project”) or gender diversity (e.g., “Equileap”), to providers that rate companies based on several hundred ESG-related metrics (e.g., MSCI, Sustainalytics). To paraphrase Cochrane on factors, ESG has become a zoo of data with nearly 100 different providers but with issues of homogeneity, comprehensiveness, opacity, point-in-time, and reactivity across the board.

First, ESG data providers generally have their own sourcing process and research methodology. Main common points of difference between providers include data acquisition and estimation, as well as aggregation and weighting, each of which has a significant impact on the rating of companies. ESG providers therefore combine data from companies using traditional sourcing techniques with proprietary models that estimate data for unreported companies. Furthermore, each ESG provider has its own method to aggregate and weight single ESG factors for a global score. For example, some providers use a best-in-class approach (presuming that all the economic sectors are equal when it comes to ESG) while others use a best-in-universe approach (assuming that sectors

Funds can have a more direct impact on policies that align with their ESG mandates through engagement and voting practices. Influencing individual company policies may seem easier than influencing state actors. However, keep mind that the rise of passive index funds has led to a marked concentration of corporate ownership in the hands of the “Big Three”, i.e., BlackRock, Vanguard, and State Street. Fichtner *et al*^{iv} found that together they constitute the largest shareholder in 88% of the S&P500 index firms. In other words, these three players have the greatest capacity to influence corporate decision-making, though smaller activist funds have also had an impact in some cases. This is even more true as they hold relatively illiquid and permanent shareholding positions. On the contrary, active funds – like those LFIS manages – have much shorter holding periods, meaning that there is a significant probability that any position held at the time of a shareholder meeting will no longer be present a few days or weeks later. Furthermore, active funds that hold long and short positions tend to use synthetic instruments like swaps, where voting rights remaining with the counterparty.

intrinsically present heterogeneous ESG ranges). As a result, the rating for a single company can vary widely across different providers. For example, Exhibit 4 shows that Apple has a high score of 80 from Sustainalytics but a low score of 25 from RobecoSam (both providers use a scale from 0 to 100). On the other hand, Boeing has a high score of 78 from RobecoSam but a score of only 18 from Sustainalytics.

Exhibit 4: RobecoSam vs. Sustainalytics ratings (Dow Jones)



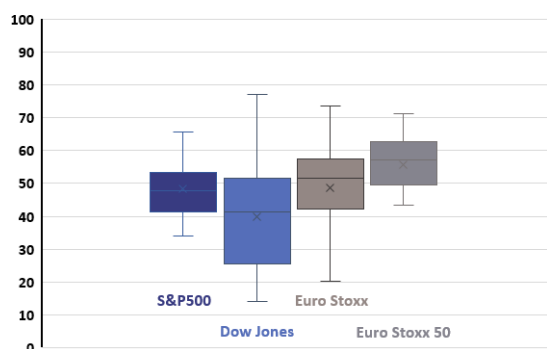
Cross-sectional correlations of corporate ESG ratings across different providers are therefore low. For example, the correlation between ESG scores from RobecoSam and Sustainalytics is between 11% and 63%, using the Dow Jones (see Exhibit 4) and



S&P500 indices, respectively as the coverage universe. For the Euro Stoxx and Euro Stoxx 50 indices, the ESG score correlation for these same providers is between 53% and 62%, respectively. This lack of consensus among providers calls into question the data itself. As a point of comparison, cross-sectional pair-wise correlations for credit ratings from S&P, Moody's and Fitch exceed 95%.

Data exhaustivity is also a major issue. As an illustration, Exhibit 5 shows the distribution of ESG disclosure scores for companies comprising representative indices. This score measures the amount of ESG data a company reports publicly. It ranges from 0.1 for companies that disclose a minimum of ESG data to 100 for those that disclose every data point collected by Bloomberg. Companies that do not disclose at all or that are not covered, are not included in the analysis. Average disclosure scores rank from 40% for the S&P500 to 56% for the Euro Stoxx 50. The dispersion of disclosure scores is particularly high for the Dow Jones index, which is somewhat surprising for such large companies. Fair comparisons are therefore difficult.

Exhibit 5: Dispersion of Bloomberg disclosure scores



A lack of comprehensive data raises the additional issue of opacity. Some ESG providers have developed proprietary models to estimate unreported data, often based on similar industry and company characteristics. Investors are therefore incorporating judgment calls from ratings

providers into their investment process. Unfortunately, reported data is often not transparent either. Non-financial information is not yet standardized, despite determined efforts from various interest groups including the Investor Network on Climate Risk ("INCR"), and the Sustainability Accounting Standards Board ("SASB"). This data is not subjected to any official auditing process, raising questions of validity. Older data is even more questionable, which raises additional point in time considerations. Today's ESG reports are where financial reports were dozens of years ago in terms of maturity. Of course, the industry is moving at a high speed and it is unlikely that we will have to wait dozens of years for reliable ESG reports. The World Economic Forum (WEF), in partnership with the Big Four accounting firms (Deloitte, EY, KPMG and PwC), is working to create a universal framework for ESG measurement to address the lack of consistency in ESG reporting. The initial proposals – a framework of 21 core and 34 expanded metrics – were published in September 2020.

Finally, ESG indicators are usually submitted annually or, at best, a few times a year. This very low frequency of data is insufficient for some end users like LFIS which rely on reactive valuation and risk models.

These data issues must be solved. A CoreData Research study of professional fund buyers globally found that nearly two-thirds think all investment funds will incorporate ESG in five years, but 80% also say that greenwashing will become more prevalent as demand for ESG increases. The credibility of sustainable investing is at stake. Moreover, data differences lead to different returns, and the lack of consistent standards makes any empirical argument that ESG delivers better risk-adjusted performance untenable. The expected risk-adjusted returns of classical ESG approaches is the subject of the next article in this ESG series.

ⁱ Denis Diderot (1713 – 1784): French philosopher and writer. A prominent figure during the Age of Enlightenment. « *Il ne suffit pas de faire le bien, il faut encore le bien faire.* »

ⁱⁱ Senior fellow in business and economics at the free-market Pacific Research Institute.

ⁱⁱⁱ "ESG risk rating of alternative portfolios" by Nicolas Gausse and Laurent Le Saint.

^{iv} "Hidden power of the Big Three? Passive index funds, re-concentration of corporate ownership, and new financial risk" by Jan Fichtner, Eelke M. Heemskerk, and Javier Garcia-Bernardo.



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