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TOPICS OF INTEREST

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Quantifying ESG in portfolio construction

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Executive Summary

Environmental, social, and governance (ESG) investing is a wide-ranging field that encompasses many different approaches. Investors are integrating ESG into the creation of their policies, investment beliefs, strategic asset allocations, manager selection decisions, and much more. ESG ratings and scores allow investors to understand and compare the ESG profile of companies and managers. ESG screens can serve as an effective tool for investors to identify exposures that may conflict with their institutional values. In this piece we provide a few illustrative examples of ESG applications to demonstrate some of the ways investors might build understanding around ways of integrating ESG into the investment process.

In "The Judgmental Waiter," a Sound Thinking piece from earlier this year, we established that our neutrality in the ESG discussion is essential to letting our clients freely implement their ESG beliefs in their portfolios without imposing our own viewpoints[1]. We recognize that our clients' views on ESG are diverse, and our advice around ESG is highly customized to reflect that fact.

How are investors leveraging ESG today?

Prior to addressing how ESG tools are being used by investors, it is useful to review the information incorporated into these platforms. The table below represents just one of many examples of potential ESG criteria that can be used by decision makers interested in ESG investing[2].

TABLE 1: POTENTIAL AREAS OF IMPACT

Environmental Issues	Social Issues	Governance Issues
Climate change and carbon emissions	Customer satisfaction	Board composition
Air and water pollution	Data protection and privacy	Audit committee structure
Biodiversity	Gender and diversity	Bribery and corruption
Deforestation	Employee engagement	Executive compensation
Energy efficiency	Community relations	Lobbying
Waste management	Human rights	Political contributions
Water scarcity	Labor standards	Whistleblower schemes

The popularity of the use of ESG factors in investing has risen over the last decade, and due to that we are seeing changes in disclosure requirements for companies as well as improvements in the capabilities of data providers to consolidate, analyze, and score non-financial information. Asset owners are requesting better disclosure practices from the companies they own, influenced by many different types of corporate ESG incidents over the years. ESG is also becoming a consideration for many fiduciaries, although this tends to vary across countries. Finally, ESG platforms continue to improve their ability to capture disparate sources of data. The challenge that ESG data providers face is that of collecting large amounts of disparate data and analyzing it in a way that allows investors to compare practices across different companies and investment managers.

There are several approaches for investors looking to integrate or expand ESG in their investment process. Investors tend to use six types of methods for integrating ESG considerations into the investment process. These methods are not mutually exclusive, and are as follows.

1. **Exclusionary screening** is the oldest and most straightforward ESG method – it is also known as negative screening. As the name implies, exclusionary screening refers to avoiding securities of companies or countries based on specific ESG criteria. For instance, excluding stocks of companies connected to alcohol, tobacco, or gambling products or services, or avoiding securities due to ethical, human rights, or environmental concerns.

2. **Best-in-class selection** is an investment style that focuses on companies with strong or improving ESG metrics relative to industry or sector peers. Unlike the exclusionary screening method, best-in-class selection does not exclude entire categories of securities. Best-in-class selection is also known as positive selection or positive alignment.

3. **Active ownership** refers to employing shareholder power to influence the activities or behavior of investee companies. Corporate engagement and proxy voting are the two primary tools for this approach. Note that active ownership is not necessarily synonymous with activist investing, as the latter tends to be a more aggressive and confrontational approach to advocating change.

4. **Thematic investing** refers to focusing investments in themes or assets that address specific issues related to ESG, such as clean technology, renewable energy, food, water, education, health care, and agriculture. A thematic investing approach focuses on expected long-term trends that may be social, industrial, or demographic in nature.

5. **Impact investing** involves investing with the primary goal of achieving specific and measurable social or environmental benefits in addition to a financial return. In fixed income, green bonds and social impact bonds, which finance environmental and social projects, respectively, are examples of dedicated impact investment vehicles.

6. **ESG integration** refers to explicitly considering a range of sustainability and ESG-related risks and opportunities in concert with traditional financial analysis. ESG integration is meant to create a more holistic approach, where ESG information is used throughout the investment process, from security selection and valuation to portfolio construction and risk management.

As we review different approaches to ESG, it is important to highlight that our role as an investment consultant is not to advocate for which ESG approach is best. Rather we seek to understand which approach is most appropriate for each client, and then help them implement and monitor that program.

ESG capabilities

Diving into the ESG tools, we can segment the analysis in two parts – the intent of the analysis and the content.

INTENT OF THE ANALYSIS

The intent of the analysis falls into three categories:

1. **Measure:** Understand exposures across different ESG factors
2. **Score/Rate:** Use scoring/ratings to understand ESG practices and compare companies/managers
3. **Screen:** Exclude exposures based on investor preferences

These three types of analysis can be conducted on both current and prospective investments and are used by investors throughout the investment process.

CONTENT

The second aspect of ESG tools is the content of the analysis – this addresses ESG metrics/ratings as well as all the different screens, factors and analysis that can be conducted.

ESG ratings seek to quantify differences in ESG practices. The creation of ESG ratings is a complex task that varies across different providers and can yield very different results[3]. The ability to rate companies across a complex array of different factors is integral to making decisions. Broadly, investors are analyzing content across the following ESG areas:

Value-based screen

- Limit or exclude exposures to characteristics or business activities

Headline risk

- Practices related to: Child Labor, Employee safety, Diversity, Employee relations, Union relations, Human rights, and Product Safety

Climate/Carbon risks

- Carbon emissions and Intensity
- Fossil Fuel reserves
- Utilities/Power generation
- Climate/Stress testing
- Climate/Scenario Analysis
- Climate VaR

Impact Investing

- Environmental impact metrics
- Social impact metrics

ESG applications

As we have highlighted previously, there are several ways to apply ESG characteristics in the investment process. We will review a few practical applications to demonstrate how investors can use ESG tools to provide a deeper understanding of the investment program. First, we will look at an example of passive ESG monitoring, where information on existing managers is reviewed for the purpose of informing and educating stakeholders. Next, we will conduct a value-based screen to create a new investment mandate for a Catholic institution. Last, we will integrate ESG characteristics into the manager selection process. There are several platforms that provide ESG analysis[4]. We will focus on MSCI's ESG Manager and BarraOne to conduct the analysis in our examples.

EXAMPLE 1: PASSIVE MONITORING

Including ESG information in standard reporting is a passive way to integrate ESG in the investment process. In this approach, ESG content is provided for informational purposes and stakeholders can choose to consider it when making decisions. This is useful for clients that are interested in learning more about ESG and are looking to start discussing with stakeholders. Table 2 is an example of passive ESG monitoring. Several different ESG metrics are provided in an existing portfolio to inform stakeholders about their current ESG profile.

TABLE 2: ESG CHARACTERISTICS

	rating	score	score (% peer)	carbon intensity	impact (%)
U.S. Large Cap					
Manager A	A	6.5	71.5	278.6	6.6
Manager B	BBB	5.1	10.9	59.1	3.9
U.S. Small Cap					
Manager C	BB	3.6	21.0	140.6	5.2
International Equity					
Manager D	A	6.5	28.6	242.3	4.8
Manager E	BBB	5.1	10.9	59.1	3.9
Manager F	A	6.3	20.5	110.9	5.1
Emerging Markets Equity					
Manager G	BB	4.1	23.2	653.6	2.2
U.S. Fixed Income					
Manager H	BB	3.3	81.9	278.3	2.6
Manager I	A	6.5	23.2	1122.0	0.0
Emerging Markets Fixed Income					
Manager J	B	2.9	24.1	1260.3	0.3
Global Fixed Income					
Manager K	BBB	5.4	42.8	97.1	1.7

This information can provide some valuable insights and potentially lead to some additional analysis or even changes in the portfolio. Here are some observations that add additional color to the managers, but also raise additional questions:

— **ESG Ratings:** *Assess the resilience of a fund's aggregate holdings to long term ESG risks and opportunities. Highly rated funds consist of issuers with leading or improving management of key ESG risks. Ratings are on a scale of AAA to CCC, with AAA being the highest.*

- There is quite a bit of variation across the portfolio, but this investor may be interested in looking into the managers with the lowest ratings (Managers G, H, and J) and understanding why those managers have selected the securities they have.

— **ESG Quality Score:** *On a 0-10 scale, with 10 being the highest possible score. This is a weighted average of the underlying security ESG quality scores and provides some additional information on these funds.*

- Even though Manager F has an ESG Rating of "A", they have an ESG quality score of 6.3 out of 10. How does that score compare to other managers in the space?

— **ESG Quality Score (% peer):** *Peer Group Percentile Ranks (0-100), represents the percentage of funds in the peer group with an ESG quality score equal or less than the fund.*

- This metric provides some valuable information as we can see how each fund's quality score compares to a representative universe. Manager F's quality score of 6.3 is better than or equal to 20% of the universe, indicating the ESG profile is not very strong on a peer-relative basis. Manager H, who has a relatively low ESG Rating and

Quality Score has a high percentile ranking, indicating their score is similar or better than over 80% of the universe.

- **Carbon Risk:** *Measures the carbon intensity of the fund's holdings.*
  - There are some interesting results here as we see some high carbon risk managers in both the emerging market equity and bond space. The investor may also conduct a deeper analysis of Manager I to understand why their carbon risk is so much different than the other manager within the U.S. Fixed Income space.

- **Sustainable Impact (%):** *Measures fund exposure to publicly traded companies addressing core environmental and social challenges.*
  - This metric provides some interesting results as we can see that all the managers are investing less than 10% of their capital in companies addressing environmental and social challenges. Another interesting area to look into is what is causing Manager I to have a 0% result.

This information is an example of type of reporting that can be produced for investors, and it provides a low-impact way for investors to receive ESG characteristics on their portfolio. It also provides a means for investors to understand their portfolio and investment managers better.

EXAMPLE 2: VALUES-BASED SCREEN

Screens can be conducted on a variety of different ESG factors. Values-based screens check for involvement in business activities to ensure alignment with investor preferences. Screens are not a one-time project, rather they should be thought of as an ongoing process. Screens need to be conducted periodically because ESG profiles can change as managers buy and sell securities or as underlying companies change their practices and policies – this can make monitoring managers just as important as the initial screen.

In this example, we will assume a client wants to create an investment mandate based on a screen of Catholic values. We apply the investment guidelines identified by the Unites States Conference of Catholic Bishops. This screen excludes securities that are involved across 13 business involvement categories.

TABLE 3: CATHOLIC VALUES SCREEN

GICS Industry	Weight (%)	Values Screen Weight (%)	Difference (%)
Communication Services	8.7%	8.7%	0.0%
Consumer Discretionary	11.9%	11.5%	-0.4%
Consumer Staples	7.7%	6.5%	-1.2%
Energy	3.4%	3.1%	-0.3%
Financials	13.3%	12.9%	-0.4%
Health Care	12.9%	5.4%	-7.5%
Industrials	10.3%	8.6%	-1.7%
Information Technology	20.1%	19.0%	-1.0%
Materials	4.9%	4.6%	-0.4%
Real Estate	3.7%	3.7%	0.0%
Utilities	3.2%	3.2%	0.0%
Total	**100.0%**	**87.1%**	**-12.9%**

Table 3 analyzes the screen on the MSCI All Country World IMI Index and groups the assets by GICS industries. 344 companies are screened out of the investible universe – most of which fall within the Health Care industry. The new investible universe is about 87% of the overall market. To further understand the impact of this screen, we can analyze the risk impact:

TABLE 4: RISK SUMMARY

	Screened portfolio (%)	ACWI IMI (%)
Total Risk	22.38	21.89
Tracking Error (to ACWI IMI)	0.97	0

The screened portfolio has a higher expected volatility than the broad equity index and creates a tracking error of about 1%. With this knowledge, the investor may consider revisiting the appropriate benchmark to measure success for this mandate.

Conducting some scenario and shock analysis, we can analyze how the screened portfolio performs in some historic drawdown scenarios as well as a couple uncorrelated market shocks:

TABLE 5: SCENARIO/SHOCK ANALYSIS

Scenario/Shock	Screened portfolio	ACWI IMI
2020 COVID-19	-34.3%	-33.6%
2007-2009 Subprime and Credit Crisis	-55.8%	-55.0%
2001 Sept 11	-12.0%	-11.8%
1987 Market Crash (Aug. to Nov.)	-17.8%	-17.4%
2000-2003 Tech Crash & Recession	-47.5%	-46.8%
USD Shock 20%	-8.4%	-8.3%
Global Equity shock -20%	-20.4%	-20.1%

This analysis shows the screened portfolio performs slightly worse than the broad equity index across all historic scenarios. While the goal of this mandate is to exclude securities based on a Catholic values screen, and not reduce risk, it can be valuable to include this risk content in the analysis as the investor will make a more informed decision.

Once an investment manager is hired to implement this mandate, the client should have a process in place to monitor, report, and audit the exposures in this mandate.

EXAMPLE 3: MANAGER SELECTION

ESG characteristics can also be used to inform manager selection decisions. Imagine that an investor is looking to add a domestic equity manager to an existing mandate. The requirements for this manager are:

- Consistent alpha in the asset class
- Diversification relative to the other public equity managers
- Limit downside risk

An investor has distilled a manager search down to two managers. These managers are very similar with respect to most of the risk risk/return characteristics, but they have different ESG profiles. In this instance, the ESG characteristics may serve as the reason why one manager is selected over the other.

TABLE 6: MANAGER RISK/RETURN CHARACTERISTICS

Metric	Manager A	Manager B
Volatility	12.00%	12.50%
Alpha	0.44%	0.53%
Tracking error	2.2%	2.1%
Sharpe Ratio	0.45	0.43
Information Ratio	0.20	0.25
Beta to ACWI	0.85	0.83
Correlation to existing managers	0.80	0.85
Max Drawdown (2015-2020)	-25.0%	-25.6%
Var (95%)	-23.5%	-24.5%
ESG Rating	AA	BBB
ESG Score	70	51
Carbon Risk	91	140
Sustainable Impact %	9%	7%

Both managers are expected to meet the mandate objectives of providing alpha, diversifying the existing managers, and limiting downside risk. Many of the traditional risk/return characteristics are very similar across the two managers. The area where we start to see more of a distinction between the two is when we view the ESG metrics. Manager A has a better ESG profile, with a AA ESG rating, an ESG score of 79, and lower Carbon risk and a higher sustainable impact. An investor could reasonably use this information as a tie breaker. Either one of these managers might be appropriate for the specified mandate, but the additional ESG data provided enables investors to make more informed decisions.

Conclusion

ESG is a wide-ranging field that encompasses many different approaches. Investors are integrating ESG into the creation of their policies, investment beliefs, strategic asset allocations, manager selection decisions, and much more. ESG ratings and scores allow investors to understand and compare the ESG profile of companies and managers. ESG screens serve as an effective tool for investors to identify certain exposures that may conflict with their institutional values. Understanding what you own is a core principle in risk management. As investors engage in ESG it becomes increasingly important to have the ability to analyze decisions and verify the implementation of a strategy is consistent with expectations.

Notes & Disclosures

1 *Toner, Ian. "The Judgmental Waiter: Who Decides? ESG in Institutional Investing." Sound Thinking, March 2020*

2 *CFA Institute, ESG Issues in Investing: A Guide for Investment Professionals*

3 *"What difference an ESG Ratings provider Makes!" Research Affiliates, January 2020. Li Feifei, Polychronopoulos, Ari.*

4 *ESG Analytics are provided by several different firms. Many firms will focus on a subset of the ESG analysis such as Mutual Funds/ETFs, Companies, or Indices. There are two good sources for reviewing the different companies that engage in ESG research:*

- *Environmental, Social, And Governance (ESG) Investment Tools: A Review of the Current Field. Appendix A – List of ESG Investment tools. Ezeokoli, Ogechukwu, Et al. December 2017.*
- *Douglas, Elyse, Tracy Van Holt, and Tensie Whelan. 2017. "Responsible Investing: Guide to ESG Data Providers and Relevant Trends." Journal of Environmental Investing, vol. 8, no.1: 92–114.*

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