Our approach to ESG

Invesco Fixed Income (IFI)

June 2021

Invesco and ESG investing

Invesco has considered environmental, social, and governance (ESG) factors in its investment approach for more than 30 years. We believe a comprehensive ESG investing program demands a combination of effective investment stewardship – our duty as an asset manager – and corporate social responsibility (CSR) – our duty as a corporate citizen.

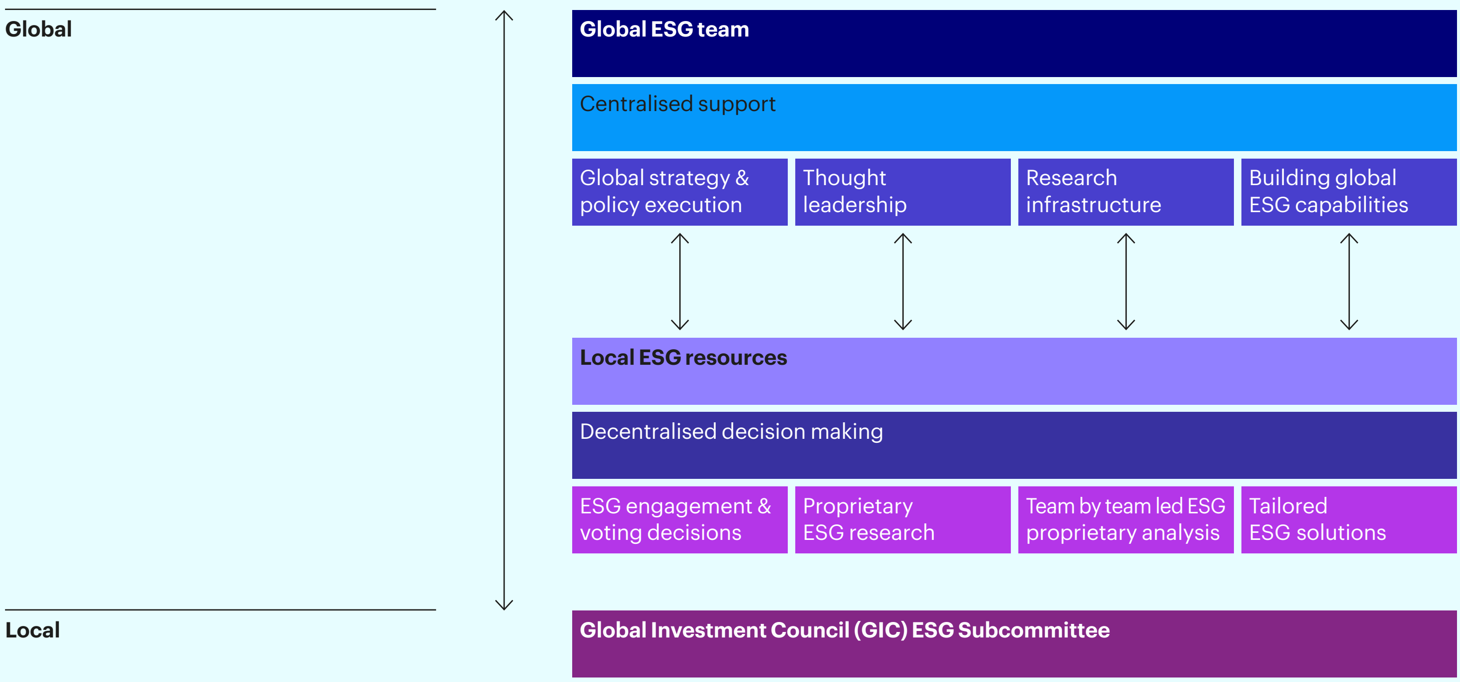
Invesco's ESG investing approach is built on the footholds of integration and engagement. We integrate ESG risk and opportunity factors into our investment decisions and engage with investee companies and issuers as part of our commitment to active ownership, which we regard as one of the most powerful mechanisms for reducing risks, enhancing returns and creating a positive impact on society and the environment.

As a conscientious corporate citizen, we are committed to adopting and implementing responsible investment principles in a manner consistent with our fiduciary responsibilities to our clients. We have strengthened our position in this regard in several ways, including through industry advocacy, leadership, and innovation. We became a signatory to the UN-backed Principles for Responsible Investment in 2013 and achieved an A+/A rating[1] in each module of our 2020 assessment for incorporating ESG into our investment practices. We are also disclosers to the Carbon Disclosure Project and supporters of the Task Force for Climate-related Financial Disclosure (TCFD), having published our inaugural annual Climate Change report in July 2020.

Throughout the organization, Invesco combines centralized support with decentralized decision-making. Our Corporate Responsibility Committee (CRC) drives the strategy, oversight, and governance of our internal programs, which includes progress against climate change. The CRC provides direction to Invesco's investment and corporate stewardship leaders on core ESG and CSR topics, participation in industry advocacy and policy efforts, and charitable and community organizations to enhance our impact in sustainable global efforts. Our Global Investment Council (GIC) provides oversight to our specialized investment teams and offers a balance of global expertise, support, and connectivity. Chaired by our Global Head of ESG, Invesco's GIC ESG Subcommittee focuses on ESG investment issues, including climate change and social equity. The incorporation of ESG considerations is conducted by investment teams on a team-by-team basis. While there is global centralised ESG support, investment decisions are ultimately made by our investment analysts as individuals who know their asset classes and sectors best.

[1] We were proud to be awarded an A+ rating in 2020 for our overall approach to responsible investment (Strategy and Governance) for the fourth consecutive year as well as achieving an A or A+ across all categories in the 2020 assessment period. The PRI carries out the annual assessment based on how a signatory has progressed year-on-year and relative to peers. This rating demonstrates our extensive efforts in terms of ESG integration, active ownership, investor collaboration and transparency.

Fig 1. ESG investing overview



Source: Invesco. For illustrative purposes only.

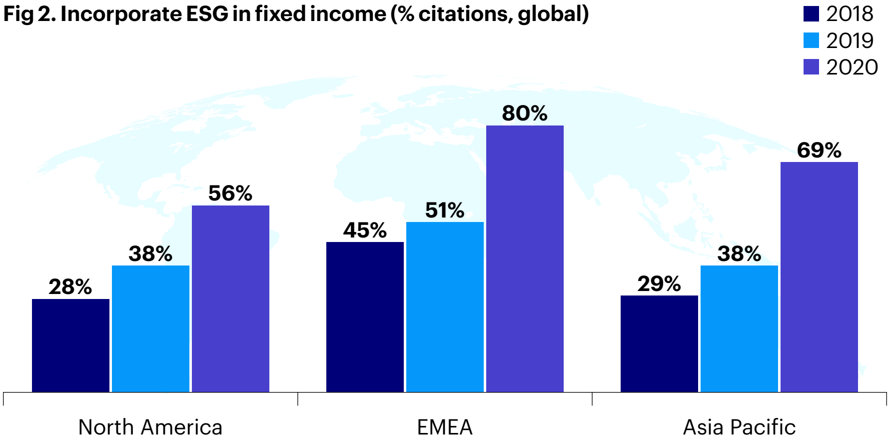
Invesco Fixed Income and ESG investing

Invesco Fixed Income (IFI) is an independent, active fixed income manager with global operations and USD301.6 billion under management (as of 31 March 2021) for clients across all fixed income asset classes. IFI's extensive resources include over 175 investment professionals and offices in Europe, North America and Asia – all singularly focused on uncovering and delivering value for clients in global fixed income markets.[2]

Our investment approach emphasises proprietary research and focuses on fundamental valuation to support the active management of our clients' portfolios. ESG integration is strongly consistent with this investment focus.

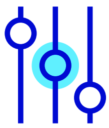
IFI has managed ESG-aware portfolios for more than two decades and our approach has consistently evolved. Exclusion-based screening once dominated the ESG landscape, but has since been augmented by positive selection-based criteria for holdings as well as embedding decarbonisation objectives. This reflects how industry dynamics have changed and how the appetite for more sophisticated and targeted sustainability-linked outcomes has grown among clients. As more investors embark on the responsible investing journey in their fixed income allocations (figure 2), we are increasingly integrating ESG considerations into key asset classes.

Fig 2. Incorporate ESG in fixed income (% citations, global)

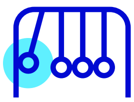


Source: Invesco Global Fixed Income Study 2020.

Our approach to ESG is rooted in a belief that evaluating ESG criteria leads to better long-term risk-adjusted returns. With this in mind, we look for a combination of materiality, momentum, and engagement.



Materiality means being clear about the ESG considerations that have the potential to most impact an issuer's ability to meet its debt obligations. We integrate these ESG considerations into our fundamental research processes by providing an independent assessment of each investment, complementing third-party ESG ratings and expanding the investable universe to include issuers that lack external coverage. We maintain global standards for research and investment decision-making, allowing ESG considerations to be applied across asset classes where appropriate and enhancing comparability across multi-sector fixed income portfolios.



Momentum means using our expert analysis to determine which issuers are outpacing their peers in terms of making progress on ESG considerations. We believe that a link may exist between positive momentum in ESG characteristics and improving creditworthiness, which is potentially advantageous for fixed income prices and investment returns.

Engagement means encouraging momentum by working with Invesco's Global ESG team and other experts to engage with issuers to provide our views on matters such as strategy, transparency, capital allocation and ESG concerns. We view active ownership as a vital element of our fiduciary responsibilities to clients.

[2] Source: Invesco, as of 31 March 2021.

01

Applying our approach to diverse sectors

The fixed income landscape is broad and varied. It encompasses government securities issued by countries, securitised debt, loans undertaken by private companies, and many other forms of asset. Geographical, structural, and regulatory differences mean that data availability, ESG factors, and management engagement levels are highly diverse .

As a result, while our underlying approach to ESG is consistent, the path to arriving at an ESG-based assessment differs to account for the constraints and challenges posed by a particular asset class. In the following pages, we explain how different IFI teams incorporate ESG factors into their investment processes. It is important to highlight that integration is an ongoing strategic effort and these approaches will continue to evolve.

02

Sovereign debt

ESG considerations are highly relevant to the analysis of sovereign debt issuers. Because countries can issue bonds that mature over very long periods (50+ years), their ability to meet their obligations might be altered significantly by action or inaction on ESG factors.

Governance factors have historically been an important driver of sovereign credit spreads, and, as a result, our approach to sovereign ESG analysis places a slightly higher emphasis on this area compared to environmental and social factors. However, we acknowledge that ESG considerations are inherently interconnected. For example, poor institutional governance factors can hamper a country's ability to address its vulnerability to climate change or to follow through on commitments made under the Paris Agreement. Social factors can equally be driven by or be the driver of how governance factors develop. In 2020, issues of equality (race and gender) and health care (COVID-19 pandemic) fundamentally drove change in governance factors in certain countries. These dynamics are often not readily apparent in the data itself, but the connections are intuitive to our sovereign macro analysts. Our philosophy, therefore, is to blend data and specialist insight to construct relevant, informed and timely ESG views on the countries we invest in for our clients.

The objective of our ESG country process is to establish a holistic view of each country's ESG performance by combining historic (structural ESG assessment) and current data (event-based ESG assessment) with the insights of our global debt analysts. Our ESG assessments are ultimately qualitative in nature but are also underpinned by quantitative analysis. We believe this approach is necessary to deliver in-depth ESG views that reflect the unique set of issues facing each country.

Within this process, we are guided by the two principle concepts behind IFI's ESG philosophy – materiality and momentum. **Materiality** in the context of sovereign debt means we identify events or macroeconomic developments that may impact the country's position across the ESG pillars, and, as a result, require us to change its overall ESG grade. **Momentum** means we consider whether the underlying dynamics of the issues faced by a country are likely to strengthen or weaken its ESG standing in the future. This can be based on data extrapolation, macro analyst insight, or often, a combination of both.

Structural ESG assessment

- Quantitative scorecard model
- Annual data
- High quality independent data providers
- 140+ countries

Event-based ESG assessment

- Qualitative
- Macro analyst-driven
- High frequency data
- Focus countries

IFI ESG Scores and trend

- Macro analyst-adjusted Scores and trend
- In-depth commentary

Using indicators from multiple market and in-house sources, we first build a quantitative scorecard for each country's characteristics across ESG factors. We rank countries from several different perspectives to provide a holistic view for our portfolio management teams. In addition to an overall global ranking, our framework also establishes ESG grades comparing against emerging market or developed market sub-groups, depending on which category the country belongs to, as well as various regional and income-based subsets.

We employ indicators selected by non-governmental organisations (NGOs) and academic institutions so they are independent and impartial, which is not always the case with government-supplied figures and assessments.

Fig 5. We assess the following measures in each quantitative scorecard:

Environmental

- Emissions per unit of GDP (PPP)
- Total CO_2 emissions
- Tree cover loss
- Water Sanitation / Waste Management
- Air Quality
- Renewable Energy
- Legislative progress toward Net Zero

Social

- Life Expectancy
- GNI per capita
- Expected years schooling
- Average years schooling
- Gender Equality
- Gender Development
- Progress toward SDG commitments

Governance

- Corruption
- Voice and Accountability
- Political Stability
- Government Effectiveness
- Regulatory Quality
- Rule of Law
- Corporate Sector Transparency and Quality

Official data sources for ESG factors at the sovereign level often report annually and time lags are inherent in the data sets used for our quantitative scorecard process. Events may occur at any time that could be a catalyst for change across any of the ESG risk factors related to each country. Major catalysts would include an electoral cycle or social unrest, which could bring about changes in the political and institutional landscape and shift the dynamics of a country's governance factors in the process. Our sovereign macro analysts implement a qualitative overlay on the quantitative scorecards to capture material ESG events as they happen. By monitoring real-time ESG events and macroeconomic variables, they seek to ensure that their assessment of each country's ESG status reflects current dynamics. This process produces two key outputs: Analyst-Adjusted ESG Scores and Analyst-Assessed ESG Trends. Qualitative narratives on the rationale for Analyst-Adjusted Scores and Analyst-Adjusted Trends help to contextualise the specific impact of risk and opportunity factors on each country's prospects for our portfolio management teams.

03 Corporate credit

IFI's credit analysts are tasked with understanding the ESG drivers for the companies they cover and conducting ESG-based analysis along with their fundamental financial analysis. This applies across our corporate credit research teams in North America, Europe, and Asia.

Our corporate research follows the same set of standards globally, encompassing investment grade and high yield issuers, whether an issuer is based in a developed or an emerging market country. This approach is also applied to short-dated securities held in IFI-managed global liquidity products. Our analysts are primarily focused on identifying risk factors that could be financially material, and these may be common to all industry participants or unique to a specific issuer.

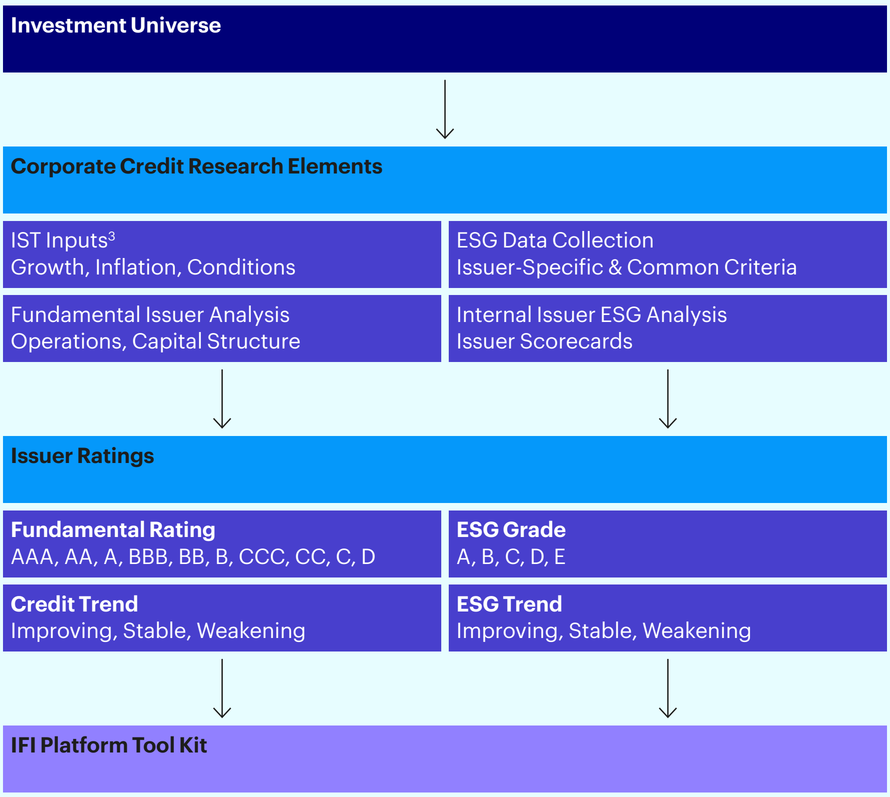
The starting point for ESG assessment is at the industry level. Our global sector teams set out common ESG risk factors for each industry, and individual analysts work within this framework on each issuer in their coverage area, while also seeking to identify idiosyncratic ESG risks to which individual issuers might be exposed.

We also use third-party research and data to provide broad market context and transparency. These external sources supplement our proprietary research and assist our analysts in identifying areas or issues of interest where engagement with company management is warranted. We engage directly with companies to better understand their positions and their future intentions. IFI and industry participants' increased focus and engagement on ESG factors has resulted in material improvements in ESG-related issuer reporting and heightened management focus on governance practices.

IFI has developed its own ESG methodology and grading system to provide clear and consistent outputs for portfolio managers. Each issuer receives a proprietary overall ESG grade, accompanied by sub-grades covering the three pillars of E, S and G. In addition, ESG momentum is captured through trend assessments, which add further useful information for portfolio managers in the same way that creditworthiness trend assessments do for fundamental credit ratings. All ESG research is stored on our research platform so that portfolio managers across asset classes may easily access it.

IFI is committed to continuous innovation and improvement in its ESG corporate research process. For example, with the increased issuance of green bonds and growing client interest, we have recently developed specialized templates to aid in analysing such bonds.

Fig 6. Overview of ESG research elements for corporates



- Research analysts conduct **fundamental analysis** of screened issuers
- Issuer fundamental ratings provide an independent assessment of **creditworthiness** using an AAA-D format
- Analysts identify the 12-18 month trend in creditworthiness as **improving**, **stable**, or **weakening**
- ESG grade and trend assessments are integrated into the credit analysis process
  - **Materiality:** considerations that have the potential to most significantly impact on an issuer's ability to meet its debt obligations
  - **Momentum:** determine which issuers are outpacing their peers in making progress
- Assessments are documented and communicated through the **IFI Research Platform**

3 Investment Strategy Team (IST) brings together the resources of the IFI platform to develop investible investment themes.

Source: Invesco. For illustrative purposes only.

04 Structured investments team

Philosophy and approach to ESG

ESG considerations are deeply integrated into the Structured Debt Team's investment process. By integrating ESG factors into our investment decisions, we seek to promote and support key values that we believe not only improve and bolster communities, but also lead to positive investment performance outcomes.

The key tenets of our ESG-related investment philosophy are three-fold:

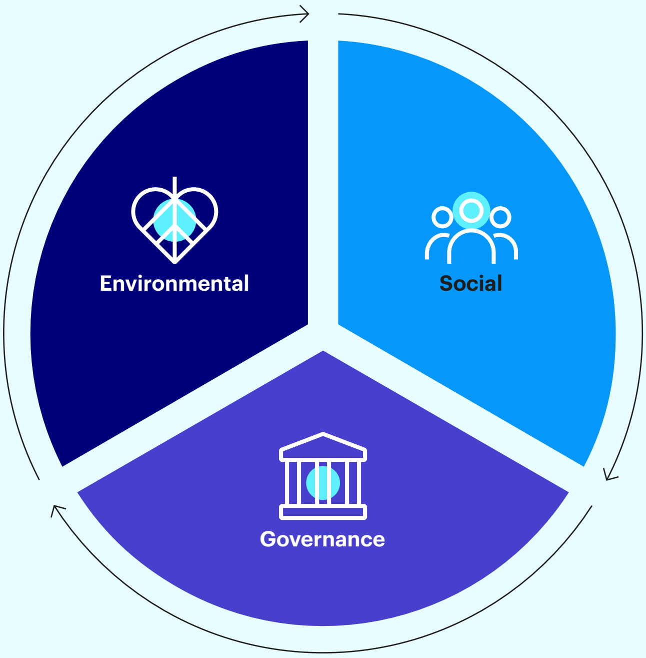
- Promote environmentally sustainable communities
- Support economic development in underserved communities
- Encourage responsible loan origination and servicing practices

Overview

Rather than relying on external credit ratings in making investment decisions, the Structured Investments Team conducts a thorough fundamental review of each credit to establish a proprietary rating. Our analysis considers insights from our macro research team, corporate credit analysts, direct real estate investors and loan originators.

However, we believe it is our bottom-up fundamental approach that differentiates our team from many competitors. Our dedicated commercial mortgage, residential mortgage, and consumer finance analysts assess underlying asset and borrower risk and project defaults and loss severities at the loan level whenever possible. ESG risk and opportunity factors are similarly assessed at the underlying loan and asset level. Furthermore, we analyse originators and servicers to identify those with favourable ESG practices. We believe incorporating ESG factors into our investment process enhances our ability to support responsible practices and optimize risk-adjusted portfolio returns.

Fig 7. ESG considerations play a critical role in our structured investment underwriting process



Promote environmental sustainability
Our team analyzes the environmental standards of loans based on participation in third party programs such as LEED, Energy Star and Government Sponsored Enterprise (GSE) green initiatives

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Support underserved communities
Identify affordable housing, opportunity zones and access to affordable financing

↓

Encourage responsible loan origination and servicing practices
We analyze originators and servicers based on factors such as lending practices, regulatory record and management profiles

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ESG is considered for collateral backing an investment

Source: Invesco. For illustrative purposes only.

Environmental factors

We believe the underwriting process should take into account the potential impact of investments on the environment as well as credit risks posed by environmental factors, such as climate change. For example, we anticipate that residential and commercial properties that seek efficient energy and water use and adopt renewable energy technology will benefit from increased investor demand. Furthermore, we believe tenants and homeowners value innovative design and resource efficiencies that reduce negative impacts and risks to the environment. Buildings that have been built or retrofitted in an environmentally responsible manner often benefit property owners in the form of reduced operating costs. We therefore consider the percentage of loans backing our bonds that benefit from being secured by green building certifications or favorable energy performance ratings. For consumer asset-backed securities (ABS), such as those collateralized by automobile loans, we assess an issuer's commitment to reducing carbon emissions and view electric and hybrid innovations favourably.

Our analysts are also focused on identifying environmental risk factors that could materially impact investment outcomes. We seek to ensure that commercial real estate properties securing our bonds aren't in locations where hazardous materials are present or the soil is contaminated. Importantly, property site inspection reports help us ensure that associated borrower legal and regulatory risks won't materially impact the credit quality of our investments. We also seek to determine if properties or pool concentrations may be at greater risk from climate change due to their geographic location. As a result, we incorporate the likelihood of property damage and business interruption from earthquakes, flooding, hurricanes, tornadoes, hail, wildfires, and winter storms into our analysis.

Social factors

As part of our underwriting process, we believe social initiatives should be considered, as they may impact the quality of communities and the value of the assets securing our investments. Regarding social risk factors, we're particularly focused on ensuring that originators aren't engaged in discriminatory lending practices. This helps mitigate the risk of negative loan performance and potential future legal actions.

Regarding social opportunity factors, government funding has the potential to support economic development in underserved communities and thus creates an opportunity to drive demand and attract new capital to specific sectors. As a result, we seek to identify bonds secured by properties that are deemed "affordable housing" or that are located within a Qualified Opportunity Zone (QOZ), a geographic region where new investments aimed at encouraging economic growth and job creation may be eligible for preferential tax treatment. In addition, we also evaluate ABS bonds that offer consumers greater access to affordable financing across a variety of diversified asset types.

Governance factors

The ultimate performance of our investments may be impacted by governance risk factors related to the originator of the loan and the parties involved in the administration of the loan. We therefore assess the governance and performance of originators, servicers, and special servicers. We believe loans that aren't responsibly originated and serviced are more likely to experience negative performance and adversely affect communities.

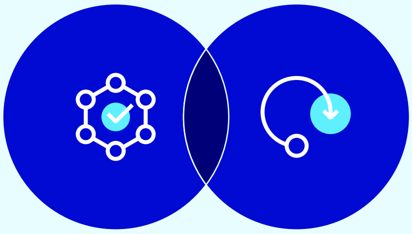
With respect to loan origination, we seek to ensure that loan originators have adequately assessed a borrower's ability to make scheduled interest payments and ultimately repay principal. This helps limit predatory lending practices and diminishes potential legal and regulatory risks. Regarding loan servicing, we seek to ensure that staffing and technology is adequate to manage borrower engagement, including collections and borrower modification requests.

Issuer engagement

We engage with issuers, loan originators and servicers via questionnaires and meetings to assess their hiring practices, review key policy and process documents and encourage advancement in specific ESG considerations. For example, we seek to determine what operational and risk management policies are in place to protect against discriminatory and illegal origination practices. We also assess each company's commitment to employee diversity. Further, we seek to increase adoption of ESG principles and data disclosure by serving in leadership roles in industry trade organizations and steering committees.

Fig 8. Encourage responsible loan origination and servicing practices

Servicers
Involved in payment collection, cash administration, resolving non-performing assets and approving borrower requests



Originators
Involved in creating underlying loan collateral

We assess the governance and performance of both originators and special services

05

Senior secured loans

Invesco manages senior secured bank loans for institutional, retail, and high net worth clients globally. Bank loans are an alternative asset class: they are privately arranged debt instruments, usually below investment-grade quality, but they are not securities. Each loan has unique characteristics tailored to its underlying corporate issuer. Issuers are often private companies or may be sponsored by a private equity firm.

A growing segment of Invesco's bank loan clients are focused on ESG and have asked for ESG-managed portfolios. In 2015 we began incorporating ESG considerations into our investment process as part of our consideration of credit risk for each issuer. As our clients became increasingly sophisticated in their approach to ESG, they demanded more from us. Since only a small pool of the investable universe is covered by third-party ESG rating providers, we set out to develop a proprietary, quantifiable framework for rating each issuer.

As a result, our analysts are now responsible for independently rating each loan they cover from an ESG perspective. They conduct due diligence reviews with issuers' management teams to inform a rigorous, multifaceted screening process in which each loan is measured on a scale of 1 to 5 (with 1 indicating "no risk" and 5 indicating "high risk") on numerous ESG factors, as listed below.

Fig 9.

Environment

- Natural Resources
- Pollution & Waste
- Supply Chain Impact
- Environmental Opportunities

Social

- Workforce
- Community
- Product Responsibility
- Human Rights

Governance

- Management
- Shareholders
- Board of Directors
- Auditors
- Regulatory Issues
- Corporate Social Responsibility Strategy
- Anti-corruption
- Business Ethics

To derive an issuer-level ESG rating, we use a weighting schematic for the issuer's broad industry category. These ratings are averaged into an overall ESG score that is approved by our Senior Investment Committee, subject to updates and reviews on, at least, an annual basis.

Applying our own ESG approach to bank loans has led to many positive outcomes, the most significant being our ability to provide an investment solution that meets our clients' objectives. We have received considerable interest in our strategy from existing and prospective clients alike, and we continually seek to broaden this capability.

Another major consequence is that we have substantively enhanced our analytical skills regarding ESG risks. Although the process of rating each issuer has been time-consuming and complex, our analysts are now leaders in understanding the implications of ESG issues across the investable universe, and, as such, they are able to make more impactful investment decisions.

Engaging management teams on the importance of ESG from an investor perspective has been another benefit of our approach. While we do not have voting rights or control over issuers' ESG activities or conduct, our position as one of the largest managers of senior secured bank loans enables us to emphasise to management teams the importance of ESG issues in relation to their ability to raise capital in this market.

Fig 10. How does the ESG rating process work?

ESG research
- Invesco analysts conducts proprietary research and interviews management teams
- Due diligence

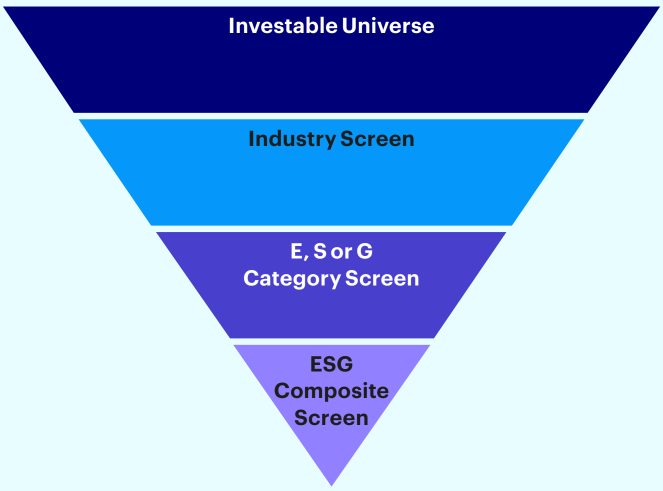
ESG risk factors
Analyst assigns 1–5 rating for each of the 16 identified ESG factors
1 – Negligible risk
2 – Low risk
3 – Average risk
4 – Above average risk
5 – High risk

Calculate average score for E, S and G pillars
- Weighted average score determined for E, S, and G pillars
- Portfolio screen for maximum E, S or G score

Calculate composite ESG score
- Weighted by industry
- Leverage MSCI E/S/G pillar weights for each respective industry

Investment Committee
- Analyst presents key findings to senior Investment Committee
- Senior Investment Committee signs off on ESG rating

Fig 11. How does the ESG portfolio construction process work?



Industry Screen
Screening employed to exclude companies based on their involvement in:
- Production of tobacco products
- Controversial weapons
- Extraction of thermal coal
- Extraction of fossil fuels from unconventional sources
- Gaming

E, S or G Pillar Screen
- Issuers with an E, S or G pillar average score above a defined level

ESG Composite Score
- Issuers with an ESG composite score above a defined level

Source: Invesco. For illustrative purposes only.

06 Municipal debt

The integration of ESG metrics in the municipal asset class allows for the selection of issuers that provide clean, affordable and equitable services. Whether applied to a state that prizes public health, a city that raises employment rates or a utility that maximizes renewable energy sources, ESG metrics can serve as leading indicators of a municipality's future prosperity, potentially resulting in better long-term risk-adjusted returns for investors.

The municipal asset class is comprised of a variety of different sectors, which is why IFI's research team identifies common ESG-related risk factors specific to each of them. This allows our analysts to compare issuers within the same sector and recognize best-in-class opportunities. Given the significant number of potential risk factors, we seek to identify those risks that could have a material impact on an issuer's ability to repay its debt obligations.

Once these risks have been identified, data collection is carried out as part of our routine analysis. This data collection process leverages the resources of the Invesco Global ESG Team as well as third-party sources and industry-wide relationships. These include regulatory bodies, rating agencies and data providers, as well as ESG memberships, affiliations, and partnerships. Direct engagement is also key to our approach, as it enables our analysts to learn more about how issuers view risk factors and how they intend to address them in the future.

Once these data points have been gathered for an issuer, we compare them against peers to create a relative ranking. The rankings are used to compute separate E, S and G scores as well as a combined ESG score. For the composite score, different weights are assigned to the E, S, and G scores depending on the sector. ESG momentum is also captured through a trend assessment, which can serve as a leading indicator of an issuer's health.

All data, rankings and scores are stored on the IFI research platform, giving portfolio managers across asset classes ease of access. Finally, the ESG Municipal Risk Committee ensures that ESG considerations are applied consistently across portfolios within the asset class.

Fig 12. Our credit research approach concentrates on sector-specific ESG criteria

States

- Low carbon energy generation
- Average household carbon footprint
- CO_2 per capita

- Graduation rates
- Test score average
- Affordability

- Budgeting practices
- Other Postemployment Benefits (or OPEB) are benefits (other than pensions) that U.S. state and local governments provide to their retired employees.

Health care

- Average age of hospital

- Average[5] of Hospital CMS Star rating
- Average[6] of CMI
- Medicaid % of net patient revenue

- Board diversity
- Pension funding ratio

Public power

- Production generation – % from coal
- Renewable energy development program

- Energy conservation program

- Cyber security plan
- Board diversity

Cities

- CO_2 emissions targets / policies

- Livability score
- Quality of schools
- Crime
- Affordability

[4] Source: Governmental Accounting Standards Board
[5] Average is of all hospitals owned by a particular system or issuer. CMS: Centers for Medicare and Medicaid Services.
[6] Average is of all hospitals owned by a particular system or issuer. CMI: Case Mix Index.

Example: Risk Factor Consideration
States

ESG scoring methodology focuses on ESG-related key issues that could ultimately impact quality of life of current and future residents

Poor air quality can negatively impact quality of life and result in population loss; could also increase health care costs and business costs due to more stringent environmental regulations

Poor quality education can result in population loss and reduce attractiveness for existing or future employers

Poor budgeting practices can result in unexpected budget deficits, which in turn could result in rating downgrades and higher borrowing costs; pensions and OPEB liabilities are long-term liabilities that could impair financial performance and weaken issuer's budgetary flexibility

Source: Invesco as of 30 June 2020.
For illustrative purposes only.

07 ESG solutions

We believe ESG solutions should be delivered through a partnership approach with clients, which is underpinned by the right investment infrastructure to design and deliver each solution.

Investor needs vary reflecting different sustainability objectives, time horizons, levels of risk tolerance, and return expectations. IFI offers a range of products and a consultative approach, which we believe make us uniquely positioned to deliver meaningful outcomes for almost any investment objective. In addition to our existing products, we are experienced in working with our clients to create custom ESG solutions and portfolios to suit their specific needs. We have worked on several unique solutions including: best-in-class ESG insurance mandates, low-carbon global corporate buy-and-maintain mandates, values-based exclusionary mandates for religious foundations and custom municipal and corporate-focused ESG mandates.

ESG investing is a fundamental commitment at Invesco and aligns with our mission to deliver an investment experience that helps people get more out of life. We adopt and implement ESG principles to align with our fiduciary responsibilities and have strengthened our commitment through industry advocacy, leadership, and innovation.

08 Sustainability bond framework

We use a scorecard approach as a reference framework for assessing a variety of sustainable bond investments. In addition to the fundamental framework we use to analyse issuers, we assess green/social bonds by analysing the criteria outlined by the International Capital Markets Association (ICMA) including use of proceeds, how the issuer manages proceeds, management reporting on its projects, and verification by external agencies.

Our criteria for Sustainability-Linked Bonds (SLBs) are modified to account for their embedded key performance indicators (KPIs). Where a sustainable bond has been purchased, we also conduct an annual evaluation as deemed appropriate to ensure that (for example) green/social bond proceeds have been spent in line with the proposal at time of issuance and/or that any KPIs are on track.

The overarching framework and principles are based on the Green and Social bond frameworks created by the ICMA. We take the 17 Sustainable Development Goals (SDGs) as published by the United Nations, as a guide to defining what can be considered "green", "social" and "sustainable". We find that this framework, while broad, is all-encompassing and therefore provides a good guide for the alignment of these specific bonds to global societal goals. We reference the ICMA mapping of the green and social bond project categories as of June 2018 in this regard.

The categorisation and scoring framework have been developed in a collaboration between the Invesco Henley Investment Centre and Invesco Fixed Income and is proprietary to Invesco. We have sought to ensure simplicity while still providing a rigorous view on the extent of the alignment of the bond with the UN SDGs and good governance of proceeds.

The reference framework is expected to be used in several ways including: to ensure our portfolio managers are ESG-aware with the ability to optimise portfolios as appropriate; by our Global ESG Team when asked for input; to provide feedback to companies during new issue roadshow meetings or engagement conversations.

Fig 3. Invesco's Sustainable Bond Framework helps us assess the credentials of green/social and sustainability-linked bonds (SLBs)

Philosophy	Criteria for green/social	Criteria for SLBs	Overall evaluation summary	Review
We assess sustainable bonds against ICMA criteria. We use the UN SDGs to define what can be considered 'green', 'social' and 'sustainable'.	Use of proceeds **Score 0 – 4**	Mapping of KPIs to UN SDGs **Score 0 – 4**	**Total 8 – 10** Maximum alignment	Ongoing assessment to ensure proceeds have been spent in line with proposal at time of issuance and/or KPIs are on track.
	Management of proceeds **Score 0 – 2**	Difficulty of achievement **Score 0 – 2**	**Total 4 – 7** Sufficient alignment	
	Reporting **Score 0 – 2**	Financial penalty for failures **Score 0 – 2**	**Total 0 – 3** Minimum alignment	
	External verification **Score 0 – 2**	External verification & reporting **Score 0 – 2**		

Scores are recorded in our research database to provide guidance as to the alignment at the time of issue or purchase. Review occurs on ongoing basis as deemed appropriate.

Source: Invesco. For illustrative purposes only.

09

Impact solutions for managed accounts

As part of our available ESG solutions to US investors, we provide high-quality, tax-efficient fixed income separately managed accounts that provide investors with the ability to align their personal sustainability objectives with their portfolios through a form of impact investing achieved primarily through municipal debt.

These impact strategies seek to operate on a best-in-class basis by including securities that perform within the top 35% of peer issuers determined using sector-specific proprietary, data-driven impact ratings methodologies. These impact-linked strategies provide investors with the opportunity to direct capital to issuers and projects that generate beneficial social and/or environmental effects in addition to financial return. The impact objectives currently include: General Impact Overlay, Environmental Issues Focus, and Gender Equity Focus.

10 Ratings generation

Primary issuer impact ratings are generated through a multi-axis weighted aggregation of the data collected by our in-house team focused on impact solutions.

To be eligible for inclusion in these managed accounts, bonds must meet the following criteria:

- Have a credit rating indicating that the issuer is considered investment grade (BBB-AAA),
- Have current outstanding debt instruments ensuring a liquid supply of credits,
- Have been vetted and approved by the assigned credit analyst as being eligible for inclusion in the impact strategies, and
- Received a rating of three stars or higher in order to be eligible for inclusion in the impact strategies.

Any reference to a rating provides no guarantee for future performance results and is not constant over time.

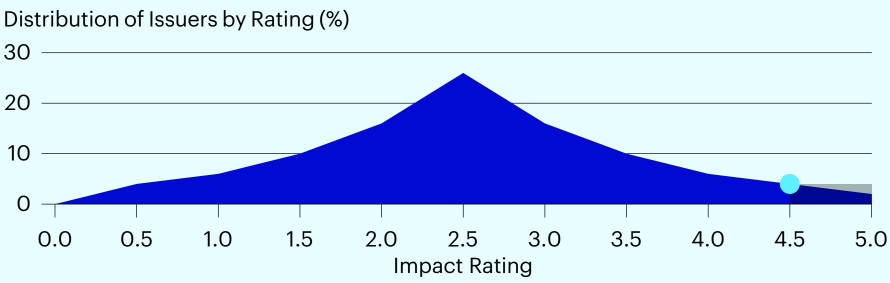
Fig 4. Impact example: Dallas Independent School District (DISD)

- **Category and Theory of Impact Wastewater utilities**
  Wastewater utilities provide the essential wastewater collection and treatment services necessary for clean, healthy, and sustainable communities.
- **Axes Evaluated**
  Wastewater Treatment Process, Maintenance/Infrastructure, Environmental Impact, Governance, and Transparency.
- **San Francisco Wastewater Enterprise**
  - Ranks well relative to peers on Wastewater Treatment Process, Maintenance/Infrastructure, Environmental Impact, and Transparency
  - Assigned an impact rating of 4.5, making it eligible for portfolio inclusion
  - As a component of OneWaterSF, SF Wastewater Enterprise inspected 210 miles of sewer pipelines and replaced 11+ miles

Axes, weights and issuer ranks lead to overall impact score

Examples of Category Data Sets Used	Evaluated Area	Weighting	(1-5)
Type of Sewer System	Wastewater Treatment Process	25%	5
Presence of Line Inspection Program	Maintenance/Infrastructure	20%	5
Annual Sustainability Report	Transparency	10%	3
% Females on Board of Directors	Governance	5%	2
% Females on Board of Directors	Environmental Impact	40%	4
	Overall Impact Score		**4.5**

Overall impact scores of all issuers plotted and rating assigned



There can be no assurance that any investment process or strategy will achieve its investment objective. The specific securities identified are not representative of all of the securities purchased, sold or recommended for advisory clients, and their mention should not be considered a recommendation or solicitation to purchase or sell these securities. It should not be assumed that an investment in the securities identified was or will be profitable. Actual holdings will vary for each client and there is no guarantee that a particular client's account will hold any or all of the securities listed. This example is for illustrative purposes only and performance was not a criteria for selection. For illustrative purposes only.

11 Active ownership and fixed income

Active ownership is defined by the Principles for Responsible Investment as the use of the rights and position of ownership to influence the activities or behaviour of investee companies. Active ownership is particularly focused on equities, but there is also scope to influence companies via other asset classes.

IFI engages with investee companies and issuers as part of our wider commitment to active ownership, which we regard as one of the most powerful mechanisms for reducing risks, enhancing returns and having a positive impact on society and the environment. Before and during investment, many of our investment teams engage with management on several issues, including those that are ESG-related. Through our centralised engagement process, we take advantage of Invesco's scale, which increases the chance of meaningful engagement. We draw on this collective power to capture managements' attention and use our influence to encourage stronger sustainability-related behaviour from the entities in which we invest. We take our responsibility as active owners very seriously and see engagement as an opportunity to encourage continual improvement.

12 Commitment to fighting climate change

At Invesco, we believe climate change is the greatest societal and financial risk faced by people across the world. The transition to a low-carbon economy is already underway, but there is much work to do to reach Net-Zero greenhouse gas emissions by 2050. We believe asset managers are uniquely positioned to make a significant impact in achieving this goal.

As one of the largest asset management firms in the world, managing over USD1.5 trillion (as of 31 July 2021) on behalf of investors around the world, Invesco believes it can – and should – help accelerate the transition toward a global Net-Zero future. We have joined the global Net Zero Asset Managers Initiative – a global pledge focused on investment managers committing to supporting the global goal of reaching Net-Zero greenhouse gas emissions by 2050 or sooner. Launched in December 2020 with 30 signatories, and representing the world's largest asset managers with USD9 trillion in assets, the initiative has the firepower to accelerate the energy transition.

As we enhance our analytical capabilities by adding new data sets, we improve our ability to assess and manage the overall carbon footprint and scenario analysis of all our portfolios. Our goal to identify assets for the Net Zero pathway will be based on strong analytics and insights and will be rooted in helping meet our clients' needs.

Reaching Net-Zero carbon emissions by 2050 is an enormous challenge for the financial sector and our clients. Asset managers, working with their investors, will help facilitate the massive transformation we are likely to see in capital markets as the energy transition accelerates. Invesco's work on tackling climate change and involvement in ground-breaking initiatives such as the Net Zero Asset Managers Initiative can help investors be aligned to a low-carbon future and play a key role in making the world and our environment more sustainable for future generations.

13 ESG tools and resources

Invesco's Global ESG Team acts as a centre of excellence to guide, support, and inform our ESG-related efforts. This includes setting standards and providing specialist insights on research, engagement, voting, integration, tools and client and product solutions. The team draws on relevant ESG data for our research and portfolio management systems to provide the basis for analysis as part of our investment process.

In addition to our internal Global ESG Team, Invesco has access to a variety of external resources. We leverage external organizations for collaborative engagement and knowledge sharing. Our technology enablers include Bloomberg L.P. and FactSet as well as Invesco's proprietary ESGintel tool for for the sharing of research or for sharing research and our proprietary PROXYintel for supporting voting practices. Please see below for a more extensive list of ESG-focused tools that we utilize.

Fig 13. Our ESG Research Providers, Tools and Technology
A broad platform

ESG Research Providers	Sustainalytics	MSCI ESG Research	Truvalue Labs	ISS Climate Solutions	Sell-side Research
	Vivid Economics	Vigeo Eiris	Morningstar	Nikko Research Centre	
Proxy Voting Research and Vote Recommendations	Glass Lewis	IVIS (UK Equities)	ISS		
Business Involvement Screening	ISS-Ethix	Sustainalytics	MSCI ESG Research		
Trade Associations	UKSIF	QCA (UK)	UK Investor Forum	GRESB	ACGA (Japan)
	CII (US)	RIA (Canada)	RIAA (Australia)	ItaSIF (Italy)	
Technology Enablers	Bloomberg	Proxyintel	FactSet	ESGintel	

Source: Invesco, as at 31 December 2020. ACGA: Asian Corporate Governance Association. CII: Council of Institutional Investors. GRESB: Global Real Estate Sustainability Benchmark. QCA: Quoted Companies Alliance. RIA: Responsible Investment Association. UKSIF: UK Sustainable Investment and Finance Association. RIAA: Responsible Investment Association of Australia. ItaSIF: Italian Sustainable Investment Forum. For illustrative purposes only.

14 Transparency and related documents

Invesco has a deep belief in the need for transparency and our responsibility to uphold ESG standards in our own practices. As a firm, we continue to evolve our investment disclosures and have taken a leading stand through our annual ESG Investment Stewardship Report and Climate Change Report. We also produce an annually updated statement of adherence to the UK Stewardship Code, all of which are available on our website.

Invesco reports annually to the Principles for Responsible Investment (PRI), and believes that our policies, processes and overall company approach value the spirit of the PRI and demonstrate our commitment to stewardship.[7] Invesco makes our proxy voting records available publicly in compliance with regulatory requirements and industry best practices globally. For more information on our proxy voting disclosures, please visit our corporate website or see our Policy Statement on Global Corporate Governance and Proxy Voting: invesco.com/esg

Relevant ESG frameworks

Global regulators are taking increasing interest in ESG frameworks and guidance for countries, sectors, companies and investors. These frameworks provide direction and best practices for various aspects of ESG, which are useful to investors when building ESG-focused portfolios. Below, we summarize the frameworks we believe are most relevant to our investment processes. We have used these frameworks to help define the ESG aspects of our investment decisions.

Invesco is an active member and supporter of several external organizations, largely via the different investment centres, including:

- PRI Investor Signatory
- Task Force for Climate Related Disclosure (TCFD) (Supporter and Discloser)
- Carbon Disclosure Project (CDP) (Investor Member and Discloser)
- Sustainability Accounting Standards Board (SASB)
- Global Real Estate Sustainability Benchmark (GRESB)
- Climate Bonds Initiative (Partner)
- Confluence Philanthropy Associate Advisor Member
- Farm Animal Investment Risk & Return Initiative (FAIRR)
- UK Stewardship Code (Tier 1)
- Japanese Stewardship Code (Signatory)
- Quoted Companies Alliance (QCA)
- UK Sustainable Investment and Finance Association (UKSIF)
- Investment Association (UK)
- Asian Corporate Governance Association (ACGA)
- Italian Sustainable Forum (ItaSIF)
- Council of Institutional Investors (CII) (US)
- Responsible Investment Association (RIA) (Canada)
- Responsible Investment Association Australia (RIAA) (Australia)

Invesco serves in an advocacy role for the industry through participation in the following groups:

- Climate Action 100+ (Leader & Participant)
- Coalition for Climate Resilient Investment (CCRI) (Founding Member)
- World Economic Forum Financing the Transition to a Net-Zero Future Working Group
- Sustainability Accounting Standards Board (SASB) Standards Advisory Group
- One Planet Asset Managers Initiative (OPAM)
- Transition Pathway Initiative (TPI)
- UKSIF Board of Directors
- ICI Global ESG Task Force
- Climate Financial Risk Forum (CRRF) (UK)
- Climate Financial Risk Forum (CRRF) Risk Working Group (UK)
- Quoted Companies Alliance (QCA) Financial Reporting Expert Group (UK)
- Investor Forum (UK)
- Asia Investor Group on Climate Change (AIGCC)
- Institutional Investors Group on Climate Change (IIGCC)
- IIGCC Net Zero Framework Working Groups
- Active participation in PRI advisory committees and working groups (past and current):
  - PRI Taxonomy Consultation Group
  - PRI Fixed Income Advisory Committee
  - PRI Global Policy Reference Group
  - PRI Macroeconomic Risk Advisory Group

[7] We were proud to be awarded an A+ rating in 2020 for our overall approach to responsible investment (strategy and governance) for the fourth consecutive year as well as achieving an A or A+ across all categories in the 2020 assessment period. The PRI carries out the annual assessment based on how a signatory has progressed year-on-year and relative to peers. The rating demonstrates our extensive efforts in terms of ESG integration, active ownership, investor collaboration, and transparency.

As we consider the proliferation of ESG frameworks and guidance for countries, sectors, companies and investors, we have summarised the ones we believe are of most relevance. We have used these frameworks to help define the ESG aspects of our investment decisions.

COP 21 and the UN Paris Agreement on climate change and related initiatives (TCFD; CPD; TPI)

- The Task Force for Climate-related Financial Disclosures (TCFD) driving a focus on climate related disclosures both for corporates and investors
- CDP disclosure of scope 1, 2, 3 carbon emissions
- The Transition Pathway Initiative (TPI) scores companies on their strategic commitment to the low carbon transition
- Carbon foot printing of portfolios becoming the norm
- International commitment toward limiting global warming to two degrees by 2050
- Associated National Determined Contributions (NDCs) define country level investments and policies

International Integrated Reporting Framework

- The International Integrated reporting (IIRC) framework is increasingly seen as the best practice for companies reporting ESG metrics alongside financial metrics in the annual report

Investment Association guidance for investors

- The UK Investment Association (IA) has set out several principles on remuneration and long term reporting.
- These pay attention to long term reporting and capital allocation; productivity; capital management; disclosure of environmental and social risk; human capital and culture

Social Progress Index

- Indicates the level of social progress achieved versus criteria of basic human needs; foundations of wellbeing and opportunity
- Ranks countries on these factors independently of economic indicators and compares it to GDP per capita

Sustainable Accounting Standards Board (SASB)

- SASB is a framework of material sector specific issues and guidance for companies and investors on the issues that should be disclosed/considered for each sector

Transparency International Corruption Perceptions Index

- Corruption is an indication of respect for the rule of law or the lack thereof
- Produces index of country exposure

UK Corporate Governance Code and the ICGN

- The UK Corporate Governance Code lays out corporate governance best practices for UK listed companies
- The International Corporate Governance Network (ICGN) global governance principles sets out international standards of best practice and we pay attention to local practices

UN Global Compact

- A set of commitments by over 9,700 companies globally toward 10 principles aligned to environment; human rights; labour rights and anti-corruption
- Seen as the baseline for corporate behaviour

UN Sustainable Development Goals

- 17 governmental goals for a sustainable future by 2030
- USD2.5 trillion needed per year to achieve goals
- Investors are allocating capital toward assets that provide particular solutions for these goals

World Development Indicators

- A set of indicators related to the world view of development
- Covers a broad range of development topics including climate change, nutrition and population, education, social development, and trade.

Important risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested. Past performance is not a guide to future returns. Fixed-income investments are subject to credit risk of the issuer and the effects of changing interest rates. Interest rate risk refers to the risk that bond prices generally fall as interest rates rise and vice versa. An issuer may be unable to meet interest and/or principal payments, thereby causing its instruments to decrease in value and lowering the issuer's credit rating.

The values of junk bonds fluctuate more than those of high-quality bonds and can decline significantly over short time periods. The risks of investing in securities of foreign issuers, including emerging market issuers, can include fluctuations in foreign currencies, political and economic instability, and foreign taxation issues. The performance of an investment concentrated in issuers of a certain region or country is expected to be closely tied to conditions within that region and to be more volatile than more geographically diversified investments.

This overview contains general information only and does not take into account individual objectives, taxation position or financial needs. Nor does this constitute a recommendation of the suitability of any investment strategy or product for a particular investor. Investors should consult a financial professional before making any investment decisions. It is not an offer to buy or sell or a solicitation of an offer to buy or sell any security or instrument or to participate in any trading strategy to any person in any jurisdiction in which such an offer or solicitation is not authorized or to any person to whom it would be unlawful to market such an offer or solicitation. It does not form part of any prospectus. While great care has been taken to ensure that the information contained herein is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon.

The opinions expressed are that of Invesco Fixed Income and may differ from the opinions of other Invesco investment professionals. Opinions are based upon current market conditions, and are subject to change without notice.

As with all investments, there are associated inherent risks. Please obtain and review all financial material carefully before investing. Asset management services are provided by Invesco in accordance with appropriate local legislation and regulations. This material may contain statements that are not purely historical in nature but are "forward-looking statements." These include, among other things, projections, forecasts, estimates of income, yield or return or future performance targets. These forward-looking statements are based upon certain assumptions, some of which are described herein. Actual events are difficult to predict and may substantially differ from those assumed. All forward-looking statements included herein are based on information available on the date hereof and Invesco assumes no duty to update any forward-looking statement. Accordingly, there can be no assurance that estimated returns or projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented. By accepting this document, you consent to communicate with us in English, unless you inform us otherwise. All information is sourced from Invesco, unless otherwise stated. All data is USD, unless otherwise stated.

Important Information