JULY 2023

Fortlake ESG Policy

Executive Summary

Responsible Investing is at the heart of our investment philosophy at Fortlake Asset Management and informs our strategic approach to investing. As investment managers, we have a fiduciary responsibility to act in the long-term interests of our clients, seeking the best risk-adjusted returns. Environmental, social, and governance (ESG) factors present financial material risks and opportunities for our investments' medium- to long-term performance profiles. As responsible investors, we have to consider the broader impact on our natural environment and society with our investment choices, modern slavery being a shining example of going beyond the financially material metrics. With these choices, we can direct capital to sustainable investments, leveraging private capital to achieve the scale of investment required to meet the The Paris Agreement goal of limiting global warming to 1.5 degrees Celsius, compared to preindustrial levels, and to achieve the Sustainable Development Goals (SDGs).

— Dr Christian Baylis, Founder & CIO

— Dr Kylie-Anne Richards, Deputy CIO

Contents

Responsible Investment Framework

"*A banking industry that plans for the risks associated with climate change and other environmental challenges can not only drive the transition to low-carbon and climate-resilient economies but also benefit from it. When the financial system shifts its capital away from resource-hungry, brown investments to those that back nature as a solution, everybody wins in the long term.*" - Inger Andersen, Executive Director of the United Nations Environment Programme (UNEP)

Fortlake's responsible investment framework forms the bedrock of our holistic investment strategy, one that is deeply embedded in the values and processes of our organisation. The policy has been meticulously crafted through a dynamic collaboration between our portfolio managers, Board members, and various committees, including the ESG, investment, and risk and compliance committees. This cooperative approach is further enriched by the insights of diverse stakeholders, ranging from investors to academics with specialised expertise in sustainable finance.

Our goal at Fortlake is two-fold: to cultivate long-term value for our investors and to foster the best investment practises throughout this journey. We adopt a comprehensive approach to risk management and performance by deeply integrating ESG considerations into our operations. These factors significantly influence our credit assessment framework, even for non-ESG related mandates [Jiraporn et al., 2014, Henisz and McGlinch, 2019].

In the historical context, governance and political factors have been the linchpin of credit and sovereign bond analysis. A widely accepted tenet is that better-governed corporations are associated with a reduced risk [Ashbaugh-Skaife et al., 2006]. The financial crisis shed light on governance inadequacies and underlined the fact that while ESG risks may be low in probability, their impact on investment-grade companies could be substantial. Ill-managed ESG risks can metamorphose into credit risks, underscoring the role of ESG in refining the evaluation of potential credit risk.

Emerging evidence highlights the salience of environmental and social factors within bond markets. In particular, the ramifications of climate change and transition risks have captured the attention of practitioners and academics alike, becoming an additional determinant of bond yields [**?**Kling et al., 2018, Cevik and Jalles, 2020, Beirne et al., 2020, Dunz et al., 2021, Painter, 2020].

The Sustainable Development Goals (SDGs) of the United Nations epitomise an ambitious undertaking to actualise human rights within international development. The SDGs are bolstered by internationally protected rights to food, health, education, gender equality, clean water and sanitation, and decent work. The investing community progressively acknowledges the connection between the social performance of a company and its operational prowess [Ferrella et al., 2016]. At Fortlake, we eschew the traditional practise of simply screening out investments from companies that do not meet predefined standards. Instead, we ensure that our investments align with ethical standards. Practises such as modern slavery are unequivocally deemed illegal, and we categorically exclude companies engaged in such activities from our investment universe.

Fortlake is dedicated to understanding how ESG risks can evolve and result in poor credit results. ESG risks must be carefully monitored, as they are among the most significant threats to business sustainability. We routinely analyse ESG-related issues concerning each issuer and update the outlook and its effects on corporate credit quality. ESG is an essential component of the credit assessment framework for non-ESG-related mandates. Variations in credit spreads cannot be explained by credit risk alone. Therefore, incorporating ESG into a quantitative framework, along with specialist ESG data, is essential to manage risks and recognise investment opportunities. Using a set of factors, the approach examines how ESG is connected to the possibility of upgrading or downgrading and general credit events.

Despite the well-recognised challenge of inconsistent standards for measuring and reporting ESG performance Eccles et al. [2017], Fortlake remains committed to advancing knowledge in this area. We contribute to the academic community through the publication of research and by nurturing future finance professionals via postgraduate course development and lecturing.

Responsible Investment Process

Fortlake employs an investment process rooted in in-depth research, drawing on ESG investment principles. This involves, but is not limited to, the idea that companies with superior ESG ratings are likely to enjoy an economic advantage over the longer term. ESG information enhances traditional fundamental analysis and has an economic character. These ESG factors, considered orthogonal to fundamental measures, embody long-term information that is crucial for evaluating investment opportunities. It is a well-documented fact that companies with strong corporate governance carry lower risk. The relationship between ESG performance and credit risk is significant, making it a vital component of our credit assessment framework, even for non-ESG-related mandates. We remain committed to furthering our research in the area of ESG factors and methods of integrating them into our investment process.

2.1 Responsible Investment Team

At Fortlake, we maintain that for a successful and efficient implementation of our ESG policy, the integration needs to begin at the highest levels of decision-making and be thoroughly incorporated within the investment

process. Our ESG committee, consisting of members of the investment team, oversees the integration of ESG into investment and business decisions, making recommendations to the Investment Committee. This mix of investment, research, leadership, and risk management expertise ensures a comprehensive approach to ESG integration. Moreover, we also engage with external ESG academic affiliates, participating actively in academic research. This brings an element of rigour and independence to our investment process while also contributing practical expertise to academia.

Dr Christian Baylis - PhD (Econometrics), Founder and Chief Investment Officer Dr Christian Baylis is the Founder and Chief Investment Officer at Fortlake, responsible for overseeing the investment process and the investment team. Also serving on the Fortlake Asset Management Board, Christian is a highly regarded Australia-based manager with wide-ranging experience across global fixed-income and derivatives strategies, having previously worked at UBS Asset Management and the Reserve Bank of Australia (RBA).

Christian managed over 8 billion AUM and was the lead Portfolio Manager in the UBS Australian Fixed Income team for the UBS Cash Plus Fund, the Insurance and ALM book of business, and managed a complex suite of overlay strategies for large cross-border liability clients. As a member of the Global Multi-Strategy Committee, Christian was the Australian representative for the Global Dynamic Fund, the core global unconstrained Fixed Income offering for UBS Asset Management.

Christian previously held the position of Head of Derivative Strategy, Inflation Linked Assets and Credit Trading across the Australian Fixed Income business, managing over 26 billion. This role included oversight of Sector Strategy – incorporating Semi-government and Sovereign Supra National Agencies (SSAs) and the development of the associated ESG framework for these assets. At the Global Multi-Strategy Committee, Christian was actively involved in the macro analysis and research of fixed-income markets for the global Fixed Income business.

Christian joined UBS Asset Management in March 2011. Managing the UBS Cash-Plus Fund from March 2011 to May 2020, Christian achieved the only 'Highly Recommended' rating from Zenith for consecutive years 2017 – 2020 for the Short-Term Credit category. Prior to this, he was a Senior Analyst at the Reserve Bank of Australia (RBA), managing the Bank's investment portfolio, liquidity and liability profile. Before his role at the RBA, Christian worked for Standard and Poor's, as a Rating Specialist conducting rating assessments and research.

Christian holds a PhD in Econometrics from Monash University, where he received the distinguished Exceed First Class Honours award with a perfect GPA. He was also a recipient of the Australian Postgraduate Scholar Award at both the University of New South Wales (UNSW) and the University of Sydney (USYD) for his work in the Econometrics field and served as a visiting scholar at Monash University in the Econometrics faculty. In addition, Christian was awarded the prestigious Capital Markets CRC PhD Scholarship, where his research centred on alternative methods of inflation modelling, probability density functions and option implied distributions.

Dr Kylie-Anne Richards PhD (Mathematics), Deputy CIO and Chair of ESG Dr Kylie-Anne Richards is the Deputy Chief Investment Officer and leads the implementation of responsible investment practises at Fortlake. Kylie-Anne is also a member of the Fortlake Asset Management Board.

Kylie-Anne has extensive industry experience domestically and overseas, having worked at Macquarie Group in Hong Kong as Head of Financial Engineering for the Asia Pacific. Subsequently, Head of Indexation and Quantitative Trading Research at CLSA in Sydney. Most recently, she held the position of Director, Portfolio Manager at QTR Capital, a proprietary trading business, which was active in trading MSCI Global Index rebalances in developed markets globally and depository receipt arbitrage in Australia and the USA.

Kylie-Anne's holds a tenured appointment at the University of Technology Sydney which involves research and teaching in fixed-income, derivatives, sustainable finance, and green finance. Kylie-Anne has developed and lectured the Sustainable Finance subjects offered in the Master of Finance, MBA, Executive MBA, Master of Financial Planning and Microcrediential suite. She is an internationally published academic with papers appearing in 'International Journal of Financial Engineering', 'Statistical Inference for Stochastic Processes', among others.

Kylie-Anne completed her PhD at the School of Mathematics and Statistics, The University of NSW (UNSW). She was awarded the QRSLab Boronia Managed Funds PhD Scholarship in 2011. Kylie-Anne also holds a Master of Finance (Financial Engineering) from The University of Hong Kong, a Bachelor of Science (Mathematics and Statistics) and a Bachelor of Commerce (Finance) from The University of Melbourne.

Dr Marta Campi – Senior Analyst
Dr Marta Campi is a senior analyst at Fortlake with responsibilities for the development and analysis of models incorporated within the Fortlake investment process.

Marta has worked at Inrobin, consulting on statistical model specification, selection, testing, extraction, and engineering of useful features to the underlying process. She has also held a role at Costa Crociere S.P.A. developing the demand forecast and price optimisation of software and testing and validating price recommendations and demand forecasts.

Marta has worked as a lecturer/tutor at the University College London (UCL), teaching in Statistical Methods and Probability and Statistics. She was also a research assistant in copula functions within insurance applications. Subsequently, she has held a research assistant role at Heriot-Watt Business School, conducting research in Green Finance and decarbonisation.

Marta Campi received her B.Sc in Mathematical Statistics and Data Processing (SMID) at the Department of Mathematics of the School of Mathematical, Physical and Natural Sciences at the University of Genoa, Italy. She then received an MSc in Financial Econometrics taught jointly between the Department of Economics and Essex Business School at the University of Essex, Colchester, UK. After that, she took an MRes in Financial Computing from the Computer Science Department at University College London (UCL), London, (UK) followed by a Mphil from the Statistical Science Department at UCL.

She has completed a PhD at the Statistical Science Department of UCL. During her PhD she attended the Institute of Statistical Mathematics, Tokyo (Japan) at the Department of Statistical Modelling as a research fellow to investigate aspects of speech cyber-security problems.

Innovation in Research and Education

Fortlake is committed to pushing boundaries in the field of sustainable finance. Recognising the significant role of academic research in transitioning to a more sustainable financial system and effectively managing capital to facilitate this change, we consistently contribute to the scholarly literature on sustainable and green finance, among other topics. Some of the ongoing research topics include

- Climate Change Transition Risk on Sovereign Bond Markets [Collender et al., 2023]
- Mechanisms to Incentivise Fossil Fuel Divestment and Implications on Portfolio Risk and Returns [Marupanthorn et al., 2023a]
- Shades of Green: Unveiling the Impact of Municipal Green Bonds on the Environment [Campi et al., 2023]
- DivFolio: A Shiny Application for Portfolio Divestment in Green Finance Wealth Management [Marupanthorn et al., 2023b]
- Balancing Act: Decarbonising Insurer Portfolios While Maintaining Asset-Liability Parity through Green Cashflow Liability Management
- Innovative Approaches to Environmental Scoring for Corporate Bonds: A New Horizon in ESG Integration

In the realm of education, the pace of academia often struggles to match the rapid and dynamic progression of the financial sector, particularly with respect to sustainable finance. Kylie has been instrumental in closing this gap, crafting and teaching postgraduate modules such as: 'Sustainable Finance' (incorporated within the Master of Finance, MBA, and Master of Financial Planning syllabuses); 'Sustainable Value Management' (part of the Executive MBA programme); and a range of micro-credentials that contribute to Master's degree credit allocation. The Fortlake team plays pivotal roles in the guidance panels for Ph.D. and honours students studying fixed-income and sustainable finance topics. Additionally, Christian lends his expertise as a guest lecturer for various postgraduate programmes at UTS.

2.2 Evidence Based Research

Numerous studies and a vast amount of published literature affirm the contribution of ESG factors to better investment returns and risk mitigation. However, the focus of these studies tends to be overwhelmingly on equities, leaving the integration of ESG factors into fixed income under-represented in academic circles. This section will explore both academic literature, including contributions from the Fortlake team, that underpin Fortlake's thorough approach to embedding ESG into its investment operations.

Credit risk, traditionally assessed by investors through fundamental factors, reflects the potential default of the issuer in meeting the required repayments and/or principal. However, increasing evidence indicates that higher ESG ratings can help alleviate credit risks [Barth et al., 2021, Henisz and McGlinch, 2019], thus increasing credit ratings [Mendiratta et al., 2020]. Using ESG scores, investment outcomes can be optimised with benefits such as reduced withdrawals, reduced volatility in the portfolio, and a diversified contribution beyond conventional credit ratings, as E, S, and G are not interrelated [Bahra and Thukral, 2020, Giese et al., 2019].

Higher capital costs are typically associated with companies with low sustainability ratings [Bauer and Hann, 2010, Ghoul et al., 2011, Chava, 2014]. The rise in environmental reporting frameworks and regulations, such as TCFD, has intensified the demand for corporate transparency, enhancing investors' capacity to appraise issuing companies based on these factors. Companies with substandard environmental profiles or high carbon footprints are prone to lower credit ratings and larger yield spreads, especially in regions with stringent regulatory enforcement [Seltzer et al., 2021].

The crux of sustainable investing is materiality. Companies addressing every conceivable ESG issue without discriminating for materiality may see financial performance falter. On the contrary, companies that focus on material issues generally perform better than those that do not. A study by Khan et al. [2017] empirically demonstrated that favourable performance on material issues led to superior financial returns. In particular, companies rated highly on material sustainability issues signifi-

cantly outperformed those rated poorly, while companies with high ratings on immaterial issues did not outperform those with poor ratings.

Research by Collender et al. [2023], in conjunction with Fortlake, revealed that greater risks of climate change transition, such as high carbon dioxide emissions and low use of renewable energy, increase the cost of capital in countries. Countries emitting more carbon dioxide and/or consuming less renewable energy face higher sovereign credit risk, making borrowing more costly. Bond yields now factor in climate change risk, requiring considerations beyond traditional macroeconomic factors like GDP, current account, inflation, etc. in the government bond sphere.

Green bonds represent another facet of responsible investing but pose the risk of greenwashing. These bonds can be issued if the funds are allocated to 'green projects', such as initiatives to reduce emissions or encourage resource conservation. The green bond market, along with the social and sustainability bond market, is experiencing exponential growth. This market plays a crucial role in funding the transition to meet the Paris Agreement's goal of 'restricting warming to below 1.5 degrees Celsius, compared to preindustrial levels. Collaborative research with Fortlake provides vital tools to bridge the gap between financial and environmental data, thereby better assessing the risk and performance of these bonds [Campi et al., 2023].

2.3 Exclusions

Exclusions typically include companies producing controversial weapons, indisputably harmful products such as tobacco, human rights abuses such as child labour, and serious corporate governance breaches with no demonstration of resolution. The decision of what to exclude is underpinned by Fortlake's responsible investing philosophy and guided by UN Global Compact non-compliance in terms of inappropriate business practises. Additionally, some exclusions are required by law.

Some of the common core exclusions within our fixed-income portfolios are:

- Thermal Coal Producers - all companies classified under GICS sub-industry code 10102030 are excluded.
- Tobacco - also those securities issued by companies that manufacture cigarettes and tobacco products classified under GICS sub-industry code 30203010 are excluded.
- Anti-Personnel Mines - actual or potential investment in the production of landmines. (Antipersonnel Mines Convention Act 1998)
- Controversial weapons - investing directly or via subsidiaries in automatic or semi-automatic firearms dealing.
- Nuclear Explosive Devices - Investment directly or via subsidiaries with the design, testing, assembly/refurbishment of nuclear explosive devices. This would contradict the treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the Comprehensive Nuclear Test Ban Treaty (CTBT), which Australia signed in 1973 and 1998, respectively.
- Modern Day Slavery and Human Rights – investment in firms with high-risk business models, high-risk categories of products and services, specific high-risk geographies without robust supplier risk management systems. (The Commonwealth Modern Day Act 2018). See section 2.4 for further details.
- Indigenous Peoples – investments in companies that have a pattern and practice of violating the rights of Indigenous Peoples.
- UN Global Compact non-compliance

For example, in Australia, we would consider Metro Mining Ltd, New Hope Corp Ltd, Prairie Mining Ltd, Terracom Ltd, and Whitehaven Coal Ltd as exclusions within the category of thermal coal producers.

Dynamic exclusions include companies that are excluded temporarily due to practices that are not aligned with ESG values due to, for example:

- Environmental practices
- Corporate governance
- Labour practices
- Cyber-security
- Other controversies

2.4 Modern slavery

Assessing modern slavery risks in investments is a critical element in responsible investing. Modern-day slavery, or human trafficking, represents a grave violation of human rights, and its impacts on individuals, communities, and corporations are severe.

The complexities of modern slavery risks in an investment portfolio are vast due to factors such as transparency deficits, inadequate reporting, geographic differences, and diverse investment industries and asset classes. However, taking advantage of technological advancements and gaining a more profound understanding of these risks allows us to perform a comprehensive analysis of modern slavery threats in our investments.

Modern slavery is a widespread issue that affects people worldwide. However, its prevalence is more pronounced in certain geographies and industries. When considering investments in these specific regions or sectors, Fortlake must do extensive additional research.

This could involve examining a company's supply chains, labour practises, and human rights policies. An in-depth examination of the company's annual reports, sustainability reports, and other public disclosures is required to comprehend how they manage modern-day slavery risks. Fortlake pays particular attention to the following areas of risk:

- **Geographies:** Areas most affected by modern slavery are typically developing nations, where elements of poverty, corruption, and inadequate regulation foster conditions conducive to exploitation. Some of the nations with the greatest instances of modern slavery are India, China, Pakistan, Bangladesh, and Uzbekistan. In particular, modern-day slavery is not restricted to developing economies and can be found in developed countries such as the United States, the United Kingdom and Australia.
- **Industries:** While modern-day slavery has the potential to infiltrate any sector, certain sectors are more susceptible. These include:
  - **Agriculture and fishing:** Compulsory labour is widespread in the agriculture and fishing sectors, marked by strenuous hours, unsafe work conditions, and insufficient remuneration.
  - **Construction and engineering:** Construction workers, particularly migrant workers, often fall victim to exploitation.
  - **Manufacturing:** Encompassing areas such as clothing and textile manufacturing, electronics and toy production, workers in this sector frequently encounter low wages, extended work hours, and unsafe work environments, with the risk of forced labour present in these supply chains.
  - **Extractive industries:** Sectors such as mining, oil, and gas can entail unsafe work conditions and the displacement of local populations. There may be cases of forced labour and the possibility of child labour and human trafficking within the supply chains of these sectors.

A cornerstone to understanding modern-day slavery risks and guidance on regulations, we continually review the following:

- United Nations Human Rights: Guiding Principles on Business and Human Rights
- Commonwealth Modern Slavery Act 2018 Guidance for Reporting Entities, ABF, 2019
- Modern Slavery Reporting – Guide for Investors, RIAA & ACSI, 2019
- Global Slavery Index, Walk Free Foundation, 2017
- List of Goods Produced by Child Labor or Forced Labor, US Department of Labor ILAB, 2020
- Modern Slavery Risks, Rights and Responsibilities – A Guide for Companies and Investors, ACSI & KPMG, 2019

A range of external resources helps us identify the risks of modern slavery in our investment choices. The Corporate Human Rights Benchmark, for instance, evaluates firms' commitment to human rights matters, inclusive of potential modern-day slavery issues. NGOs provide research and data on incidents and risks of modern slavery around the world, such as International Labour Organisation and Walk Free Foundation. These bodies offer statistics on several pertinent areas, such as child labour, non-remunerated labour, collective bargaining, migrant labour, the informal economy, and labour costs.

We also examine companies' public disclosures. A growing number of corporations disclose information about their labour practises and supply chains in annual and sustainability reports. This information offers a glimpse into the corporations' stance and measures toward modern slavery and informs us of any past incidents or violations. Additionally, supply chain audits, where companies review their suppliers to ensure compliance with labour standards and potential examples of modern slavery, provide valuable data on the risk and prevalence of modern slavery in a company's supply chain.

Referring to **Fortlake's physical holdings**, as shown in Figure 1, the majority are concentrated in the GICS Financial and Energy sectors. The energy sector does not typically pose a high risk for modern-day slavery, given it lacks many of the common risk factors. However, despite its lower risk nature, additional analysis is conducted because the sector presents some exploitative opportunities, such as the construction and maintenance of energy infrastructure like pipelines and power plants, potentially involving migrant labour and subcontracting. It is also noteworthy that the energy sector significantly contributes to global greenhouse gas emissions. Therefore, from a broader ESG perspective, considerations also extend to the sector's environmental and climate change impacts.

In general, Fortlake understands that assessing modern slavery risks in investments requires a thorough and ongoing commitment to due diligence, engagement, and responsible investing practises.

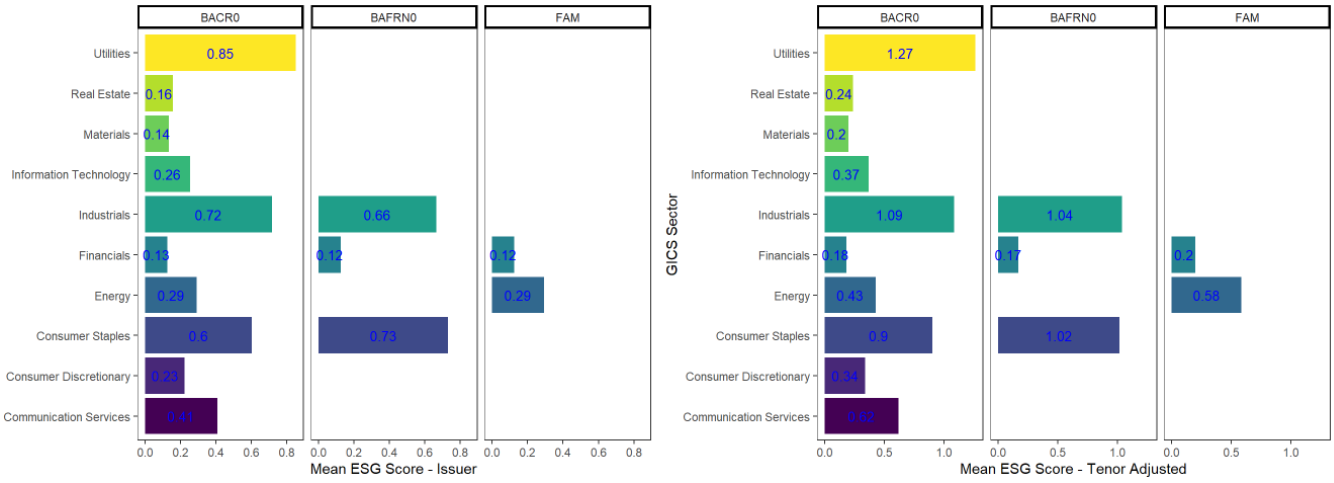
2.5 Data and Financial Materiality

The ESG ecosystem has rapidly expanded, driven in part by both frameworks, regulations, and client pressure for companies to report with greater transparency. At the same time, investors have been exploring pathways for ESG integration, actively looking to understand better corporate ESG performance to better respond to client

pressure, and actively seeking means to apply ESG in ways that might improve investment decisions [Wong and Petroy, 2020].

Fortlake has a fully embedded ESG integration process. However, this requires various data sources and careful analysis. Although ESG ratings are a helpful starting point for assessing issuing companies, they are often inaccurate and backward looking. Within Fixed Income, traditional ESG rating agencies do not provide ratings at the bond level, and many issuers do not receive a rating. Figure 2 presents a universe of issuers from the constituent bond members of the Bloomberg AusBond Credit FRN 0+ Yr Index (BAFRN0), the Bloomberg AusBond Credit 0 + Yr Index (BACR0) and the Fortlake cash bond holdings. The yellow bars represent the number of issuers within that universe that lack an MSCI ESG score, a trend that holds true across the major ESG rating agencies. This clearly underscores the importance of internally generated ESG scores for an accurate evaluation of an issuer's (and a bond's) ESG risks. At times, fundamental concerns may arise regarding ESG performance scores.

Figure 1: Peer relative Fortlake ESG scoring across sectors with coverage including issuers of constituent bond members from Bloomberg AusBond Credit FRN 0+ Yr Index, Bloomberg AusBond Credit 0+ Yr Index, and Fortlake's physical holdings. A **low score** represents a very **strong sustainability profile** and a positive impact on fundamental credit and risk assessment.



However, specialist third-party ESG rating data plays a role within the investment process, but this requires a clear understanding of the limitations of these ESG metrics, the methodologies used by ESG data providers, and the complexity and variety of data inputs mean that the ratings are simply a starting point for analysis. At Fortlake, we utilise specialist third-party ESG ratings, where coverage exists, from various sources, for example, Bloomberg's proprietary fields, which cover thousands of ESG metrics, and third-party data such as MSCI, and Sustainalytics.

Outside of areas such as modern slavery, we use only financially material issues, as the integration of immaterial sustainability factors does not lead to outperformance [Khan et al., 2017]. Identifying sustainability issues that are likely to affect the financial condition or operating performance of companies within an industry is a key part of the methodology. Sustainability reports and integrated reports are also reviewed, particularly for private issuers, due to a lack of quantitative input from third-party providers. However, a known limitation of the various sustainability reporting frameworks, such as SASB and GRI, is that companies decide what is financially material and what information should be disclosed, considering legal requirements.

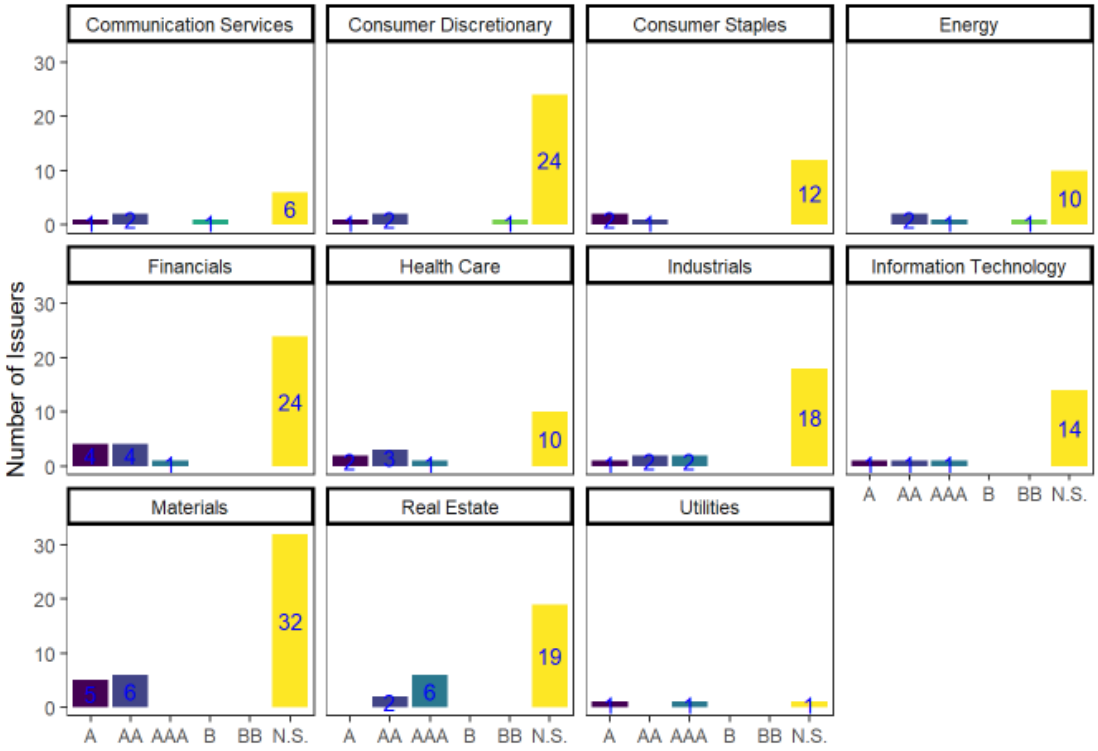
This further points to the necessity of a multifaceted approach to assessing issuing companies and multiple inputs into the investment process. The collection of data and other information is only the starting point. What is important to note is that to use the many sources of data, sophisticated statistical and programmatic techniques are required before integration into the investment process.

2.6 Integration

Fortlake employs a sophisticated, quantitatively driven strategy designed to generate tangible returns by effectively navigating the most liquid portions of the fixed-income market. Our approach leverages distinct inflation hedging techniques typically exclusive to institutional grade fixed income managers. Furthermore, we take a proactive stance on understanding the role of ESG

risks within our investment approach. We aim to dissect and quantify how these risks and traditional financial factors might evolve over time, potentially leading to either degradation or enhancement in credit outcomes. Our pursuit of superior investment performance is continually underpinned by this dual focus: navigating the complexities of the fixed-income market and integrating a nuanced understanding of both financial and ESG risks.

Figure 2: MSCI ESG rating coverage across the universe of issuers of constituent bond members from Bloomberg AusBond Credit FRN 0+ Yr Index, Bloomberg AusBond Credit 0+ Yr Index, and Fortlake holdings. Yellow indicates **no** rating available for the issuer

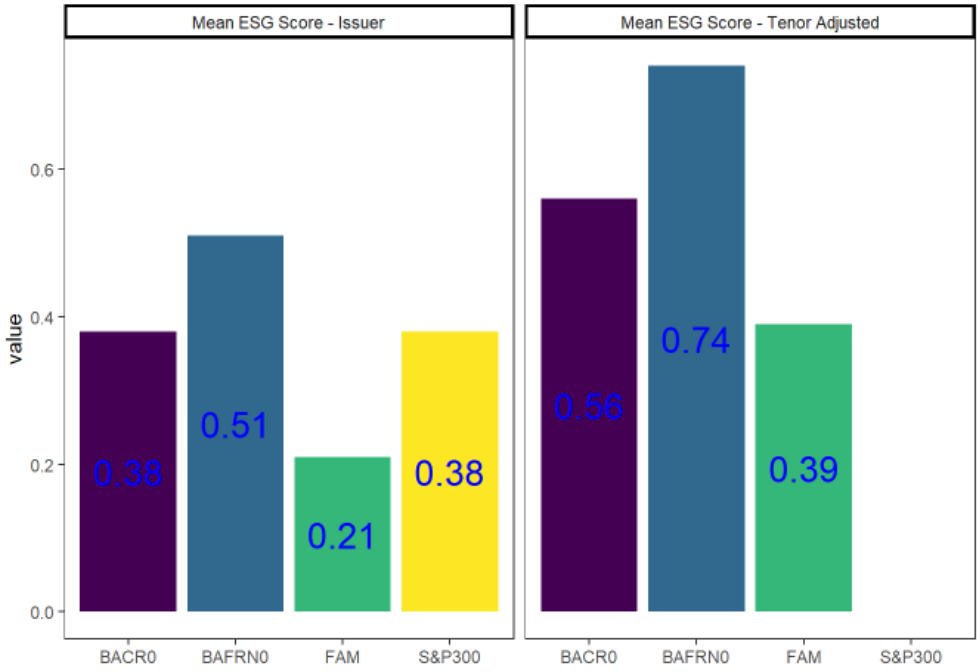


Our proprietary ESG Analysis Framework determines ESG scores. Creating comparable scores is needed to be a valid input into a quantitative process such as ours. There is no market standard for ESG scoring and no single provider that covers all dimensions. Furthermore, exogenous drivers such as size, activity and country can create biases within ESG scores that require correction and standardisation. The quantitative scoring system within Fortlake seeks to achieve robust ESG scores by bringing together multiple external providers (discussed in the prior section) and utilising rigorous statistical methods to compress datasets consisting of non-linear features into an internal rating.

ESG scores for the issuer and at the bond level are constructed from multiple data sources with multiple properties, for which they are combined into a single series. The data may take many forms, i.e. categorical, ordinal, scoring, counts, and real value, where a simple linear combining rule for mixed-typed data may not be appropriate. Two additional important points need to be clarified about the data utilised: (1) the irregularity of sampling times and (2) the different dimensions of the attributes. Consider one feature vector (also known as a data set) of a bond that may be the environmental attributes. This leads to a set of features over time which will be multivariate and have multiple attributes. The whole idea is that the index is condensed into a single scalar with the appropriate techniques that capture the critical information required to contribute meaningfully to the investment process.

Figure 3 presents the mean Fortlake ESG score on the left subplot at the issuer level and the right subplot at the bond level across the universe of companies/issuers of bonds that make up the Bloomberg AusBond Credit FRN 0 + Yr index, Bloomberg AusBond Credit 0 + Yr index, Fortlake cash bond hold and the S&P/ASX 300 Index. The lower the score, the better, the lower the ESG risk characteristics.

Figure 3: Mean FESG score at the issuer level [left subplot] and the bond level [right subplot] across the universe of companies/issuers of bond constitutes for the Bloomberg AusBond Credit FRN 0+ Yr Index (BAFRN0), Bloomberg AusBond Credit 0+ Yr Index (BACR0), Fortlake cash bond holdings (FAM) and the S&P/ASX 300 Index (SP300). A **low score** represents a very **strong sustainability profile** and a positive impact on fundamental credit and risk assessment.



Although there is a sophisticated quantitative assessment of ESG factors, Fortlake uses a qualitative overlay. Constant monitoring of issuing companies, for example, recent controversies, provides an additional check on management's abilities and potential future liabilities. All portfolio managers at Fortlake have Bloomberg alerts which will capture incidents affecting companies, including criticism and allegations, lawsuits, fines, and other adverse events.

We consider different prisms for which we view ESG integration depending on the type of fund and, therefore, investor objectives. Variations in the described methodology are increased based on the investor's objectives.

Best Practise: Corporate Ethos that Prioritises ESG

Fortlake recognises that to achieve best practises at the firm level, implementing a systematic and inclusive approach to prioritising ESG is essential. Diversity of views is brought to the table in policy making, ensuring that ESG policies are clearly understood, measurable, and transparent. Review of the ESG policy is critical at the firm level, as it is a rapidly evolving construct, with external regulatory and legislative imperatives developing at a pace.

The ESG committee reports recommendations directly to the Fortlake Board of Directors. This ensures that all organisational perspectives are considered when implementing the policy.

At Fortlake Asset Management, we have been a signatory to the UN Principles for Responsible Investment (UN PRI) since the beginning of the business. As responsible institutional investors and in line with our commitment as a PRI Signatory, Fortlake must act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that financial material issues of environmental, social, and corporate governance (ESG) can affect the performance of investment portfolios.

Fortlake also recognises that applying these principles may better align investors with the broader objectives of society. Therefore, in accordance with our fiduciary obligations, Fortlake commits to the following:
Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes. **Principle 2:** We will be active owners and incorporate ESG issues into our ownership policies and practises. **Principle 3:** We will seek appropriate disclosure of ESG issues by the entities in which we invest. **Principle 4:** We will promote acceptance and implementation of the principles within the investment industry. **Principle 5:** We will work together to improve our effectiveness in implementing the principles. **Principle 6:** We will each report on our activities and progress towards implementing the principles.

As part of our commitment to stewardship practises, we are also actively involved in several industry associations or initiatives related to responsible investment. Fortlake is a signatory, member of, or participant in:

Task Force on Climate-related Financial Disclosures (TCFD). The Financial Stability Board created the Task Force on Climate-related Financial Disclosures (TCFD) to improve and increase the reporting of climate-related financial information. The TCFD recommendations have become a key voluntary disclosure framework globally and very recently regulated in some markets. Fortlake Asset Management is a formal supporter of the TCFD.

Responsible Investment Association of Australasia (RIAA). The Responsible Investment Association Australasia (RIAA) champions responsible investing and a sustainable financial system in Australia and New Zealand. RIAA is dedicated to ensuring capital is aligned with achieving a healthy society, environment, and economy. Dr. Kylie-Anne Richards has played a role as the RIAA Certification Programme Technical Expert Group (TEG) member.

3.1 Policies and Review Process

Fortlake maintains a Conflict of Interest Management Policy by regulatory requirements. The purpose of this policy is to ensure that Fortlake Asset Management Pty Ltd (Fortlake) has arrangements in place to adequately identify and manage actual or potential conflicts of interest which may arise in relation to the provision of Financial Services by Fortlake and its Employees. The person with primary responsibility for the performance of the duties under this policy, monitoring identified conflicts of interest, and reporting oversight and actions performed by or in conjunction with the responsible executive leadership team members is the Compliance Officer / Legal and Compliance and governance team. The Compliance Officer / Legal and Compliance must ensure that all its staff are trained on this policy, and a record of such training is maintained in a training register, which may be part of each Representative's training plan.

As part of the UN PRI signatory requirements, we publicly disclose our ESG Policy and PRI Transparency Report to our clients. We also monitor and report on our ESG activity on an annual basis. The policy is reviewed regularly to measure success and determine whether it continues to reflect our investment beliefs. For example, providing innovative research is a core component of Fortlake's investment philosophy. Therefore, new and innovative approaches related to responsible investment are incorporated into the policy and integrated into the investment process.

References

P. Jiraporn, N. Jiraporn, A. Boeprasert, and K. Chang. Does corporate social responsibility (csr) improve credit ratings? evidence from geographic identification. *Financial Management*, pages 505–531, 2014.

Witold J. Henisz and James McGlinch. Esg, material credit events, and credit risk. *Journal of Applied Corporate Finance*, 31(2):105–117, 2019.

H. Ashbaugh-Skaife, D. W. Collins, and R. LaFond. The effects of corporate governance on firms. *Journal of Accounting and Economics*, 42(1-2):203–243, 2006.

G. Kling, Y. Lo, V. Murinde, and U. Volz. Climate vulnerability and the cost of debt, 2018. https://ssrn.com/abstract=3198093.

S. Cevik and J. T. Jalles. This changes everything: Climate shocks and sovereign bonds. IMF Working Paper No. 20/79, 2020.

J. Beirne, N. Renzhi, and U. Volz. *Feeling the heat: Climate risks and the cost of sovereign borrowing*. Asian Development Bank Institute, 2020. Working Paper No. 1160.

N. Dunz, A. Naqvi, and I. Monasterolo. Climate sentiments, transition risk, and financial stability in a stock-flow consistent model. *Journal of Financial Stability*, 54:100872, 2021.

M. Painter. An inconvenient cost: The effects of climate change on municipal bonds. *Journal of Financial Economics*, 135:468–482, 2020.

Allen Ferrella, Liang Haob, and Luc Renneboogc. Socially responsible firms. *Journal of Financial Economics*, 122(3): 585–606, 2016.

Robert G. Eccles, Mirtha D. Kastrapeli, and Stephanie J. Potter. How to integrate esg into investment decision-making: results of a global survey of institutional investors. *Journal of Applied Corporate Finance*, 29(4), 2017.

Sierra Collender, Christina Sklibosios Nikitopoulos, Kylie-Anne Richards, and Laura Simone Ryan. Climate transition risk in sovereign bond markets. *Global Finance Journal*, 57(100868), 2023.

Pasin Marupanthorn, Christina Sklibosios Nikitopoulos, Eric Ofosu-Hene, Gareth Peters, and Kylie-Anne Richards. Mechanisms to incentivise fossil fuel divestment and implications on portfolio risk and returns. *Available at SSRN: https://ssrn.com/abstract=4131449*, 2023a.

Marta Campi, Gareth W. Peters, and Kylie-Anne Richards. Shades of green: Unveiling the impact of municipal green bonds on the environment. *Available at SSRN: https://ssrn.com/abstract=3808550*, 2023.

Pasin Marupanthorn, Christina Sklibosios Nikitopoulos, Eric Ofosu-Hene, Gareth Peters, and Kylie-Anne Richards. Divfolio: A shiny application for portfolio divestment in green finance wealth management. *Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract*$_i d = 4357488, 2023b.$

Florian Barth, Benjamin Hubel, and Hendrik Scholz. Esg and corporate credit spreads. *Available at SSRN: https://ssrn.com/abstract=3179468*, 2021.

R. Mendiratta, H. D. Varsani, and G. Giese. Foundations of esg investing in corporate bonds: How esg affected corporate credit risk and performance. *MSCI*, 2020.

Bhupinder Bahra and Lovjit Thukral. Esg in global corporate bonds: The analysis behind the hype. *The Journal of Portfolio Management*, 46(8):133–147, 2020.

G. Giese, L. E. Lee, D. Melas Z. Nagy, and L. Nishikawa. Foundations of esg investing: How esg affects equity valuation, risk, and performance. *The Journal of Portfolio Management*, 45(5):1–, 2019.

R. Bauer and D. Hann. Corporate environmental management and credit risk. *Working paper Available SSRN.1660470*, 2010.

S. E. Ghoul, O. Guedhami, C. C. Kwok, and D. R. Mishra. Does corporate social responsbility affect the cost of capital? *Journal of Banking & Finance*, 35:2388–2406, 2011.

S. Chava. Environmental externalities and cost of capital. *Management Science*, 60(9):2223–2247, 2014.

Lee Seltzer, Laura T. Starks, and Qifei Zhu. Climate regulatory risks and corporate bonds. *Available at SSRN: https://ssrn.com/abstract=3563271*, 2021.

Mozaffar Khan, George Serafeim, and Aaron Yoon. Corporate sustainability: First evidence on materiality. *The Accounting Review*, 91(6):1697–1724, 2017.

Christina Wong and Erika Petroy. Rate the raters 2020. *SustainAbility an ERM Group company*, 2020.