

General Mills: lurking deforestation

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Global food company General Mills Inc (Ticker: GIS, rated BBB by S&P and Baa2 by Moody's)[1] on 21 Nov issued USD 1,500mn of bonds (GIS 4 7/8 01/30/30), following a EUR 1,000mn issuance earlier in the year. The proceeds were raised to fund the acquisition of Whitebridge Pet Brands – North America,[2] and for general corporate purposes. General Mills is one of the issuers featured in the Anthropocene Fixed Income Institute's Representative Deforestation Credit Portfolio.[3]

Forest IQ (FIQ)[4] scores link General Mills from 'High' to 'Critical' deforestation risk exposure, with deforestation performance reporting scores of 'Weak' to 'Moderate'. The company has more positive ESG scores from MSCI and Bloomberg due to the broader scope and relative nature of these scores.

In this note, we investigate which sustainable funds hold GIS bonds, and the extent to which deforestation is incorporated in these funds' sustainability risk assessments.

Most Article 8 funds that hold these bonds are passive ETFs that track Bloomberg indices, with some exclusions based on basic ESG factors. However, few ESG criteria used to assess such funds consider deforestation or changes in land use. **This is evidence that passive ESG funds may not be suitable for investors concerned about deforestation exposure.**

Active Article 9 funds have more detailed and complex mandates. However, treatment of deforestation risk is not universal as we have identified funds which hold GIS bonds. **Investors need to be aware that deforestation risk exposure is not always transparent.**

Figure 1. (Left) Scores from F IQ, MSCI, and Bloomberg for GIS. (Right) Composite FIQ scores for General Mills and competitors. Source: Forest IQ, Bloomberg, AFII.

FIQ scores					
Palm Oil	Soy	Pulp & paper	Cocoa	MSCI ESG Rating	Bloomberg ESG Score
5	4	3	5	AAA	6.38

Comparator benchmark	Company name	Average FIQ score
N/a - General Mills.	General Mills	4.3
Bloomberg and MSCI	Nestle	3.0
Bloomberg	JBS	4.0
Bloomberg	Tyson Foods	3.8
Bloomberg and MSCI	Mondelez	4.3
Bloomberg	Danone	3.7
Bloomberg	Kraft	4.0
Bloomberg	Marfrig	3.5
MSCI	Costco Wholesale Corp	3.3
MSCI	Procter & Gamble Co.	4.0
MSCI	Walmart	3.3
MSCI	Pepsico	4.0
MSCI	Unilever Plc	3.2
Average (mean)		**3.7**

[1] Per Bloomberg, as at 27 Nov 2024.
[2] "General Mills Advances Accelerate Strategy with Acquisition of Whitebridge Pet Brands' North American Premium Cat Feeding and Pet Treating Business", General Mills Inc, 14 Nov 2024.
[3] "RDCP: Deforestation exposure in liquid credit portfolios", AFII, 22 Dec 2023.
[4] This data is at 2 Oct 2024 and was obtained under license from Global Canopy as part of its proprietary Forest IQ project https://forestiq.com. More up-to-date data may be available from Forest IQ.

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The bonds

General Mills is a US-headquartered global food company (Ticker: GIS, rated BBB by S&P and Baa2 by Moody's) [1] with four reporting segments: North America Retail, International, Pet, and North American Foodservice.

On 21 Nov the company issued USD 1,500mn of bonds (750mn each of GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35). This follows EUR 1,000mn of bonds issued on 23 Apr. This issuance is a relatively representative issuance for the company, if a bit larger in size. GIS issuances have averaged USD 1,500mn annually for the last 10 years.[5]

The most recent USD bonds were issued for the purposes of:

- GIS 5 1/4 01/30/35: Acquisition financing and general corporate purposes.
- GIS 4 7/8 01/30/30: General corporate purposes.

Both EUR bonds (GIS 3.65 10/23/30 and GIS 3.85 04/23/34) were issued for the purposes of general corporate purposes.[6]

The 2035 dollar bond issuance was made to finance the acquisition of Whitebridge Pet Brands – North America, expected to close in Q3 2025.

General Mills is a frequent bond issuer and has issued significant new funding in 2024, mostly for general corporate purposes but also to finance an acquisition.

Climate and deforestation

Deforestation contributes to climate risk through two mechanisms: loss of carbon sequestration capabilities, and the release of stored carbon. Changes in land use, primarily deforestation, contributes 12-20% of global GHG emissions.[7] Therefore, investors that wish to fully understand an issuer's climate impact have to consider their contributions to deforestation.

Sustainability scores

Forest IQ is a leading provider of deforestation scores and a data aggregator. We consider their issuer-level scores for GIS' exposure to deforestation and conversion of natural ecosystems, shown in Table 1 alongside ESG scores from other providers.

Table 1. General Mills ESG scores. Source: Bloomberg, MSCI, Sustainalytics, Forest IQ.

		Forest IQ scores									
Company	BBG ticker	Palm Oil	Soy	Pulp & paper	Cocoa	In Forest500?	MSCI ESG Rating	Bloomberg ESG Score	Bloomberg ESG Score Percentile	Sustainalytics ESG Risk Category	Sustainalytics ESG Risk Percentile Universe
General Mills	GIS US Equity	5	4	3	5	Yes	AAA	6.38	99.7	Medium	54.42

The Forest IQ deforestation risk scores indicate that General Mills is at 'critical' risk of deforestation exposure via palm oil, at 'very high risk' via soy, and 'high' risk via pulp & paper.

[5] AFII calculation based on data from Bloomberg as of 27 Nov 2024.
[6] Per Bloomberg as of 10 Dec 2024.
[7] "What is the role of deforestation in climate change and how can 'Reducing Emissions from Deforestation and Degradation' (REDD+) help?", LSE, 10 Feb 2023.

Forest IQ scores

Looking further at the scores available from Forest IQ:

- The financial materiality of deforestation and conversion exposure of General Mills is 'high' (meaning the company scored 3 or higher) for palm oil, soy, pulp & paper, and cocoa.
- General Mills is assessed as 'weak' (0.5 points out of a maximum of 2) when it comes to performance reporting on deforestation, conversion of natural ecosystems, and associated human rights abuses for the commodities soy, pulp & paper, and cocoa. It is scored 'moderate' for palm oil (1 point out of a maximum of 2).

In summary, General Mills is linked to high deforestation exposure risk, this exposure is financially material, and the company has 'weak' to 'moderate' performance reporting for this exposure.

Positive MSCI and Bloomberg scores

At the higher-level perspective, the company receives mixed scores. Despite the low Forest IQ scores above, General Mills has an AAA rating, the highest possible, from MSCI, a leading provider of ESG scores. This implies that the company is a leader in ESG. An AAA rating is allocated to companies with a minimum Final Industry-Adjusted Company Score of 8.571 to 10.[8]

We note that the overall MSCI rating considers issues far beyond deforestation, basing the score on three pillars for environmental, social and governance key issues. The environment pillar model hierarchy includes 'Biodiversity & land use' as one of 13 topics covered.[8] Bloomberg gives General Mills an ESG score of 6.38 out of 10, compared to a peer average of 2.84.[9]

Though the exact calculations underlying these scores are not public, they do reflect some areas of forward-looking performance. Indeed, General Mills' Scope 1 and 2 GHG emissions per unit of revenue are classified as 'Leading' by Bloomberg, and the company met its 2030 Scope 1 and Scope 2 SBTi goals in 2022.[10] The scores also factor in the company's near-term and long-term 1.5 degrees GHG emissions reduction targets and its commitment to Net Zero by 2050. The target boundary includes land-related emissions and removals from bioenergy feedstocks.[11]

With regards to nature, the company has committed to advance regenerative agriculture on 1 million acres of farmland by 2030.[12] It also monitors the adoption of regenerative agriculture across 175 million acres of agricultural land in its supply chain with company Regrow.[13]

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[8] P6 and p34, "ESG Ratings Methodology", MSCI, Apr 2024.
[9] Per Bloomberg as of 5 Dec 2024, the score is Bloomberg's score evaluating the company's aggregated Environmental, Social and Governance (ESG) performance. The score is based on Bloomberg's view of ESG financial materiality. The score is a weighted generalized mean (power mean) of Pillar Scores (i.e. scores across the E, S and G 'pillars'), where the weights are determined by the pillar priority ranking. Values range from 0 to 10, 10 is best.
[10] "General Mills Stands for People and Planet in 2024 Global Responsibility Report", General Mills, 18 Apr 2024.
[11] "Companies taking action", Science Based Targets initiative, accessed 9 Dec 2024.
[12] "Keeping our planet healthy", General Mills, accessed 10 Dec 2024.
[13] "General Mills and Regrow Track Regenerative Practice Adoption at Scale", Regrow, accessed 10 Dec 2024.

But everything is relative

However, in contrast to the above the company's Scope 3 emissions, where most of a typical consumer company's emissions are located, are described as 'Lagging' by Bloomberg.[14] Competitors are grouped for this metric using the Bloomberg Industry Classification (BICS) code level 4, packaged food and manufacturing.

The MSCI and Bloomberg scores are both comparative metrics and must be viewed in relation to GIS' peers. In Appendix 3 – Competitor listing, we include an incomplete listing of Bloomberg comparator companies in packaged food and manufacturing, with each company's ESG score and percentile score. General Mills is classified as 'Consumer Staples' by MSCI,[15] and comparators include Costco Wholesale Corp, Procter & Gamble Co., Walmart, Coca Cola, Nestle, Pepsico, Philip Morris Intl, Unilever Plc, Altria Group, and Mondelez.[16]

Because these scores are comparative, and General Mills has more challenging scores from Forest IQ, we considered the Forest IQ scores of a selection of these competitors. Note that Forest IQ scores were not available for Coca Cola, Philip Morris Int., and Altria Group, so these are excluded.

Table 2. Average comparator company Forest IQ scores. Source: Forest IQ, AFII.

Comparator benchmark	Company name	Average
N/a - General Mills.	General Mills	4.3
Bloomberg and MSCI	Nestle	3.0
Bloomberg	JBS	4.0
Bloomberg	Tyson Foods	3.8
Bloomberg and MSCI	Mondelez	4.3
Bloomberg	Danone	3.7
Bloomberg	Kraft	4.0
Bloomberg	Marfrig	3.8
MSCI	Costco Wholesale Corp	3.3
MSCI	Procter & Gamble Co.	4.0
MSCI	Walmart	3.3
MSCI	Pepsico	4.0
MSCI	Unilever Plc	3.2
Average (mean)		**3.7**

General Mills has an average Forest IQ score, which we define as the average of the Forest IQ scores across commodities, of 4.3. This compares to an average of 3.7 across the selected competitor companies, see Table 2. Here, General Mills has an average per-commodity deforestation score that is 1.3 standard deviations[17] higher than the mean, which indicates that low scores of competitors are more likely to be a driver of General Mills' high scores from MSCI and Bloomberg than performance on deforestation exposure.

We also considered Forest IQ's deforestation performance reporting scores, see Table 3. As above, General Mills scores 'weak' for three of the commodities assessed.[18]

[14] Per Bloomberg as of 8 Dec 2024.
[15] "MSCI ACWI Agriculture & Food Chain Index (USD)", MSCI, 29 Nov 2024.
[16] "MSCI World Consumer Staples Index (USD)", MSCI, 29 Nov 2024.
[17] The Standard Deviation is 0.4. JBS has scores for beef both as a trader and as a manufacturer. To provide a conservative assessment of deforestation risk, where there are different scores the higher has been used. For the data in this table, this is the only company and commodity for which this occurred.
[18] Possible Forest IQ scores for this metric are Weak, Moderate, Advanced, and Leader.

Table 3. Deforestation performance reporting scores. Source: Forest IQ.

Company name	Coffee	Beef	Leather	Timber	Cocoa	Pulp & Paper	Soy	Palm oil
General Mills	N/a	N/a	N/a	N/a	Weak	Weak	Weak	Moderate
Nestle	Weak	Moderate	N/a	N/a	Weak	Moderate	Moderate	Moderate
JBS	N/a	Weak	Weak	N/a	N/a	Weak	Weak	Weak
Tyson Foods	N/a	Weak	Weak	N/a	N/a	Weak	Weak	Moderate
Mondelez	N/a	N/a	N/a	N/a	Weak	Weak	Weak	Moderate
Danone	N/a	N/a	N/a	N/a	N/a	Moderate	Advanced	Advanced
Kraft	N/a	Moderate	N/a	N/a	N/a	Moderate	Moderate	Moderate
Marfrig	N/a	Weak	Weak	N/a	N/a	Weak	Weak	N/a
Costco Wholesale Corp	Weak	Weak	N/a	Weak	Weak	Weak	Weak	Moderate
Procter & Gamble Co.	N/a	N/a	N/a	N/a	N/a	Moderate	N/a	Moderate
Walmart	Weak	Weak	Weak	Weak	Weak	Weak	Weak	Moderate
Pepsico	N/a	N/a	N/a	N/a	N/a	Moderate	Moderate	Advanced
Unilever Plc	N/a	Weak	N/a	N/a	Moderate	Moderate	Moderate	Moderate

These deforestation risk exposure scores indicate that not only is General Mills' exposed to material deforestation risk, but it also lags competitors Nestle, Danone, Kraft, Procter & Gamble, Pepsico and Unilever in performance reporting scores. Notably Costco Wholesale Corp, Procter & Walmart, JBS, Tyson Foods have a higher proportion of commodities assessed as 'Weak', with Mondelez sharing the same deforestation performance reporting score profile as General Mills.

This disparity between sustainability-related scores from MSCI and Bloomberg and the deforestation exposure risk scores from Forest IQ suggests that investors concerned with a company's overall link to deforestation exposure risk need to consider whether the MSCI and Bloomberg scores are the most meaningful indicators to use.

General Mills has positive relative ESG scores from MSCI and Bloomberg, and we do find that the company has taken positive steps on biodiversity, such as by monitoring regenerative agriculture.

However, as the average General Mills score from Forest IQ is higher than the mean for companies in its peer group and the company is linked to 'critical' deforestation exposure in conjunction with often 'weak' deforestation performance reporting scores, we feel that positive relative ESG scores may be driven by lack of performance by General Mills' competitors.

Funds

This leads us to consider those Article 8 and 9 funds that hold General Mills, and to what extent these holdings align with these funds' mandates. This is a case study approach for illustrative purposes and is not exhaustive.

Article 9 funds

An Article 9 fund, under the Sustainable Finance Disclosure Regulation (SFDR) legislation, has "… *sustainable investment as its objective and an index has been designated as a reference benchmark.*"[19]

[19] "Article 6, 8 and 9 funds", Robeco, accessed 10 Dec 2024.

A few examples of Article 9 funds including General Mills bonds are:

Alliance Bernstein's AB SICAV I - Sustainable Global Thematic Credit Portfolio.

- Per the holdings as at Oct 2024[20] this fund holds the recently issued 3.85%, 04/23/34 (0.19% fund allocation) bond but also previously issued bonds 1.50%, 03/15/30 (0.29% fund allocation) and 3.91%, 04/13/29 (0.28% fund allocation).
- The fund's prospectus[21] notes that the investment strategy is to invest in *"… securities that it believes are positively exposed to environmentally- or socially oriented sustainable investment themes derived from the UN Sustainable Development Goals (UN SDGs)."* It further states *"The Investment Manager emphasizes positive selection criteria, in particular by analysing the exposure to such ESG factors of each security or issuer, over broad-based negative screens in assessing an issuer's ESG factors."*
- The portfolio considers Principal Adverse Impacts (PAIs) under the SFDR legislation,[22] which are assessed *"… as part of [AllianceBernstein]'s proprietary methodology to determine that a specific security meets the [Do No Significant Harm] DNSH principle, as well as the Portfolio's Exclusion Policy. All mandatory indicators required by SFDR are taken into account."*[23]
- The DNSH principle is embedded in the Taxonomy Regulation (TR), Sustainable Finance Disclosure Regulation (SFDR), and Benchmark Regulation (BR).[24] It does not cover an issuer's full supply chain, being limited to investee companies themselves.[25] This indicates that holding General Mills is aligned with the company's mandate.
- This fund follows the benchmark Bloomberg Global Aggregate Corporate Index (EUR-hedged) for performance comparison.[21]

This prospectus indicates that negative deforestation risk exposure is not weighted as heavily as positive ESG impacts, though the intricacies of the offset in this instance is not publicly available. Moreover, there is the potential for end-user investors to misunderstand the SFDR screening hurdles, which apply to a company's operations and not to their full value chain. Investors in this fund may therefore be exposed to deforestation risk that is not immediately apparent.

Fidelity's Sustainable USD Corporate Bond Paris-Aligned Multifactor UCITS ETF.[26]

- This fund holds one of General Mills' bonds, GIS 4.7 01/30/27 Corp (0.73% fund allocation)[27] and uses the Solactive Euro Corporate IG PAB Index as a benchmark.[28]

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[20] "AB Sustainable Global Thematic Credit Portfolio", AllianceBernstein, accessed 11 Dec 2024. Holdings as of 31 October 2024 are the most recently available at the time of writing.
[21] P69, "Prospectus AB SICAV I", AllianceBernstein, Nov 2024.
[22] "Responsible Investing", AllianceBernstein, accessed 11 Dec 2024.
[23] "Sustainable Global Thematic Credit Portfolio Pre-contractual Disclosures", AllianceBernstein, accessed 11 Dec 2024.
[24] "'Do No Significant Harm' definitions and criteria across the EU Sustainable Finance framework", ESMA, 22 Nov 2023.
[25] "Commission Delegated Regulation (EU) 2022/1288", Official Journal of the European Union, 6 Apr 2022.
[26] "Fidelity Sustainable Global Corporate Bond Paris-Aligned Multifactor UCITS ETF INC-USD", Fidelity, accessed 11 Dec 2024.
[27] P164, "Interim Report and Condensed Unaudited Financial Statements For the six month financial period ended 31 July 2024", Fidelity, 31 Jul 2024.
[28] P15, P17, P18, P340, and P417 "Prospectus", Fidelity, 30 Jul 2024.

- Exclusions include controversial weapons (biological, chemical, incendiary weapons, non-detectable fragments, blinding lasers, cluster munitions, landmines, and nuclear weapons for non-signatories of the Non-Proliferation of Nuclear Weapons). The fund also considers sustainability risk on the condition that *"… if it occurs, could cause an actual or potential material negative impact on the value of the investment."* This does not specifically mention deforestation, but it does include *"… impact on global and local ecosystems"*, which would include deforestation. Further, Fidelity ESG Ratings incorporate environmental characteristics including biodiversity, while Principal Adverse Impacts are noted to include environmental degradation.
- Investments are considered 'sustainable investments' provided that *"… such investments do not significantly harm any environmental or social objectives and that the investee companies follow good governance practices."* We note that the fund objective states that a minimum of 90% of sustainable investments will have an environmental objective. [28]
- The fund notes that the reduction of carbon emissions objective will be aligned with the Solactive USD Corporate IG PAB index.[28]

This mandate indicates that General Mills' bonds could be excluded for their deforestation risk exposure under the 'sustainable investments' definition. However, it is possible that these bonds could be included in the 10% fund allocation that is not covered by this definition.

The indices used by these funds, and their associated conditions, are as follows:

- The Bloomberg Global Aggregate Corporate Index (EUR-hedged)[29] states that it does not take any ESG factors into account or pursue any ESG objectives.
- The Solactive USD Corporate IG PAB Index does take certain ESG criteria into account.[30] The Benchmark Statement indicates that it considers environmental factors including GHG emissions intensity reduction, compliance with international treaties, controversial weapons, tobacco, social violations, lack of due diligence policies on issues addressed by the International Labour Organization, Gender Pay Gap, Ratio of male to female board members, ratio of accidents, injuries, and fatalities. It does not note deforestation.

Echoing our findings for the funds, benchmarks can differ materially, as can the elements of a benchmark that a fund tracks, impacting the requirements placed on funds that track such indices. This highlights the importance of investors understanding both mandate and index.

Overall, we find that the mandates for these funds are more detailed and complex, and may lead to end-user investors being exposed to greater deforestation risk than expected, particularly if PAIs include environmental degradation.

[29] P5, "Bloomberg Global Aggregate Index", Bloomberg, 7 Oct 2024.
[30] "Solactive Euro IG PAB USD Index", Solactive, 24 Aug 2021.

Article 8 funds

We also consider Article 8 funds holding the General Mills USD bonds (GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35). These bonds are more commonly held in Article 8 funds. We include a summary of these funds in Table 4 (Appendix 1 – Funds with ESG-related labelling), together with their mandates. In Appendix 2 – Fund benchmark indices and ESG criteria, we consider the indices against which these funds are benchmarked.

Across the assessed funds, basic screening criteria are in effect, which typically exclude investments in tobacco and weapons, though the specific types of weapons excluded varies between funds. Further, these funds often also use for oil and gas-related screening criteria. Funds can exclude based on extraction method, which captures investments in unconventional oil and gas, i.e. oil and gas which require non-conventional extraction methods, but also based on extraction location, i.e. Arctic oil and Arctic gas. Unconventional oil and gas includes tight gas, shale gas, coalbed methane, gas hydrates, coal-to-gas products, mining, and in-situ extra-heavy oil and bitumen,[31] and commonly requires hydraulic fracking[32] or thermal extraction.[33]

Some indices used by these funds go beyond these foundational criteria. The Bloomberg MSCI US Corporate SRI Select Index and the Bloomberg MSCI US Aggregate ESG Focus Index have more complex ESG criteria.

The **Bloomberg MSCI US Corporate SRI Select Index:**[34]

- This index only includes securities with an MSCI ESG rating of BBB or higher, and excludes unrated issuers;
- Other exclusions include tobacco, alcohol, gambling, adult entertainment, genetically modified organisms, nuclear power, nuclear weapons, civilian firearms, controversial weapons, thermal coal, unconventional oil and gas, generation of thermal coal, fossil fuel reserves, oil sands, and weapons systems/components/support systems/services;
- Any issuers with a 'Red' MSCI ESG Controversy score are also excluded;
- MSCI sustainable exposure requires an issuer to have an MSCI ESG rating of 'BB' or higher, and an MSCI Controversies score of 2 or higher. An issuer must either have one or more active carbon emissions target approved by the Science Based Targets initiative (SBTi), or derive 20% or more of their revenue from any of: nutrition, sanitation, major disease treatment, SME finance, education, connectivity, affordable real estate, alternative energy, energy efficiency, green building, pollution prevention, sustainable agriculture, and sustainable water.

[31] P369, "World Energy Outlook 2024", IEA, Oct 2024.
[32] "How is shale gas extracted?", British Geological Survey, accessed 8 Dec 2024.
[33] "Unconventional Oil & Gas Production", International Energy Association, May 2010.
[34] "Bloomberg MSCI US Corporate Sustainable SRI Index", Bloomberg, 30 Jan 2023.

The **Bloomberg MSCI US Aggregate ESG Focus Index:**[35]

- This applies the standard Bloomberg MSCI ESG Controversies score threshold, excluding issuers with a 'Red' MSCI ESG Controversy score.[36]
- The exclusions include tobacco, controversial weapons, civilian firearms, thermal coal, and oil sands.
- The index is optimised to maximise the weighted average MSCI ESG score of the custom index while minimising active total risk and turnover.

This shows the diversity of different indices available to funds with similar naming conventions. Most of the ESG funds that we considered had less stringent criteria than the Bloomberg MSCI US Corporate SRI Select Index described above.

Not all indices are created equal. Exclusions based on tobacco, weapons, and oil and gas are common. Some funds go further, not only by excluding a wider range of businesses, but also by including positive ESG sustainable exposure. Mention of deforestation was lacking, although the Bloomberg MSCI US Corporate SRI Select Index noted sustainable agriculture. Overall, this indicates that investors in entry-level ESG funds may not consider deforestation in a sophisticated manner.

Conclusion

General Mills has varied ESG scores, with high deforestation risk exposure scores and low deforestation risk management scores from Forest IQ, an AAA rating from MSCI, and a Bloomberg ESG score of 6.38/10, placing it at the 99.7 Bloomberg ESG score percentile. The company is noted as a 'Leader' for Scope 1+2 GHG emissions, but a 'Laggard' for Scope 3 emissions. It demonstrates some forward-thinking practices in monitoring regenerative agriculture with Regrow. However, the company has high deforestation risk exposure from Forest IQ, with an average score of 4.3 across commodities, between 'very high' and 'critical'.

The company's bonds are in fixed income ETFs with ESG-related labelling, including Article 9 funds. The mandates of these funds and the requirements of the indexes that they track are complex. Further, funds can track different elements of an index including both financial return and carbon emissions metrics. This may leave end-user investors open to greater deforestation risk exposure than they are aware of.

The company's bonds are also in Article 8 funds. These funds include common basic criteria such as exclusions around tobacco, weapons, and certain categories of oil and gas. Though the funds can also include more sophisticated screening criteria, they do not commonly include deforestation, indicating that entry-level ESG funds do not consider deforestation risk in a sophisticated manner.

[35] "Bloomberg MSCI US Aggregate ESG Focus Bond Index", Bloomberg, 7 Jun 2024.
[36] P7, "BBG MSCI Fixed Income ESG Indices", Bloomberg, 19 Aug 2024.

Appendix 1 – Funds with ESG-related labelling

Table 4. Holders of USD bonds GIS 4 7/8 01/30/30 and GIS 5 ¼ 01/30/35 with ESG-related labelling in the fund name. Incomplete dataset. Source. Bloomberg, AFII as of 25 Nov 2024.

Bond	Holder Name	Fund Name	MSCI Fund ESG Rating	SFDR Classification
GIS 4 7/8 01/30/30	BLACKROCK FUND ADVISORS	iShares ESG Aware 1-5 Year USD Corporate Bond ETF	AA	N/a
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	BLACKROCK FUND ADVISORS	iShares ESG Aware USD Corporate Bond ETF	AA	N/a
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	BLACKROCK FUND ADVISORS	iShares ESG Aware U.S. Aggregate Bond ETF	A	N/a
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	BlackRock Asset Management Ireland	iShares USD Corp Bond ESG UCITS ETF	N/a	8
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	State Street Global Advisors Ltd/U	SPDR Bloomberg SASB US Corporate ESG UCITS ETF	N/a	8
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	VANGUARD GROUP INC	Vanguard ESG U.S. Corporate Bond ETF	N/a	N/a
GIS 5 1/4 01/30/35	AMUNDI SA	Amundi Index US Corp SRI UCITS ETF DR	N/a	8

Table 5. Holders of EUR bond GIS 3.65 10/23/30. Incomplete list. Source: Bloomberg as of 10 Dec 2024.

Portfolio Name	Position	Fund ticker	SFDR classification
iShares EUR Corp Bond ESG Paris-Aligned Climate UCITS ETF	2000	GBUJ GY Equity	8
ISHARES ESG SCREENED - CORPORATE BOND INDEX	725	ISHGIUH ID Equity	8
iShares EUR Corp Bond ESG UCITS ETF	525	EHYA NA Equity	8
iShares ESG Screened Euro Corporate Bond Index	125	BGIEQEA ID Equity	8
iShares EUR Corp Bond Interest Rate Hedged ESG	100	IRCP LN Equity	8
iShares ESG Overseas Corporate Bond Index Fund	125	ISHOBHD LN Equity	None
Xtrackers II EUR Corporate Bond SRI PAB UCITS ETF	730	XB4D GY Equity	8
DWS ESG Euro Bonds Medium	680	REN2000 LX Equity	8
DWS Invest ESG Global Corporate Bonds	<1	DESGGXD LX Equity	8
DWS Invest - ESG Euro Corporate Bonds	510	AH59 GH Equity	8
AXA World Funds - Global Responsible Aggregate	228	AXWGADE LX Equity	8
Goldman Sachs Funds ESG-Enhanced Global Multi-A	116	GWBMGRI LX Equity	8
BNPP EASY Corp Bond SRI PAB	1700	SRIC FP Equity	8
BNPP EASY Corp Bond SRI PAB ETF	1700	SRIC FP Equity	8
Amundi Index Euro Corporate Sri - UCITS ETF DR	1628	ECRP FP Equity	8
Amundi EUR Corporate Bond ex-Financials ESG	100	CNB FP Equity	8
ASR ESG IndexPlus Institutioneel Euro Bedrijfsoligatie Fonds	1500	ASEBFBE NA Equity	8
Fineco AM MSCI EUR IG SRI Sustainable EX Fossil	100	FAMSFF IM Equity	8
MI Multi Strategy SRI	100	NOVKVGT AV Equity	8
State Street SRI Euro Corporate Bond Index Fund	100	SSESCEUR EO Equity	8
Invesco EUR Corporate Bond ESG Multi-Factor UCITS ETF	200	ECMF GD Equity	8
Invesco EUR IG Corporate Bond ESG UCITS ETF	100	PSFE GY Equity	8

Table 6. Holders of EUR bond GIS 04/23/34 as of 10 Dec 2024. Source: Bloomberg.

Portfolio Name	Position	Fund ticker	SFDR classification
BlackRock Global Corporate ESG Insights Bond Fund	1000	BLGCEIX LN Equity	None
iShares ESG Overseas Corporate Bond Index Fund	150	ISEOICS LN Equity	None
BNPP EASY Corp Bond SRI PAB	1800	SRIC5 FP Equity	8
BNPP EASY Corp Bond SRI PAB ETF	1800	SRIC FP Equity	8
BNP EASY EUR Corp Bond Sri Fossil Free 7-10y	100	SRIC7 FP Equity	8
ABN AMRO Funds - ESG Profile 5 Aggressive	5	AAMPR5A LX Equity	8
Vanguard ESG EUR Corporate Bond UCITS ETF	100	V3RE IM Equity	8
Santander Responsabilidad Solidario FI	100	SARSFFE SM Equity	8
ASR ESG IndexPlus Institutioneel Euro Bedrijfsobligatie Fonds	4000	ASEBFBE NA Equity	None
Amundi Index Euro Corporate Sri – UCITS ETF DR	1460	ECRP FP Equity	8
Amundi EUR Corporate Bond ex-Financials ESG	100	CBEF IM Equity	8
AMUNDI INDEX EURO AGG SRI UCITS ETF DR	100	EGRI FP Equity	8
BANTLEON Select Corporate Bonds fix ESG	2100	NORCPBD GR Equity	8
ABN AMRO Funds - Schroder Euro Corporate ESG Bonds A	1394	AASSCRE LX Equity	6
ABN AMRO Funds - ESG Profile 3 Moderately Defensive	76	AAMPR3A LX Equity	8
ABN AMRO Funds - ESG Profile 1 Very Defensive	2	AAMPR1A LX Equity	8
Xtrackers II EUR Corporate Bond SRI PAB UCITS ETF	720	XB4F GY Equity	8
Caixagest Investimento Socialmente Responsavel	800	CAIXSOC PL Equity	8
State Street SRI Euro Corporate Bond Index Fund	100	SSESCEUR EU Equity	8
Swisscanto CH Index Bond Fund Corp EUR Responsible	250	SWCECBF SW Equity	None
Invesco EUR IG Corporate Bond ESG UCITS ETF	100	PSFE GY Equity	8
Fineco AM MSCI EUR IG SRI Sustainable EX Fossil	100	FAMSFF IM Equity	8
ABN AMRO Funds - ESG Profile 4 Moderately Aggressive	59	AAMDVPA LX Equity	8
ABN AMRO Funds - ESG Profile 2 Defensive	26	AADVP2B LX Equity	8

Appendix 2 – Fund benchmark indices and ESG criteria

Fund benchmark indices and ESG criteria.

Bond	Portfolio Name	Benchmark (Per Fund Fact sheet / Prospectus)	Index criteria prioritisation	Index ESG criteria
GIS 4 7/8 01/30/30	iShares ESG Aware 1-5 Year USD Corporate Bond ETF	Bloomberg MSCI US Corporate 1-5 Year ESG Focus Index	1. Tracking error (Trade-off 0.5) 2. ESG Score (Trade-off 10) 3. Turnover (Trade-off 300)	Index applies the standard ESG Controversies score threshold outlined in the Bloomberg MSCI ESG Fixed Income Indices Methodology. Plus exclusion criteria relevant to tobacco, controversial weapons, civilian firearms, thermal coal, unconventional oil and gas, MSCI ESG scores (excludes companies without a score. The index is optimised to maximise the weighted average MSCI ESG Score of the custom index while minimising active total risk and turnover.)
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	iShares ESG Aware USD Corporate Bond ETF	Bloomberg MSCI US Corporate ESG Focus Index	1. Tracking error (Trade-off 0.5) 2. ESG Score (Trade-off 10) 3. Turnover (Trade-off 300)	Index applies the standard ESG Controversies score threshold outlined in the Bloomberg MSCI ESG Fixed Income Indices Methodology. Plus exclusion criteria relevant to tobacco, controversial weapons, civilian firearms, thermal coal, unconventional oil and gas, MSCI ESG scores (excludes companies without a score. The index is optimised to maximise the weighted average MSCI ESG Score of the custom index while minimising active total risk and turnover.)
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	iShares ESG Aware U.S. Aggregate Bond ETF	Bloomberg MSCI US Aggregate ESG Focus Index	1. Tracking error (Trade-off 0.5) 2. ESG Score (Trade-off 10) 3. Turnover (Trade-off 300)	Index applies the standard ESG Controversies score threshold outlined in the Bloomberg MSCI ESG Fixed Income Indices Methodology. Plus exclusion criteria relevant to tobacco, controversial weapons, civilian firearms, thermal coal, unconventional oil and gas, MSCI ESG scores (excludes companies without a score. The index is optimised to maximise the weighted average MSCI ESG Score of the custom index while minimising active total risk and turnover.)
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	iShares USD Corp Bond ESG UCITS ETF	Bloomberg MSCI US Corporate Sustainable SRI Index	Not disclosed in methodology.	This is a more detailed methodology than others highlighted here.
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	SPDR Bloomberg SASB US Corporate ESG UCITS ETF	Bloomberg SASB U.S. Corporate ESG Ex-Controversies Select Index	1. R-factor score (Trade-off 1) 2. Tracking error (Trade-off 50)	Index applies State Street's State Street Global Advisors' Responsibility Factor or R-Factor™ , which measures the performance of a company's business operations and governance as it relates to financially material ESG challenges facing the company's industry. Plus Sustainalytics exclusions in tobacco, controversial weapons, civilian firearms, thermal coal, ESG controversy (Category 5: Extremely severe controversies) and UNGC violations (Excludes all researched companies that have breached a principle of the UN Global Compact).
GIS 4 7/8 01/30/30 and GIS 5 1/4 01/30/35	Vanguard ESG U.S. Corporate Bond ETF	Bloomberg MSCI US Corporate SRI Select Index	Not disclosed in methodology.	More detailed - see methodology doc. Note this is an Article 8 fund.
GIS 5 1/4 01/30/35	Amundi Index US Corp SRI UCITS ETF DR	Bloomberg MSCI US Corporate ESG Sustainability SRI Index	Not disclosed in methodology.	The Index applies the standard SRI and Sustainability factors outlined in Appendices A and B of the Bloomberg MSCI ESG Fixed Income Indices Methodology ESG annexes: Securities must use the standard Bloomberg MSCI ESG Rating thresholds; Standard Bloomberg MSCI SRI screen; and Standard Bloomberg MSCI ESG Controversies score threshold. Also applies MSCI screening in relation to: tobacco, weapons, arctic oil, arctic gas, oil sands, human rights controversies of 'very severe', 'severe' or 'moderate'.

Appendix 3 – Competitor listing

Listing of competitors per Bloomberg as of 9 Dec 2024 with Bloomberg ESG scores and Bloomberg ESG score percentile. This listing shows companies with >$5,000,000,000 only.

Member Companies	Member Ticker	Mkt Cap	Revenue	Bloomberg ESG score	Bloomberg ESG score percentile
GENERAL MILLS IN	**GIS US Equity**	**28,592,172,990**	**15,784,357,943**	**6.38**	**99.70**
NESTLE SA-REG	NESN SW Equity	78,236,045,000	83,600,684,706	5.34	97.80
JBS	JBSS3 BZ Equity	11,214,217,530	58,642,005,711	4.01	84.70
TYSON FOODS-A	TSN US Equity	17,810,719,020	42,072,693,008	2.90	53.10
MONDELEZ INTER-A	MDLZ US Equity	66,442,091,940	28,966,879,218	6.61	100.00
DANONE	BN FP Equity	36,647,797,950	24,024,510,008	5.21	97.20
KRAFT HEINZ CO/T	KHC US Equity	29,366,008,920	21,428,246,345	4.98	94.70
MARFRIG GLO FOOD	MRFG3 BZ Equity	2,282,183,505	21,311,680,055	4.14	86.60
WH GROUP LTD	288 HK Equity	8,254,485,630	21,101,039,626	2.59	43.40
GRUPO BIMBO-A	BIMBOA MM Equity	9,894,320,100	18,158,186,143	4.05	85.30
CJ CHEIL	097950 KS Equity	2,203,660,647	17,874,597,693	3.86	81.20
UNI-PRESIDENT EN	1216 TT Equity	11,800,192,590	14,995,282,177	3.55	75.90
INNER MONG YIL-A	600887 CH Equity	19,839,632,130	14,331,109,341	3.66	78.30
PILGRIM S PRIDE	PPC US Equity	9,509,169,960	13,964,036,827	1.76	20.30
CHAROEN POK FOOD	CPF TB Equity	4,591,285,092	13,548,788,056	4.45	90.60
KONINKLIJKE FRIE	1363Z NA Equity	N/a	11,370,722,596	2.87	51.60
MENGNIU DAIRY	2319 HK Equity	6,631,873,704	11,201,422,061	3.55	75.90
FONTERRA-SHAR FD	FSF NZ Equity	3,721,413,051	10,963,936,527	5.00	95.00
KELLANOVA	K US Equity	21,874,830,840	10,554,859,179	3.73	79.40
SAPUTO INC	SAP CN Equity	6,421,863,951	10,235,112,551	5.20	96.90
CONAGRA BRANDS I	CAG US Equity	10,432,288,890	9,579,181,311	4.61	92.80
HORMEL FOODS CRP	HRL US Equity	14,174,499,420	9,354,707,420	4.67	93.80
LOTTE CORP	004990 KS Equity	1,187,978,400	9,336,381,628	3.23	63.40
BARRY CALLEB-REG	BARN SW Equity	6,478,968,627	9,287,150,035	2.68	46.60
HERSHEY CO/THE	HSY US Equity	27,743,774,130	8,979,764,729	5.81	98.40
BRF SA	BRFS3 BZ Equity	6,170,219,955	8,642,048,364	3.99	84.40
FIRST PACIFIC	142 HK Equity	2,011,337,001	8,453,525,583	2.50	41.20
AJINOMOTO CO INC	2802 JP Equity	17,140,752,630	7,932,104,798	5.13	96.20
THE CAMPBELL S C	CPB US Equity	9,984,989,880	7,653,859,918	5.95	98.80
NH FOODS LTD	2282 JP Equity	2,759,669,109	7,183,669,454	3.71	78.80
KERRY GROUP-A	KYGA ID Equity	12,642,620,130	6,976,493,023	5.98	99.10
HENAN SHUAN-A	000895 CH Equity	9,509,719,950	6,825,690,884	2.92	54.40
YAMAZAKI BAKING	2212 JP Equity	3,268,716,282	6,742,287,247	2.45	40.50
JM SMUCKER CO	SJM US Equity	9,754,936,920	6,505,770,417	4.10	86.20
POST HOLDINGS IN	POST US Equity	5,507,537,004	6,250,550,174	3.24	63.90
MEIJI HD	2269 JP Equity	4,721,004,162	6,092,763,924	3.53	74.50
SAVENCIA SA	SAVE FP Equity	612,601,647	5,906,931,865	2.82	48.90
INDOFOOD SUKSES	INDF IJ Equity	3,428,496,234	5,898,728,229	4.40	90.00
MARUHA NICHIRO C	1333 JP Equity	785,935,710	5,680,400,726	2.83	49.50
MCCORMICK-N/V	MKC US Equity	16,475,814,720	5,376,433,542	5.10	95.90
LDC	LOUP FP Equity	1,928,767,788	5,364,500,008	2.38	37.00
GRUMA SAB-B	GRUMAB MM Equity	4,817,590,263	5,289,117,618	1.83	22.50
ITOHAM YONEKYU H	2296 JP Equity	1,148,316,264	5,266,533,512	2.96	56.20
ORKLA ASA	ORK NO Equity	7,234,584,174	5,166,609,981	5.29	97.50
LAMB WESTON	LW US Equity	8,704,298,880	5,141,052,789	4.58	92.30

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