AXA Investment Managers

2021 Article 173 – TCFD combined report

- French Energy Transition for Green Growth Act

- Taskforce for Climate-related Financial Disclosure

Contents

Explanation of the report structure

In August 2015, against the backdrop of an international wave of interest in climate change in the run-up to COP 21, France passed into law its ambitious Energy Transition for Green Growth Act. Article 173(VI) of the Act effectively introduced the world's first regulatory framework requiring institutional investors to make information available to clients on their management of climate-related risk and, more broadly, on the incorporation of environmental, social and governance (ESG) parameters into their investment policy. While Article 173 laid down no explicit obligations as regards to investment decisions, the law was intended to increase awareness and to bolster the role of institutional investors in financing the transition to a low-carbon economy. It also encouraged better incorporation of ESG criteria into investment processes across asset classes.

In June 2017, the Task Force on Climate Related Financial Disclosures ("TCFD") was an additional call asking companies to disclose information on climate-related risks and opportunities, this time with a global reach. A few years later, these two initiatives have had a major impact on investors, asset managers but also issuers more broadly, and is used as a key framework in our regular interactions with companies.

This report describes AXA IM's responsible investment initiatives. Its intention is two-fold: to comply with mandatory disclosure requirements related to the French "Article 173 VI" decree and to adhere to the voluntary disclosure recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD). Each requires disclosure on separate yet complimentary aspects of sustainability and how these are systematically integrated into our investment processes. The TCFD focuses on climate-related risks and opportunities, while Article 173 pertains to Environmental, Social and Governance (ESG) considerations in addition to climate. In 2021, we are adding a new section dedicated to Biodiversity, based on a conviction that Biodiversity loss represents a risk to investment returns, but also that Biodiversity underpins human well-being and livelihoods, and is vital to the achievement of most Sustainable Development Goals (SDG).

To satisfy both, and for the second consecutive year, we are publishing a report which follows the TCFD structure, namely 1) Governance, 2) Strategy, 3) Risk Management, and 4) Metrics & Targets, and adheres to the TCFD's general guidance for the financial sector.

The report has been reviewed by our RI Strategic Committee and Global Risk Committee.

Introduction by Marco Morelli

My AXA IM colleagues and I share an ambition to become the world's leading responsible investor. We believe in the power of collective action. Only together, as individuals and as an industry, can we create positive progress for the global economy, the planet, and the communities in which we live.

The world has begun a decades-long journey towards a more sustainable and equitable economic model. At the heart of that journey is climate change – the risks it brings and the opportunities that lie in the global policy response. We want to build on our momentum to drive the transition.

This report sets out the breadth and scale of the work we have done so far.

Financing the climate transition represents what could be the most significant investment opportunity in a generation and our parent company, AXA Group, is depending on us to place €24bn in verified green investments by 2023. As part of that commitment, we recently announced the milestone of €13bn invested in green, social and sustainable bonds.

Aside from the investment imperative, regulatory change is coming fast, and putting climate centre stage. The UK's updated Stewardship Code, the EU's Sustainable Finance Disclosure Regulation, and the Taskforce on Climate-related Financial Disclosures, all aim to improve transparency around climate-related financial information.

This focus on climate is making it easier for asset managers, companies and investors to measure and understand their climate impact. The focus will only intensify as we head towards the World Climate Summit at COP26 in November 2021.

But to be truly sustainable, we must look beyond this generation to those yet to come. It is with this belief that AXA IM has committed to becoming a Net Zero Asset Manager by 2050, or sooner.

This year, our engagement with investee companies expanded to include deforestation and natural ecosystem conversion, together with our direct investment in forestry which promotes sustainable production and use.

Our commitment to carbon reduction does not solely apply to the money we manage. We have also committed to dramatically reduce our carbon emissions by 2025, as we progress in our ambition to become not only the world's leading responsible investor but a globally recognised responsible business.

Climate awareness among our employees is critical to our success. Our ESG & Climate Academy empowers our employees globally to join our collective effort to accelerate the transition to a low carbon world, by equipping them with accessible resources and expert knowledge.

We are dedicated to raising standards in the fight against climate change. Together with AXA Group we will continue to take the necessary steps to help shape a more sustainable world in our role as transparent and responsible long-term investors.

It is in this spirit that we commit to build on the work detailed in this report and seek to become a sustainability benchmark as an asset manager, business, and employer.

Marco Morelli, Executive Chairman, AXA Investment Managers

1- Governance

1.1 Our Philosophy

The world is currently facing huge challenges, including climate change and social inequality. AXA IM firmly believes that, in this context, developing sound responsible investment ("RI") expertise is no longer an option but a necessity. Accordingly, AXA IM is actively engaged in an approach of progressively incorporating Environmental, Social and Governance ("ESG") factors into each area of management expertise, and in the development of a range of innovative responsible- and impact-investment products.

AXA IM has been involved in responsible investment for more than 20 years and believes that being a responsible asset-management company is crucial to our long-term success. We believe that ESG factors can influence, not just the management of investment portfolios across all asset classes, sectors, companies and regions, but also a range of interests affecting clients and other stakeholders.

Our investment philosophy is based on the conviction that sustainable development issues are a major concern for the coming years. We believe that combining fundamental 'non-financial factors' with traditional financial criteria will help us build more stable portfolios that perform better over the long term. The non-financial approach has become a necessity in more ways than one:

- It is instrumental in removing companies and investments from portfolios when they cause exposure to high levels of ESG risk, which would ultimately affect financial performance
- It focuses on companies and investments that have implemented best practice regarding managing their environmental impacts, governance and social practices, and whose responsible practices leave them better prepared, in our view, to meet the major challenges of the future
- It enables improved performance by means of active dialogue with companies on managing ESG concerns around investments and limiting our clients' exposure to reputational risk

Following the "double materiality" view, we believe that ESG factors are to be analysed from two complementary perspectives:

- impact on the development, performance or position of a company, as well as the financial value of an investment, in a broad sense (i.e., "financial" materiality);
- external impacts of the company's or investment's activities on ESG factors (i.e., "environmental, social and governance" materiality).

AXA IM's responsible investment framework, policies and processes are built to address both of these impacts.

1.2 Human and Technical Resources

a) Human resources

AXA IM Core

AXA IM has invested significant resources into recruiting RI experts and analysts who work with our investment teams to integrate ESG issues into their investment processes. The range of backgrounds includes fund management, sell-side research, quantitative analysis, strategy and project management, in addition to relevant RI experience; ensuring that RI issues are integrated using an investment-relevant approach. In total, more than 40 employees are involved at full-time in RI / ESG activities. There are other professionals who are not included but whose ESG work is embedded in their day-to-day routine.

More specifically, the RI research capabilities are organised as follows, within AXA IM Core:

- A **RI Research team** responsible for thematic research with a focus on climate, biodiversity, human capital & diversity as well as health, nutrition, and data privacy, ensuring it translates into implementable investment decisions across platforms. This team also leads shareholders engagement on those themes. Within this team, dedicated RI Analysts are in charge of defining the eligible Green, Social and Sustainability bonds universe. They rely on our proprietary framework notably inspired by the Green and Social Bond Principle (GSBP) and the Climate Bonds Initiative (CBI) Standards.
- A **RI Coordination and Governance team** responsible for transversal RI projects and corporate governance including voting policy on key themes mentioned above. The Active Ownership strategy is built and led jointly with the RI Research team.
- A **RI Solutions, Tools and Models team** dedicated to the development of ESG quantitative solutions. As such, the team has developed a proprietary ESG framework and RI Search platform, providing portfolio managers and analysts with ESG raw quantitative data, KPIs, internal and external research and proprietary ESG scores.
- **ESG specialists within the investment platforms** oversee product development, the operational implementation of ESG processes, building portfolio RI eligible universes and support the integration of ESG criteria and RI approaches within portfolio construction and decision-making processes.
- **ESG analysts integrated within investment teams:** ESG specialists are embedded the investment teams to conduct ESG analysis at the company level, working closely with fund managers. They integrate ESG criteria in their assessment of an investment, our conviction being that ESG provides a complementary analysis to traditional financial research; these issues may have financial impacts for companies in the short and/or long-term time horizon.
- **Impact analysts integrated within investment teams:** they perform qualitative impact analysis on companies based on five key pillars, reviewing their products or services and operational activities to demonstrates whether a company contributes to the Sustainable Development Goals or to a specific impact.

AXA IM Alts

In addition to the breadth of Responsible Investment experts embedded within the business to provide thematic research, coordination and governance, AXA IM Alts has a dedicated team to support the investment teams. Given the specificities of the Alternatives portfolio, our team of experts actively supports the investment platforms in identifying and managing ESG related risks and opportunities.

- AXA IM Alts approach to Responsible Investment is guided by a Steering Committee made up of the AXA IM Alts senior executives, including the CEO and members of the AXA IM Alts Management Board, The Steering Committee is responsible for the review and approval of the AXA IM Alts RI strategy and provides oversight and support to the strategic deployment and execution of the RI strategy across all alternative's platforms, including both Equity and Debt businesses.
- AXA IM Alts has integrated ESG specialists within the investment platforms covering all aspects including Research, Due diligence, Data/Scoring, Analytics, Stock/Credit Analysis and Active Ownership/Engagement.
- Dedicated ESG analysts in the Real Assets business: A dedicated team of executives supports the Real Estate and Infrastructure businesses through the specific research and analysis of portfolio performance, climate related risk and reporting in addition to day to day support for all investment teams.

ESG objectives and Training

RI experts organizes ongoing training on ESG issues to AXA IM staff. These sessions cover RI experts' activities (research methodology, proxy voting, etc.); emerging ESG issues and the ESG initiatives in which AXA IM participates. In the last two years all our employees have been trained on ESG and Responsible Investment through:

- Responsible Investment mandatory e-learning module
- ESG trainings done by RI experts and dedicated Investment Specialists and addressed to investment teams and other relevant stakeholders within the company, focused on our RI framework, and on key RI research topics on an on-going basis. As an example, in 2020, we have trained Investment and Client teams on the recent regulatory evolutions and how they are implemented at AXA IM.

Training efforts are being reinforced in 2021, with more widespread access to external training on ESG and climate.

We are also committed to educational initiatives, and will launch "The Academy", the AXA Investment Managers' educational platform providing interactive, CDP certified, financial learning experiences across several key areas of commercial interest: Investing, Asset Class, Market Factors and ESG & SRI, including our own bespoke AXA IM content.

Management Board members have objectives related to ESG and Climate, which are cascaded down to selected teams, including portfolio managers. ESG is also part of the Risk & Control target letter assigned by the Risk & Compliance teams to each head of business.

From 2021, individual and collective objectives include elements related to the adherence to the sustainability risk framework to be embedded in investment processes[1].

b) Technical resources

The RI Solutions, Models and Tools team bases its analysis models on a range of internal and external data sources: ESG-rating agencies, broker research, and company and press publications.

SUPPLIERS	STRENGHTS / EXPERTISE	ADDED VALUE	Scores and Research	Raw Data and KPIs
MSCI	Full range ESG research: risks and opportunities approach, key aspects by sector, strong experience in governance matters	Specialist in governance and environmental analysis, broad coverage (8000 issuers)	✓	✓
Vigeo-EIRIS	Strong expertise in social issues and European small & mid cap	Methodology based on analysing stakeholders from the leadership, implementation and results perspectives	✓	✓
Sustainalytics	Wealth of expertise in monitoring controversies	Leading analyst of controversies and reputational risks	✓	✓
Ethifinance	Strong expertise on European micro and small caps	ESG ratings used for Leverage loans and private debt asset classes.		✓
Bloomberg	Full range of ESG services	ESG KPIs used for investment and reporting purposes.		✓
ISS - Ethix	Expertise in Governance analysis	Ethical filters and controversial weapons	✓	
ISS - Oekom	Expertise in Impact analysis	Impact research and UN SDG alignment assessment	✓	✓
Trucost S&P	Strong expertise in carbon-footprint measurement	Full range of quantitative environmental KPIs		✓

[1] To find out on our Remuneration policy: Remuneration - AXA IM Global (axa-im.com)

Beyond ratings	Expertise in Climate analysis	Climate research for Sovereign assets	✓	✓
Carbon Delta	Expertise in Climate analysis	Climate research for Corporate assets	✓	✓
Carbon 4	Offers a climate risk package	Measures the carbon impact of investments	✓	✓
Iceberg Data Lab	Expertise in Biodiversity	Corporate Biodiversity Footprint measurement		✓

In order to adapt to the ongoing evolution of market practices (whether regulatory or client driven) that are more and more demanding in terms of ESG assessment, AXA IM constantly monitors and refines ESG methodologies and accordingly adapt the tools provided to portfolio managers to achieve advanced ESG integration.

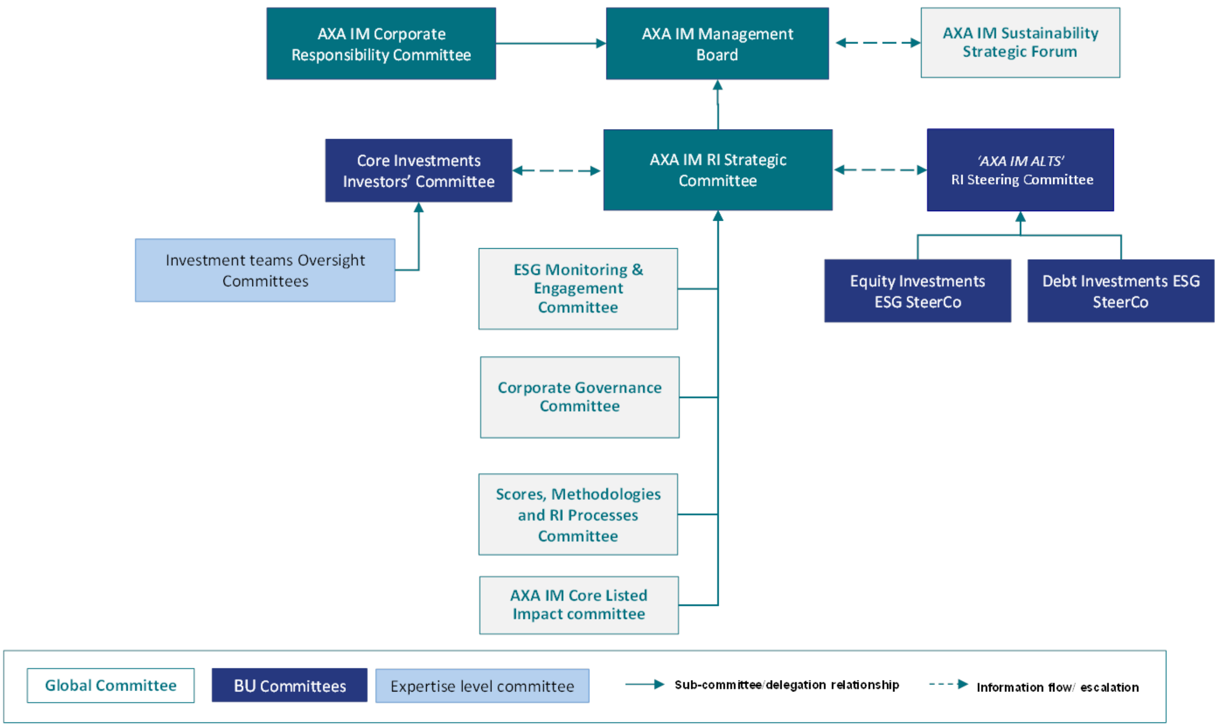
To do so, we monitor the quality and service offerings of all ESG data providers in the market, and regularly interacts with them to understand and challenge when necessary methodologies and related changes. As investors, we seek the best information possible, which requires using different ESG providers leveraging their strengths on specific areas.

In terms of challenges, the following points can be noted:

- Methodologies are still in the works, and complex (e.g. climate / alignment). ESG data relies on these methodologies, and is therefore subject to changes, and to challenge. This makes it more difficult to integrate in the investment decision than a traditional financial information, based on well-know and shared standards.
- Lack and cost of ESG data – although initiatives to encourage issuers to report in a more homogeneous, transparent, and usable manner are multiplying (TCFD on climate data, Workforce Disclosure Initiative on social data, etc.), ESG data remains heterogeneous and therefore complicated to use when investing and reporting. We encourage initiatives at the European and Global level to reinforce the availability of ESG information at issuer level, but also to make it available in an easy and less costly manner. AXA IM supports initiatives aimed at ensuring convergence and cooperation at global level, to develop standardized, mandatory ESG data. We support the work of the EFRAG taskforce, and influence for convergence including via our participation to SASB Investor Advisory Group.

1.2 RI Governance committees and Policies

a) Governance committees



For illustrative purposes only

Committee	Role
AXA IM Sustainability Strategic Forum and Management Board	• AXA IM Sustainability Forum was launched in January 2021 and is chaired by AXA IM Executive Chairman. Gathering senior leaders, its aim is to discuss the sustainability roadmap for AXA IM, both from a marketplace (Responsible Investing) and internal (CR) perspective and ensure alignment of actions. • AXA IM Management Board ultimately validates the RI and CR strategies of AXA IM, with a **Sustainability Forum** convening Management Board member as well as key RI & CR stakeholders
AXA IM RI Strategic Committee	• Leading body in charge of defining AXA IM's strategy with regards to Responsible Investment and monitoring its delivery • This notably includes the definition of sectorial policies and RI product framework as well as piloting efforts on selected themes such as climate change and biodiversity
AXA IM Corporate Responsibility Committee	• Define AXA IM CR strategy, taking into AXA Group strategy, with concrete roadmap • Animate a community through communication and business actions

AXA IM Corporate Governance Committee	• Provide strategic oversight of AXA IM's corporate governance, stewardship and voting activities in relation to investee companies and ensuring clients' rights and obligations are exercised in a manner consistent with good practice standards
AXA IM ESG Monitoring and Engagement Committee	• Ensure views developed on ESG risks and opportunities, from exclusion to engagement topics are discussed collegially, considering possible implications for AXA IM • Facilitate coordination between various stakeholders in the implementation of the engagement strategy • Act as a gatekeeper of AXA IM exclusion policies • Oversee the ESG scores override process • This committee also looks after thematic issues, including climate and biodiversity related topics.
AXA IM ESG Scoring and Quantitative methodologies Committee	• Ensure coordination of ESG integration in a more operational manner • Discuss industrialization topics • This committee also looks after thematic issues, including climate- and biodiversity related quantitative topics.
AXA IM Core Listed Impact Committee	• Review and Validate proposal of Listed Impact funds • Build and promote AXA IM view on Impact in Listed Asset Classes
AXA IM Alts Steering Committee (RI, Equity Investments ESG, Debt Investments ESG)	• Endorses the AXA IM Alts RI Strategy, implements and monitors ESG methodologies, scores and RI processes for both Equity and Debt Businesses
Oversight Committees	
AXA IM Investment Oversight Committee (Fixed Income, Framlington, Multi-Asset)	• To provide formal oversight of the investment activity at expertise level as part of the Front Office controls achieved through review of reports (see below) presented to the Committee. ESG indicators are reviewed as part of this.
AXA IM Core Investments Investors Committee	• Discuss and decide on the main issues raised by the Investment Oversight Committees (backwards perspective) • Discuss and decide on evolutions in investment strategies and processes, and in manage, share and leverage Research capacities and outputs (forward perspective) • Review investment performance & risk indicators (including ESG indicators)

b) Our responsible investment policies

Exclusion policies

As a responsible investor, AXA IM has implemented policies ruling out certain activities, which help us to address sustainability risks. All our investments benefit from AXA IM's policy of ruling out coal and oil sands, controversial weapons, agricultural derivatives and palm oil not certified by the Roundtable on Sustainable Palm Oil (RSPO) as well as worst practices leading to deforestation. Additional screening is in place for RI assets through our ESG standards, focused on Tobacco, White Phosphorus Weapons, Violations of the UN Global Compact and Low ESG quality. Our exclusion policies can be found here

Stewardship

Engaging with companies in which we invest allows us as an asset manager to not only monitor our investments, but also to ensure we have an open dialogue to enable change. Through our Voting and Engagement, we have an opportunity to use our influence to drive a broader change for the benefit of society and the planet. AXA IM's Voting & Corporate Governance and Engagement policies can be found here.

Responsible Investment policy

Our Responsible Investment policy provides an overview of our strategy and organisation around ESG integration, Impact and Stewardship. It can be found here.

These policies have been updated and comply with the latest recent regulatory developments, including the Shareholders' Rights Directive II and the Sustainable Finance Disclosure Regulation.

2- Strategy

At AXA IM, we believe it is the duty of the financial industry to support governments and supranational institutions commitments to fight climate change and move to more sustainable economies. The participation of the financial sector to achieve global sustainable objectives is one of the key pillars of political action plans to achieve climate-neutral economies. As such, the EU Action Plan for Sustainable Finance is one of the key components making up the European Green Deal. We want to address the society issues through the acceleration of the ESG integration and the development of innovative sustainable and impact products.

In 2020, AXA IM further embedded Responsible Investment (RI) capabilities within its two business units, AXA IM Alts and AXA IM Core, in 2020. RI is now fully embraced by all investment teams which perform RI-related activities as part of their day-to-day. Investment teams are supported by experts who work transversally on RI research and active ownership collaboratively and will further support innovation, notably to reach net zero greenhouse gas emissions by 2050 across all assets under management.

In 2020, AXA Investment Managers (AXA IM) also announced its commitment to bring carbon emissions across all assets to a target-based net zero goal by 2050 or sooner, by joining the newly created Net Zero Asset Managers initiative. More details on this commitment are available in the section 2.2.

Finally, AXA IM continued to reinforce its RI offering, with a new “Act” range: these assets invest with a purpose to support the transition to a more sustainable economy. Funds have been assigned thematic ESG and/or UN’s Sustainable Development Goals (SDGs) objectives. Active stewardship is a key focus for this range, with voting and engagement reporting available at fund level. This range encompasses sustainable and listed impact funds.

We have combined in this section the information related to our strategy with regards to ESG, Impact and Climate, as well as key metrics.

2.1 ESG integration

We have been engaged in Responsible investment (RI) for more than 20 years, and it is one of the three fundamental pillars of AXA-IM’s approach and offering. It is a training priority throughout the organisation, from the Boardroom to the trading desk. We are supported by the scale and ambition of our parent company, AXA Group.

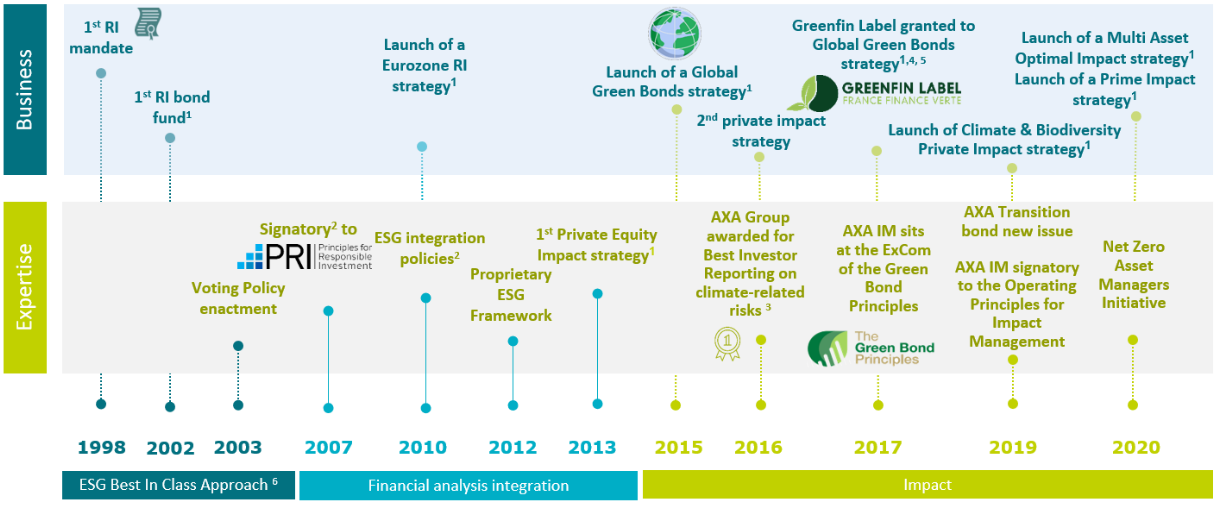
AXA IM’s ambition is to incorporate and follow ESG criteria in its various investment strategies; to develop specific, innovative and pragmatic sustainable and impact investing funds; and to put in place RI solutions for our clients.

Over the years, AXA IM has developed an approach and an offering capable of meeting all our clients’ needs, geared to their sensitivity:

- Systematic screening for the most material sustainability risks
- Proprietary ESG Scoring Methodologies
- Incorporation into our management processes

- Specialist- or impact-management strategies

That ambition has been guiding our determined and methodical development of skills in this area for two decades. AXA IM managers are now able to incorporate ESG aspects into their underlying investment processes, by applying a series of methods proposed by AXA IM's RI and Impact Excellence Center, in line with our clients' demands and new sustainability-related regulations. To achieve that, investment teams enjoy direct access to all our ESG research and ESG analysts.



Since 1998, Responsible Investment principles are part of our company's DNA

Source: AXA IM as at 31/12/2020. (1) The products may not be registered nor available in your country. (2) Principle for Responsible Investment. RI = Responsible Investment ESG = Environmental, Social, Governance. (3) awarded by the Environmental French Ministry in 2016. References to league tables and awards are not an indicator of future rankings in league tables or awards. (4) Source Novethic Launched at the end of 2015 following the COP21 by the French Ministry of the Environment, Energy and the Sea, the "Transition Energétique et Ecologique pour le Climat" label (Energy and Ecological Transition for Climate) helps to comply and fulfil a fund's commitment to financing the green economy. The Environment Ministry sets out the share of green activities to be held to claim the label. references to league tables and awards are not an indicator of future rankings in league tables or awards. (5) In 2019 the TEEC label changed its name to Greenfin. (6) based on AXA IM's methodology. Information contained in this document may be updated from time to time and may vary from previous or future published versions of this document

a) RI offering

In an environment where EU and national regulators are putting in place new standards and requirements notably to address greenwashing concerns, AXA IM is evolving its RI categories to ensure they remain in line with best practices in the markets, but also that they are easy to understand by clients. These new categories consider the EU Sustainable Finance Disclosure Regulation as well as at the AMF Doctrine[2] and sustainability-related labels.

AXA IM integrates sustainability risks within the investment process across the assets it manages. Its approach to sustainability risks is derived from the deep integration of ESG

[2] "Autorité des Marchés Financiers", the French regulator which issued a new position on ESG in March 2020

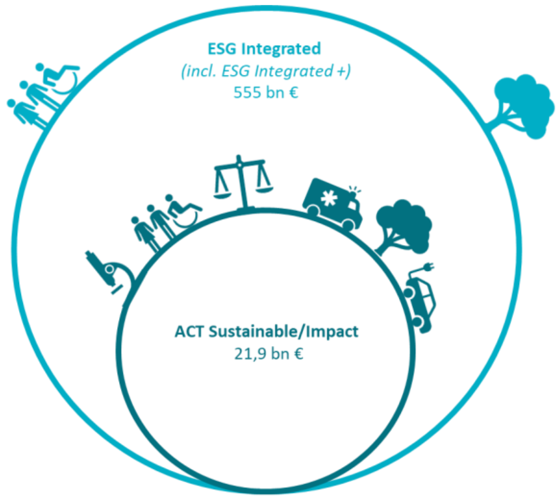
(environmental, social and governance) criteria in its research and investment processes. Our framework relies notably on:

- **Sectorial and normative exclusions policies**: our exclusion policies aim to systematically address the most severe sustainability risks into the investment decision-making process. We were among the first asset managers to put in place a blanket exclusion for companies which derive more than 30% of revenues from coal. We also exclude assets linked to food commodities and palm oil production and follow exclusion rules on controversial weapons. Our AXA IM ESG Standards apply to our range of ESG Integrated and ACT funds.
- **Proprietary ESG scoring methodologies**: the use of ESG scores in the investment process enables us to focus on assets with an overall better ESG performance and therefore likely lower sustainability risks. We have developed our own ESG scoring systems which rely on raw data to deliver a score from 0 to 10 and we monitor carefully companies with the lowest scores as they may represent a risk. Our objective is to consider and address most significant ESG risks to protect client returns into the future[3].
- **Stewardship**: We seek to protect client investments by raising issues of concern that may have a material impact on investor value over the longer term. Our dialogue with companies and Sovereigns aims to reduce investment risk, enhance returns and drive positive impacts for society and the environment.

This framework helps us to ensure we consider how sustainability impacts on the development, performance or position of a company, as well as having material effects on the financial value in a broad sense (financial materiality). It also helps us to assess the external impacts of an asset's activities on ESG factors (ESG materiality).

We aim to leverage this framework to deliver sustainable long-term outcomes for our clients through a comprehensive range of open-ended funds which have a stronger focus on sustainability. We split our offering into two parts.

[3] More details available in our study "How responsible investing standards and policies affect returns"



Source : AXA IM as of 31/12/2020. Non audited figures. Inclusive figures with a cumulative approach.
1 - AXA IM Joint Ventures have a specific approach with regards to ESG scoring and stewardship

1. ESG Integrated Family of Funds:

These funds use data and research, exclusions and proactive stewardship to help build ESG into the investment process, and promote environmental and social characteristics in our approach. To do so we draw even more attention to sustainability risks for these funds, excluding issuers that have the lowest ESG scores as well as those which do not follow what we consider good governance practices. We believe that this level of ESG integration can potentially reduce risk to help us achieve better risk-adjusted returns.

As of March 2021, we consider funds in this Family to meet the requirements of Article 8 of the SFDR regulation.

Within this group, funds in the ESG Integrated+ category go a step further by targeting an ESG score higher than that of the benchmark or universe[4].

2. ACT Family of Funds:

Going even further, our ACT range is designed to help clients target specific sustainability goals around issues such as climate change and inequality while continuing to adopt the reinforced approach to sustainability risks and good governance practices as described above. Alongside financial returns, these funds target positive outcomes related to ESG criteria and/or to the United Nations Sustainable Development Goals (UN SDGs). Investment decisions are guided by both the financial and impact goals. As of March 2021, we consider funds in the ACT Family to meet the requirements of Article 9 of the SFDR regulation[5]. Within this family are two categories:

- **Sustainable funds** (€ 19.8bn at end 2020) aim to embed ESG into the portfolio construction process, in an even more material and intentional manner. Every fund in this group targets one or more specific sustainable objectives related to the ESG pillars (for example, carbon footprint) to further refine the investment universe.

[4] When in scope of the AMF Doctrine 2020-03, those funds belong to the second category ("not significantly engaging")
[5] When in scope of the AMF Doctrine 2020-03, those funds belong to the first category ("significant and engaging")

- **Impact funds** (€ 2.1bn at end 2020) incorporate the demands of the Sustainable category but will seek out businesses and projects that can potentially have an intentional, positive, measurable and sustainable impact on society and/or the environment. These funds will also report against impact criteria aligned to specific UN SDGs.

This product categorisation framework applies to open funds in liquid asset classes. Specific approaches may apply for segregated accounts or Alternative strategies.

<u>Focus on AXA IM Core SFDR categorisation</u> – *for strategies in scope of the regulation*:

- **5%** (€20bn of assets under management) of funds are no classified as sustainable or impact funds, demonstrating a sustainable objective and are therefore categorised as **Article 9**.
- **85%** (€392bn of assets under management) of funds promote environmental or social characteristics and are ESG integrated, therefore are categorised as **Article 8**.
- **10%** (€48bn of assets under management) of AXA IM Core's funds integrate and assess sustainability risks only and are therefore categorised as **Article 6**.

The reference to SFDR product categories is provided based on the basis of the European Directive (EU) 2019/2088 on the sustainability-related disclosures in the financial services sector ("SFDR Regulation") and state of knowledge as of 10 March 2021. As of publication date, the SFDR-related regulatory technical standards are not yet finalized and enforced. The product categorization shall be re-assessed once such regulatory technical standards are completed and may evolve.

<u>Focus on Impact Funds – Private Markets</u>

AXA IM has a long history in investing for impact in private markets, with a first fund launched in 2013. These are investment strategies that aim to generate objectively measurable and intentional environmental and social impacts alongside financial returns, both integrated into investment management incentives. These strategies continued to gain momentum in 2020.

Our first fund, the AXA Impact Fund I with AUM of €200m, focused on Financial Inclusion, Access to Healthcare and Education. In 2016, our clients allocated €150m to a new fund, AXA Impact Fund II to invest in both environmental and social impact generation.

In 2019, we launched our third impact investing fund, the AXA Impact Fund: Climate & Biodiversity, with AUM of $175m, seeking solutions to climate change and loss of biodiversity (see spotlight). In 2020 and our clients committed an additional $175m to the AXA Impact Fund: Climate & Biodiversity and $50m to a fund promoting financial inclusion and access to healthcare for underserved beneficiaries in Low-and-Middle Income countries. This additional allocation brings our clients' total contribution to our impact investing strategy to approximately €700m since 2013.

Our funds demonstrate the tangible role clients are playing in the achievement of the UN Sustainable Development Goals (SDGs) through the allocation of much needed capital to underserved social and environmental challenges. Our preliminary review of our impact funds SDG alignment yielded positive results, demonstrating that our clients are providing capital to businesses that directly address the SDGs highlighted below.

Deep and credible alignment to the UN SDGs

Impact Performance

Our impact management and measurement framework covers initial assessment, evaluation, due diligence, investment, monitoring and exit. The objective is to ensure that the generation of impact is intentional, focused, and a key driver for investment decisions and managing investments over the investment period.

The table below shows the contributions of our platform to key environmental and social challenges aligned with the mission of our funds:

Theme	KPI	Performance[6]
Access to Finance / Insurance	Underserved people reached	108.1m
	% Female clients	78%
	% Rural clients	70%
Transforming Underserved Economies	Underserved people reached	3.5m
Education	Number of schools	2,083

	Number of students	3.7m
Climate Change	CO^2 emissions avoided (tons)	63.6m
Health	Healthcare Facilities in underserved locations	56
	Number of sanitation centers	3,145
	Number of medical products[7] for global health (regulatory approval)	12

Spotlight – AXA Impact Fund: Climate & Biodiversity

In July 2019, a $175m private market impact fund was launched, with a focus on climate and biodiversity[8]. Its goal is to tackle climate change and protect biodiversity and the ecosystems that will support our world into the future. It invests to **Protect Natural Capital**; **Promote Resource Efficiency**; and improve the **Resilience of Vulnerable Communities** to the effects of climate change and biodiversity loss. In 2020, our clients allocated additional capital to the fund, doubling its size to $350m, and reinforcing the urgency of these two critical environmental challenges.

The Fund is making good on its promise to fund credible, investable solutions that deliver positive outcomes. To date the fund has made a numbers investments that align with its Climate and Biodiversity mission. Examples of our investments include:

Investment	Activity	Expected impact / Illustrated investments
Komaza	A microforestry-to-wood products company with ambitions to become the largest sustainable forestry company in Africa. Our investment will contribute to reforestation of degraded lands; mitigate climate change using trees as a natural carbon sequestration solution; and build climate-resilience, through aligning the financial interest of local communities with conservation.	**Impact targets:** - 37,000 Hectares under improved management - 17.5mT of Carbon Emissions Sequestered - 50,000 farmers with improved income
Forest Carbon Indonesia	Project developer specialising in the conservation and restoration of degraded tropical forests, peatland and wetland ecosystems in Indonesia, Malaysia and Cambodia. The company has operated for more than ten years with its most notable project to date being the	**Impact targets:** - 74,000 hectares of peatland, mangrove and tropical forests conserved/restored; - 26 million tonnes of CO_2 emissions reductions; - 22 million verified carbon credits generated; and

[7] Drugs, Vaccines, Preventatives, Diagnostics and other related technologies.
[8] This fund is dedicated to a single client and not available to third party clients.

	Sumatra Merang Peatland Project in Indonesia. This project led to the restoration of over 22,000 hectares of peatland forest, the delivery of close to 7 million tonnes of CO2 emissions reduction (as evidenced by the generation and sale of verified voluntary carbon credits), and the strengthening and conservation of over 20 species.	- a minimum of 10 IUCN Red List endangered species protected, including the Bornean Orangutan, Proboscis Monkey, Sumatran Tiger, and the Irrawaddy Dolphin.
Sanergy	**Sanergy** was founded in 2011 with the objective of improving waste management systems in Kenya, Sanergy adopts a circular economy approach, collecting and transforming sanitation and organic waste and into sustainable, environmentally-aligned products such as insect protein for animal feed, organic fertiliser, and biomass briquettes	**Impact** targets: - 1.2m tonnes of waste processed; - 50,000 tonnes of bio-fertiliser produced

AXA Investment Managers is a founding Signatory to the Operating Principles for Impact Management. In 2020, in line with market best practice, AXA IM published its first annual Disclosure Statement affirming the alignment of the impact management systems of AXA IM Alts Impact Investing Strategy with the Operating Principles for Impact Management. An independent verification of our impact management systems was conducted by EY Associes and confirmed to be aligned with the Principles.

Focus on Impact in Listed Markets

5 open funds were part of the Listed Impact category at end 2020

Strategy[9]	Underlying investment theme	SDGs
Human Capital (equity)	Promoting Human capital as a key asset of small and mid-cap European companies	
Social Progress (equity)	The strategy seeks to invest in developed and emerging markets publicly listed companies that offer higher growth potential as they focus on providing services across a range of social needs including education, healthcare/wellbeing, infrastructure	
Clean Economy (equity)	Population growth and rising wealth continue to increase demand for energy, transportation, food and water.	

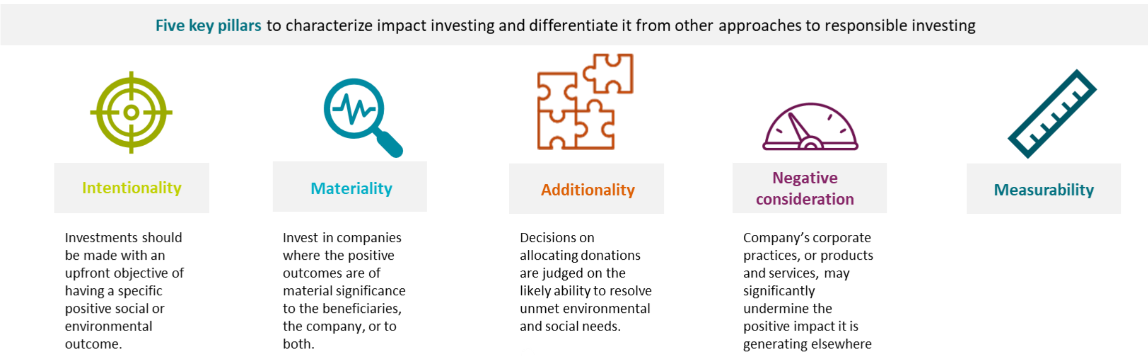
[9] The products above may not be registered nor available in your country.

	Growing social awareness of the pressure on scarce natural resources and greenhouse gas emission reduction is influencing state policies (ie Paris Agreement to keep the temperature rise below 2°c) and infrastructure investments, ultimately encouraging corporates to act rapidly	
Global Green Bonds (bonds)	Investing in green bonds supporting the development of environmental projects with a proprietary analytical framework	
Multi Asset Optimal Impact (Multi Asset)	Combining our two impact proprietary approaches on listed assets to select equities and Green, Social and Sustainability bonds providing positive and measurable impact addressing societal challenges around "prosperity for people" and the "prosperity for the planet"	

Listed Equities

In 2019 AXA IM reinforced its approach of Impact Investing in Listed Markets with a new proprietary framework to identify and select issuers. Through this proprietary impact investing framework used by dedicated Impact Analysts, we can identify best-in-class companies that contribute to the UN SDGs (categorized as 'Impact Leaders'). These pillars are what characterize impact investing and differentiate it from other approaches to responsible investing:

AXA IM's approach to impact investing in listed assets



To read more about our [AXA IM's five pillars to impact investing]

Green, Social and Sustainability bonds

As there is no real consensus yet on what is a "true" green bond and what is not, AXA IM has developed a proprietary green bond assessment framework. We built on this to create new frameworks for social and sustainability bonds. These are very similar in terms of structure, but some aspects differ due to the specificities of social and sustainability bonds. This approach is stringent, but it is also continuously evolving and aims to fulfil three main objectives:

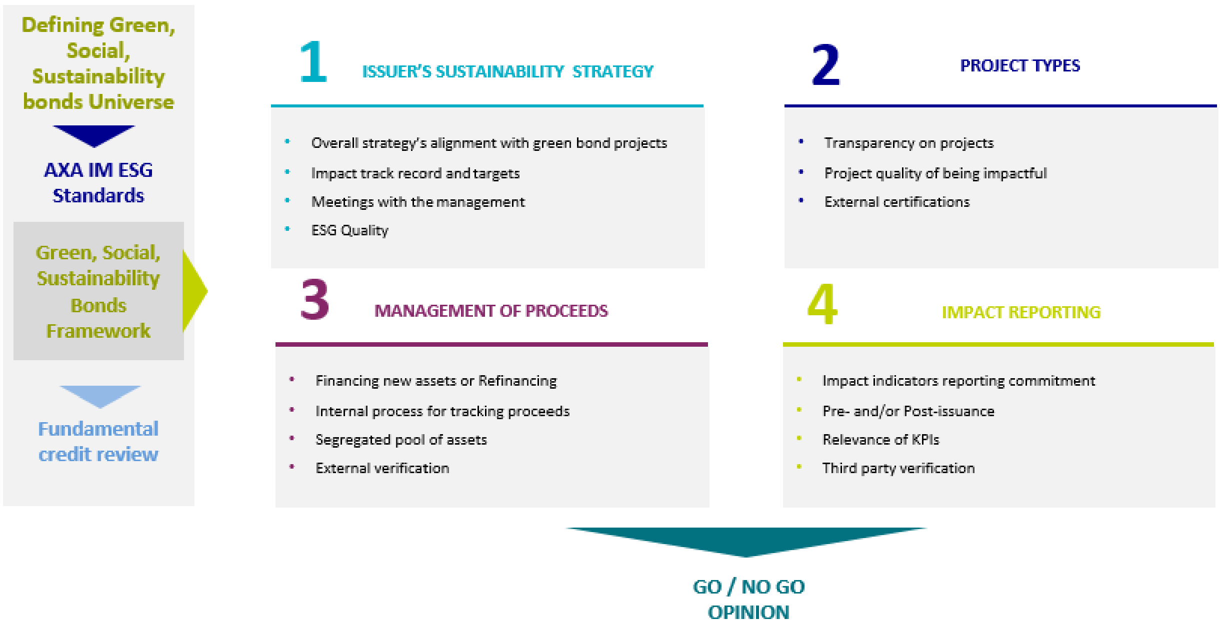
- Driving investments towards authentic and impactful green assets and social projects
- Raising the integrity and transparency standards of the Green, Social and Sustainability bonds ("GSSB") market
- Ensuring that GSSB issuers are committed to fight climate change and to address sustainability challenges, and that this commitment is reflected in business practices and operations

Selectivity is key in ensuring that only the most relevant and impactful green and social projects receive the necessary financing. These frameworks have so far been used to review more than 800 GSSBs, and we believe this has helped us to avoid possible misuse of funds, risks of unethical practices and greenwashing. On average, since 2014, our green bond framework has led us to exclude around one in five bonds presented to us as green, social, or sustainable.

AXA IM's GSSB assessment framework, notably inspired by the Green and Social Bond Principles (GSBP) and the Climate Bonds Initiative (CBI), is made up of four pillars:

1. The environmental, social and governance (ESG) quality and strategy of the issuer
2. The use of proceeds and the process for project selection
3. The management of proceeds
4. Impact reporting

AXA IM's Green, Social and Sustainability bonds proprietary framework



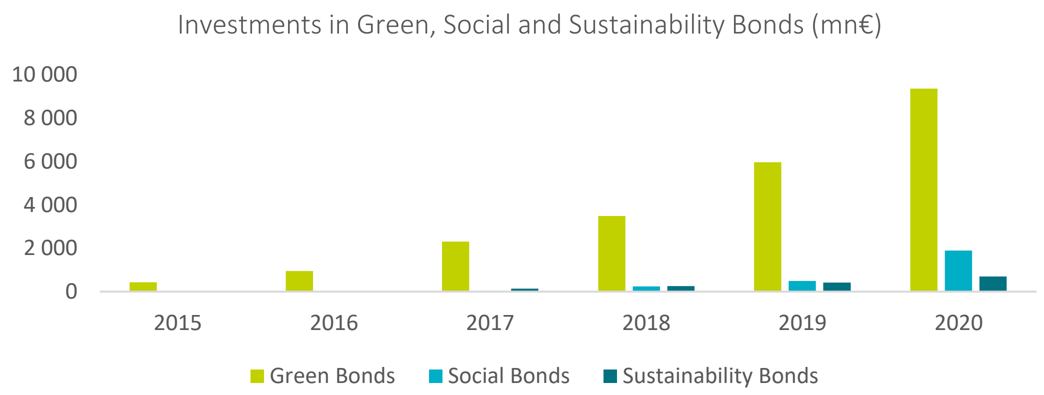
Source: AXA IM, for illustrative purpose only. These are internal guidelines which are subject to change without notice.

For each pillar, our analysts review, assess, and monitor several well-defined criteria, many of which are mandatory. At the very least, the issuer has to surpass our exclusion criteria and to comply with our "requirement" criteria in order to be investable. If a GSSB also meets our "expectation" criteria, it would place the issuer among the GSSB leaders. The factors outlined below are intended to be indicative and non-exhaustive. This is primarily because individual GSSBs can vary greatly and therefore their individual assessment involves subjective criteria, as is always the case in qualitative analyses.

At AXA IM, we believe that the use of proceeds of a green bond should reflect the issuer's efforts towards improving its overall environmental strategy and its alignment with the Paris Agreement on climate change. On the social side, the issuer should also make its ambition to deliver positive societal outcomes clear. Full transparency about the projects financed and on the tracking of the proceeds is therefore essential to our assessment. We pay particular attention to impact reporting, where both qualitative and quantitative indicators are expected.

To reach more about our [Green Bond Framework.]

AXA IM's Investments in Green, Social and Sustainability Bonds



Source: AXA IM, as of 31/12/2020

We mainly invest in Green, Social and Sustainability bonds issued by Sovereigns, Supranational and Agencies.

Source: AXA IM, as of 31/12/2020

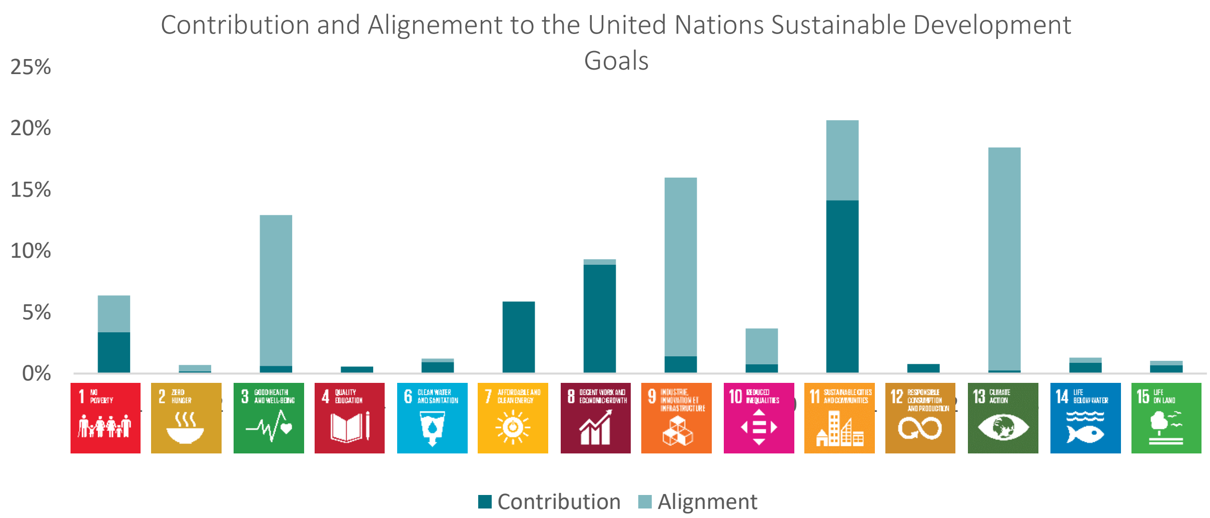
As part of our analysis of GSS bonds, we measure their contribution and their alignment to the SDGs. There is no consensus yet on the way to approach the SDGs in the GSSB market. We therefore built our own methodology and mapped the SDGs against our GSSB taxonomy. By doing this, we made a split between the green and social activities that directly contribute to some of the SDGs, and those that only align with it. Alignment is related to an indirect contribution to the SDG. Indeed, while they are not initially targeted, a project can also provide an indirect positive impact to other SDGs.

For example:

- A renewable energy generation project directly contributes to SDG target 7.2 – "Increase substantially the share of renewable energy in the global energy mix" – and align with SDG target 3.9 – "Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination"
- A low carbon transportation project directly contributes to SDG target 11.2 – "Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport" – and align with SDG target 9.1 – "Develop quality, reliable, sustainable and resilient infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all"

The strong contribution to SDGs 7, 8 and 11 is explained by the importance of Renewable energy projects – which directly contribute to SDGs 7 and 8 -, Green buildings and Low-carbon transportation projects – which directly contribute to SDG 11 – within our green bond investments.

The strong alignment with SDGs 3, 9, 11 and 13 is due to the same reasons, with Renewable energy and Low-carbon transportation projects aligning with SDGs 3, 9, 11 and 13.



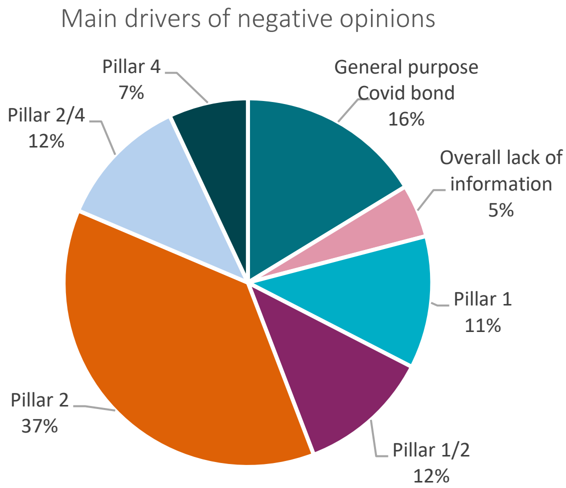
Green, Social and Sustainability Bonds eligible universe

Our Green, Social and Sustainability bonds eligible universe is made of issuances in line with our proprietary framework, on which our dedicated RI Analysts have a "Neutral" or "Positive Opinion". All GSSB that are not in line with our internal requirements are filtered out our eligible universe.

Sustainable Bonds type	Negative	Neutral	Positive	Total
Green Bonds	15%	39%	46%	100%
Social Bonds	14%	56%	30%	100%
Sustainability Bonds	36%	38%	26%	100%
Total	18%	40%	42%	100%

Source: AXA IM, as of 31/12/2020

Negative Opinions main drivers



Source: AXA IM, as of 31/12/2020

In 2020 the main reasons for which we assigned negative opinions were:

- Use of proceeds that is not in line with our expectations – e.g. lack of transparency, fossil-fuel related projects, development of airports…
- Issuers for which the ESG quality & strategy is not robust enough – e.g. issuers under a severe controversy, banks that big fossil fuel financing providers…

Compared to previous years, we noticed improvements on factors that were drivers of negative opinions in the past, notably on commitment to provide impact reporting.

We assigned more negative opinions to sustainability bonds compared to green and social bonds for two main reasons:

1. We sometimes lack details around the precise allocation of proceeds between green and social projects, making us unable to calculate the green and social shares of sustainability bonds
2. Issuer sometimes fail to identify relevant KPIs linked to the broad range of eligible projects you can find with sustainability bonds

Case studies

Mexican Government

Issuer's ESG quality & strategy

This sustainability bond is in line with the Mexican government's socio-economic development plans. It is very consistent with the government's top priority, which is to foster poverty reduction. The country has established a 2030 agenda for sustainable development. As part of it, we appreciate that the State's budget has been mapped against the SDGs.

Project types

- Access to healthcare (35,3%): hospitals and medical equipment, health programs, health professionals support
- Access to education (29,2%): schools and educational equipment, scholarships
- Food security (15%): subsidies to subsistence farmers, agricultural insurance
- Affordable basic infrastructure (8%): development of rural roads and mass transportation
- Access to finance (3,9%): digital payment systems, bank branches in isolated areas
- Employment generation (3,9%): employment trainings
- Sustainable water management (3,5%): water treatment
- Biodiversity conservation (0,9%)
- Renewable energy (0,2%)

Management of proceeds

Proceeds will be managed on a dynamic basis, with a surplus of eligible expenditures in the pool. The allocation of proceeds will be reviewed by an independent third-party.

Impact reporting

The Mexican government is committed to report annually on the social and environmental benefits of its sustainability bond. Relevant KPIs have been identified for each eligible category.

Crédit Agricole

Issuer's ESG quality & strategy

Social ambitions are defined around social inclusion, access to finance and essential services and social cohesion. At this stage, CA did not establish forward-looking targets related to social impact financing. It is however working on social KPIs with its local branches to define such targets. We also note that CA already identified a €20bn portfolio of eligible social expenditures, making it a strong candidate to become a regular social bond issuer.

Project types

- Employment generation through SMEs financing (62%)
- Access to healthcare (23%)
- Affordable housing (15%)

Robust definition of target populations.

Management of proceeds

Internal tracking system + external verification of allocation.

Impact reporting

Relevant KPIs: number of loans, of people employed and of beneficiaries.

Forecasts and our 2021 projects

Forecasts for green bond issuance in 2021 range from \$310bn to \$360bn. This would represent substantial growth of the green bond market, which we welcome. However, it pales in comparison to the \$6.9trn investments needed per year in infrastructure to help limit the rise in global temperatures within 2°C above pre-industrial levels as envisaged under the Paris Agreement. Still, this situation leaves the door open to great innovation across the green bond universe.

If quantity matters and is critical to meet the Paris Agreement goals, the growth of the green bond market should not take place at the expense of its quality. AXA IM's green bond assessment framework is built to ensure that our expectations for green bond issuers are met. Our analysts aim to select green bonds that are in line with our clients' ambitious environmental strategies. AXA IM's call for transition bonds reflects our view that the green bond market should keep its standards in terms of quality and integrity.

Since then, we have seen positive developments on this topic. We co-chaired ICMA's Climate Transition Finance working group, which published the Climate Transition Finance Handbook in December 2020. We have seen several transition bond issuances – in our view these transactions will be needed to help issuers to align their business models with the objectives of the Paris Agreement. We also welcome the development of sustainability-linked bonds, which are innovative tools to finance the transition to a more sustainable economy. As these products are different from GSSBs, one of our key objectives for 2021 is to build and publish a dedicated assessment framework for transition and sustainability-linked bonds.

Impact Philanthropy Mechanism

In 2020, to further deliver a positive impact on society in the long-term, AXA IM implemented an innovative philanthropic mechanism for its impact fund range, across listed and private markets.
5% of this range's management fees are now used to fund additional projects aimed at developing solutions with a societal impact. These projects are focused on the themes which are at the heart of AXA IM's Corporate Responsibility and Responsible Investment strategies, and aligned with selected UN SDGs, such as:

- SDG 3 – Good Health and Well-Being
- SDG 4 – Quality Education
- SDG 13 – Climate Action
- SDG 15 – Life on Land

Partnerships with four charities have been put in place thanks to the mechanism:

Charity	Missions	SDGs
EPIC	Epic aims at supporting the development of a world A world in which every child and youth has access to safety, empowerment and equal opportunity. To do so, it finds, selects, backs and monitors high impact organizations in order to catalyze their impact on underserved children and youth and the systems affecting their lives. It relies on a thorough and cutting-edge sourcing, vetting and monitoring process, bringing trust, transparency and accountability.	4 QUALITY EDUCATION
World Land Trust	World Land Trust is an international conservation charity that protects the world's most biologically significant and threatened habitats. Through a network of partner organisations around the world, WLT funds the creation of reserves and provides permanent protection for habitats and wildlife. Partnerships are developed with established and highly respected local	13 CLIMATE ACTION 15 LIFE ON LAND

	organisations who engage support and commitment among the local community. In 2019, WLT supported the restoration and conservation of 38,000 acres, across 22 countries and 82 reserves, also planting 39,000 trees.	
Ligue pour la Protection des Oiseaux	LPO is one of the oldest nature conservation association in France and is affiliated with the BirdLife International network, LPO implements national restoration projects for some of France's most threatened birds, coordinates European species conservation programmes and manages the reintroduction of endangered birds. LPO manages over 24,000 hectares of natural capital spread over 27 nature reserves in France.	15 LIFE ON LAND
Doctors with Africa	Doctors with Africa CUAMM cooperates with local hospitals, health centers, villages and universities, to improve the health conditions of the most vulnerable communities of Sub-Saharan Africa. The organization designs and implements healthcare cooperation projects, also carrying out capacity-building activities and conducting and disseminating scientific research.	3 GOOD HEALTH

b) ESG methodologies & tools

Analysis of the ESG quality of corporate and sovereign issuers is guided by in-house methodologies developed and maintained by the RI Solutions, Models and Tools team, using a mix of qualitative and quantitative perspectives. In 2020, our Corporate and Sovereign ESG scoring methodologies were audited by an external audit firm for the first time, with satisfactory conclusions.

Corporate issuers

For companies, we have developed a three-pillar and six-factor frame of reference that covers the main issues encountered by businesses in the environmental, social and governance fields. The frame of reference draws on fundamental principles, such as the United Nations Global Compact,[10] the OECD Guidelines, the International Labour Organisation conventions, and other international principles and conventions that guide companies' activities in the field of sustainable development and social responsibility. The same analysis methodology is applied to the equities and corporate bonds of all companies. The final ESG rating also incorporates the

[10] United Nations initiative launched in 2000, with a view to encouraging companies worldwide to adopt a socially responsible stance, by committing to incorporate and promote principles as regards human rights, international labour law and combating corruption.

concept of industry-dependent factors and deliberately differentiates between sectors, to overweight the most material factors for each industry. Materiality is not limited to impacts relating to a company's operations, it also includes the impacts of its stakeholders and the underlying reputational risk arising from a poor grasp of major ESG issues.

The ESG analysis model for companies considered by the RI analysts is the following:

ESG-analysis model

AXA IM's frame of reference for analysis is built on three pillars: environmental, social and governance.

For each pillar, key themes have been identified. Those themes comprise six factors, which are then divided into 13 sub-factors.

	Corporate framework	
Pillar	**Factor**	**Subfactor**
E	Climate change Resources & Eco-systems	Climate change Resources & Eco-systems
S	Human Capital	Career Management Working Conditions Social Dialogue
	Social Relations	Human & Labor Rights Customer Relationships Supply Chain
G	Corporate Governance	Board Structure Transparency & Controls Shareholder Rights Management Quality & Remuneration
	Business Ethics	Business Ethics

Source: AXA IM

Selection of external ESG-data suppliers

An in-depth analysis has been conducted into ESG-data suppliers to select the most relevant information. Indeed, we have had the opportunity to engage discussion with a large number of data providers during the past year in order to verify whether we could find better data than the one we are currently using.

The results of this study led to the selection of three rating agencies (MSCI ESG Research, Sustainalytics, Vigeo-Eiris) and the activation of 53 raw scores for the corporate model. We also use other data providers such as Ethifinance for the leverage loans and private debt methodology as well as for the small and mid-caps one.

Raw score calculation

Each factor and sub-factor of AXA IM's corporate ESG frame of reference has raw scores fed into it, obtained from our partner rating agencies using a proprietary allocation matrix. Having standardised the necessary data to take account of the specifics of each source, they are aggregated, and a score range from 0 to 10 is calculated for each factor and sub-factor.

The processing of controversies is an entirely separate stage; the most material controversies automatically result in a lower ESG score.

Companies' ESG evaluations are updated every six months. The list of criteria and sectorial weighting matrix that apply to the various ESG sub-criteria are regularly reviewed for a better grasp of the most significant issues for each sector and for identification of the data suppliers that best match up with the sectorial analysis frame of reference. The goal is an ESG score that best reflects the RI Solutions, Models and Tools and RI Research teams' ESG-analysis convictions and each issuer's intrinsic ESG quality. With that in mind, we ensure that the most serious controversies are monitored, and we factor an equal weighting to Corporate Governance factors whatever the sector because of the strong materiality of this criteria and the increased ambition of AXA IM on engagement purposes.

Each sphere of investment has been broken down into 16 sectors, with the classification combining a rationale that is both ESG and financial.

An unadjusted ESG score is calculated as the weighted average of each sub-factor of the AXA IM corporate ESG frame of reference, with the weighting varying from sector to sector on the basis of a proprietary weightings table.

Adjustment of the overall ESG score

The sphere of investment is split into four regional groups: North America, developed Asia/Pacific, developed Europe and emerging economies.

Within each group, the overall ESG score is standardised on a scale from 0 to 10 (0 for the worst score, 10 for the best).

This balanced apportionment of scores ensures better interpretation of the issuer's ESG score, which could translate to five RI-quality bands (poor, below-average, average, above-average and high).

Green, social and sustainability bonds

A new methodology for green, social and sustainability bonds have been created. It has been designed to include the bonds' qualitative assessment made by the RI Research team into the AXA IM's proprietary ESG scoring frameworks. The scores integrate these qualitative inputs, whether it is a corporate or sovereign bond, to produce an enhanced ESG score for green, social and sustainability bonds issuances.

Thus, the scores given to these instruments are a combination of both quantitative and qualitative assessments. The ESG score of the bond can either be the same as its issuer, or get a bonus depending on the qualitative assessment.

It allows us to differentiate these impact bonds from common bonds through ESG scoring and to favour investments participating in climate and social transition.

Small and mid caps

To complement our corporate methodology for specific asset classes as small and mid-caps, we expanded our coverage in partnership with Ethifinance. It relies on 45 raw scores sourced from Ethifinance & Trucost, all rated on a scale from 0 to 10 and classified in the same 6 factors and 13 sub-factors as the corporate framework. The sectorial weighting is also the same, and there is no regional adjustment because over 99% of the companies scored through this new method belong to the same region (Europe developed).

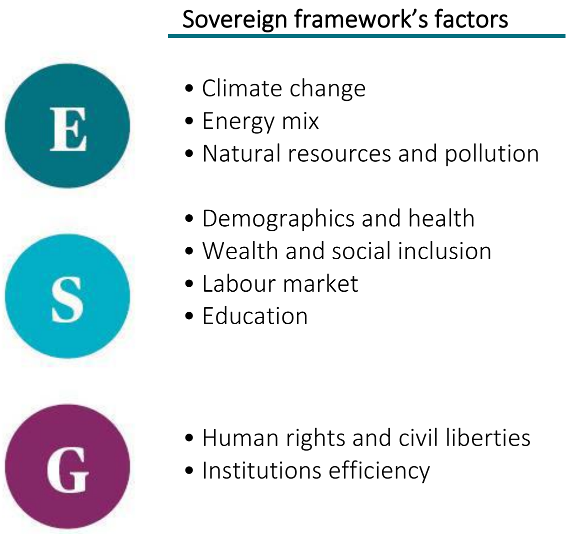
Thanks to this expansion, the ESG coverage of the funds targeted have improved significantly.

Sovereign issuers

For governmental and quasi-governmental issuers, we have also developed a country-rating model based on data from public bodies, such as the World Bank, the OECD and the IMF. We currently cover 190 countries, classified in four groups: high income, upper middle income, lower middle income and low income. This approach makes countries' ESG appraisal central to the notion of sustainable development. Key issues, such as the country's stance on the major climate, social and political risks are assessed, taking account of each nation's direction of travel and progress over the long term. Each of the 17 UN Sustainable Development Goals (SDGs) is now covered by at least one indicator.

The ESG analysis criteria for sovereigns considered by the RI analysts are the nine factors below, based on 57 ESG indicators such as:

- For environmental factors: CO_2 emissions in relation to population and economic activity, the energy mix,[11] renewables and pressure exerted on natural resources (water, forests, etc.).
- For social factors: population ageing, life expectancy, Gini index[12] of income distribution, risk of poverty, the Program for International Student Assessment (PISA)[13] and the youth unemployment rate.
- For governance factors: World Bank's indicators (government effectiveness, rule of law, political stability, corruption control, etc.), the proportion of the freedom of press rank, and the size of the shadow economy for instance.



Source: AXA IM

[11] Distribution of the various primary energy resources consumed for the production of various energy types.

[12] The Gini index, according to the French Statistics and Economic Studies Institute (INSEE): The Gini coefficient is an indicator summarising wage inequality. It ranges from 0 to 1. It is 0 in a situation of perfect equality, where all wages, incomes and living standards are the same. At the other extreme, it is 1 in a situation of the greatest possible inequality, where all wages, incomes and living standards, except for one, are zero. Between 0 and 1, the higher the Gini coefficient, the greater the inequality.

[13] Study conducted by the OECD since the start of the 2000s to assess the level of 15-year-old students and, therefore, to measure the performance of the education systems of the Organisation's 34 member countries.

Calculation of ESG scores and standardisation by ESG-maturity level

We calculate standardised scores for each ESG indicators relative to its group of countries high income, upper middle income, lower middle income and low income.

Each ESG indicator score is equally weighed within a factor. Each factor is equally weighed within the 3 pillars and each pillar is equally weighed to build the final ESG score. By doing so, our model is neutral regarding ESG pillars.

Like with the corporate model, countries are rated on a scale from 0 to 10 (0 for the worst score, 10 for the best).

ESG-rating methodologies for Alternative Asset Classes

Direct Property

Our proprietary ESG scoring methodology reviews a total of fifteen 'E', 'S' and 'G' indicators, resulting in an investment score between 1 (worst) and 10 (best). This score may be compared against other investments within AXA's portfolio, and referenced against the specific country, portfolio or sector averages to make a more informed decision as to whether the investment is likely to perform above or below the current relevant internal benchmark. A potential score and a maximum reachable score are calculated. The potential score takes into account any measurement or capex plan that will be implemented in the asset within the next 2 years while the maximum reachable score considers an estimation of the highest possible score given building conditions and constraints.

OBJECTIVE: Assess the real performance of the building

Criteria	Indicator	Score	Maximum points to attribute	Asset score
Energy management	1. Assessment and level of an Energy Performance Certificate (EU EPC)	8	8	E score
	2. When we have the management of the energy contracts, does the property / facility manager monitor the energy consumption of the building? if so how?	3	3	
	3. What measures were implemented during the last three years to improve the energy efficiency of the building ?	3	3	
	4. Environmental certification	7	7	
	5. Annual energy consumption (kWh/m2/year)	6	6	
CO2 management	6. What is the major source for heating ?	4	4	
	7. The building management is encouraging clean transportation ?	3	3	
Water management	8. Annual water consumption (m3/m2/year)	2	2	
	9. What measures were implemented during the last three years to improve the water consumption efficiency of the building ?	3	3	
Waste management	10. Existence of a selective waste sorting facilities on site?	1	1	
Health & Safety	11. What is the risk level of the building regarding health & safety issues (asbestos, lead..)	3	3	S Score
	12. Does the building promote equal opportunities for all: access for disabled people	3	3	
Tenants well-being	13. Existence of a tenant engagement program that includes sustainability-specific issues?	2	2	
Business transparency	14. Existence of a Request for proposal (RFP) procedure for contracts ?	3	3	G Score
Supply chain	15. Are sustainability-specific requirements included in the procurement process and in the contracts?	3	3	
		ESG Building SCORE		

A preliminary ESG score is calculated at the time of acquisition, noting that many assumptions may be made as data availability is usually limited. Once under management, asset managers are responsible for undertaking an annual review and update of the ESG score for the asset within our dedicated ESG data management platform. This assessment forms the basis of the asset level ESG action plan, and specifically identifies activities and initiatives to address asset level sustainability risks and principal adverse impacts as part of our active approach to asset management. For Joint Ventures these internal ESG assessments further inform our engagement with partners and tenants.

Note: for the quantitative questions linked to energy (ie electricity, gas, district heating) and water consumption, we utilise actual utility data collected via our property managers into our data management platform to measure these environmental indicators. We do not currently use industry averages to estimate data or carbon footprints.

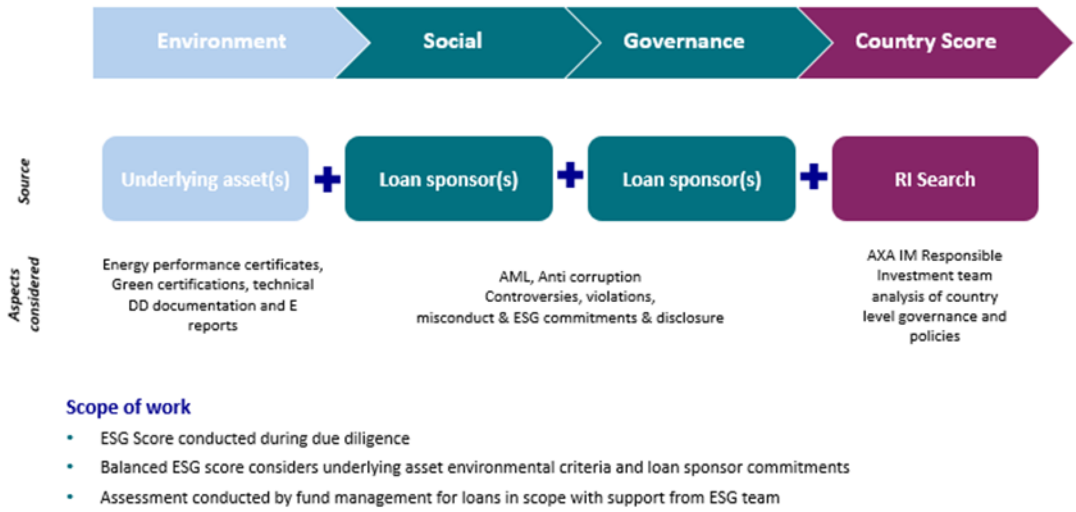
CRE Debt and Infrastructure Debt

For the asset classes of commercial real estate (CRE) debt and infrastructure debt, non-financial criteria are taken into consideration during the due diligence and investment committee process. A scoring methodology specific to these two asset classes has been developed for the purpose of allocating an ESG score.

For CRE Debt, the methodology developed reflects the approach in place for real estate, analysing key criteria of the underlying real estate assets to determine relative ESG performance. Analysis of the underlying asset is complemented by an assessment of loan sponsors, the ultimate owners of the underlying asset, based on their publicly available commitments and policies in relation to ESG.

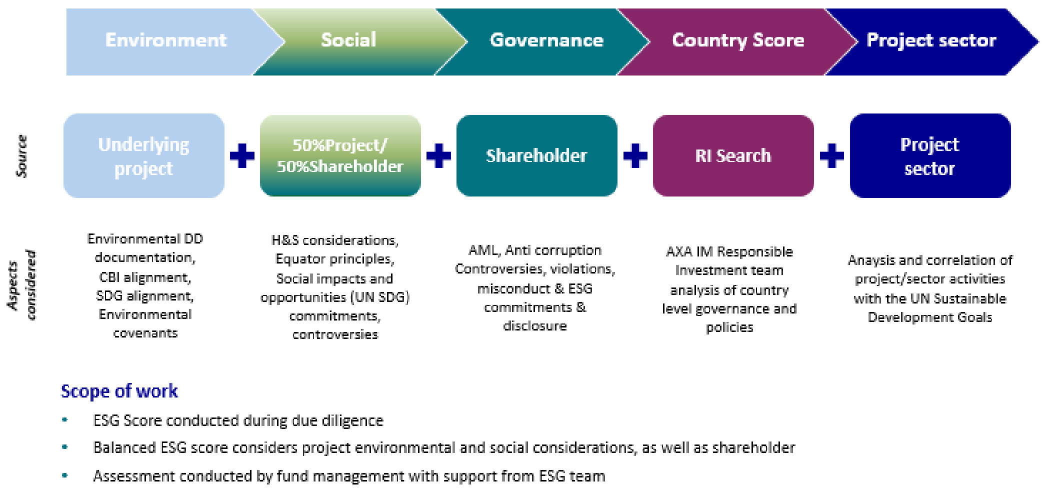
The ESG assessment has a total of 14 indicators (5 for the underlying asset and 9 for the loan sponsor(s)). Each indicator has a list of possible responses allowing us to determine a score. The assessment of underlying assets relies on information and data provided during the underwriting process, while the review of sponsors relies on public information disclosed by the sponsors regarding their commitments to ESG.

Due to the nature of investment class (i.e. debt) there are limitations as to the ability to effect change in the underlying asset performance. However, to actively manage the level of sustainability risk within a portfolio, the teams review changes in coverage of certifications with public databases, as well as and change in loan sponsor commitments, on a quarterly basis.



Source: AXA IM

For Infrastructure Debt, the ESG assessment has a total of 33 indicators. We require that borrowers provide comprehensive technical and environmental data to enable us to properly assess the investment. The indicators reviewed are based on the project sector, social utility, environmental impact and ESG commitments of shareholding companies.



Source: AXA IM

To assess the environmental and social score of the transactions, our investment teams will take into account:

- The category of the project (eg. Renewable energy, energy grids, transport, telecom etc.)
- Specific covenants related to environmental matters
- Specific environmental risk in the due diligence process (biodiversity risk, water risk etc)
- Certification of the project by a recognized entity (BREEAM New Infrastructure, CEEQUAL, SuRe etc.)
- Environmental risks and opportunities aligned with the Climate Bond Initiative
- Environmental & Social risks and opportunities via alignment with UN SDGs
- Specific health and safety risks

To complement the project E and S performance, indicators for the S and G components also consider the following for the project shareholders:

- Public charter engagement (UN PRI signatory, UNGC signatory)
- Compliance analysis (KYC and AML screening, World Check database screening)
- Participation in ESG initiatives (Sustainability policy, GRESB participation, public membership association)

These indicators help to determine the overall ESG score of the project which serve as informative indicators of underlying ESG performance and sustainability risk.

Leverage loans and private debt

For new loans and bonds issued by corporates that are not rated by the previous methodology, another scoring methodology is put in place based on Ethifinance data provider.

This methodology relies on answers to 32 questions rated on a scale from 0 to 10 and classified in the same 6 factors and 13 sub-factors as the corporate framework. The sectorial weighting and regional adjustment are also the same.

The controversy level of the issuer is also evaluated by Ethifinance and integrated in the model in the same way as the corporate framework.

As ESG assessment is relatively new in this asset class, disclosure for some issuers is very low, therefore we add a penalty score for unanswered questions. This penalty also helps communicating to the loan market, the importance of looking at all these topics while it is at the start of these ESG considerations.

c) ESG Dashboard – Mainstream asset classes

We produce on an annual basis an ESG Dashboard at AXA IM level aiming to summarize asset classes' contributions to the global ESG score. The dashboard below is based on AXA IM worldwide holdings' but specifically focuses on mainstream asset classes – equities, sovereign bonds and corporate bonds – at the end of year 2020[14].

The ESG rating coverage, now at 95%, increases every year with the inclusion of new sub-asset classes covered by our proprietary ESG rating methodologies, a precise scaling down of ESG scores from mother companies to subsidiaries as well as our engagement with our ESG data providers to enhance coverage in specific areas where coverage improvement is required. Compared to 2019, we increased our coverage on ESG scores for Real Assets, High Yield and US companies as well as on derivative assets as a result of our work on the development of ESG Scoring methodologies, as described above.

[14] Worldwide holdings include the assets managed by AXA IM Paris.

ESG Footprint Dashboard 2020

AXA Investment Managers ESG Footprint Dashboard 31/12/2020

TOTAL ASSET

	ESG scores						AUMs	
	E	S	G	ESG	Rank	% Cov.	in M€	%
AXA Investment Managers	**6,1**	**5,2**	**6,0**	**5,9**		**95%**	**535 968**	
TOTAL ASSET								
Asset Class								
Sov. Debt	5,6	4,7	6,9	5,8	3	99%	227 899	43%
JPM GBI Global	*4,4*	*4,6*	*7,2*	*5,4*		*100%*		
Corp. Bonds	6,6	5,7	5,2	6,1	2	95%	213 169	40%
Barclays Global Aggregate - Corporate	*6,3*	*5,2*	*5,0*	*5,7*		*96%*		
Equities	6,2	5,5	5,5	6,2	1	93%	81 415	15%
MSCI World AC	*6,1*	*4,9*	*5,3*	*5,9*		*100%*		
Asset Manager								
AXA IM	6,1	5,2	6,0	5,9	-	95%	535 968	-
AXA Entity								
Multi-Asset Investment	6,1	5,1	6,3	6,0	3	95%	249 545	47%
Fixed Income	6,1	5,4	5,9	5,9	5	97%	201 120	38%
Framlington Equities	6,0	5,5	5,6	5,9	6	95%	38 807	7%
High Yield and US Active Fixed Income	5,4	4,8	4,9	4,9	9	82%	18 608	3%
Rosenberg Equities	6,0	5,0	5,3	6,1	2	97%	13 251	2%
Structured Finance	6,6	5,8	5,9	6,6	1	98%	7 843	1%
Real Assets	5,9	5,3	5,5	6,0	4	88%	5 871	1%
Chorus	4,1	5,4	7,4	5,6	7	97%	792	0%
TSF - Derivatives Management	3,6	4,4	7,1	5,0	8	60%	132	0%

Color code for ESG scores

- 7.5 to 10.0
- 5.0 to 7.5
- 2.5 to 5.0
- 0.0 to 2.5

(1) Sum of % by breakdown (ie. size, sector, region, ...) can differ from 100% by up to 5% in case of data unavailability.

AXA Investment Managers www.axa-im.com

ESG Footprint Evolution Dashboard from 2019 to 2020

If we compare to last year's dashboard, the overall general feeling is positive with stability of the ESG Score and of its coverage. ESG scores per asset class remain above benchmark.

AXA Investment Managers 2020 ESG Footprint Evolution Dashboard

	ESG scores					AUMs	
	E	S	G	ESG	% Cov.	in M€	%
AXA Investment Managers 2019	**6,1**	**5,2**	**6,1**	**5,9**	**95%**	**491 910**	
AXA Investment Managers 2020	**6,1**	**5,2**	**6,0**	**5,9**	**95%**	**535 968**	
Evolution	=	=	-	=	=		
Asset Class							
Sov. Debt 2019	5,5	4,6	7,1	5,7	98%	212 690	43%
Sov. Debt 2020	5,6	4,7	6,9	5,8	99%	227 899	43%
Evolution	+	+	-	+	+		
Corp. Bonds 2019	6,7	5,7	5,2	6,1	92%	201 300	41%
Corp. Bonds 2020	6,6	5,7	5,2	6,1	95%	213 169	40%
Evolution	-	=	=	=	+		
Equities 2019	6,3	5,6	5,4	6,2	93%	77 921	16%
Equities 2020	6,2	5,5	5,5	6,2	93%	81 415	15%
Evolution	-	-	+	=	=		

Investment Managers

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d) Focus on Real Assets ESG strategy

ESG Integration within Real Assets

AXA IM manages over €102bn in real asset investments, covering both real estate and infrastructure investments. Within AXA IM – Real Assets, we take an integrated approach to responsible investment management whereby we follow three steps when systematically integrating ESG considerations into our investment decisions: defining the investible universe by applying sector exclusions and ban lists, integrating ESG factors into investment decisions with proprietary ESG scores (see above), and integrating ESG targets into active management for annual business plans.

ESG-approach for Real Estate

Real Estate is responsible for over 30% of global carbon emissions, annually. As one of the world's largest real asset managers, we are able to take actions which have a meaningful, tangible, and measurable impact on achieving the emission reductions required to achieve the Paris Agreement targets and limit global temperature increase to below 1.5°C.

Our goal is to enhance the value of assets we manage on behalf of our clients in a responsible and sustainable way. To do so, we have actively integrated ESG criteria into our investment decision-making processes.

In our direct real estate investment business, we include consideration of both financial and non-financial criteria in our investment decisions. Non-financial criteria include environmental, social and governance (ESG) factors as well as **sustainability risks** which may have a material impact on investment performance.

We assess sustainability risks and opportunities through the systematic review of key non-financial factors in each investment committee proposal. These factors provide us with a sufficiently broad approach to flag most sustainability-related risks while enabling our investment teams to focus on specific and relevant investment-level risks, where apparent.

During the Investment Committee (IC) process (the decision-making forum for all real estate investments), all proposals since April 2020 consistently review five ESG factors to provide an initial view on asset-level sustainability risk and form the basis of key actions for the ongoing strategic asset plan for each investment. These factors cover the following:

- **Regulatory Risk** reviewing the estimated level of transitional or regulatory risk associated with the asset,
- **Physical Risk,** reviewing the estimated level of physical risk associated with natural catastrophe and climate change,
- **Independent certification**, reviewing the appropriate level and type of certification for a relevant market, and providing a view on the relative level of asset quality,
- **Counterparty Risk**, which reviews appropriate counterparty governance risk, including checks against our Anti-money laundering and KYC reviews in addition to AXA IM **exclusion policies**, and,
- **ESG score**, reviewing the estimated performance of the asset relative to the AXA IM Real Assets portfolio at a sector and country level, assessed using AXA IM's proprietary ESG rating tool and addressing both sustainability risk and principal adverse impacts and setting up the basis for active management of the asset.

Our active management is based on three pillars: Decarbonisation, Resilience, and Building Tomorrow.

''Decarbonisation'' means measuring and lowering an asset's carbon emissions profile to align with the Paris Agreement targets. This means reducing an asset's emissions by >40% by 2030 and reducing emissions to 'net zero', by 2050.

''Resilience'' means ensuring our assets are better able to withstand the physical and transitional impacts of climate change. *'Physical resilience'* means identifying and mitigating the physical risks of climate change. These include the impacts of extreme weather events such as flood, hail, windstorm, fire, costal inundation, extreme heat & cold, and earthquake. *'Transitional resilience'* means identifying and mitigating the risks posed to an asset as a result of the transition to a low carbon economy. These include regulatory risks, such as mandatory energy performance benchmarks, or financial impacts such as an increasing cost of carbon.

''Building Tomorrow'' means further building on the capability of our investment teams to identify new opportunities to create value and minimise risk by taking a broader view on the new and rising set of risks facing our clients' investments.

AXA IM Real Assets determining concrete action plans to align real estate performance with decarbonisation pathways, demonstrating the impact of renovations and energy efficiency to existing assets.

In 2019, AXA IM Real Assets has set an aspirational ambition to align real estate performance with Paris Agreement targets, working towards net zero operational emissions by 2050. In so doing, AXA IM Real Assets are setting in place action plans to improve performance and data coverage, with intermediate targets in place for 2030 and 2040. (ex. reduction of scope 1 and 2 absolute emissions of >40% by 2030).

In 2020, AXA IM Real Assets completed the acquisition of London's largest private rented residential complex. Originally constructed in 1937, the asset is comprised of 1,233 units (795,990 sq ft) on a 7.5-acre site. The asset features a 3.6 acre internal publicly accessible garden, overlooks the River Thames and benefits from excellent transport links to London's major activity hubs. In addition, the asset has a comprehensive level of amenity including tennis courts, a gym and fitness center and integrated retail. Given the asset's history, age and location, it provides an exciting opportunity to undertake a comprehensive refurbishment, breathing new life into the asset for the long term.

A comprehensive energy strategy has been developed in order to align the asset with future expectations of energy performance and sustainability considerations, to address the evolution of the market and legal framework in terms of energy performance and thermal comfort, targeting standards similar to new developments.

Works target an 80% improvement in energy use intensity (EUI), the metric used to express a building's energy use as a function of its size, by driving energy performance of the building through better building insulation, transformation of the heat distribution network, integration of more efficient equipment and the introduction or on site solar renewable energy supply. The effect of these initiatives will be to reduce the asset's carbon footprint to close to zero, remove dependency on fossil fuels, and provide more substantial operational energy savings.

2.2 Climate Strategy

We are deeply committed to tackling the impact of climate-related risks and as a large investor we have a role to play in limiting global warming. We believe it is our duty to provide the relevant expertise to help our clients better understand climate change and how it may impact their portfolios and support them in adapting their investment decisions accordingly.

As shareholders, it is also our responsibility to engage with companies to encourage them to not only take better care of the environment but help improve public health and working conditions too.

Our Climate strategy is aligned with the framework proposed by the Task Force on Climate-related Financial Disclosures, and is evidenced by our active involvement in sector and international initiatives such as Climate Action 100+ or the Climate Bonds Initiative (see below).

a) Net Zero Commitment

In 2020, AXA IM announced its commitment to bring carbon emissions across all assets to a target-based net zero goal by 2050 or sooner, by joining the newly created Net Zero Asset Managers initiative. As part of this we are now working in collaboration with clients to drive meaningful environmental and societal change by reaching net zero by 2050 or sooner. Concretely, we will:

- Work in partnership with asset owner clients on decarbonisation goals, consistent with an ambition to reach net zero emissions by 2050 or sooner across all assets under management ('AUM')
- Set an interim target for the proportion of assets to be managed in line with the attainment of net zero emissions by 2050 or sooner
- Review our interim target at least every five years, with a view to ratcheting up the proportion of AUM covered until 100% of assets are included
- As part of this, we will announce ahead of the COP 26 in November 2021 the initial scope of assets to be managed in line with our net zero target, as well as the detail of the methodologies to be used and related intermediary targets. In doing so, we are leveraging the work we started with our parent company as well as our research work on Alignment Principles (see below).

AXA Investment Managers also continues to work closely with its parent company in the Net Zero Asset Owner Alliance with the aim of defining how investment strategies will support the shift of the economy to a 1.5°c pathway. In 2020, we supported them in the definition of a -20% CO_2 emissions reduction target in investments (2019-2025), in line with the Net-Zero Asset Owner Alliance's "target setting protocol". More details on the road testing performed in this perspective is available below.

b) Stranded assets risks mitigation

As part of our ESG integration process, we exclude firms which fail to meet certain climate change criteria. Our investment portfolios exclude electric power generating utilities and mining companies that are not credibly demonstrating a commitment to energy transition, as part of our climate risks exclusion policy (see 3.1) - its scope of application was extended to all the Assets Under Management in 2019.

In 2020, AXA IM took the decision of strengthening the following exclusion criteria:

- A new ban on power generation companies with more than 10GW of installed coal-based power production;
- Development of coal capacities with a more stringent threshold resulting in the exclusion of companies with coal power expansion plans of over 300MW (vs 3000MW previously). In addition, mining companies developing new coal mining and coal industry partners developing significant new coal assets are now excluded. This rule out investments in most new coal projects around the world.

Our exclusion policy which applies to 88 % of AXA IM AUMs[15] enables us to grant exemptions to issuers which are close to the exclusion thresholds, and where a robust transition plan is being implemented successfully. This exemption process is overseen by a RI governance committee, with each exemption request reviewed on a case by case basis. The exemptions are reviewed when the ban list is updated on an annual basis. As of April 2021, six issuers are exempted (their subsidiaries are not exempted, except for financial arms)[16].

AXA IM also formally committed in 2020 to exit all coal investments in OECD countries by the end of this decade, and throughout the rest of the world by 2040. This commitment will be implemented over time, using exclusion but also engagement approaches.

Early 2021, AXA IM has initiated a Coal Engagement initiative in collaboration with its parent company, sending letters to issuers which were still exposed to coal activities, but below exclusion thresholds. With this engagement initiative, we called those issuers to take the steps necessary to align business activities with this agenda and disclose transparently on the progresses made. In particular, we expect these companies to start implementing Science-Based Carbon Reduction targets and Transition Pathways in line with the Paris Agreement's +1.5°C ambition.

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[15] The remaining 12% comprise strategies which are out of scope of the policy for technical reasons (e.g. index funds, Funds of Hedge Funds) and Client Opt-Out. JVs are excluded from this figure.

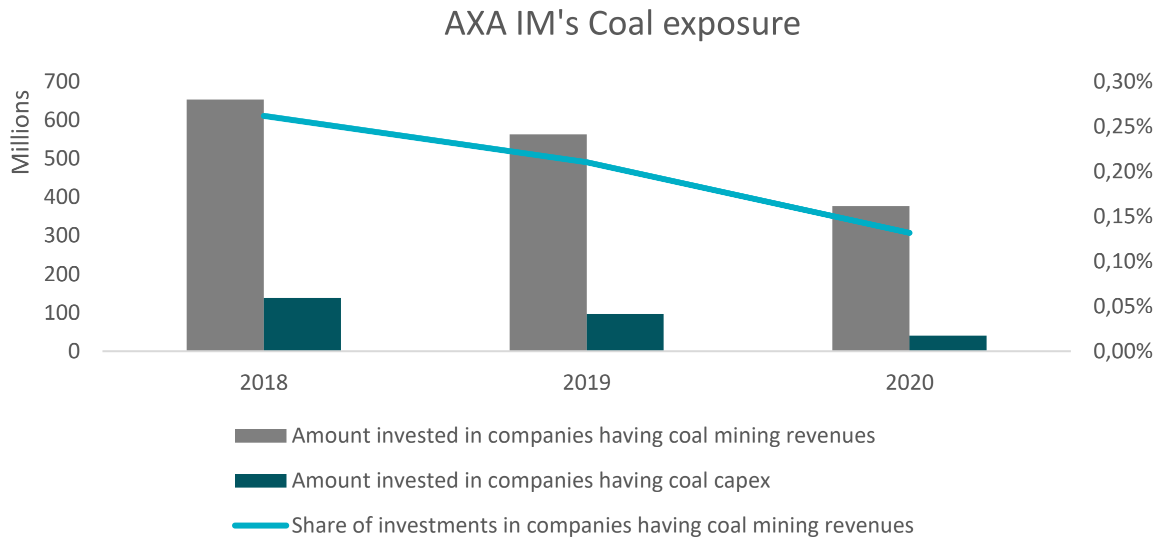
[16] A specific approach to exemptions is applied for AXA IM Joint-Ventures in scope of the policy, which is overseen by the RI and Risk governances.

Our remaining Coal exposure

Our exposure to coal mining activities has been decreasing regularly since 2018 both in absolute amount invested and in share of total investments, following the implementation of our climate risks exclusion policy and its regular reinforcements. We also monitor coal capex plans and therefore, the amounts invested in growing coal companies have been decreasing as well.

In the chart below, we note the impact of 2019 Climate Risks policy reinforcements, as the application of our Climate Risks policy has been extended to all our assets under management which resulted in a decrease of our investments in companies having coal mining revenues;

These results are in line with our objectives and our overall climate strategy to progressively reduce our exposure to coal and to exit all coal investments in OECD countries by the end of this decade, and throughout the rest of the world by 2040. This progress is the result of strengthening our exclusion criteria and of our efforts, through engagement and voting, to encourage companies to implement transition strategies. This consistency between our commitments in the fight against climate change and our investment practices allow AXA IM to be ranked first in the Reclaim Finance's 2021 'Asset Manager Reality Check on Coal' scorecard[17].



Sources: AXA IM, Trucost-S&P

c) Integration of Climate risks & opportunities in portfolio management

Combined with a shareholder engagement strategy through which we actively interact with companies most at risk and have developed a climate exposure assessment capacity to help portfolio managers integrate climate risks and opportunities into their activities.

Since 2018, we started to prototype reporting frameworks on new climate indicators covering both corporate and sovereign investments with forward-looking metrics such as portfolio

[17] See "*Slow burn: the asset managers betting against the planet*", Reclaim Finance, 2021. Slow_Burn_RF_FINAL_ENG.pdf (reclaimfinance.org)

temperature, climate risks resilience assessment and contribution to the energy transition. We have relied on our collaboration with a consortium of external experts such as Trucost-S&P, Carbon Delta and Beyond Ratings to select meaningful metrics and set-up our climate framework and approach. In 2020, we deployed additional Environmental KPIs in our RI Front Office tools with the Green Revenues, Physical Risks costs, Temperature, Energy Intensity, and the Total Energy Consumption (MWh), for instance.

Furthermore, in line with our Climate strategy and our commitment to achieve Net Zero carbon emissions by 2050, or sooner, we deployed a Carbon Intensity objective for some of our Sustainable and Impact funds[18] and their performance is reported on funds' ESG reports available on the Fund Centre. This effort will be pursued in 2021.

We are working to continue to reinforce these efforts across a portion of our product range as part of our Net Zero Commitment in 2021 and have expanded our ACT range of ESG-related strategies with the launch of:

- A low-carbon US high yield strategy in April 2021. The strategy will have a target for carbon and water intensity that is at least 20% lower than that of the benchmark.
- A climate-driven credit strategy to help institutional investors achieve their long-term climate and financial objectives. Created around three core objectives of capital preservation, climate alignment and credit return, the new strategy aims to provide a maturity-based approach to considering climate-risk, with clear objectives over a short, medium and long-term time horizon. With a focus on carbon the managers will seek to refine the investment universe to target climate solutions, investments and projects that are required to meet the goal of net zero by 2050, as well as heavily decarbonising issuers to drive the transition – in line with the Net Zero Investment Framework set by the IIGCC[19].

We intend to continue to launch climate-oriented strategies in a targeted manner in addition to deploying Net Zero approaches across a range of existing strategies in 2021.

i. Measuring climate risks & opportunities

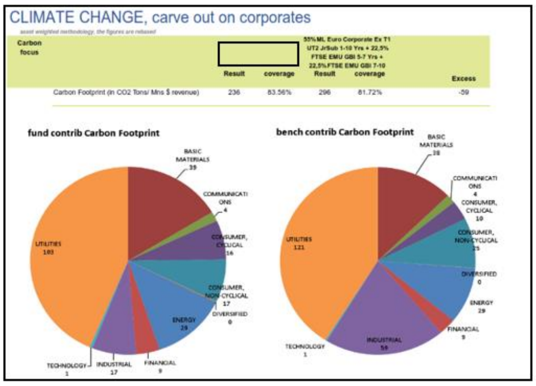
<u>Carbon Intensity : introduce</u>

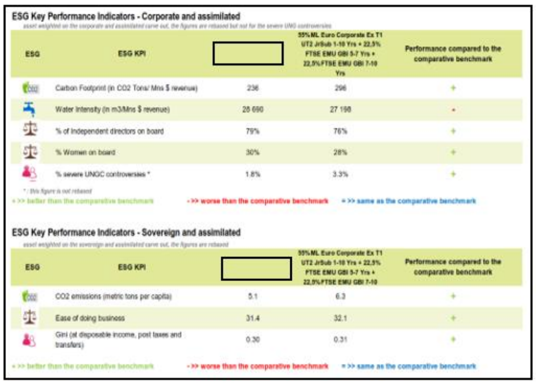
Partnering with Trucost S&P, AXA IM discloses the carbon intensity of portfolios in the climate section of the ESG reporting of its RI funds, and in the standard reporting of all portfolios along with the ESG score. Carbon intensity of portfolio relative to benchmark is analysed by distinguishing between a sector allocation effect and an issuer selection effect. Carbon intensities are performed focusing on both direct emissions (scope 1), emissions from electricity suppliers (scope 2) and from business travel (scope 3).

[18] As of December 2020, 19 of our AXA IM funds have an objective on the Carbon Intensity, representing €7,4 billion assets under management

[19] See "*Global framework for investors to achieve net zero emissions alignment launched - $8 trillion investors put it into practic*e", IIGCC, 2021. https://www.iigcc.org/news/global-framework-for-investors-to-achieve-net-zero-emissions-alignment-launched-8-trillion-investors-put-it-into-practice/

AXA IM ESG Impact reporting: ESG KPIs and Climate Change sections





ESG Key Performance Indicators - Corporate and assimilated

ESG	ESG KPI		55%ML Euro Corporate Ex T1 UT2 JrSub 1-10 Yrs + 22,5% FTSE EMU GBI 5-7 Yrs + 22,5%FTSE EMU GBI 7-10 Yrs	Performance compared to the comparative benchmark
	Carbon Footprint (in CO2 Tons/ Mns $ revenue)	236	296	+
	Water Intensity (in m3/Mns $ revenue)	28 690	27 198	-
	% of Independent directors on board	79%	76%	+
	% Women on board	30%	28%	+
	% severe UNGC controversies *	1.8%	3.3%	+

* : this figure is not rebased

+ >> better than the comparative benchmark - >> worse than the comparative benchmark = >> same as the comparative benchmark

ESG Key Performance Indicators - Sovereign and assimilated

ESG	ESG KPI		55%ML Euro Corporate Ex T1 UT2 JrSub 1-10 Yrs + 22,5% FTSE EMU GBI 5-7 Yrs + 22,5%FTSE EMU GBI 7-10	Performance compared to the comparative benchmark
	CO2 emissions (metric tons per capita)	5.1	6.3	+
	Ease of doing business	31.4	32.1	+
	Gini (at disposable income, post taxes and transfers)	0.30	0.31	+

+ >> better than the comparative benchmark - >> worse than the comparative benchmark = >> same as the comparative benchmark

Sources: Trucost S&P, AXA IM, 2019

ii. Scenario analysis: Global warming scenarios or possible climate futures

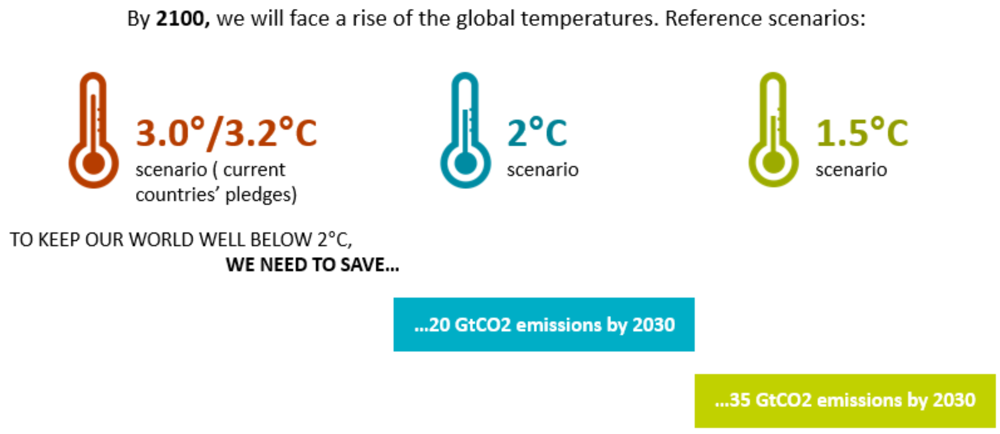
In 2018, human-induced warming already reached a global average of about 1°C above pre-industrial levels. The world's emissions curve needs to peak before 2050 and follow a downward trend to reach carbon neutrality by the second half of the century. Achieving Carbon neutrality or "net zero" emissions requires to strike a balance between anthropogenic emissions by sources and removals by sinks. To reach this stage, the world will have phased out most CO2 emissions and will be employing methods that capture and store the remaining low levels of emissions ("offsetting") as well as the CO2 in the atmosphere from the build-up of historical emissions. Green technologies are instrumental in achieving this decarbonization pathway.

The Paris Agreement binds parties to limit warming well below 2°C compared to pre-industrial levels by 2100. Most of the current Intended National Determined Contributions ("NDCs") have 2020 to 2030 as their stated compliance period. NDCs expressed to 2050 are scaled back to 2030 in our modelling. The 2018 UNEP Gap Report estimates that implementing the unconditional NDCs would lead to a mean global temperature of around 3.2°C, and analysts estimate that a "BAU world" (NDCs not implemented) would produce at least +4°C by 2100.

The TCFD recommendations specifically state that organizations consider a set of scenarios, including a "2°C or lower" scenario, in reference to the 2015 Paris Agreement since they will have different implications on investments.

While countries need to raise the bar of their current carbon pledges, the IPCC 1.5°c report published in 2018 also highlighted nations would have to target a 1.5°c scenario rather than a 2°c scenario to avoid unprecedent damages for biodiversity, human beings and the economy. This requires reducing carbon emissions by 45% by 2030 compared to 2010 levels and achieving carbon neutrality by 2050.

Remaining carbon budget between Paris agreement country pledges, 2° and 1.5°c scenarios



Sources: IPCC 1.5°c report, AXA IM, 2019

Climate scenario, test for the sensitivity of business models to various warming trajectories

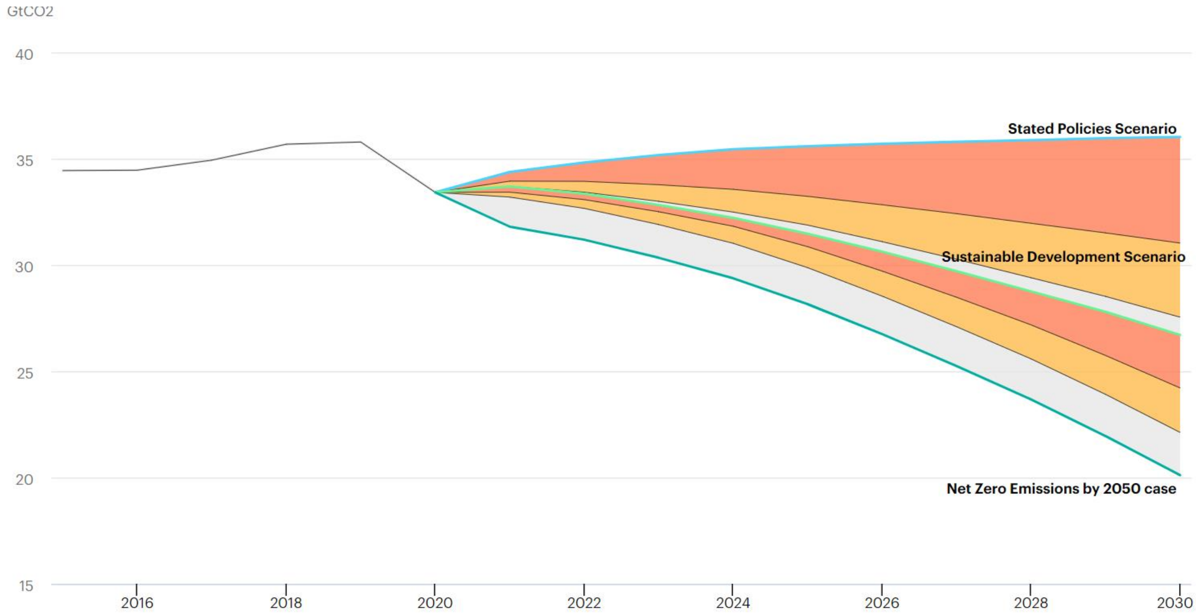
A climate scenario is a forecast of the future based on projecting several variables. These variables include greenhouse gas emissions, cost and assimilation of technology, economic growth, demographics, development and use of CCS (Carbon Capture & Storage). They could lead to certain predicted outcomes such as how much temperatures will rise and what this level of global warming will result in for the environment, society and the economy.

Most "below 2°C" scenarios are based on a rapid and radical shift in the energy supply and demand picture. On the supply side, scenarios are based on a decrease in fossil fuels, with coal and oil being squeezed out while gas remains in use. Renewable energy sources such as wind, solar and biomass, increase significantly, and nuclear remains a part of the future energy mix.

In well-known scenarios such as the IEA's one (International Energy Agency), efforts to limit greenhouse gas emissions are derived mainly from technical and technological energy efficiency measures. While they say little on social conditions, relative costs and technological developments to achieve such energy mix shift, IEAs scenarios are well recognized and widely used especially by companies in most sectors at stake with a strong climate impact.

IEA's announced in January 2021 that it would include its NZE 2050 (Net Zero Emissions by 2050) scenario corresponding to the 1.5°c scenario in future World Energy Outlooks (WEOs), its flagship annual publication. This is a major step forward in supporting net-zero aligned capital flows because companies and investors frequently refer to the IEA's energy scenarios in setting and assessing company transition plans. The finalised scenarios should also include various assumptions in terms of relative prices and costs

IEA Climate scenarios: CO2 emissions from Energy sector



Source: IEA 2020

While we wait for this next publication, AXA IM is relying on Integrated Assessment Models focusing on 2 scenarios: 1.5°c and 2°c. IAMs models provide a framework for understanding the climate change problem and for informing judgments about the relative value of options for dealing with climate change. The links between the various climate and non-climate modules that are inherently built into complex IAMs allow them to explore cascading effects, how decisions in one area of the economy affect all the other areas. This allows, for example, to see how population and GDP growth could impact the demand for electricity and how that demand could be met in an optimal way by either maximizing the social impact or by minimizing costs to meet the new demand.

To run its scenario analysis, AXA IM focused on two warming IAMs scenarios and tested their respective impacts in terms of value of investments:

- The 2°c scenario (AIM/CGE 2°c)
- The 1.5°c scenario (AIM/CGE 1.5°c)

A narrative behind each of these scenarios is formed. It includes indicators on population, economic growth, low” carbon technology use, energy system information, land cover, etc. These indicators are hence used in the IAMs scenarios and modify the outputs of these models. Below we present some of the indicators that enter the IAMs scenarios and their future trends from now to the end of the century

Demographics

The two IAMs scenarios used in the VaR calculations project population levels under the UN median projection, with a deviation starting between 2030 and 2040. The bulk of the scenarios project a stabilization of the population growth around the middle of the century.

Most of the scenarios project a world population at the end of the century of about 9 billion against more than 10 billion as of UN median projections.

GDP Growth

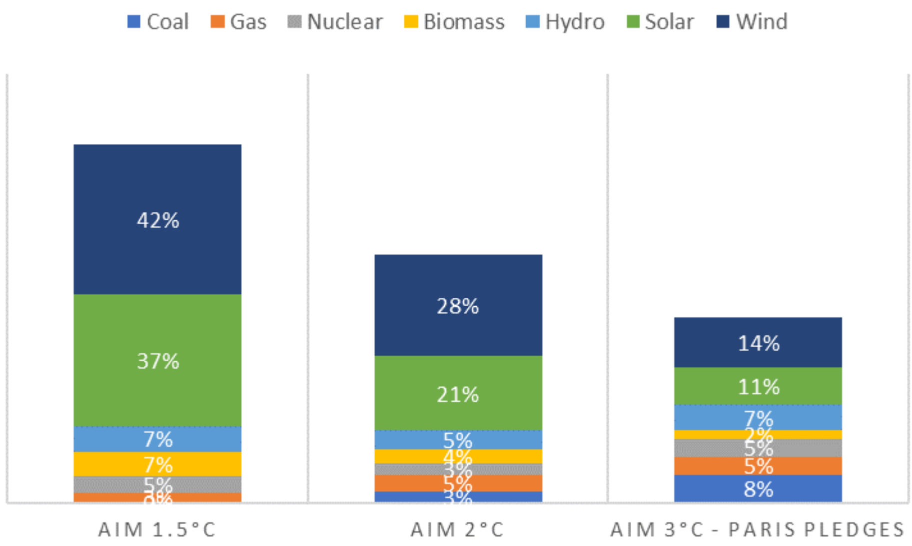
For the first decade, the two scenarios project about the same GDP growth with a divergence starting around 2030. All the scenarios are forecasted to grow at a constant yet lesser rate during the same time period.

Most of the scenarios project less growth and lower end of century GDP levels than the OECD GDP forecast for the world.

Energy Mix

All scenarios project a major increase in installed renewable capacity by 2050.

Forecasted Energy Installed Capacity by 2050 in climate scenarios used for AXA IM Climate Value at Risk calculations



Sources: Carbon Delta, AXA IM, 2020

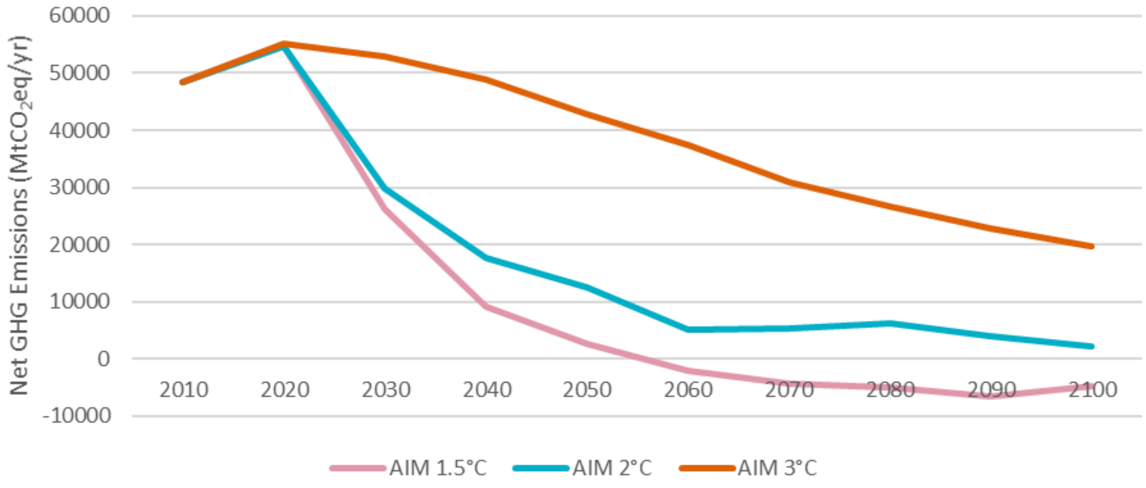
Future Green House Gas emissions[20]

The AIM 1.5°c and 2°c scenarios project a peak in emissions in 2020 and then a sharp decrease between 2020 and 2050. The 2°c scenario then levels off between 2050 and 2060 with close to zero emissions by 2100. The 1.5°c scenario projects a continuous decarbonization and becomes emission neutral around 2055 and goes further negative until the end of the century.

The AIM 3°c scenario, which is not considered ambitious enough, projects an emission peak in 2020 and is followed by a slow but constant decrease of emissions until the end of the century.

[20] These emissions are net emissions (sequestered emissions are considered) and include the following gases: carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). The CH_4 and N_2O emissions were converted into CO_2 equivalent (eq) numbers using the IPCC AR5 global warming potentials (GWP) relative to CO_2. These gases account for most global emissions (around 80% of the emissions) and are the main drivers of global warming.

Forecasted Green House Gas emissions by 2100 in climate scenarios used for AXA IM Climate Value at Risk calculations



Source: Carbon Delta, 2020

iii. Forward-Looking metrics and climate-related impacts for the business

Over the past few years, the financial industry has made further progress in illustrating materiality of climate change and measuring alignment of investments. Recently, some emblematic initiatives have come up with concrete frameworks. These included the publication of the Paris Aligned Investment Initiative Net Zero Investment Framework[21], the United Nations convened Net-Zero Asset Owner Alliance and the Science Based Targets initiative (SBTi)'s framework for financial institutions.

Investors are now turning towards new types of analyses and corresponding metrics which present a more insightful response into what it means to be a "Paris-aligned" investor.

In that context, AXA IM has explored forward-looking metrics over the past years. AXA Group has been committed to climate pledge for more than five years and has been recently embarked into the Net Zero race along with other Net Zero Asset Owner Alliance investors. AXA IM supports its parent company on this journey and has now set itself a Net Zero Emissions target by joining the Net Zero Asset Managers Initiative.

In 2020, and through its collaboration with Carbon Delta MSCI and Beyond Ratings, AXA IM has continued to investigate innovative forward-looking metrics to measure exposure of investments to transition and physical risks.

[21] See "*Net Zero Investment Framework 1.5°C Implementation Guide*", Paris Aligned Investment, 2021. https://www.parisalignedinvestment.org/media/2021/03/PAII-Net-Zero-Investment-Framework_Implementation-Guide.pdf

Quantifying Climate risks: the Climate Values at Risk (VaRs) and warming potential

Transition risks are often associated to carbon regulation. Costs of carbon regulation and disruption are the extra charges for an emitting company arising from public policies strengthening. On listed corporate investments, AXA IM measures transition risks using tools developed by Carbon Delta (Transition and Green Opportunities Value at Risk). They rely on an assessment of future carbon prices and on an estimate of the carbon remaining budget before we reach various climate scenarios. This remaining carbon budget at company level depends on the geographical and sectoral structure of companies' assets/revenues.

While initially focusing on scope 1 modelled emissions, Carbon Delta made significant updates to its methodology in 2020:

- For transition risks assessment, self-reported and estimated emissions data are combined and considered as complementary.
- Scope 2 and Scope 3 emissions have been added to Scope 1 emissions in the calculation of carbon intensities.
- For green opportunities exposure assessment, future green revenues reflected by patents developments, have been combined to current green revenues, considering current exposure of companies' revenues to green activities.
- The warming potential cap which was previously at 6°C has been increased to 10°C
- If companies have set emission reduction targets, those have also been included in the temperature calculation.

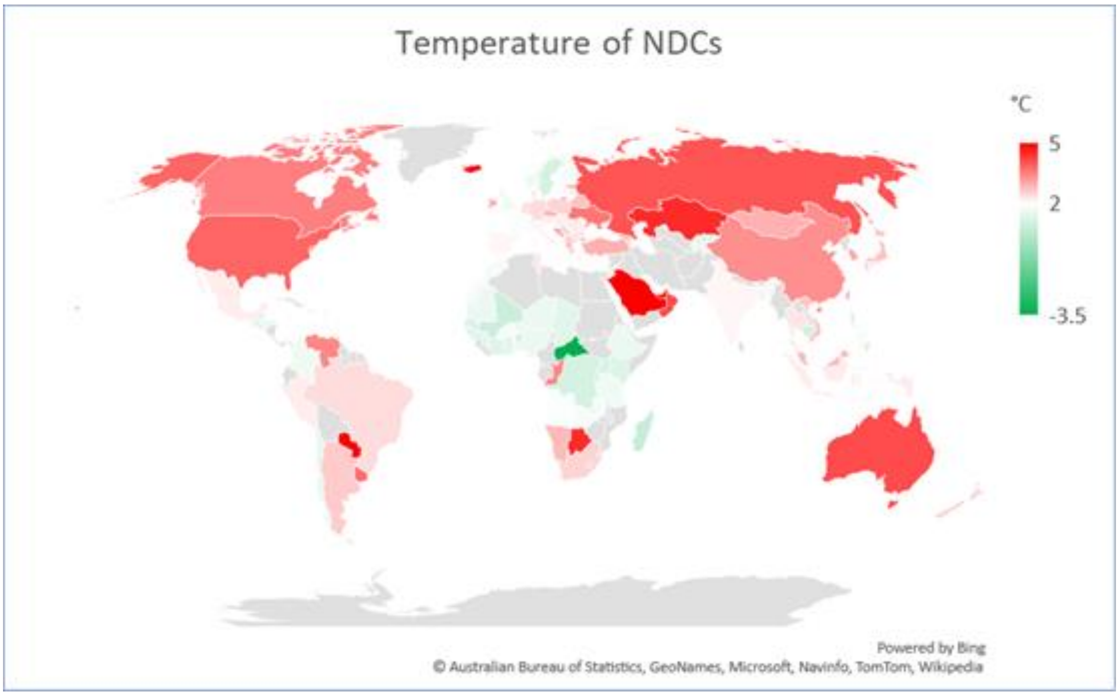
These methodology changes had a profound impact on the temperature of some sectors notably the automobile, the energy, the consumer services and the financial sectors which have seen their temperature and transition risks increase.

The transition risks on the oil and gas and electrical sectors have also surged due to the inclusion of scope 2 and 3. And on the transition side, since the costs are equal to the opportunities in the model, the additional risk created the additional opportunities, that benefitted particularly the utilities and water sectors.

On the government temperature model side, Beyond Ratings/ London Stock Exchange Group has also made some significant changes. The curve reflecting the relationship between temperature and additional carbon emissions has been updated with the IPCC 2018 insights whereas it was previously relying on the 2014 IPCC report. As a result, the slope of the curve has decreased which has impacted all temperatures but more heavily those which were very high namely Australia, the United States, Canada and Japan.

Some countries' temperatures have also evolved following their updated NDCs.

The following map shows the temperatures associated with the current countries' NDCs



Source: Beyond Ratings/LSEG, 2020

Extreme Weather events costs and Physical Risks

Physical risks are those that are already arising as a result of the rise in temperatures and of the increase in extreme weather events occurrence and magnitude. Potential costs of climate change damages could equate up to 10% of the global current GDP value in a world at 1.5°c and up to 23% in a world at 3°c, which represent what current countries' commitments support[22]. Last IPCC report on the impacts of a global warming of 1.5°c[23] showed that such temperature rise above historical levels would lead to unprecedented impacts for the nature and human beings.

Our work on physical risks is exploratory and can be categorized in three parts:

- Assessment of Real Assets portfolio exposure to climate risks across AXA Group's investments using insurance risk management natural catastrophe models;
- AXA IM Real Assets Australia partnering with Deloitte on physical risk assessments of cities in Australia and Asia;
- Assessment of listed assets physical risks exposure using Carbon Delta extreme weather events costs.

[22] CRO Forum, 2019

[23] See "*Global warming of 1.5°C*", IPCC, 2019. https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf

Focus on AXA IM Real Assets: resilience tests on property portfolio

At AXA IM Real Assets, we take a comprehensive approach to considering the physical and transitional impacts of climate change. Focusing on the physical risks and the resilience of the real estate portfolios, in 2019, AXA IM Real Assets built on current engagement with the NatCat teams within the AXA Group for a better understanding of physical risk exposure. Utilising these tools, the Real Assets team now has visibility on the level of risk exposure in relation to natural hazards across the global real estate portfolio and CRE Debt portfolios.

With this level of understanding of physical risk exposure at both the asset and portfolio level to flood, earthquake, hail and windstorm, we have begun to identify assets with higher levels of climate risk exposure to set in place adaptation plans in order to mitigate risk from a physical perspective. The risk level identified is driven by three components: the hazard (defined by severity and frequency), the exposure (characterized by the building's physical properties) and the vulnerability (defined by destruction rates, function of the hazard and the exposure).

We also monitor the international and local transitional regulatory landscapes to anticipate market legislations that will influence the liquidity of assets and act upon such notions in order to avoid the risk of stranded assets.

In 2020, by formally integrating this analysis within AXA group tools into the investment process for real estate and CRE debt, we intend to not only understand risk based on historical events, but to better understand future risk associated with climate change for a clearer view on the climate value-at-risk of the portfolio.

Investments' "temperature"

AXA IM has been working on the concept of investments' temperature or "warming potential" with Carbon Delta (Corporate investments) and Beyond Ratings (Sovereign investments) since 2018. The "temperature" concept provides a measure of the gap between future carbon pledges and science-based emissions budget still available before global warming increases.

This is a powerful tool that can provide an overall assessment of how companies and issuers can contribute to the convergence to a low sustainable carbon world. Climate model providers offer data and methodologies by which investors can calculate company or portfolio-level temperatures which can be compared to the 1.5°c target. Such a temperature is also a good way to incentivise dialogue and action by all agents involved such as companies and investors.

Investment's temperature metric relies on the physical linear relationship which exists between cumulative carbon emissions and temperature rise. As a result, to limit global warming, a well-defined carbon budget remains at global level. By apportioning this budget across various dimensions (country, sector, company), investments' temperature consists in determining the contribution of issuers to the global warming. Said differently, for any issuers given their current and future carbon emissions, it is theoretically possible to know how advanced there are comparing to their remaining carbon budget and which temperature it supports.

Temperature computation requires an investor to go through three steps: i) Set a carbon budget ii) Allocate the budget at issuer level considering various dimensions (country, sector) iii) Test for alignment

The allocation of specific global warming carbon budget at issuer level is a difficult exercise. For carbon allocation step, Carbon Delta uses a Top Down/Bottom process. It combines geographical and sectoral structure of companies' assets/revenues with Nationally Determined Commitments (NDCs), which also contain some sector guidelines. These pledges are regularly tested in the UNEP Gap report against various warming scenarios.

Sovereign Investments' temperature

Beyond Ratings follows an approach like Carbon Delta. It compares countries' carbon future commitments to Paris agreement carbon budget, associating a theoretical temperature to national carbon pledges. Beyond Ratings has developed an approach inferring 2°c compliant carbon budget by countries by relying on the bellow Kaya relationship between Carbon emissions GDP growth, demographics, energy efficiency and carbon intensity.

National carbon pledges (NDCs) that have been expressed in the Paris agreement are used to build a homogeneous allocation of CO2 emissions reduction commitments by countries by 2030. Country-level carbon intensities are then compared to the 2°c compliant carbon intensities. More generally, using the theoretical linear relationship between carbon emissions and temperature rise, Beyond Ratings define a corresponding temperature based on country-level 2030 carbon commitment intensities.

The Kaya equation

$$\frac{\text{GHG Emissions}}{\text{Population}} = \frac{\text{GDP}}{\text{Population}} \times \frac{\text{Energy}}{\text{GDP}} \times \frac{\text{GHG Emissions}}{\text{Energy}}$$

Taking proxies of each of the 3 determinants in a list of 15 KPIs and simulating many different combinations of the above correlations, Beyond Ratings defines the "most efficient" allocation of "2°C compliant" GHG emissions by 2030.

d) Measuring Alignment of Investments: a holistic approach to measure consistency of investment strategy with the Net Zero goal

Recent years have seen growing interest in Paris-Aligned investing. New initiatives and frameworks have emerged to provide a foundation for new climate-aware investment approaches, and the industry has voiced greater commitment to incorporating these objectives into their processes. We are optimistic in the ability of our industry to benefit from the abundance of tools and data. We are committed to assessing and integrating climate models but also in engaging with data providers and industry groups to refine these methodologies.

Investors are beginning to move from commitment to action and they must make important decisions about what tools to use and how to deploy them. At AXA Investment Managers, we propose to start from a set of principles[24] guiding our decision-making and framing the selection of tools and KPIs to achieve portfolio alignment. We believe that by following these principles we can most effectively navigate the evolving landscape and constructively tackle the challenge of aligning our strategies with the Paris Agreement.

These principles describe a combination of various approaches relying on both quantitative and qualitative analyses angles to select issuers and to calibrate portfolio allocation along new assets variants[25]. Quantitative indicators should cover carbon footprints, identification of relevant pathways, exposure to specific taxonomy and contribution to overall climate-related goals. Qualitative assessments would allow more flexibility given the level and quality of climate-related disclosure. Portfolios should be monitored alongside the following key dimensions to illustrate how aligned the investment decisions are with climate mitigation and the adaptation required to support the Paris goals

Alignment Investment Principles and examples of KPIs and metrics to monitor at portfolio level

Principles	Relevant metrics / KPIs
Reduce current portfolio carbon footprint in both absolute and relative terms considering future carbon emissions reduction potential, ultimately if it is in line with science-based pathways	- Percentage of issuers aligned with a Science Based 1.5°c or well below 2°c pathway (using recognized framework such as SBT or TPI) - Portfolio exposure to companies committed to Net Zero pathway (in % of overall asset value)
Maintain exposure to sectors at stake necessary to support transition	- Portfolio exposure to sectors at stake in the energy transition (in % of overall asset value)
Monitor exposure to green companies and climate solutions, using relevant taxonomy	- Green Share (average revenues exposure to green activities)
Monitor portfolios' and issuers' climate forward-looking KPIs such as temperature and low carbon transition credentials	- Investment's temperature - Portfolio exposure to companies with short term, mid-term, long term carbon targets (in % of overall asset value)
Monitor overall environment, social and governance and climate performance, including minimum climate standards	- Environment or Climate Change overall score - Portfolio exposure to stranded assets (in % of overall asset value)

[24] See 'Climate Alignment Principles: How to invest in line with a +1.5˚C goal', AXA Investment Managers, 2020. bb9300f5-a900-b0b1-0009-e4f968dd3796 (axa-im.com)

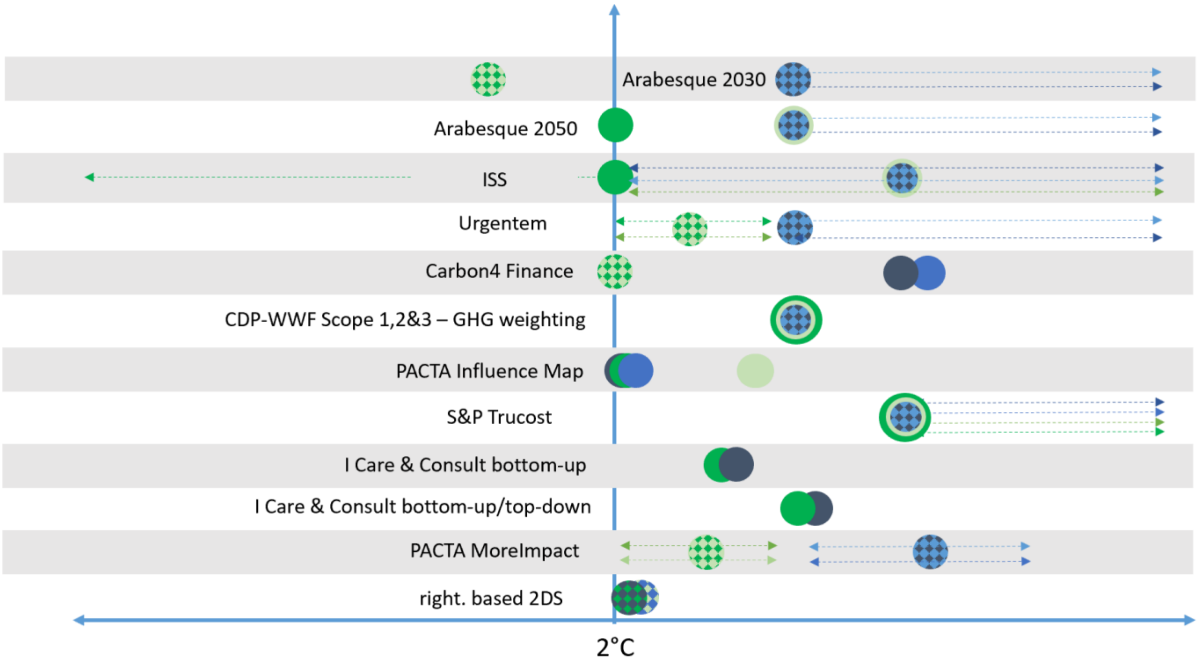
[25] See Strategic Asset Allocation for a +1.5°C World: a proposed framework', AXA Investment Managers,2020. RI - Strategic Asset Allocation for a +1.5°C World: a proposed framework - AXA IM Global (axa-im.com)

Inbox: Multiplication of climate reporting tools, still not mature yet for implementation

In 2020, the Net-Zero Asset Owner Alliance issued a Call for Comment on a carbon neutrality/"implied temperature rise" methodology convergence document. This document summarises investors' expectations for a robust alignment measurement methodology[26]. The industry of financial data analytics has indeed been very innovative over the last three years in the field of climate science. The diversity and complexity of methodologies and stand-alone tools currently available in the market, which provide climate scenario analysis, carbon footprint pricing estimates and overall warming metrics still make it challenging for portfolio managers and investors to decide how they can "align a portfolio". This has been highlighted by various academic research - for example, the concept of temperature is growing in sophistication while still not reaching a consensus for standardisation among solution designers.

In the chart below extracted from "The Alignment Cookbook", Institut Louis Bachelier compared alignment methods across two key indices for 2018 and 2019 - a mainstream index, the SBF 120, and a Low Carbon index, the Euronext Low Carbon 100 index. Most temperature estimates find that the SBF 120 is not aligned with a 2°C trajectory but results are more mixed for the Euronext Low Carbon 100. This also reflects the imprecision of the different alignment assessments. For example, some temperatures are taking the form of a score, or warming range, rather than a precise figure.

Relative dispersion of temperature/alignment tools around the 2°C trajectory (*)



Source: The Alignment Cookbook, A Technical Review of Methodologies Assessing a Portfolio's Alignment with Low-Carbon Trajectories or Temperature Goal. Institut Louis Bachelier et al, 2020 (*) As depicted by the blue line (light green: LC 100 Index 2018, dark green: Euronext Low Carbon 100 Index 2019, light blue: SBF 120 Index 2018, Dark blue: SBF 120 Index 2019). Circles: Central value. Dashed arrows: Range.

[26] See "Asset Owner Alliance – Methodological Criteria Call for Comment", UNEPFI. Call for Comment – Alliance Methodological Criteria – United Nations Environment – Finance Initiative (unepfi.org)

e) Set intermediary targets

Climate change is providing challenges for investors in every corner of financial markets. Perhaps the most fundamental of these lies in understanding how our portfolios align with the global goals designed to secure sustainable economies deep into the future. Happily, there have been encouraging, concrete and high-profile developments towards this in recent months.

In 2020, as part of the road-testing pilot phase of the Net Zero Asset Owner Alliance, AXA Group and AXA IM worked closely in framing a potential decarbonization framework for investments. In December 2020, AXA Group came up with its first intermediate target, seeking a -20% decarbonization of investments by 2025 versus 2019.

To set this target, AXA IM run simulations on fixed income which led to the following findings:

- These simulations offer proof that intermediate targets for corporate investment CO2 footprint reduction of about -16% to -29%, as required by climate science, are achievable.
- Issuers' individual climate commitments appear to be a powerful lever to achieve a portfolio decarbonization objective, potentially even more than portfolio allocation shifts towards carbon efficient assets. We believe that data on the scale and scope of emissions commitments from global companies could signal a significant opportunity for investor engagement to secure more ambitious and credible action from the corporate world.
- We have seen evidence in this testing that diversification – by sector but also by maturity – can amplify decarbonization potential.

We see a need for more research to confirm and expand on these findings and to enrich the road-testing agenda. The opportunity is there to examine the integration of sector-specific decarbonization pathways, to explore the effect of keeping a certain proportion of investments in green solutions and to refine the integration of companies' targets in the model by considering the quality of management. And of course, there is a need to test the credibility of transition plans and companies' decarbonization track records.

Driving portfolios on the carbon neutrality trajectory can be achieved through reallocation towards low carbon activities but also continuing investing in companies/issuers in high stake sectors, at the sole condition they commit credibly to shifting their business model.

These simulations also stressed again the importance of engagement with companies along robust and clear Net Zero sets of expectations. A statement that could not come at a better time, a few weeks before important Annual General Meetings where investors will have to convey strong messages on the back of emblematic climate resolutions (see stewardship section).

f) AXA IM Climate dashboard

AXA IM Climate Dashboard: A combination of historical and forward-looking metrics

	Warming potential [°C]		Physical cost VaR (Average scenario) [%]		Transition cost VaR (1,5°C scenario) [%]		Technology opportunity VaR (1,5°C scenario)		AUM AXA IM having a temperature	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
AXA IM	2,9	2,9	-2,5	-2,5	-9,3	-9,7	4,3	4,6	363 482 089 716	401 300 799 205
Asset Class									2019	2020
Government bonds	2,2	2,3							199 581 929 286	221 958 479 011
Corporates	3,9	3,8	-2,6	-2,6	-11,1	-10,4	4,6	4,3	94 949 248 573	106 401 985 847
Equities	3,3	3,3	-2,3	-2,3	-7,0	-6,1	3,9	4,1	68 950 911 856	72 940 334 346

	Warming potential [°C]	Carbon footprint [CO2e Tons/Mns $ revenue]	Green Share [%]	Physical cost VaR (Average scenario) [%]	Transition cost VaR (1,5°C scenario) [%]	Cost of climate VaR (1,5°C scenario) [%]	Technology opportunity VaR (1,5°C scenario) [%]	Opportunity & Cost of climate VaR (1,5°C scenario) [%]
	2020	2020	2020	2020	2020	2020	2020	2020
AXA IM	2,9	171	15,6	-2,5	-9,7	-12,4	4,6	-7,8
Weighted benchmarks by AUM	3,3	*256*	*12,4*	*-2,3*	*-9,4*	*-11,7*	*3,7*	*-8,0*
Asset Class								
Government bonds	2,2	152	26,5					
JPM GBI Global	3,0	*217*	*14,9*					
Corporates	3,8	209	13,1	-2,6	-10,4	-13,1	4,3	-8,8
BofAML Global Aggregate Corporate	3,7	*319*	*10,6*	*-2,5*	*-10,1*	*-12,6*	*3,7*	*-8,9*
Equities	3,3	145	14,8	-2,3	-6,1	-8,5	4,1	-4,4
MSCI World ACWI	3,4	*205*	*10,0*	*-2,0*	*-7,6*	*-9,5*	*3,7*	*-5,9*

Sources: AXA IM, Carbon Delta-MSCI, Trucost-S&P, Beyond Ratings, World Bank

To take into account the vast changes in the warming potential methodology, we have run the warming potential calculation of our 2019 investments with this new methodology. Regardless of our year’s investments, the global warming potential of AXA IM has remained stable with a slight increase on the government bond side (2.2°C to 2.3°C) and a slight decrease on the corporate side (3.9°C to 3.8°C). The equities’ temperature has remained stable and is below its benchmark.

Corporates

In 2020, the Warming Potential of our Corporate investments is slightly above that of the benchmark. This is not surprising as we are overweighted in the financial sector compared to the benchmark and this sector has high temperatures now that scope 3 has been included. We are also overweighted in the utility sector which understandably also has high temperatures.

The transition costs and technology opportunities have increased compared to last year’s due to the methodology changes explained above however when we apply the same methodology on 2019 AUM we find similar results thus showing the climate stability of our investments over a one year period.

Government bonds

Focus on Government bonds		
2020	Warming potential [°C]	Green Share [%]
Australia	4,1	3,5
United States	3,8	13,2
Canada	3,5	20,4
Japan	2,7	8,5
Netherlands	2,5	3,6
Belgium	2,5	23,5
Germany	2,4	12,4
Denmark	2,3	9,3
Spain	2,1	21,3
Italy	2,1	9,1
France	1,9	45,8
United Kingdom	1,7	12,8
Sweden	1,1	47,1
AXA IM	**2,3**	26,5
JPM GBI	**3,0**	14,9

Source: AXA IM, Beyond Ratings/LSEG

In 2020, government bonds remain well below the benchmark. This is due to our massive investments in France which has a low Temperature (1.9°C) mainly due to nuclear power generation and to our investments in the European Union countries in general which has lower temperatures than the United States which is overweighted in the benchmark.

Carbon performance

The carbon intensity of AXA IM investments is of 171 tonnes of CO2 per millions dollars of revenue as compared to 256 tonnes for a reference similar benchmark. If Corporate Bonds are more carbon intensive than both Sovereign Debt and Equities, each asset class will "save" carbon emissions as compared to a similar market index.

Compared to 2019, we reduced the Carbon Intensity of our investments, which was equal to 181 tonnes of CO2 per millions dollars of revenues.

While the Warming Potential of our investments is stable, we reduced the Carbon Intensity of our investments. Although there is a link between these two metrics because carbon intensity is included in the warming potential calculation, the temperature metric takes into account other factors such as cooling and forward looking metrics. For these two metrics, we use different data providers: Carbon Delta for the Warming Potential, Trucost-S&P for the Carbon Intensity. Although Scope 3 emissions are taken into account in the calculation methodology for Warming Potential, along with Scope 1 and 2, the Carbon Intensity only considers Scope 1, 2 and business travel emissions for the Scope 3

Green Share / Contribution to the Energy transition

We measure the contribution to the energy transition considering two angles.

i) Green investments (project-led green share): € 27bn AUMs[27]

AXA IM has been an active investor in green bonds, green buildings and green infrastructure and is playing a key role in implementing the €24bn 2023[28] Green Investment initiative, announced by AXA Group in November 2019. There are three categories of Green investments: Real Assets Green buildings and Infrastructure, Green bonds and Green thematic equities. See more details below.

ii) Listed - Green Share: 15.6% average share of revenues holdings in portfolio is green activities

The green share for listed investments is the value-weighted average share of green revenues of issuers in portfolio. This metric measures – all things equal – the level of greenness of investments and constitutes AXA IM's current interpretation of the Green Taxonomy. It will evolve over time as the regulatory requirements are clarified.

For corporate investments, we rely on Trucost S&P Green Share. Trucost S&P decomposes revenue mix of companies according to a proprietary taxonomy close to the French Label GreenFin grid. We focus on an extended version of the Trucost S&P Green share ("dark green" activities and "green candidates") – which will evolve over time.

For sovereign investments, the green share is based on the share of low carbon sources of energy (nuclear + renewables) in the total energy supply of one country provided by Beyond Ratings LSEG.

At end December 2020, our green share was of 15.6% against 12.4% for a corresponding benchmark. This green share is decomposed between Sovereign investments (26.5%), Corporate Bonds (13.1%) and Equities (14.8%). AXA IM investments' Green Share is above the corresponding benchmark and has increased compared to last year's following the positive market trend towards greener activities.

As part of the implementation of the EU Taxonomy next year, the calculation methodology of the green share will evolve to be aligned with the eligible activities and environmental objectives, as well as with the do no significant harm principle and minimum safeguards.

27 *Source: AXA IM as of 31/12/2020*

28 See "*AXA launches a new phase in its climate strategy to accelerate its contribution to a low-carbon and more resilient economy*", AXA, 2019. AXA launches a new phase in its climate strategy to accelerate...

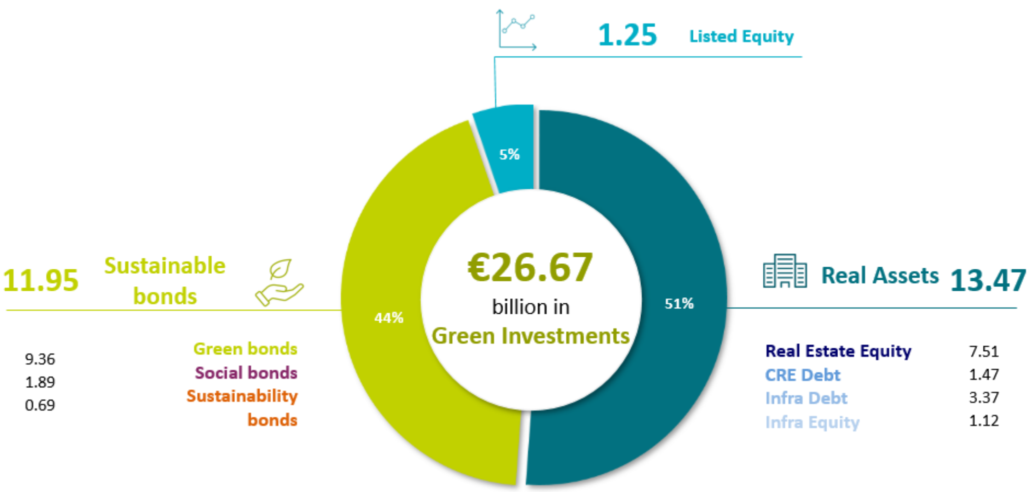
Cost of climate in different scenarios

Focus on Equities and Corporates bonds			
AXA IM	2019	2020	Evolution
Transition cost VaR (1,5°C scenario) [%]	-9,3	-10,4	-1,1
Transition cost VaR (2°C scenario) [%]	-6,4	-5,9	0,4
Cost of climate VaR (1,5°C scenario) [%]	-11,9	-13,1	-1,2
Cost of climate VaR (2°C scenario) [%]	-8,9	-8,5	0,4
Technology opportunity VaR (1,5°C scenario) [%]	4,3	4,3	-0,1
Technology opportunity VaR (2°C scenario) [%]	2,0	1,9	-0,1

Cost of Climate VaR (Transition risks + Physical risks VaR) represents a portfolio value loss of nearly 13% if the world went to a 1.5°c scenario, due to regulation costs and extreme weather events losses. This loss is reduced to 8,5% in a 2°scenario. These losses have increased in this new methodology due to the inclusion of scope 3 however they are balanced by technology opportunities (4.3% in a 1,5°c scenario), companies being all the more incentivized to develop green technologies.

g) Focus on Green Assets

AXA IM has been an active investor in green bonds, green buildings and green infrastructure and is playing a key role in implementing the €24bn 2023[29] Green Investment initiative, announced by AXA Group in November 2019. The breakdown of these investments is available below.



Source: AXA IM, as of 31/12/2020

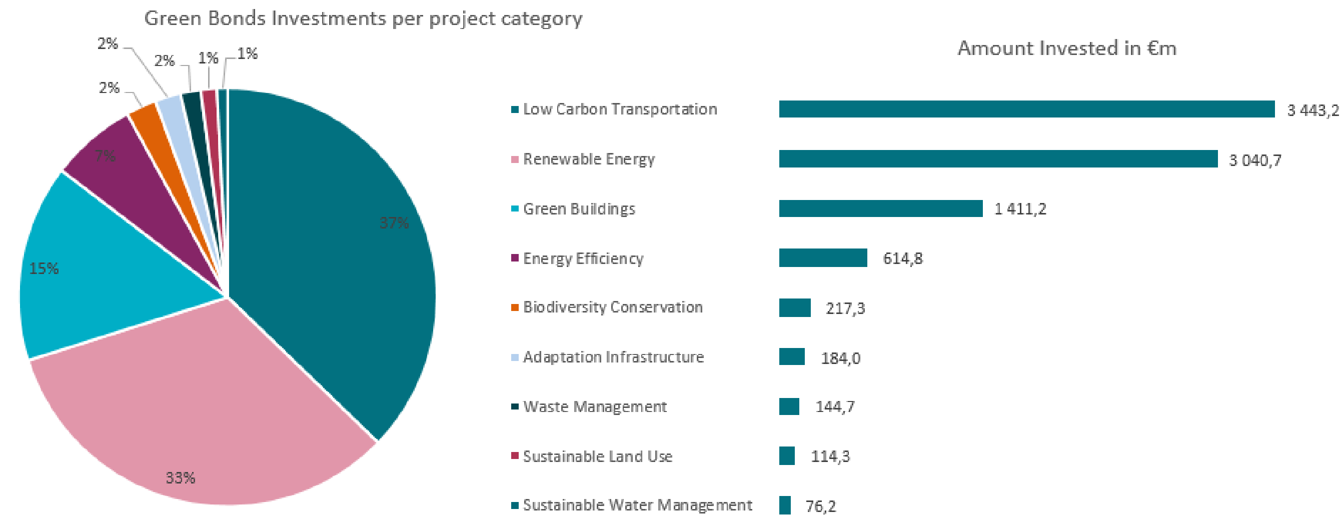
NB: the Listed Equity figure comprises the two "green" equity funds managed by AXA IM. Refer to the section on green share for a more detailed assessment of the greenness of our investments.

[29] See "*AXA launches a new phase in its climate strategy to accelerate its contribution to a low-carbon and more resilient economy*", AXA, 2019. AXA launches a new phase in its climate strategy to accelerate...

Green Bonds

Our dedicated RI analysts within RI Research team defines the Green eligible universe as described in RI offering section above.

At end 2020, AXA IM managed c. €9bn of green bonds selected according to our rigorous internal green bond filtering process, an increase of 56,9% vs 2019. € 5,7bn of these investments were made on behalf of AXA Group. In addition, we invested c. €281,2 mn on behalf of AXA Group in Sustainability Bonds financing more than 50% of Environmental projects.



Source: AXA IM, as of 31/12/2020

Some examples of Green Bonds investments include:

Santander

Issuer's ESG quality & strategy

- <1% of its gross credit is destinated to fossil fuel financing - lowest ratio amongst its peers
- Will not finance any new coal power plant
- Ambitious targets in green finance: €120bn by 2025 and €220bn by 2030

Project types

100% RE: wind and solar PV.

Management of proceeds

The proceeds will be managed in a single funding pool and tracked by the green bond steering group. We welcome the fact that the allocation of proceeds will be verified by the bank's external auditor.

Impact reporting

For renewable energy projects, the following KPIs will be provided: capacity installed (MW), energy produced (MWh), GHG emissions avoided. The bank is transparent on the methodology used to estimate the CO2 emissions avoided, which is a best practice.

Equinix

Issuer's ESG quality & strategy

One of the company's main target is to run the totality of its data centers with 100% renewable energy. On this, it already achieved a 92% coverage, up from 34% in 2015. In addition, Equinix managed to reduce its scope 1 & 2 emissions by 60% since 2015. It is quite impressive, as at the same time the whole data center industry doubled its carbon footprint.

Project types

- Green buildings (75%): LEED Gold or above buildings, or data centers with a PUE of <1.45 - which is largely below the European average
- Renewable energy (20%): long term PPAs (>10 years) and on site solar energy generation
- Energy efficiency (5%): upgrade or improvement of data centers to achieve a top 15% score according to the Energy Star benchmark

Management of proceeds

Internal tracking system & allocation will be verified by a 3rd party.

Impact reporting

KPIs will include GHG emissions avoided and energy savings.

Some examples of Sustainability Bonds investments include:

Caisse des Dépôts et Consignations ✓

Issuer's ESG quality & strategy

CDC will invest €26bn in sustainable activities between 2020 and 2024, including €6.3bn in financing the ecological transition, €0.5bn in social cohesion, €11.1bn in social housing and €8.3bn in support to SMEs. In addition, the issuer established environmental objectives on the longer run: it is committed to fully exclude from its portfolios any company with more than 10% of its revenue linked to coal by 2030. CDC also commits to have carbon neutral portfolios by 2050.

Project types

- Green buildings (69%)
- Renewable energy (18%)
- Low carbon transportation (3%)
- Energy efficiency (1%): eco efficient data centers
- Socioeconomic advancement (6%)
- Access to healthcare (3%)

The eligible categories are impactful in our view. We welcome the fact that CDC is one of the first issuers to address the digital divide issue.

Management of proceeds

The management of proceeds is appropriate and projects allocation will be verified by an external auditor.

Impact reporting

KPIs will include: GHG emissions avoided, energy savings, number of beneficiaries for social projects.

FMO ✓

Issuer's ESG quality & strategy

MO is the Dutch development bank, which provides financing to businesses, projects and financial institutions in developing and emerging markets with a strong focus on sustainable development. FMO provides long-term financing to 3 main areas: agribusiness, food and water (enhancing food security, efficient water use), energy (only low-carbon energy production) and financial institutions (increasing access to finance and supporting financial inclusion).

Project types

The proceeds of this sustainability bond will finance environmental (74%) and social (26%) eligible projects. On the environmental side, the proceeds will be allocated to renewable energy, energy efficiency, land use and biodiversity projects.
On the social side, eligible projects mean employment generation through MSMEs financing. All eligible projects are located in developing countries, which brings additionality and ensures a greater impact than in developed economies.

Management of proceeds

The proceeds will be held and tracked through a separate sub-portfolio.

Impact reporting

For green projects, FMO only reports on GHG emissions avoided. As part of its sustainability bond framework, the issuer also reports on the number of jobs supported through eligible projects.

Real Assets Green Investments

Contributing to the €24 bn AXA Group Green Investment initiative announced in November, real assets represent a significant portion to this overall objective. In order to define assets as "Green", specific criteria must be met for an individual asset as follows:

- Real Estate: for property assets, our definition is limited to assets with a high level of third party independent environmental certification (minimum level "Excellent" or "Gold") and a minimum Energy Performance Certificate (EPC) rating of "B" or equivalent for non-European assets.
- Forestry: Sustainably managed forests as demonstrated by an FSC or PEFC certification
- Commercial Real Estate Debt: for CRE Debt, similar to real estate, we consider loans securitized by single assets with a certification (minimum level "Excellent" or "Gold") to be green.
- Infrastructure Debt & Equity: The definition for infrastructure is derived from accepted and demanding market-based approaches. We rely on the taxonomy of the Climate Bond Initiative to classify the infrastructure as green.

Some examples of green investments in the real asset portfolio include:

Asset Class	Example of investment
Real Estate	AXA IM Real Assets completed the development of a 62-storey, 278-metre skyscraper in the City of London. The flagship development was completed with an EPC rating of A+ and obtained BREEAM Excellent and WiredScore Platinum labels. In operations, the building utilises 100% of electricity generated from renewable sources and offsets 100% of natural gas usage. Adding to the positive environmental impact of the asset, 98% of

	construction waste was diverted from landfill. 10% of floor space is dedicated to tenant amenity and wellbeing.
Forest	AXA IM Real Assets acquired a PEFC certified forest in Finland spanning over 7 000 hectares of land. In 2020, the forest stored a total of 7.6MtCO2. Considering the change in soil carbon storage, natural forest growth, and harvested volume of timber, the total annual forest carbon balance was around 6,200 tCO2 negative. Considering the carbon balance of the forests and the carbon stored in wood products, the total annual carbon impact is 9,700 tCO2 positive. This considers the emissions from harvest, transportation and wood processing operations.
Infrastructure	AXA IM Real Assets completed the acquisition of a 49% share in a European rolling stock company. The company, headquartered in Austria, leases its growing fleet of over 150 siemens electric Vectron locomotives to rail operators across central Europe. Aligned with EU policy of transferring freight from road to rail and energy-source from fossil fuels to a decarbonizing electricity grid, each locomotive can pull a train carrying the equivalent of over 70 heavy vehicles. These locomotives deliver an 80% reduction in carbon emissions versus traditional road transportation vehicles.

Transition Bonds

In June 2019, AXA IM called for new “Transition Bonds” to help companies go green. While green bonds have become established options for fixed income investors, AXA IM believes the asset class is at a crossroads, with the potential for the bonds to be undermined by a desire for further issuance which the sector cannot currently provide.

As such, AXA IM team called for a new type of bond that is required to help companies which are not yet green - and will therefore struggle to justify high quality and eligible for any “green taxonomy” green bonds - to instead issue debt which is tied to them becoming greener businesses.

The bonds would be used by companies solely to finance transition projects, with a high level of transparency around the bonds and their use to give investors’ confidence about how their capital is being deployed. These transition bonds would help investors overcome the major challenge of providing capital not just to companies which are already green, but to those which have ambitions to become so. A dedicated working group was created end 2019 at ICMA to work on this new asset class, and the first Transition Bond was issued in November 2019, and subscribed by our parent company.

In 2020, AXA IM invested €100 million in Transition Bonds issued by BPCE Group, contributing to the financing of energy transition assets[30]. These Transition Bonds’ proceeds will refinance Natixis’ project and/or corporate loans, which have high emissions reduction potential and

[30] See “*BPCE issues €100 million of transition bonds, invested by AXA IM, to finance Natixis’ assets contributing to the energy transition*”, AXA Investment Managers, 2020. BPCE issues €100 million of transition bonds, invested by AXA IM, to finance Natixis’ assets contributing to the energy transition - AXA IM Global (axa-im.com)

contribute to a low-carbon economy, from relevant sectors such as, potentially, transport, power, midstream gas, mining and metals, and building materials.

2.3 Biodiversity strategy

Over the past years, at AXA IM we reinforced our efforts to better integrate biodiversity considerations in our research, engagement and investment processes with the conviction that:

- Biodiversity loss represents a risk to investment returns
  - All economic activity ultimately depends on Nature: Biodiversity loss affects the businesses we invest in, and hence represent a risk to our investment returns
  - A 1.5 times global GDP risk: estimated to be worth $130 trillion annually, ecosystem goods and services loss represents an understated risk for both investors and companies
- Beyond financial considerations, biodiversity is at the basis of sustainable development and SDGs
  - Biodiversity underpins human well-being and livelihoods and is vital to the achievement of most SDG.

We consider investors have a role to play to:

- Better understand how it impacts companies in different sectors;
- Engage companies on their practices and integration of biodiversity issues in their strategy;
- Incorporate risks and opportunities assessment in investment analysis, and to
- Direct capital to resolve biodiversity loss.

A key challenge we face is that we currently miss tools and metrics to measure biodiversity performance, which did not prevent us from accelerating our efforts in the field of biodiversity in 2020, which is why we are adding a new section to this report. Our efforts have focused on:

- Engaging to support the development of metrics to measure the impact of issuers on biodiversity. In order to support these efforts, we launched, together with three of our peers, a Call for Expression of Interest to find partners to develop and implement a tool measuring the impact of investments on biodiversity. The goal was to find a player capable of measuring companies impact on biodiversity on a large scale. This enabled us to select Iceberg DataLab as a new research provider to help us measure how investments impact biodiversity. We expect to be able to start to better integrate these factors into risk assessment and research and report on the biodiversity footprint of our assets in the future thanks to this. It will also help to target the companies with the greatest impact and further feed our engagement discussions.

- Pursue our research efforts with a view to engaging with issuers. Following the publication of a paper[31] which discussed the impact of agricultural activities and dependencies, we focused our efforts on commodity traders. Six traders control around 60% of all soy exports from Brazil which is identified for deforestation risks. In collaboration with other investors we encouraged traders to increase efforts on no-deforestation commitments, traceability and reporting, seeing positive results from these discussions.

An enhanced focus on deforestation

Deforestation has devastating consequences and has pushed many species to the brink of extinction. Given the important flora and fauna of forests, curbing deforestation conserves water resources, prevents flooding, controls soil erosion, and preserves habitats, in addition to preserving key carbon sinks. Deforestation is a leading cause of global warming and produces 24% of global CO2 emissions. It represents a double loss as forests are also carbon sinks. Though the rate of deforestation has slowed since the 1990s, the world still lost 3.6 million hectares of primary rainforest in 2018 – an area the size of Belgium. Deforestation and forest degradation are responsible for approximately 15% of global greenhouse gas emissions

AXA IM has been sensitive to the topic early and implemented an exclusion policy for investments related to palm oil production in 2014. In 2021, AXA IM has decided to extend its palm oil policy to a more comprehensive deforestation policy. AXA IM considers that investment in companies which have a critical impact on forests according to the Carbon Disclosure Project (palm oil, timber products, cattle products, soy and rubber) and are involved in controversial practices should be avoided. Beyond this targeted exclusion AXA IM will continue to encourage and promote the dialogue with companies involved in deforestation issues, in order to change practices.

Moreover, AXA IM values forests as an asset class and is likely to pursue its forest investments in the future, through its Alternative expertise with:

- Sustainable Forest Management practices: AXA IM Alts pursues a rigorous policy as part of its forest investments in selecting its assets and its forest management partners, and in adapting management practices to meet these global challenges;
- Investments in private assets to catalyse solutions that promote mitigation, adaptation and resilience in relation to climate and biodiversity, with the AXA Impact Fund "Climate & Biodiversity". The fund focuses on solutions that promote: Conservation of Natural Capital; Resource Efficiency; and Resilience of Vulnerable Communities to the effects of climate change and biodiversity loss.

[31] See "*Biodiversity crisis: Why agriculture threatens biodiversity, and how responsible investors can respond*", AXA Investment Managers, 2020. Responsible Investment - Biodiversity crisis: Why agriculture threatens biodiversity, and how responsible investors can respond - AXA IM Global (axa-im.com)

2.4 Voting policy and engagement

Stewardship is a key component of our framework to meet our targets and we must consider past and forward-looking carbon performance to find relevant frontier between engagement and divestment of carbon objective. We believe it is the role of responsible investment to finance transitioning companies to support them during their transformation and engagement complements the portfolio allocation and is used to build constructive dialogue with companies in order to obtain outcomes in line with our targets.

A clear voting strategy on Climate change issues

Voting at general meetings is an important element of the dialogue between a company and its shareholders; as an asset-manager, this is a core element of our fiduciary duty towards our clients. We vote in a manner that is intended to be sustainably beneficial to the long-term value of the companies in which we invest.

Our corporate governance and voting policy provide a robust global framework for encouraging high-quality, responsible leadership. It is based on principles of good corporate governance which serve to protect the long-term interests of shareholders and wider stakeholders. We have also carefully considered our ESG themes in the context of our voting policy actions, specifically in climate change and gender diversity.

We also have voting guidelines for specific markets ensuring we do not apply a one-size-fits-all approach but are more refined in our thinking. Ultimately, when reviewing resolutions proposed at general meetings, we judge them against fundamental principles of good corporate governance, while taking account of best-practice standards appropriate to the relevant market and the company's circumstances.

AXA IM's Corporate Governance and Voting Policy is available here. We have also been publishing an annual Stewardship report since 2015.

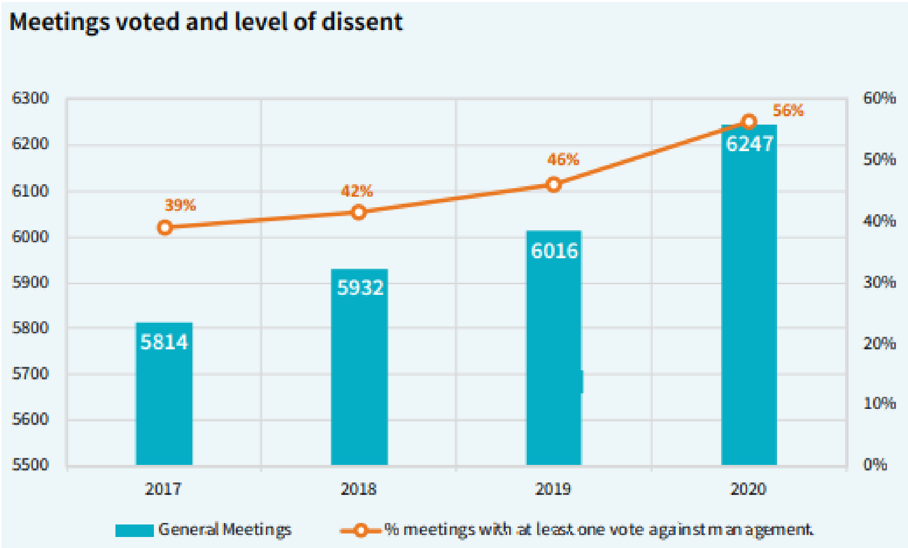
> In 2020 we voted at **6,247** general meetings and did not fully support management for **56%** of relevant general meetings

A major challenge for investors is to encourage growth at the companies in which we invest – but to achieve that in a sustainable fashion which supports the goals of the Paris Agreement. Voting has become an increasingly powerful way for investors to highlight concerns to companies about climate change. For AXA IM, this is fully aligned with our broader research and engagement on this theme.

Over the last few years, there has been an increasing number of very public proxy battles at company annual general meetings (AGMs) on the issue of climate. 2020 was no different. There were some notable resolutions brought by shareholders, but we also expressed our views on climate to companies through votes on director elections, executive pay and other resolutions.

We have a clear stewardship approach that frames how we decide whether to support climate-related resolutions:

- Define policy approach and disclose it publicly
- Review company practices, disclosures and commitments: We look at how the company is handling climate issues in terms of governance
- Understand the rationale
- Consider long-term impact and implication



Source: AXA IM 2020 Active Ownership and Stewardship report

Climate is one of the key voting priorities for 2021, alongside with other key topics like biodiversity loss, gender diversity and data privacy.

We will continue to be defined by our collective ability to turn ambition into action on global issues. On voting and engagement on Climate this will mean:

- Driving companies to raise the bar on their climate objectives by providing transparency on their strategy, investments, and rollout plans to meet broader 2050 climate neutrality objectives[32]. This will include pushing companies to disclose intermediary targets on the route to that goal
- Engaging the financial sector on its climate commitments and financing of the energy transition
- Using our voting policy to target those companies considered climate laggards

[32] See "*2050 long-term strategy*", European Commission. 2050 long-term strategy

Shareholders' Engagement

Through our engagement activities, we seek to use our influence as investors to encourage companies to mitigate environmental and social risks relevant to their sectors. Alleviating Climate Change is one of our key focus when leading these activities.

Our key climate engagement objectives are shaped by the Taskforce for Climate-related Financial Disclosures (TCFD) framework, which has established itself as the de facto reporting framework on this issue. Alongside establishing public support for the TCFD, we urged companies to:

- Commit to short-, mid- and long-term carbon emissions reduction targets that are based on climate science. There should be a clear explanation of corresponding capital expenditure plans
- Perform scenario analysis using a scenario where global warming is limited to the Paris Agreement goal of well below 2˚C
- Align executive remuneration to climate change objectives

Over the last three years, we have seen corporates taking more decisive steps in identifying targets and establishing metrics disclosure. In Europe, net zero commitments and ambition plans have flourished especially in hard-to-abate sectors, but intermediary targets as well as low carbon investments plans are still insufficiently unambitious, if not totally missing. Moreover, companies are still not explicit enough on their climate strategy roll-out plans and in explaining how they will shift their business models to achieve climate goals. Going forward a large part of our climate-related engagement efforts will be dedicated to getting more clarity on climate pledges.

We are an integral part of Climate Action 100+, a major collaborative engagement initiative consisting of a large group of institutional investors and the 100 most carbon-intensive listed companies in the world. We led the group's engagement with several companies in the oil and gas, mining and utilities sectors, with dialogue focusing on conducting climate scenario planning, ensuring lobbying practices are aligned with climate goals and establishing clear coal exit roll-out plans.

Through the Climate Action 100+ investor group and through dedicated bespoke engagement projects, we have been in dialogue with energy suppliers (across the oil and gas, power and metals and mining industries), but also with demand-side sectors (industrials, auto, airlines, real estate among others). These discussions have had three areas of focus:

- Governance: Lobbying practices and remuneration
- Strategy: Intermediary targets and capital expenditure (capex) plans aligned with science-based verification
- Disclosure: Clear articulation of climate objectives and progress.

On the supply side, we have been particularly focused on the first net zero target announcements in the oil and gas industry, where we have seen good initial commitments (for example from BP, Total, Repsol, ENI, Equinor, Royal Dutch Shell) and on coal engagement (from Engie, Fortum, RWE, EnBW, BkW and Albioma). We also believe we have made significant progress in getting companies committed to science-based intermediary targets (Renault, Alstria, RWE, for example).

Inbox: Net Zero Benchmark Framework, a new set of climate-related engagement guidelines

In 2020, AXA Investment Managers along with all the investors of the Climate Action 100+ initiative has made a step further and raised the bar of its climate-related engagement objectives.

Investors working through Climate Action 100+ are now seeking more robust and comparable information on how focus companies are realigning their business strategies and operations with the goals of the Paris Agreement, and a net zero emissions future.

Such insights will help promote and inform investment decisions that create long-term value for investors' beneficiaries. Accordingly, investors have developed the Climate Action 100+ Net Zero Company Benchmark. The benchmark builds on the TCFD recommendations with more guidance on specific company actions and disclosures of most relevance to investors' decisions. This is achieved through the following benchmark indicators:

1. **Ambition:** Whether the company has set an ambition to achieve net zero GHG emissions by 2050 (or sooner);

2. **Targets and goals:** If clear short-, medium- and long-term GHG reduction targets or goals covering all material scope 1, 2 and 3 GHG emissions are in place and aligned to a 1.5°c global warming trajectory;

3. **Decarbonisation strategy:** Whether the company has a robust decarbonisation strategy to deliver these GHG reduction targets, goals and ambitions;

4. **Capital alignment:** Whether an assessment has been carried out of the extent to which a company's capital investment in carbon-intensive assets or business lines are consistent with the goals of the Paris Agreement;

5. **Climate policy support:** If a clear commitment and set of disclosures clarifying intent to support climate policy has been developed by the company, together with a demonstration of how direct and indirect lobbying is consistent with this intent;

6. **Governance:** Whether the company has effective board oversight of, and remuneration linked to, delivery of GHG targets and goals (as described in point 2 above);

7. **Just transition:** Whether the company has disclosed information on how a 'just transition' can be achieved – taking account of the impact on employees, communities and other stakeholders – and has been incorporated into the company's transition planning;

8. **Reporting:** Whether the company's overall climate risk reporting is consistent with the recommendations of the TCFD.

In September 2020, a letter has been sent to any companies engaged through the Climate Action 100+ initiative explaining this Net Zero Benchmark and a procedure undertaken with the help of various organizations and think tanks (Transition Pathway Initiative, Carbon Tracker Initiative, 2 degree Investing Initiative and Influence Map) to assess companies along this new grid of criteria. In March 2021, Climate Action 100+ published the results of this analysis, stressing how lagging companies were with main criteria of the new Net Zero

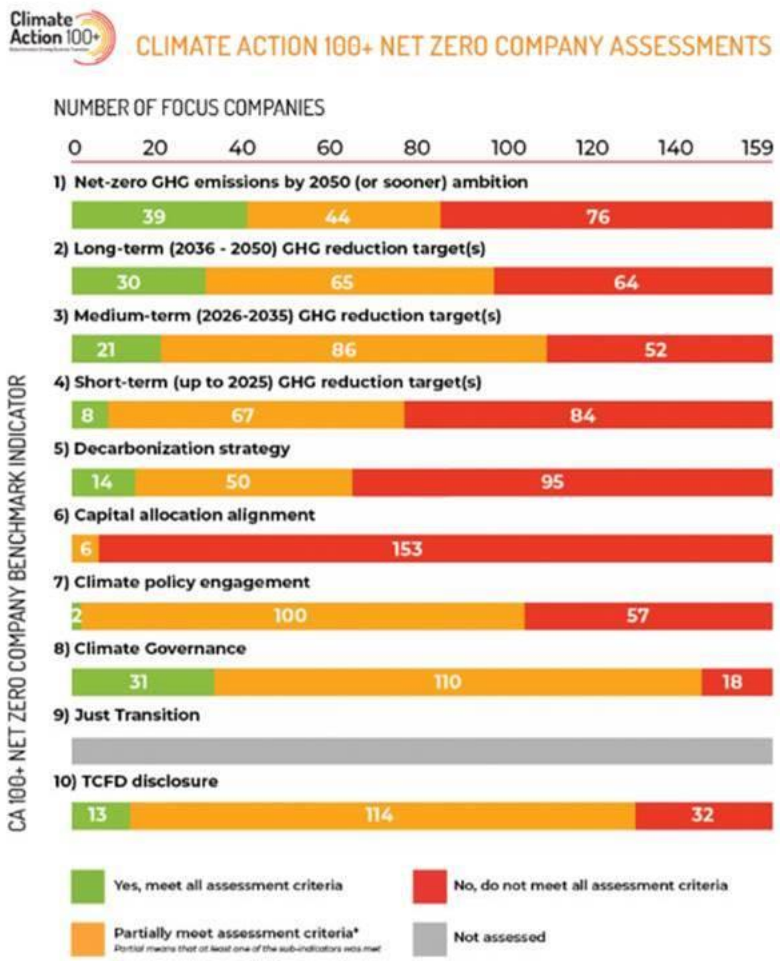
Benchmark framework. Main areas of weaknesses being the set of intermediary targets and the level of transparency companies were providing to explain how they will achieve their climate pledge (capex roll out plans).

At AXA IM, and as a lead investor for main companies in the Oil & Gas and Transportation industries, the Net Zero Benchmark announcement has been an occasion to make significant progresses in our dialogue with management:

- a leading energy state owned company announced its first pledge to Net Zero by 2050 early in 2021
- a French auto car maker announced a first carbon neutrality ambition by 2050 for European markets.

We believe the Net Zero Benchmark new framework will be a powerful tool to better incentivize companies on climate disclosure best practices. At a time, some first Say On Climate Advisory votes are submitting at AGMs, this set of expectations also helps management articulate their climate strategy along most material indicators for investors.

Climate Action 100+ Net Zero Company Assessment



See more details on Voting & Engagement in our [2020 Active Ownership and Stewardship report](#).

Involvement with industry groups and policy makers

In the context of strong ESG-related regulatory development, Involvement with policymakers is a key part of our active ownership strategy. We actively participate in industry bodies, and interact with regulators to share our views on sustainability-related regulatory changes – in 2020 this led us to focus notably on the revision of the Non-Financial Reporting Directive, and on the definition and implementation of the Sustainable Finance Disclosure Regulation. For those regulations, we worked closely with industry associations in France and at European Union level, with industry groups such as Sustainability Accounting Standards Board (SASB) and submitted our own responses to the related consultations.

As part of these efforts, we contributed to, or supported several investor statements and participated to industry initiatives. These are listed in our 2020 Active Ownership and Stewardship report.

2.5 Corporate Responsibility

We believe that success lies where value creation and growth can be shared by everyone - for our clients, employees, future talent and the communities we serve or who rely on us. Just as we are an active player in responsible investment, with ESG integration embedded across our investment platforms and RI experts, we recognise our role as a business and employer, to hold ourselves to the same high standards of responsibility that we ask of others.

Central to our decision making is our Sustainability Forum, led by our Executive Chairman. This is where we shape our vision and convictions for sustainability at AXA IM, across responsible investing and corporate responsibility. For corporate responsibility, our framework is aligned to the United Nations' Sustainable Development Goals (UN SDG) and based on 3 key pillars:

1. People
   We strive for an inclusive work environment built on fairness, equality and wellbeing in which performance and long-term employability can be nurtured. We use our voice as a leading asset manager, pushing for progress on key topics, such as gender equality. We are members of the 30% Club Investor Groups in France and the UK, which look to increase the representation of women in executive management. We have also signed the Women in Finance charter and achieved the EDGE (Economic Dividends for Gender Equality) certification in recognition of our global commitment to gender equality in the workplace. Looking beyond our business, we have a procurement process in place to ensure that our partners and suppliers act with equal integrity and responsibility on human rights.
   Our commitment to shared value extends to our local communities, supporting them to similarly grow and prosper. We focus on projects with a tangible societal impact, across education, health and climate change/biodiversity. We have donated 5% of the fees from our Impact Funds to organisations committed to positive change and our Real Assets team recently partnered with IN'LI to construct affordable housing in France, seeking to build 1,500 homes per year, with a target of 25,000 homes by 2030.

Our volunteer community **'AXA Hearts in action'** enables our employees to dedicate their time and expertise to local charities focused on education, social integration and housing. Our employees are currently partnering with 19 organisations across 9 countries. Activities include speaking to secondary school students about our work roles and expertise, sharing our skillset with local charities and fundraising initiatives across our global offices. Our calendar of activity runs all year but culminates with a week for our employees dedicated to Corporate Responsibility, to increase awareness and drive opportunities for engagement and collaboration on priority topics.

2. Environment
   As a leading asset manager, we recognise the responsibility and role we must play as an investor in leading the transition to a low carbon economy – notably demonstrated through our membership of the Net Zero Asset Manager initiative. Recognising equally our own impact as a business, we are currently working towards a 25% minimum reduction in our own CO2 emissions by 2025, notably across our premises and business travel. We seek alternative approaches that can reduce or offset the environmental impact of our corporate offices through promoting energy and waste management best practices and driving operational efficiencies. We actively measure and manage our environmental footprint, implementing recycling and saving schemes to include the reduction of paper consumption, waste management and green energy consumption. AXA IM is aligned with RE100, which brings together influential businesses committed to renewable energy and we are currently exploring with AXA Group how we can achieve 100% renewable energy in our European offices by 2025.

3. Business resilience and sustainable growth
   We seek to produce a long-term profit in a responsible, resilient and sustainable manner. As a responsible investor, we actively use company engagement and voting to positively influence the corporate behaviours needed to drive long term sustainable growth. As a business, we similarly work to nurture a relationship of accountability, transparency and trust with our clients, employees and all those who engage and partner with us. Our AXA IM Standards framework details the policies and processes followed by AXA IM, to ensure that we manage risk robustly and run our business ethically and transparently. Our code of conduct includes processes on topics such as anti-bribery, whistleblowing and handling of data, with topics reinforced by regular communication and employee training. From the top management of our organisation to our day to day operations, we seek the responsible way forward.

3- Risk Management

3.1 Mitigation of key sustainability risks

AXA Investment Managers uses an approach to sustainability risks that is derived from the deep integration of ESG (environment, social and governance) criteria in its research and investment processes. It has implemented a framework to integrate sustainability risks in investment decisions based on sustainability factors which relies notably on:

- Sectorial and normative exclusions policies
- Proprietary ESG scoring methodologies

These policies and methodologies are described in our SDFR Entity Disclosure document. They contribute to the management of sustainability risks in two complementary ways:

- **Exclusion policies** aim to systematically address the most severe sustainability risks into the investment decision-making process. For certain alternative asset classes, exclusion policies are applied to direct investments and covers Controversial Weapons, Soft Commodities, Palm Oil and Climate Risks. These policies are regularly discussed within our RI governance, and in particular in our ESG Monitoring & Engagement committee where new policies as well as updates of exclusion lists are discussed. The Management Board validates any new policy, as well as any change in criteria or scope of application.
- The use of **ESG score** in the investment decision process enables focus the investment on assets with an overall better ESG performance and lower sustainability risks

Exclusion policies

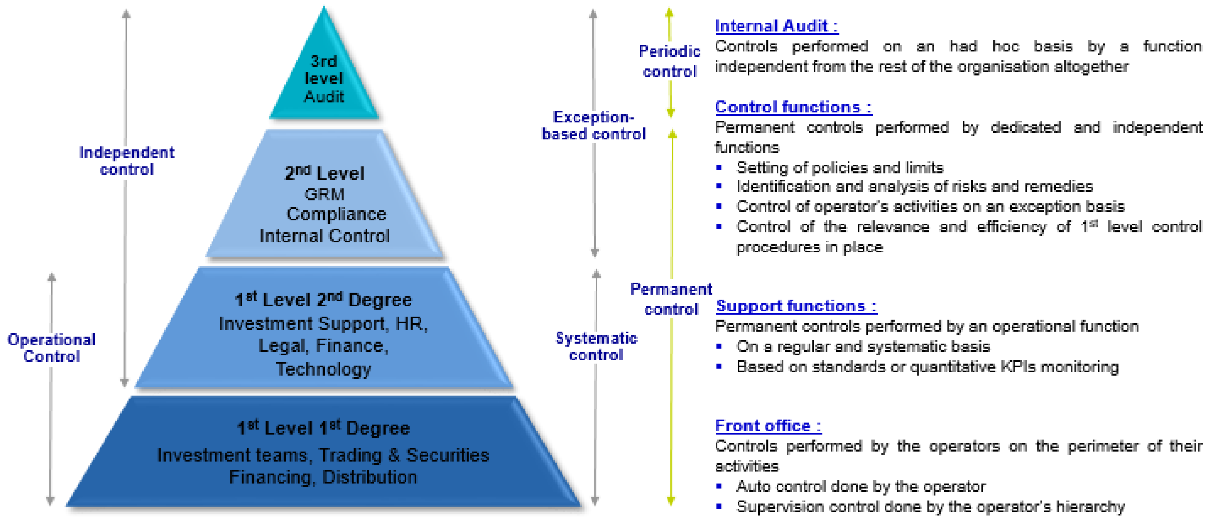
- We monitor systematically and exclude strong ESG risks (controversial weapons, palm oil, soft commodities, climate risks) for all assets under management. Beginning of 2021, we further reinforced our Climate Risks policy, as described in section *2.2.b*. Our Palm Oil policy is extended to Ecosystem Protection & Deforestation from May 2021, as described in the Biodiversity section.
- **ESG standards:** In addition to our RI sectorial policies, we have defined “ESG standards”, which apply to our ESG integrated, Sustainable and Impact open ended funds, and are available to institutional clients on an opt-in basis. They focus on material issues such as health and social capital, while also considering severe controversies as well as low ESG quality. As a result of these ESG standards, we exclude the Tobacco sector, White Phosphorus weapons producers and companies in violation of the UN Global Compact Violations. We also aim to minimize our exposure to ESG Low Quality issuers.

Impact on risk and returns

In 2020 we published a research paper on the impact of responsible investing standards and policies on risks and returns[33]:

- This analysis showed that the policies have a relatively limited impact on the investment choice available to fund managers - and excluding certain companies did not come at expense of risk-adjusted performance. What's more, we also saw that it drove outperformance over the period studied.
- From a risk perspective, we observed that annualised volatility of indices with exclusion policies were in line with the parent index. The tracking error of filtered indices was like passive management and ranges from eight basis points for the sectorial policies to 32 basis points for AXA IM sectorial and ESG standards policies combined.
- We noticed the risk/reward ratio is was slightly improving with the increase of exclusions. Over the long term, AXA IM exclusion policies have not come at the expense of risk-adjusted performance on a broad equity market index.

3.2 Internal Control



Pre-trade controls are performed by the business teams themselves. The COO ensures that fund managers divest all investments in restricted companies and do not invest in restricted companies as long as there are restricted or absent new instruction.

Our Investment Guidelines team ("IG") is monitoring the correct application of the exclusion list with pre-trade and post-trade monitoring systems. Following the update of the eligible universe, the portfolio manager divests from stocks taking into account both a client's as well as fund's best interest. These ban lists are integrated into our Front Office tools.

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[33] See "*How responsible investing standards and policies affect returns*", AXA Investment Managers, 2020. [How responsible investing standards and policies affect returns]

Regularly, through the integration of a wide range of ESG KPIs into our Front Office tools, investment teams are able to analyse and monitor each individual holding and the portfolio positioning on ESG factors and ESG related metrics.

The ESG and Climate topics are covered by AXA IM's control framework, with responsibilities spread between the first level of controls performed by the business and second level of controls performed by dedicated teams. The Compliance and Risk Management teams are part of the RI governance committees. They oversee the adherence to regulatory requirements and management of risks related to these topics, through control plans which covers RI-related processes.

At AXA IM, the Compliance department is in charge of monitoring regulatory changes and works closely with investment teams as well as responsible investment professionals and Risk Management department. Moreover, as part of the sustainability-related regulatory changes, AXA IM has launched several working group that are in charge to monitor regulatory changes related to responsible investment, to define our position, set up action plans and to adapt our commercial offer. In addition, we participate and share our views with industry bodies such as the EFAMA and regulators.

ESG-related investment guidelines consist of our exclusion policies, as well as of eligibility criteria and rules specific to funds which have been awarded sustainability-related labels. They are monitored by:

- The portfolio management teams;
- A dedicated Investment Guidelines team with independent and systematic pre and post-trade controls;
- The Compliance department with ad hoc controls on the work performed by the Investment Guidelines team;
- The Audit department which performs periodic controls.

3.3 Disclosure & Transparency: Means of communication

AXA IM attaches great importance to communicating with its clients in the most transparent and exhaustive way possible, to give them a complete analysis of responsible investment and help them understand it. All the main financial and non-financial information on ESG funds is available on our Fund Center in accordance with the regulations governing UCIs and Article 173 of the Energy Transition for Green Growth Act.

In order to enable our clients to measure the integration of ESG criteria into the funds and to communicate in a clear and transparent manner, AXA IM has taken the initiative to display three ESG metrics (i.e. indicators) to Business to Business and Business to Consumer reports for all our funds. The ESG score (absolute and relative) and the Carbon Intensity (CO2 relative intensity) are integrated into our reports since January 2019. Please see appendix section for further information.

At asset-management company level

The following content is available on the website:

- AXA IM SFDR Entity and Product Disclosures
- PRI Annual Report
- Annual stewardship report
- AXA IM RI policy
- AXA IM Corporate Governance and Voting policy
- AXA IM Engagement policy
- AXA IM sectorial exclusion and ESG Standards policies
- TCFD – Art 173 combined annual report (i.e. this report)
- Full voting records (updated on a quarterly basis) – statistics at country and sectors level as well as vote against management rationale

For Sustainable and Impact funds, and French ESG integrated funds above €500m

The following content is available on our Fund Center:

- Fund Transparency Code
- Detailed ESG reporting, including ESG score, carbon Intensities, contribution to green transition
- Voting report, for Equity and Multi-Asset funds (only for Sustainable and Impact funds)
- Engagement reports (only for Sustainable and Impact funds)

Focus on our ESG Impact reporting - Key Performance Indicators

An ESG impact report is also produced systematically for our entire Sustainable and Impact range and on demand for other funds. The ESG quality of the funds in scope is monitored through the ESG scoring of the portfolios – which is regularly monitored by the portfolio managers. Several E, S and G KPIs are reported in the ESG reports including carbon intensity, water consumption, % of independent directors, etc. which are compared to those of the Fund benchmark. In addition, this report contains the voting statistics.

	KPI	Source	Coverage of universe
Environment	Carbon footprint (in CO2e Tons/ Mns $ revenue)	Trucost	MSCI ACWI: 98.4%
	Water intensity (in m3/Mns $ revenue)	Trucost	MSCI ACWI: 98.4%
Social	Severe United Nations Global Compact controversies (%)	Sustainalytics	MSCI ACWI: 99%
	Employee turnover (%)	Bloomberg	MSCI ACWI: 23.1%
	Total hours spent by firm on employee training (hrs)	Bloomberg	MSCI ACWI: 27.3%
Governance	Women on board (%)	MSCI	MSCI ACWI: 98.1%
	Independent director on board (%)	MSCI	MSCI ACWI: 96%

Source: AXA IM as of 31/03/2021

Focus on our commitments

Status update on our progress towards our commitments are provided within this Article 173 – TCFD combined report and in our 2020 Active Ownership and Stewardship report.

Commitments	Links
Reinforcement of coal exclusion (30%) and additional exclusion on tar sands	AXA IM Climate Risks policy
Shareholder engagement on climate - reinforcement of our voting and engagement approaches	https://www.axa-im.com/content/-/asset_publisher/alpeXKk1gk2N/content/axa-im-offers-path-for-stewardship-that-delivers-positive-outcomes-for-the-environment-and-society/23818 https://www.axa-im.com/documents/20195/14067199/AXA+IM+Engagement+Policy+-+Oct+20+%28Final%29.pdf/9328a734-b106-6a65-ee52-384b79fd4644?t=1603817464464 https://www.axa-im.com/documents/20195/618080/AXA+IM+Corporate+Governance++Voting+Policy+-+May+2020+%28EN%29.pdf/d102b181-5186-18a9-f47d-cba415401224?t=1589546884851
Integration of ESG KPIs (absolute and relative ESG Scores and Carbon Intensities) in our standard reports	AXA IM Climate Change policy
Integration of forward-looking indicators in our climate reporting	AXA IM Climate Change policy
Sustainable certification of our real estate assets	Real Assets ESG Highlights
Decarbonisation - encourage issuers to define robust transition plans and reinforcement of our exclusion criteria on issuers with coal expansion plans	AXA IM Climate Risks policy
Reinforcement of our voting and engagement policies on Gender Diversity	https://www.axa-im.com/content/-/asset_publisher/alpeXKk1gk2N/content/axa-im-to-expand-its-gender-diversity-voting-policy-for-both-developed-and-emerging-market-economies/23818
Creation of the 30% Club France Investor Group to push French large caps to establish action plan to have at least 30% women in executive management teams by 2025	https://www.axa-im.com/content/-/asset_publisher/alpeXKk1gk2N/content/six-asset-managers-call-on-french-large-caps-to-establish-action-plan-to-have-at-least-30-women-in-executive-management-teams-by-2025/23818
AXA IM joined the Net Zero Asset Managers Initiative and committed to reach net zero by 2050 or sooner	https://www.axa-im.com/content/-/asset_publisher/alpeXKk1gk2N/content/axa-im-to-join-the-net-zero-asset-managers-initiative-and-to-commit-to-net-zero-emissions-goal/23818
Call for Interest for Biodiversity data. Iceberg Data Lab and I Care & Consult will develop a tool to allow investors to measure how their investments impact biodiversity	https://www.axa-im.com/content/-/asset_publisher/alpeXKk1gk2N/content/axa-im-bnp-paribas-am-sycomore-am-and-mirova-launch-joint-initiative-to-develop-pioneering-tool-for-measuring-investment-impact-on-biodiversity/23818 https://www.axa-im.com/content/-/asset_publisher/alpeXKk1gk2N/content/iceberg-data-lab-and-i-care-consult-selected-to-provide-first-of-its-kind-biodiversity-impact-measurement-tool-for-investors/23818
Donation of 5% of AXA IM's impact fund range fees to support charities	https://www.axa-im.com/content/-/asset_publisher/alpeXKk1gk2N/content/full-year-2020-earnings/23818

Commitment to exit from coal energy by 2030 for OECD countries and by 2040 for other countries	AXA IM Climate Risks policy

4- Targets & Metrics

4.1 ESG targets & metrics

Please refer to the strategy section.

4.2 Climate targets & metrics

AXA IM Climate metrics solutions mix to run climate reporting is a combination of environmental data experts (Trucost S&P) and new climate leading Fintech (Carbon Delta, Beyond Ratings).

Our climate metrics databank is composed of 2 main KPIs categories:

1) Historical climate KPIs
- Carbon emissions
- Contribution to the Energy Transition

2) Forward Looking climate KPIs
- Climate Value at Risk metrics
- Investments' temperature

AXA IM climate metrics solutions mix - methodology description at a glance

Historical Climate KPIs

Carbon Footprint – Corporate Investments (Trucost S&P) The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular organization and first tier indirect (GHG emissions from operations that are owned or controlled by the company & from its direct suppliers. It is expressed in CO_2 tons per millions $ revenue. The carbon footprint is calculated from the carbon emission of each company (scope 1 and 2 + scope 3 business travel) and from their turnover.
Carbon Footprint – Sovereign Investments (World Bank) Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring. Carbon Footprint for sovereign debt is expressed in CO_2 tons per millions $ GDP PPP.
Green Share – Listed Assets (Trucost S&P) The French government's TEEC label (Energy and Ecological Transition for Climate Change) provides different types of activities that can be categorized as "green". The classification is based on the Climate Bond Initiative green categories where they have determined which type of activities can have a positive impact on the environment and on climate change. Trucost green taxonomy includes the followings activities from Energy and Utility sectors as 'Core green': Geothermal Power Generation, Hydroelectric Power Generation, Solar Power Generation, Wave & Tidal Power Generation, and Wind Power Generation. At AXA IM, we have decided to exclude nuclear activities from green activities. We also include activities classified as 'Green candidate' to the green share which are green activities outside Energy and Utility sectors. The green share is calculated as percentage of revenues coming from Core green and Green candidate activities.
Green Share – Listed Assets (BeyondRating) Share of low-carbon energy in primary energy use. Energy included in the calculation of the green proxy: hydropower, wind, solar, geothermal, tidal, nuclear.

Forward Looking Climate KPIs

Corporate Investments' temperature (Carbon Delta-MSCI) It is based on a macroeconomic definition of carbon budgets (corresponding to different global warming scenarios and that Carbon Delta retrieves from annual UNEP Gap report), which are allocated by company according to the sectoral and geographical structure of its assets or revenues. This allocation process consists in defining temperature curves for each company. A notion of green technological innovation is considered to project the future carbon intensities of companies in the medium term. The underlying temperature is inferred by comparing future intensities to different warming curves. Carbon Delta offers two temperature levels: • A specific sector temperature where the company is compared to its main sectors of activity (sector carbon budgets); • An agnostic sector temperature where the company is compared to the universe as a whole (universe carbon budgets). This temperature measurement is now at the heart of the AXA Group's climate strategy and communications, which announced at its Climate Days, at the end of 2019, that it would align its investments with a global warming scenario of 1.5°C, in line with the Paris Agreement.
Climate Value at Risk metrics (Carbon Delta-MSCI) • Transition (or "regulation") costs: The low carbon transition may significantly impact business models. This will likely create economic losses in the form of "regulation costs" for those who fail to adequately adapt. Transition risks for each company represent how much a reduction of their CO2 emissions by 2030 will cost them, relying notably on their sector/activities and on the countries where they operate. • Green revenues/opportunities: for each company, we identify how much revenues future green technologies developments by 2030 will generate for the company, using company-level patent databases (see chart page 33) to estimate future revenue flows from green and low carbon technologies. • Physical costs: for each company, we identify how much future extreme weather events (5 "chronic" hazards - extreme heat, extreme cold, heavy precipitation, heavy snowfall, wind gust – and 2 "acute" hazards - coastal flooding and tropical cyclones) by 2030 will cost them (via asset damages and business interruption), relying on their activities and location, and combined with expected vulnerability factors. Transition risks and green opportunities will differ depending on the warming scenario and then corresponding regulation burden. Physical risks are arising in any cases and are the same whatever the climate scenario. For transition and physical risks as well as for green opportunities, Carbon Delta calculate a Value at Risk by comparing the market value of each instruments to a DDM (for a stock) or a credit bond spread (for a bond) integrating future climate costs or green opportunities. AXA IM regroups Transition and Physical Risks Value at Risk metrics under the metric of Cost of Climate Value at Risk
Sovereign Investments' temperature (Beyond Ratings) The Beyond Ratings methodology allocates a carbon budget by country supporting various warming scenarios, depending on key macroeconomic variables such as GDP growth, population growth, energy supply mix carbon-content and energy efficiency. National carbon pledges (NDCs) that have been expressed in the Paris agreement are used to build a homogeneous allocation of CO2 emissions reduction commitments by countries by 2030. Country-level carbon intensities are then compared to the 2°C compliant carbon intensities. More generally, using the theoretical linear relationship between carbon emissions and temperature rise, Beyond Ratings define a corresponding temperature based on country-level 2030 carbon commitment intensities.

Climate KPI	Definition	Pros	Cons
Historical Climate KPIs			
Carbon Footprint	For Corporates, we rely on Trucost-S&P's methodology which uses the carbon emission of a company (scope 1 and 2 + scope 3 business travel) compared to its turnover. For Sovereigns, the carbon footprint is based on emissions stemming from fossil fuels' burning and the manufacture of cement, expressed in CO2 tons per millions $ GDP PPP	• Carbon Footprint provides an easy way to compare companies of different sizes and from different sectors, countries • Carbon footprint also allows for historical tracking • Carbon footprint expressed per millions $ of added value (revenues, GDP …) also enables comparisons between various asset classes	• Carbon Footprint underestimates the climate impact of companies' activity as it generally does not account for scope 3 downstream and all the emissions from the value chain • Carbon Footprint is backward looking and does not take into account transition strategies undertaken by companies (decarbonization objectives & targets, green capex, roll-out strategy to shift from carbonized activities …)
Green Share	Provided by Beyond Rating on listed assets, share of low-carbon energy in primary energy use. Provided by Trucost for listed assets, percentage of revenues in green sectors	Country green share provides a way of measuring the part of green energies in the energy mix of a country Listed assets green share provides the percentage of revenues of a company coming from green activities	• The green share currently focused on already green technologies or assets tends to underestimate the energy transition by not considering enough transition and enabling activities • The country green share tends also to overestimate the greenness. The definition of the green share will need to be adapted to the new EU taxonomy guidelines and in

			particular, to its eligibility criteria and its evolution regarding some technologies • The company green share doesn't include nuclear power generation because of controversies on this topic. This green share will also have to be reviewed in accordance with the new EU taxonomy
Forward Looking Climate KPIs			
Investments' temperature	For Corporates, the Investments' Temperature (based on Carbon Delta-MSCI's methodology) relies on carbon budgets which are allocated by company according to the sectoral and geographical structure of its assets or revenues. For Sovereigns, the Investments' Temperature (using Beyond Ratings' methodology) is calculated using Carbon budget by country supporting various warming scenarios, depending on key macroeconomic variables such as GDP growth, population growth, energy supply mix carbon-content and energy efficiency	• The investment temperature constitutes a good synthesis of all the elements to consider to test for warming scenarios alignment of issuers and investments • Investments' temperature provides a sense of alignment at asset level and portfolio level, when this notion generally applies to an overall economy	• Temperature at portfolio level makes no sense in real life and under physics laws as global warming must be understood at a macro level • For now, none of the temperature models available in the market are fully satisfying and exhaustive enough to be the only metric used for alignment testing

4.3 Industry surveys and rankings

Survey	*AXA IM 2020 ranking / score*	*Link*
PRI annual assessment	Strategy and Governance: A+ Listed Equity – Incorporation: A+ Listed Equity – Active Ownership: A+ Fixed Income – SSA: A+ Fixed Income – Corporate Financial: A+ Fixed Income – Corporate non-financial: A+ Fixed Income – Securitised: A+ Property: A Infrastructure: A	2020 PRI Assessment Report
PRI	Member of the 2020 PRI Leaders' Group	The PRI Leaders' Group 2020
ShareAction	BBB – ranked 11th /75	ShareAction report
H&K Responsible Investment Brand Index	Avant Gardist – Top Category	AXA IM – Press Release

Influence Map	A	influencemap.org Asset Managers and Climate Change 2021
Morningstar ESG Commitment Levels	Leader	ESG_Commitment_Level_White_Paper_2020.pdf (morningstar.com)
Climetrics 2020 ranking (as of December 2020)	18 out of 97 AXA IM funds ranked have received the best score of 5 leaves (2,7% of total 19,500 funds rated have 5 leaves).	Climetrics - CDP
2020 Climetrics Fund Awards	Clean Economy strategy[34] has been awarded with a Climetrics Fund Award	Climetrics - CDP
Reclaim Finance – 2021 Asset Managers and Coal Ranking	AXA IM is ranked first and is the only asset manager with a score above the average (52 out of 100) Analysis of the consistency of asset managers' climate change commitments and investment practices	Slow_Burn_RF_FINAL_ENG.pdf (reclaimfinance.org)

4.4 Research papers and articles on responsible investing published in 2020

- Net Zero Emissions through investments: Road testing a pilot for intermediary target setting
- COVID-19: Data privacy risks and potential opportunities
- Climate Alignment Principles: How to invest in line with a +1.5˚C goal - AXA IM Global (axa-im.com)
- COVID-19: Investors find new ways to drive positive social outcomes
- COVID-19 – Accelerating the Energy Transition and Driving Climate Friendly Investment Opportunities
- Impact Engagement Principles – Delivering on the United Nations Sustainable Development Goals
- Biodiversity Crisis: Why agriculture threatens biodiversity, and responsible investors can respond
- 2020 Proxy Voting Season Review: Beyond 'business as usual'
- AXA Investment Managers H1 2020 Stewardship Report
- AXA IM Taskforce for Climate Related Financial Disclosure report
- Strategic Asset Allocation for a 1.5°c World, a proposed framework
- COVID-19-Has your workplace changed forever
- COVID-19: How a new breed of bonds can help finance the fight
- COVID-19: Greening the recovery
- Coronavirus: How ESG scores signalled resilience in the Q1 market downturn
- How responsible investing standards and policies affect returns
- 2019 Active Ownership and Stewardship Report

[34] The products may not be registered nor available in your country.

Appendices

Example of B2B/ B2C monthly report including RI metrics; ESG score and Carbon intensities. These reports are available on our Fund Centre

FRAMLINGTON EQUITIES

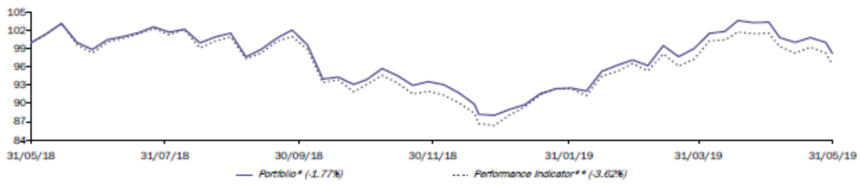
MONTHLY REPORT
31/05/2019

ESG absolute rating | ESG relative rating | CO2 relative intensity

Key figures (In EUR)

Total assets under management (in million)	**186.43**
Current NAV (A)	**153.59**
12 month NAV price High	162.84
12 month NAV price Low	135.43

Performance evolution (In EUR)



Data is rebased to 100 by AXA IM on the graph start date.

Cumulative performance

	1 M.	3 M.	YTD	1 Y.	3 Y.	5 Y.	8 Y.	Launch
Portfolio*	-5.68%	1.64%	10.96%	-1.77%	18.62%	20.52%	44.09%	53.25%
Performance Indicator**	-5.70%	0.41%	11.02%	-3.62%	17.65%	22.31%	55.45%	-

Annualized performance

	1 Y.	3 Y.	5 Y.	8 Y.	Launch
Portfolio*	-1.77%	5.86%	3.80%	4.67%	2.51%
Performance Indicator**	-3.62%	5.57%	4.11%	5.67%	-

Annual performance

	2018	2017	2016	2015	2014	2013	2012
Portfolio*	-11.01%	9.85%	4.97%	10.05%	-0.58%	18.73%	22.46%
Performance Indicator**	-12.72%	12.55%	4.15%	10.33%	4.14%	23.74%	19.34%

The figures provided relate to previous months or years and past performance is not a reliable indicator as to future performance.

Risk analysis

	1 Y.	3 Y.	5 Y.	Launch
Annualized volatility				
Portfolio*	12.86%	12.76%	14.05%	16.51%
Performance Indicator**	13.35%	12.56%	13.86%	-
Relative risk ('Tracking Error')	2.45%	2.21%	1.95%	-
Sharpe ratio	0.03	0.62	0.41	0.17
Information ratio	1.47	0.97	0.75	-
Alpha	0.0637%	0.1706%	0.1185%	-
Beta	0.9466	1.0002	1.0033	-

* 1st NAV date: 18/03/2002

** Performance indicator : Please refer to the Benchmark section in the characteristics/disclaimers part of the document.

% of AUM covered by ESG absolute rating: Portfolio = 96.5% Performance Indicator = 99.8% (not meaningful for coverage below 50%)

% of AUM covered by CO2 intensity indicator: Portfolio = 96.5% Performance Indicator = 99.3% (not meaningful for coverage below 50%)

Source(s): AXA Investment Managers - ICB as at 31/05/2019
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AXA Investment Managers

www.axa-im.com

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