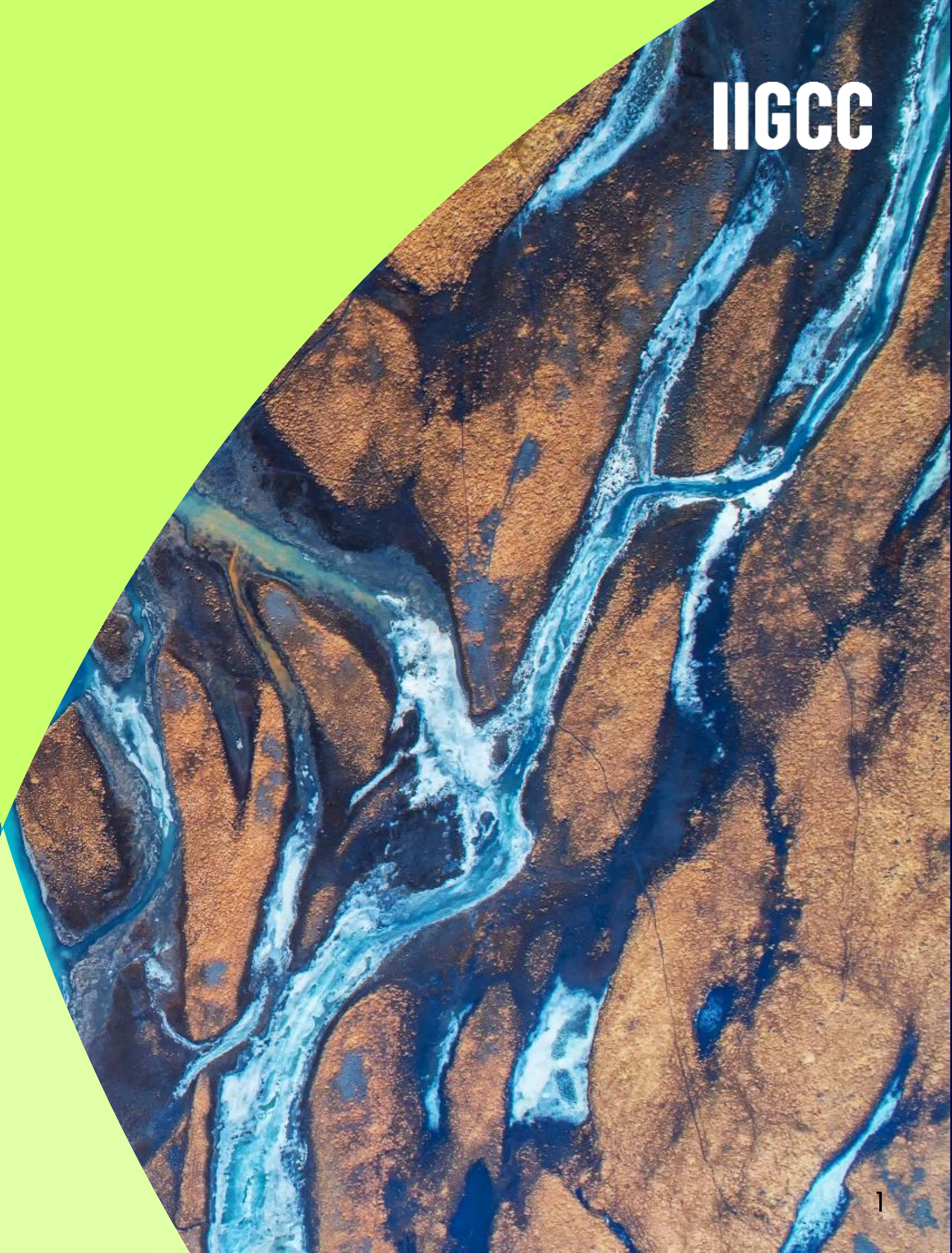
Sovereign Bonds & Country Pathways – *Target setting and implementation guidance*

2024



Disclaimer

Competition law prohibits agreements and concerted practices that have the object or effect of preventing, restricting or distorting competition. The most serious breaches of competition law often involve the exchange of competitively sensitive information and coordination of strategic behaviour between competitors. Our work is conducted in accordance with all relevant laws, including competition laws and acting in concert rules. It is therefore important that strict rules are followed by the attendees of today's meeting.
Attendees at IIGCC meetings will not be asked for and must not disclose or exchange strategic or competitively sensitive information about their competing businesses, meaning data or information that reduces uncertainty as to how they intend to act commercially now or in the future (e.g. pricing, volumes, detailed costs, detailed customer or supplier information, business strategy, investment plans). Attendees must not coordinate views or conduct in such a way that could restrict competition between members or the investment companies, or result in members or the investment companies acting in concert (this includes one-way disclosure of information). It is important to note that an exchange of information can achieve the same end as an explicit agreement and it is important to avoid exchanging information which might result in a breach of competition law, even if only inadvertently.
In addition, whilst IIGCC's vision is to support investors in understanding risks and opportunities associated with climate change and take action to address them, attendees must take care not to coordinate the strategic competitive behaviour of competing companies, whether members or competing companies.
As a condition of participation in these IIGCC meetings, all attendees acknowledge that their participation is subject to complying fully with competition law.
Attendees at IIGCC meetings which are subject to legal or regulatory regimes which prohibit or restrict the disclosure of sensitive or confidential information or material non-public information (MNPI) (e.g., issuers subject to the EU Market Abuse Regulation) are solely responsible for compliance with their obligations under such regimes, including when determining whether information pertaining to their organisation is subject to public disclosure or other requirements.
Please also note that IIGCC's services to members do not include financial, legal or investment advice.

Acknowledgements

The development of this Discussion Paper on Sovereign Bonds and Country Pathways has been led by Valentina Ramirez at IIGCC with contributions by Adrian Fenton, Mahesh Roy and Giorgos Antoniou.

We are grateful to all the members of IIGCC's Sovereign Bonds and Country Pathways working group, our co-leads David Flint, Aegon, Malika Takhtayeva, BNP Paribas Asset Management; our subgroup co-leads Tongai Kunorubwe, T Rowe Price, Gaurav Trivedi, MSCI, Mahesh Jayakumar, MFS, Sean Shepley, Allianz GI, and Mayde Sykora, INVESCO, and active contributors including Scott Petrie, Baillie Gifford, Adriana Cola, AP2, and David McNeil, Insight Investment. We thank all the external parties for contributing with their thoughts and data (PCAF, ASCOR, Climate Action Tracker, Climate Change Performance Index, Bloomberg, BloombergNEF, PRI, Kepler Cheuvreux, BIS, OECD, S&P Global Ratings, EF data, Green Future Index). We would also like to thank members of all PAII Network Partners (AIGCC, IGCC, CERES) who provided valuable feedback.

Content

Context

There is currently little evidence of integration of sovereign bonds within net zero investment strategies.

Investors see challenges in their ability to exercise asset selection to meet potential net zero commitments, mainly due to:

- **Liability management restrictions** under which a great portion of sovereign bond holdings operate
- **Limited number of issuers**. Removing or reducing some sovereigns from the portfolio may force others to be overweighted, increasing material risks
- **Persisting flaws in the global policy framework**. Currently, most NDCs suffer from ambition and/or implementation gaps within a non-binding framework
- A combination of concerns around **sovereign engagement** (e.g., limited opportunities, non-credible 'exit', intricate nature of sovereign entities, fairness considerations, lack of metrics to assess success)

Fulfilling their fiduciary duty to protect the long-term value of their assets, **institutional investors** –either as 'universal owners' holding diversified and long-term portfolios, or as investors in companies operating in globally integrated value chains- are **increasingly interested in unlocking the policy levers** to **tackle climate systemic risks** end **explore investment opportunities**.

More resources are increasingly available to facilitate discussions between investors and sovereigns…

- ✓ New assessment tools and better data
- ✓ Improved granularity in sectoral and regional decarbonisation pathways
- ✓ New opportunities to engage collectively
- ✓ **Enhanced target setting and implementation guidance**

In 2023 IIGCC launched the Sovereign Bonds and Country Pathways working group to update target setting guidance for sovereign bonds and increase its adoption into net zero strategies.

Introduction – Sovereign Bonds body of work

This **Target setting and implementation guidance** was developed to provide preliminary steps investors can take to increase adoption of sovereign bonds into net zero investment strategies. It acknowledges that some of these actions are theoretically available to support alignment efforts, but the limited issuer universe constrains the extent to which they can be practically used without exacerbating material risk factors.

Discussion paper

Ahead of this guidance, IIGCC published a discussion paper summarising the challenges and the enabling tools that are a basis for target setting activities.

The paper suggests that Institutional Investors can begin to take the following steps to integrate sovereign bonds into their net zero strategies and address some of the current limitations:

i. **Tracking and measuring financed emissions for sovereign bond holdings,**

ii. **Creating or endorsing methodologies to assess net zero alignment at country (issuer) level,**

iii. **Setting net zero alignment objectives and targets,**

iv. **Mapping and seeking engagement opportunities that enhance the use of their 'voice', and**

v. **Where possible, increasing funds to climate solutions and transition finance, especially in Emerging Markets and Developing Economies (EMDEs).**

NZIF 2.0

Illustrates the high-level targets for this asset class within the Net Zero Investment Framework (NZIF).

Investor views on 'investable' NDCs

We worked with investors to set out what makes NDCs 'investable', outlining 5 key recommendations for policymakers to consider.

Further streams of work

- Climate solutions guidance for sovereigns
- Expanding the sovereign engagement toolkit
- Emerging Markets and Just Transition workstreams

Acknowledging the limitations

- The Net Zero Investment Framework (NZIF), is designed to serve investors fulfilling commitments made under the Paris-Aligned Asset Owners (PAAO) initiative and the Net Zero Asset Managers (NZAM) initiative.
- This target setting and implementation guidance for sovereign bonds, recognises that investors use a range of approaches and face several constraints specific to this asset class, some of which they do not have full agency to address. Consequently, a singular performance expectation is not considered possible. However, in the interests of long-term economic risk adjusted returns, investors are urged to use all the levers they have at their disposal to achieve their maximum contribution towards real-economy decarbonisation.
- Generally, it is hoped by 2040 that 100% of assets are at least 100% aligned to a net zero pathway, ensuring an adequate probability by 2050 that 100% of assets are achieving net zero. This is deemed largely consistent with investors transitioning their portfolios in accordance with global net zero goals. Still, this is not a required commitment. Investors are recommended to disclose their alignment against this glidepath, explaining the reasons for any divergence.
- Whilst IIGCC offers guidance on target setting, the targets themselves are set by investors as independent fiduciaries, in line with their individual strategies, agendas and mandates and their regulatory and legal obligations. The 'implement or explain' basis of NZIF allows for flexibility and contextual nuance.
- Net zero targets on corporate assets and sovereign assets should be distinct and not be aggregated to avoid double counting. This also recognises the structural differences when it comes to investors engagement with corporates and sovereign entities.

Acknowledging the limitations

The sovereign bonds target setting and implementation guidance is a component of NZIF. Hence, it focuses on maximising levers of influence to achieve real-economy decarbonisation. IIGCC will develop further guidance on adaptation and climate resilience.

NZIF – Net Zero Investment Framework

Offers three overarching processes to enable portfolio alignment

1. Set Internal direction and portfolio structure for alignment
2. Shift alignment of assets to meet targets
3. Influence external environment to facilitate alignment

Focus: mitigation and transition risk

CRIF – Climate Resilience Investment Framework

- To be developed to help investors manage the impact of physical climate risks
- Will explore key levers investors have at hand to address asset risks, portfolio risks, and systemic risks
- Indicators and targets

Focus: adaptation, resilience and physical risk

Both NZIF and CRIF:

- ☑ Co-created by investor-led working groups, comprised of leading industry practitioners
- ☑ Investors choose the degree to which framework is adopted
- ☑ Consolidate industry initiatives and expectations
- ☑ Provide target setting methodology that allows for independence and investor's judgement in terms of tools and data sources

Sovereign bonds guidance in a nutshell

IIGCC

Investors committed to adopting sovereign bonds holdings within their individual net zero strategies can do so by following the following steps. For each sovereign bond holding within a portfolio…

1

Calculate sovereign bonds' apportioned emissions

- PCAF Standard
- Private data vendors following the PCAF Standard

2

Assign a 'CBDR+RC' category to consider 'fair share' elements

- To incorporate 'fair share' considerations for EMDEs.
- ✓ Frameworks of reference can be UNFCCC Annex parties, OECD membership, WB income categorisation, or others for example by private vendors

3

Assign NZIF alignment metric

- Leverage from data from
  - Existing methodologies e.g., ASCOR, CAT, CCPI, and/or private vendors
  - Country decarbonisation pathways
- Accommodate criteria for EMDEs

4

Set targets and objectives within individual mandates

1. Asset alignment target
2. Engagement threshold target
3. Portfolio decarbonisation reference objective
4. Allocation to climate solutions objective

Overarching actions

- Transparently **disclose** the data sources, assessment methodologies, targets, objectives, and restrictions
- Seek opportunities to **engage with issuers and other actors** in the investment value chain to advance the global decarbonisation agenda (e.g., advocate for data providers to increase quality and consistency of consumption emissions disclosures, LULUCF and methane emissions reporting, and develop indicators to better assess criteria set out by this guidance)
- **Consider principles of 'fair share'** and seek opportunities for proactive collaboration with EMDEs

These actions are agnostically presented. As independent fiduciaries, investors determine how and to what extent they seek to achieve their individual targets.

CBDR+RC: Principle of Common But Differentiated Responsibilities and Respective Capabilities. EMDEs: Emerging Market and Developing Economies. LULUCF: Land Use, Land Use Change and Forestry.

Scope and accounting standard

Scope

- Includes sovereign bonds of all maturities issued in domestic or foreign currencies.
- All sovereign issuance from national governments is considered in scope, including holdings required for liability matching regulatory purposes, or cash management. However, inevitable restrictions are likely to exist that will affect the practical extent these assets can be aligned. Any restrictions should be disclosed.
- Sub-sovereigns, municipal or state authorities and supra-nationals that issue bonds are not explicitly covered by this Guidance with regards to net zero alignment, although investors may apply similar concepts on a best effort basis. As data availability improves, these will be considered in future workstreams. However, labelled and climate-related instruments issued by these entities may be considered under the climate solutions objective.
- Where the issuer is a publicly (majority) owned company (i.e., State-Owned Enterprises), investors should follow the guidance for corporate fixed income and include it in targets associated with this asset class.

Standard for apportioning emissions[1]

- NZIF endorses PCAF as the standard for apportioning 'financed emissions' to this asset class.
  - **Scope 1:** Production emissions including exports
  - **Scope 2:** Emissions from imported electricity, heat, steam, and cooling (energy sector)
  - **Scope 3:** Emissions from non-energy imports (non-energy sectors)

$$\textit{Attributed Emissions} = \frac{\textit{Exposure to Sovereign Bond (USD)}}{\textit{PPP-adjusted GDP (international USD)}} \times \textit{Sovereign Emissions } (tCO_2e)$$

- Due to current data constraints, targets are generally set at the production emissions level, although consumption-based data and targets is emphasised as best practice.
  - **Production emissions** (scope 1). Territorial emissions approach adopted by UNFCCC for annual national inventories, referenced in NDCs.
  - **Holistic view** (Scope 1 + 2 + 3). Requested by EU Sustainable Finance Disclosure Regulation.
  - **Consumption emissions** (Scope 1 - Exported Emissions + Scope 2 + Scope 3). Excludes emissions from exported goods and services from the holistic view.

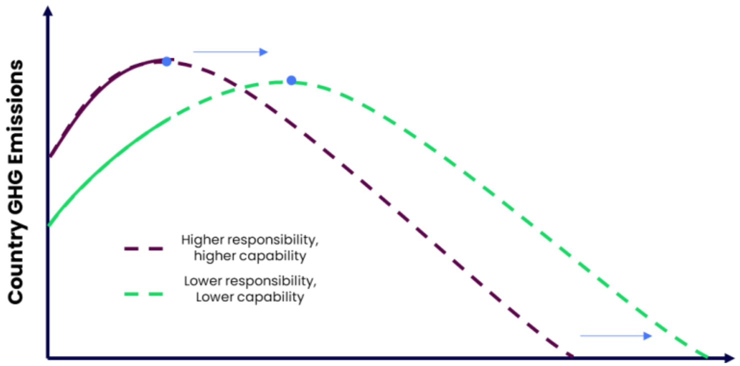
Source: 1. PCAF, Global GHG Accounting and Reporting Standard. Financed Emissions 2nd Edition, 2022. Available here.

Recommended actions

- ❑ Calculate sovereign bonds' apportioned emissions following PCAF standard.
- ❑ Report portfolio absolute emissions (including and excluding LULUCF) and emissions intensity, updating the data on an annual basis.
- ❑ Disclose chosen approach and data sources maximising transparency.
- ❑ Investors may apply the consumption emissions view for assessing and target setting on a best effort basis.

CBDR+RC, ‘fair share’ and country decarbonisation pathways

- Principles of equity and fairness are embedded in the **common but differentiated responsibilities and respective capabilities** (CBDR+RC) instruction of the **Paris Agreement**. This brings about two important implications:
  - Developing countries will take longer to reach peak emissions and can take longer to reach net zero, and
  - Developed economies are expected to provide resources for developing economies to meet their climate targets.
- How much longer, and how many resources, will remain a matter of continuing negotiations defining the ‘fair share’ of effort to be borne by each country.
- NZIF refers to decarbonisation pathways as science-based net zero scenarios. Pathways are scenarios designed with one goal in mind; in this case, net zero alignment in line with the goals of the Paris Agreement.



- Investors can use **regional and country decarbonisation pathways as benchmarks** for assessing the quality of a country’s decarbonisation performance and stated targets.
- When selecting a country decarbonisation pathway for assessing sovereign alignment to net zero, it is important that investors understand the underlying methodological assumptions. See a non-exhaustive list of alternatives on the next slide.

CBDR+RC: Principle of Common But Differentiated Responsibilities and Respective Capabilities.

Recommended actions

- ❑ Consider ‘fair share’ elements underpinning the distinction between developed and developing economies in terms of historical emissions responsibility and current capability.
- ❑ Disclose the decarbonisation pathways used as benchmarks.
- ❑ Seek to understand the assumptions behind the models used as decarbonisation pathways (benchmarks).
- ❑ Engage with model producers to continue to advance the practicality and fairness of models used as pathways.
- ❑ Avoid implementing strategies that lead to systematically rebalancing away from emissions-intensive emerging markets that are making efforts towards a fair low-carbon transition.

Country and regional decarbonisation pathways

Provider	Entity / Coverage	Key takeaway	Improvement opportunities
ASCOR Fair share pathways	ASCOR. 25 pilot countries; 2024 results will expand to 70	Carbon budget split - Based on cost-efficient national benchmarks as well as fair share considerations (capability, responsibility, and equity)	• Wide coverage, still not universal • Only up to 2030[1] • Production-based emissions, exclude LULUCF[1]
1.5°C national pathway explorer	Climate Analytics. 64 countries	IAMs - Builds upon the work of CAT pathways. Good coverage and can be viewed as the gold standard due to their scientific robustness and country-specific focus	• Least cost optimisation, not considering 'fair share' • Production-based emissions, exclude LULUCF
Climate Action Tracker	NewClimate Institute & Climate Analytics. 40 countries (including EU)	IAMs & carbon budget split - Evaluates government targets and actions against IPCC pathways and against a "fair share range" of emissions allowances based on available literature. The IAM-derived pathways feed into 1.5 National Pathway Explorer.	• Wide coverage, still not universal • Production-based emissions, exclude LULUCF • Only up to 2030 (to be expanded to 2035 in 2024)
CCPI Climate Change Performance Index	Germanwatch & NewClimate Institute 63 issuers + EU	Carbon budget split - Based on common but differentiated contraction and convergence approach	• Wide coverage, still not universal • Production-based emissions, exclude LULUCF • Only up to 2030
Climate Equity Reference Calculator	Stockholm Environment Institute. Universal coverage	Carbon budget split – Calculator that allows the user to input their 'fair share' preferences. Combines estimates of emissions intensity reduction with estimates of GDP growth.	• User can generate pathways based non-feasible assumptions • Only up to 2030
iea	IEA. Global split by developed and developing countries	IAMs - Bottom-up energy modelling but limited at downscaling and does not consider non-energy emissions. Emissions reduction rate only at advanced and emerging countries grouping	• Less downscaling at country level. Split by advanced and emerging countries • Global Energy and Climate (GEC) model only covers energy-related emissions
NGFS	NGFS. Downscaling to ~100 countries	IAMs - Wide variety of scenarios and IAMs generated from a policy perspective. Detailed explanation of downscaling, yet technological assumptions may not be as robust	• Wide coverage, still not universal • Policy-driven pathways, optimistic assumptions on BECCS • Production-based emissions, exclude LULUCF
SN Applied Sciences	SN Global Stocktake. G20 countries	IAMs - High technical resolution bottom-up pathways. Carbon budget for 2050 is calculated for each country. Information on sectors not available per country in paper	• Limited coverage, only applicable to G20 • Heavy emissions grandfathering, no consideration of fair share
European Green Deal	European Green Deal pathway. EU27 countries	Regulation - Basic pathway based on a 55% reduction of GHG in the EU by 2030. Can be used as benchmark by investors for EU sovereign debt	• Limited coverage, only applicable to EU27 • No clear consideration of capability difference between countries

IAMs: : Integrated Assessment Models. Emissions grandfathering: the view that prior emissions increase future emission entitlements. EMDEs: Emerging Market and Developing Economies. LULUCF: Land Use, Land Use Change and Forestry. 1. This is true only for pathways used in the target analysis, largely due to data limitations. The overall ASCOR tool includes analysis beyond 2030 to long-term (2050 or later) net zero targets. Its emissions trends analysis does look at consumption-based emissions and LULUCF emissions.

Country CBDR categories to consider 'fair share'

Examples for common references to guide the classification:

Parties of the UNFCCC

- **Annex I Parties:** industrialised economies that were OECD members in 1992 + countries with economies in transition (the EIT Parties), including the Russian Federation, the Baltic States, and some Central and Eastern European States.
- **Annex II Parties:** Annex I parties, but not the EIT Parties. These are required to provide financial resources to enable developing countries to undertake emissions reduction activities and to help them adapt to adverse effects of climate change. They are also expected to "take all practicable steps" to promote the development and transfer of environmentally friendly technologies to all other parties.
- **Non-Annex I Parties** mostly developing countries. Certain groups are recognised as being especially vulnerable to the adverse impacts of climate change, including countries with low-lying coastal areas and those prone to desertification and drought.

Current OECD membership

One alternative is to classify current OECD membership as developed markets, versus non-OECD as EMDEs.

World Bank income classification

One alternative is to use World Bank income classification as criteria to differentiate developed vs EMDEs.

Private vendors market classification

Some private vendors provide market classification. Investors should seek to understand the assumptions behind the classification.

EMDEs: Emerging Market and Developing Economies.

2 Assign a 'CBDR+RC' category

Recommended actions

- ❑ Assign a 'CBDR' category for every sovereign in the portfolio. This means distinguishing between developed economies with higher historic emissions liability and Emerging Markets and Developing Economies (EMDEs) that are expected to be given more time and require external support to meet their mitigation goals.
- ❑ Disclose the criteria used for the classification.

NZIF alignment criteria for sovereigns

NZIF corporate alignment criteria was adapted to sovereign bond issuers. The first 6 criteria determine the alignment category.
To account for 'fair share' considerations, investors can relax some of the criteria for the countries they classify as EMDEs.

	NZIF Criteria	Definition	Criteria adjusted for EMDEs -> 'Fair share' considerations
Determining criteria	**1. Ambition**	A **long term goal consistent with the global goal of achieving net zero by 2050**, as well as interim goals and targets that are coherent with it (NDCs absolute emissions targets).	Medium term goals may be acceptable. Alignment with a 2-degree scenarios or reaching Net Zero post 2050 may be acceptable.
	2. Targets	**Science-based short- and medium-term emissions reduction targets aligned with global net zero goals**. These are typically set at the production emissions level (scope 1) and should be consistent with the Paris Agreement (NDCs).	Consider ambition in context
	3. Emissions performance	**Current absolute GHG emissions trend is at least equal to a relevant net zero pathway,** or converging in a manner that is satisfactory.	Fair share pathways are acceptable as benchmark. Increase in absolute emissions may be acceptable in the near-term.
	4. Disclosure of emissions	**Comprehensive and timely disclosure of emissions** (e.g., data quality, historical data, consumption emissions, LULUCF, etc)	Consider data quality and ambition in context
	5. Decarbonisation strategy	A **robust quantified plan setting out the measures that will be deployed to deliver GHG targets** (LT-LEDS), and how the sovereign is enacting the policies necessary to deliver against its NDCs.	Consider data quality and ambition in context
	6. Budget/ capital allocation alignment	A clear demonstration that the **budgeting actions of the country are consistent with achieving global net zero goals**. (e.g., adequate climate budget tagging, an ambitious share of the public budget is green).	Consider data quality and ambition in context
Additional	7. Climate Policy Engagement / Climate finance	A Paris-aligned climate position and alignment of its direct and indirect international lobbying and finance activities	Consider in context
	8. Climate governance	Clear oversight of net zero transition planning linked to delivering targets and transition	Consider in context
	9. Just Transition	Considers the impacts from transitioning to a lower carbon economy on its workers and communities	Consider in context
	10. Climate risk and accounts	Provides disclosures on risks associated with the transition, in issuance legal documentation, other type of sovereign reporting, and incorporates such risks into its financial accounts	Consider in context

NDC: Nationally Determined Contributions. LT-LEDS: Long-Term Low-Emissions Development Strategy. EMDEs: Emerging Market and Developing Economies.

NZIF alignment criteria for sovereigns

3 Assign NZIF alignment metric

- Investors retain agency on the data sources and methodologies they endorse or consider. They are encouraged to engage with the different data providers and use indicators they feel makes more sense to them to inform on the criteria.
- **The asset alignment criteria apply to issuers exclusively;** labelled bonds or climate-related issuances should not be allocated an alignment status. Providing that they meet external validation and safeguards, labelled bonds and other climate related issuance can be considered under the climate solutions objective.

'Carbon sink countries':

- Countries that are currently carbon sinks (i.e., they technically remove more carbon than they emit per year) do not need to satisfy the other criteria to be considered as 'Achieving net zero'.
- However, some investors may choose a more stringent approach whereby the additional criteria is required. These are usually countries with small economies and significantly large forested areas (most are located in Africa and Latin America); very few are sovereign bond issuers.

EMDEs: Emerging Market and Developing Economies.

Higher performance (Asset alignment target)

NZIF/ CA100 Criteria	Committed to aligning	Aligning towards net zero	Aligned to net zero	Achieving net zero
1. Ambition	X	X	X	X
2. Targets		X	X	X
4. Disclosure		X	X	X
5. Decarbonisation strategy		X	X	X
3. Emissions performance*			X	X
6. Budget/capital allocation alignment				X

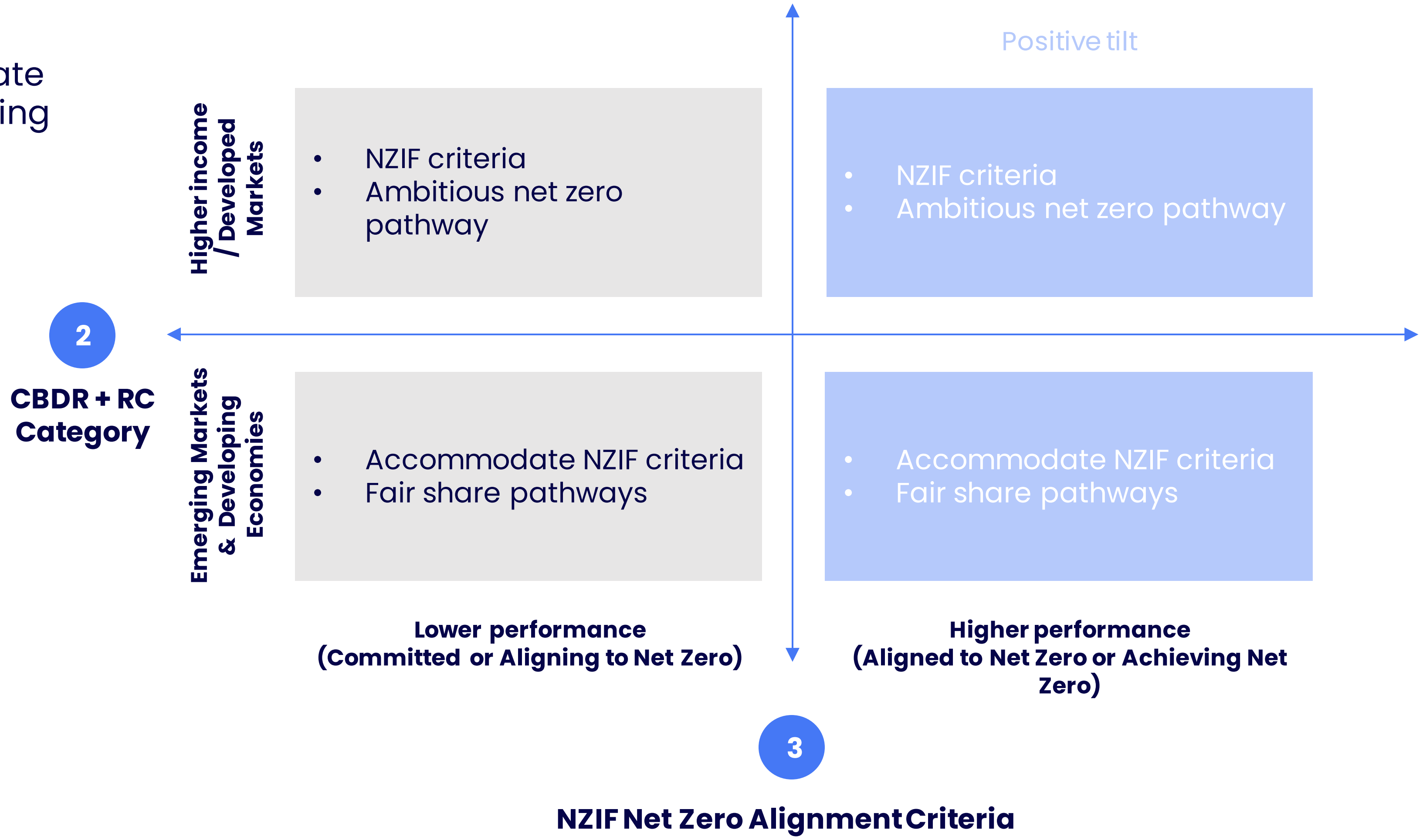
*Satisfactory, **relative to a specified country or regional decarbonisation pathway**. For 'High Income' or 'Developed Markets', a relatively more ambitious net zero pathway may be considered. For EMDEs, a 'fair share' pathway may be considered.

Recommended actions

- ❑ Establish a methodology to assess and classify sovereign issuers in the alignment scale, following NZIF criteria for sovereigns.
- ❑ Establish a process to periodically review this categorisation (at least once a year) and commit to update with material new information (e.g., update of NDC commitments).
- ❑ Disclose the assessment approach and data sources maximising transparency. Disclose exceptions, such as due to data limitations, and the methods used to fill information gaps. Disclose restrictions, such as due to liability management or cash management constraints.

CBDR+RC category and net zero alignment

Over time, the framework seeks to incentivise portfolio tilts towards climate high-performing issuers, while qualifying NZIF alignment criteria for EMDEs to consider CBDR+RC and 'fair share' principles.



CBDR+RC: Principle of Common But Differentiated Responsibilities and Respective Capabilities. EMDEs: Emerging Market and Developing Economies.

Examples of country assessment methodologies

- Multiple organizations and initiatives focus on assessing the alignment of sovereigns with net-zero goals and stated climate targets. These assessments typically involve evaluating a country's mitigation commitments and actions, its policies, and the actions taken to decarbonise the energy mix.
- IIGCC's sovereign bonds and country pathways working group engaged with several of them based on their potential relevance, the breath, and the transparency/replicability of their assessments. The following tools offer -all or most of- their assessment outcomes for free.

Tool	In a nutshell	Website
ASCOR	• **Assessment tool** specifically created by investors to support sovereign engagement and investment decision-making. • **Coverage:** 25 countries initially (to be expanded to 70 in 2024). • **3 pillars:** Emissions pathways, Climate policies, Climate finance. • Investor-driven, all from public sources, fully transparent and replicable methodology.	https://www.ascorproject.org/ https://transitionpathwayinitiative.org/ascor
Climate Action Tracker	• **Ranks countries**' climate policies and climate performance. • **Coverage**: 40 issuers, including EU. • **4 pillars**: Current emissions, Energy usage, Renewable energy, and Climate policy progress. • Solid scientific base plus 'fair share' considerations. Commercial use possible with a licence.	https://climateactiontracker.org/
CCPI Climate Change Performance Index	• **Ranks, rates and scores countries**' climate policies and climate performance. • **Coverage**: 63 issuers + EU. • **3 pillars**: Policies and actions, Emissions reduction target, Climate Finance. • Scores available since 2005, easy to understand. Commercial use possible with a licence.	https://ccpi.org/

- Beyond these tools, there are other data sources that are commercially available. For example, Bloomberg's Government Climate Scores (GOVS) measures 140 governments' decarbonisation transition efforts across +100 metrics. The Net Zero tracker, focuses on emissions accounting and reporting, and includes data for several cities and states. The Green Future Index, offers a comparative yearly ranking of 76 nations and territories on their progress and commitment toward building a low-carbon future.

Important note: Investors are encouraged to engage with the different data providers and comply with their rules of data usage. This classification should be read as preliminary guidance, but investors are free to make further judgements and use indicators in the criteria they feel makes more sense to them. This guidance invites them to establish a consistent process and disclose maximising transparency.

Assessment methodologies and NZIF

ASCOR

- ASCOR identified the following indicators as potentially informative for NZIF determining criteria:

	NZIF Criteria	ASCOR indicators
Determining criteria	1. Ambition	EP.3.a: Has the country set a net zero CO_2 target? / EP.2.a: Has the country set a 2030 emission reduction target?
	2. Targets	EP.2.c: Is the country's 2030 target aligned with its 1.5°C benchmark? / EP.2.d: Is the country's 2030 target aligned with its 1.5°C fair share? / EP.3.b: Is the country's net zero CO_2 target aligned with a global 1.5°C scenario? / EP.3.c: Is the country's net zero CO_2 target aligned with an accelerated deadline for high-income countries?
	3. Emissions performance	EP.1.a: Have the country's emissions decreased in the last 5 years? / EP.1.b: Is the most recent 5-year trend aligned with meeting the country's 1.5°C benchmark? / EP.1.c: Is the most recent 5-year trend aligned with meeting the country's 1.5°C fair share?
	4. Disclosure of emissions	[No ASCOR indicators look at this squarely - we assess other types of disclosure]
	5. Decarbonisation strategy	CP.4.a: Does the country have a multi-sector climate strategy? / EP.2.b: Does the country specify whether and how much carbon credits may contribute to its 2030 target? / CP.2.a: Does the country have a carbon pricing system? / CP.2.b: Does the country's carbon pricing system(s) cover at least 50% of national greenhouse gas emissions? / CP.2.c: Is the carbon price at least at the floor of a global carbon price corridor aligned with the Paris Agreement? / CP.3.a: Has the country committed to a deadline by which to phase out fossil fuel subsidies? / CP.3.b: Does the country publish an inventory of direct fossil fuel subsidies? / CP.3.c: Has the country committed not to approve new coal mines? / CP.3.d: Has the country committed not to approve new long-lead-time upstream oil and gas projects? / CP.4.b: Does the country have a law and target on energy efficiency? / CP.4.c: Has the country established mandatory climate-related disclosure? / CP.4.d: Has the country set a net zero electricity target aligned with 1.5°C? / CP.4.e: Has the country increased its protected areas as a percentage of total land area over the last 5 years? / CF.2.a: Has the country disclosed a transparent breakdown of the costs of implementing its Nationally Determined Contribution?
	6. Budget/capital allocation alignment	CF.3.a: Has the country disclosed its climate-related expenditure? / CF.3.b: Does the country apply climate budget tagging?
Additional	7. Climate Policy Engagement / Climate finance	CF.1.a: Does the country contribute at least a proportional share of the $100 billion commitment to climate finance? / CF.1.b: Has the country set a target for further increasing its international climate finance contributions?
	8. Climate governance	CP.1.a: Does the country have a framework climate law or equivalent? / CP.1.b: Does the country's framework climate law specify key accountability elements?
	9. Just Transition	CP.6: Just Transition / CP.6.a: Has the country ratified fundamental human, labour, and Indigenous rights conventions? / CP.6.a.i: At what percentile is the country's Voice and Accountability estimate? / CP.6.b: Does the country have an inclusive and institutionalised approach on just transition? / CP.6.c: Does the country have a green jobs strategy? / CP.6.d: Does the country integrate just transition into its carbon pricing?
	10. Climate risk and accounts	CP.6.a: Has the country ratified fundamental human, labour, and Indigenous rights conventions? / CP.6.c: Does the country have a green jobs strategy? / CP.6.d: Does the country integrate just transition into its carbon pricing?

Important note: Investors are encouraged to engage with the different data providers and comply with their rules of data usage. This classification should be read as preliminary guidance, but investors are free to make further judgements and use indicators in the criteria they feel makes more sense to them. This guidance invites them to establish a consistent process and disclose maximising transparency.

Assessment methodologies and NZIF

Climate Action Tracker

- CAT identified the following indicators as potentially informative for NZIF determining and additional criteria:

	NZIF Criteria	CAT indicators
Determining criteria	**1. Ambition**	Pillar 2: Emissions reductions targets Domestic target - NDC rated against modelled domestic pathways
	2. Targets	Pillar 2: Emissions reductions targets Fair share target - NDC rated against fair share
	3. Emissions performance	Pillar 1: Policies and actions (rated against fair share) Pillar 1: Policies and actions (rated against modelled domestic pathways)
	4. Disclosure of emissions	
	5. Decarbonisation strategy	
	6. Budget/capital allocation alignment	
Additional	**7. Climate Policy Engagement / Climate finance**	Pillar 3: Climate Finance (if rated) How do current international finance contributions compare to distinct benchmarks? Pillar 3: Climate Finance (if rated) Has international support for climate mitigation increased or decreased in the past years? Pillar 3: Climate Finance (if rated) Has the country committed to further support in the future? Pillar 3: Climate Finance (if rated) Has the country ended or does it have a commitment to end provision of public finance for fossil fuels internationally?

Important note: Investors are encouraged to engage with the different data providers and comply with their rules of data usage. This classification should be read as preliminary guidance, but investors are free to make further judgements and use indicators in the criteria they feel makes more sense to them. This guidance invites them to establish a consistent process and disclose maximising transparency.

Assessment methodologies and NZIF

CCPI
Climate Change
Performance Index

- CCPI identified the following indicators as potentially informative for NZIF determining and additional criteria:

	NZIF Criteria	CCPI indicators
Determining criteria	**1. Ambition**	
	2. Targets	Pillar 1: Greenhouse Gas Emissions Well-Below-2°C Compatibility of the Countries' 2030 Target Pillar 2: Renewable Energy Well-Below-2°C Compatibility of the Countries' 2030 Target Pillar 3: Energy Use Well-Below-2°C Compatibility of the Countries' 2030 Target
	3. Emissions performance	Pillar 1: Greenhouse Gas Emissions Current Level Pillar 1: Greenhouse Gas Emissions Past Trend Pillar 1: Greenhouse Gas Emissions Well-Below-2°C Compatibility of the Current Level
	4. Disclosure of emissions	
	5. Decarbonisation strategy	Pillar 3: Energy Use Current Level Pillar 3: Energy Use Past Trend Pillar 3: Energy Use Well-Below-2°C Compatibility of the Current Level
	6. Budget/capital allocation alignment	Pillar 2: Renewable Energy Current Level Pillar 2: Renewable Energy Past Trend Pillar 2: Renewable Energy Well-Below-2°C Compatibility of the Current Level
Additional	**7. Climate Policy Engagement / Climate finance**	Pillar 4: Climate Policy International Climate Policy
	8. Climate governance	Pillar 4: Climate Policy national Climate Policy

Important note: Investors are encouraged to engage with the different data providers and comply with their rules of data usage. This classification should be read as preliminary guidance, but investors are free to make further judgements and use indicators in the criteria they feel makes more sense to them. This guidance invites them to establish a consistent process and disclose maximising transparency.

Targets and objectives

Asset Level Assessment and Targets

Asset alignment target

- ❑ Set a five-year target for increasing the % of sovereign bonds allocation to issuers that are categorised as 'aligned', or 'achieving' net zero.

Engagement threshold target

- ❑ Set a threshold of GHG emissions from sovereign bonds in a portfolio and undertake engagement actions with the relevant countries and territories.

Portfolio level objectives

Portfolio decarbonisation reference objective

- ❑ Set a CO2e absolute and intensity emissions reduction objective. A five year stocktake is recommended to facilitate assessment of progress.

*If the portfolio holds sovereigns that are categorised as EMDEs, the emissions reduction objective can be qualified to account for 'fair share' principles.

Allocation to climate solutions objective

- ❑ Where possible, increase allocation to issuances that support 'climate solutions' for sovereigns.

- Whilst IIGCC offers guidance on target setting, the targets themselves are set by investors. As independent fiduciaries, investors determine how and to what extent they seek to achieve their individual targets in line with their individual strategies, agendas and mandates and their regulatory and legal obligations. The 'implement or explain' basis of NZIF allows for flexibility and contextual nuance.
- Net zero targets on corporate assets and sovereign assets should be distinct and not be aggregated to avoid double counting.

CBDR+RC: Principle of Common But Differentiated Responsibilities and Respective Capabilities. EMDEs: Emerging Market and Developing Economies.

1. Asset alignment target

IIGCC

Target

Set a five-year target for increasing the % of sovereign bonds allocation to issuers that are categorised as 'aligned', or 'achieving' net zero.

Tools

Definition of alignment criteria for sovereigns.

Country and regional decarbonisation pathways to evaluate performance.

Country assessment tools (ASCOR, CAT, CCPI, others).

Recommended actions

- ❑ Establish a methodology to assess and classify sovereign issuers in the alignment scale, following NZIF criteria for sovereigns. Countries are:
  - Committed: Meet criteria 1.
  - Aligning: Meet criteria 1, 2, 4 and 5.
  - Aligned: Meet criteria 1, 2, 3*, 4 and 5.
  - Net Zero: Meet criteria 1, 2, 3*, 4, 5, and 6.

  *Satisfactory performance, relative to a specified country or regional decarbonisation pathway. For 'High Income' or 'Developed Markets', a relatively more ambitious net zero pathway should be considered. For EMDEs, a 'fair share' pathway may be considered.

  Criteria 7 to 10 (see slide with criteria) may be reinforced in engagement interactions, but do not compute on country alignment for the time being.
- ❑ Establish a process to periodically review this categorisation (at least once a year) and commit to update with material new information (e.g., update of NDC commitments).
- ❑ Disclose the assessment approach and data sources maximising transparency. Disclose exceptions, such as due to data limitations, and the methods used to fill information gaps.

2. Engagement threshold target

IIGCC

Target

Set a threshold of GHG emissions from sovereign bonds in a portfolio and undertake engagement actions with the relevant countries and territories.

Tools

Definition of engagement actions for sovereigns.
[Industry engagement toolkit to be expanded].

Existing country engagement platforms (E.g., PRI's pilot engagement platform in Australia).

Recommended actions

- Seek active engagement with highest impact sovereigns or largest exposures that do not perform well against the criteria.
- Participate in engagement efforts both directly with governments or indirectly through networks such as IIGCC, AIGCC, IGCC, Ceres.
- Engage with issuers, investment banks and development agencies to increase issuance of labelled bonds, including SLBs with Paris-aligned KPIs, and other climate solutions.
- Commence engagement well in advance of the issuance process and seek opportunities to shape bond characteristics such as KPIs for SLBs, in a manner that enhances climate ambition.
- Advocate for data providers to develop indicators to assess criteria set out by the asset alignment target methodology.
- Advocate for pathway tools to incorporate and make explicit the inclusion of 'fair share' principles within national level assessments.
- Engage to enhance and standardise national disclosures based on the alignment criteria set out, improve quality and consistency of LULUCF and methane emissions reporting, and improve quality and consistency of consumption emissions disclosures.
- Seek opportunities for collective dialogue between investors and debt management offices and other national and subnational entities on the links between sovereign bond issuance, sovereign risk, and climate risk.

3. Portfolio decarbonisation reference objective

Objective

Set a CO2e absolute and intensity emissions reduction objective. A five year stocktake is recommended to facilitate assessment of progress.

If the portfolio holds sovereigns categorised as EMDEs, the emissions reduction objective can be qualified to account for 'fair share' principles.

Tools

Accounting standard and scope for emissions covered in targets.

Recommended actions

- Report portfolio absolute emissions (including and excluding LULUCF) and emissions intensity, updating the data on an annual basis.
- Disclose chosen approach and data sources maximising transparency.
- Targets are generally set with the production-emissions view. Consumption-based data for assessment and target setting is recognised as the best practice, but current data is limited.
- Disclose the rationale for the target (based on portfolio benchmark and the corresponding country and regional pathways) stating whether the assessment will be made as a point-in-time, or on a cumulative basis.
- Where possible, seek to report the portfolio decarbonisation attribution analysis.

For diversified multi-asset portfolios, this objective covers the sovereign bond proportion of the portfolio. Net zero objectives and targets on corporate assets and sovereign assets should be distinct and not be aggregated/combined.

4. Allocation to climate solutions objective

Objective

Where possible, increase allocation to issuances that support 'climate solutions' for sovereigns.

Tools

Upcoming supplementary guidance on 'climate solutions' for sovereigns.

Recommended actions

This target should be seen in the context of portfolio mandate.

- Track and report climate solutions for sovereigns.
- Where possible, seek to increase allocations to labelled bonds and other climate solutions for sovereigns.
- When investment mandates allow, increase funds to climate solutions and transition finance, especially in Emerging Markets and Developing Economies (EMDEs).
- To mitigate greenwashing concerns, investors are recommended to take additional steps to validate the principles and attributes of the labelled bond or climate related issuance. This may involve further scrutiny into the bonds' credibility, integrity, and ambition.

Example

For all sovereigns in portfolio…

Portfolio assets	**Exposure (USD millions)**	**CBDR' category**	**NZIF alignment metric**		**PPP-adj. GDP (USD Mill year)**	**Population (unit, year)**	**Production Emissions incl. LULUCF (tCO2 eq, year)**	**Financed Emissions production view incl. LULUCF (tCO2 eq, year)**	**Production Emissions excl. LULUCF (tCO2 eq, year)**	**Financed Emissions production view incl. LULUCF (tCO2 eq, year)**	**Consumption Emissions incl. LULUCF* (tCO2 eq, year)**	**Financed Emissions consumption view (tCO2 eq, year)**	**Intensity Emissions, production view incl. LULUCF (tCO2 eq per USD Mill)**	**Intensity Emissions, consumption view* (tCO2 eq per capita)**
Source	*Portfolio SAA* **[A]**	*Disclose framework*	*Disclose sources and approach*	*% of AUM*	*Disclose source* **[B]**	*Disclose source* **[P]**	*Disclose source* **[C]**	*Calculation – PCAF* **[A/B]*C = F**	*Disclose source* **[D]**	*Calculation – PCAF* **[A/B]*D**	*Disclose source* **[E]**	*Calculation – PCAF* **[A/B]*E = G**	*Calculation – PCAF* **[F]/[B]**	*Calculation – PCAF* **[G]/[P]**
Sov Bond 1	10.0	High Income	Committed to aligning	25%	1,232,000	17,703,000	171,287,000	1,390	167,344,000	1,358	201,090,938	1,632	0.0011	0.0001
Sov Bond 2	10.0	High Income	Aligning towards net zero	25%	2,273,000	38,930,000	678,352,000	2,984	693,683,000	3,052	634,259,120	2,790	0.0013	0.0001
Sov Bond 3	10.0	Emerging Market	Aligned to net zero	25%	328,000	5,557,000	41,635,000	1,269	46,681,000	1,423	56,706,870	1,729	0.0039	0.0003
Sov Bond 4	10.0	Emerging Market	Achieving net zero	25%	614,000	9,043,000	73,068,000	1,190	75,410,000	1,228	97,618,848	1,590	0.0019	0.0002
Corporate assets	6.0	-	-	-	Account for these separately to avoid double-counting.									
% AUM 'Aligned' or 'Achieving' Net Zero (Asset alignment target)				50%	Total Sovereign B. financed emissions and Weighted average intensity			**6,834**		**7,062**		**7,741**	**0.0021**	**0.0002**

Mock numbers, solely for illustration purposes. **Include consumption emissions on a best effort basis.*

- Set targets and objectives at portfolio level.
- Disclose data sources, methodology to assess alignment, framework for CBDR country classification, targets and objectives and limitations and restrictions.

Investors’ levers of influence

Financial investors can bring about positive climate impact though multiple channels…

Direct cash provision

Investor funds at issuance:

- Finance climate solutions for sovereigns
- Finance bond issuances of sovereign and sub-sovereign entities with demonstrated commitment to net zero alignment
- When possible, seek to finance issuers and issuances that incorporate elements of fair share

Influence via cost of capital

This channel is somewhat limited for this asset class, given the restricted investment universe and concentrated nature of the market.

- Portfolio tilting towards climate/nature ambitious instruments and issuers
- Portfolio tilting towards higher performance sovereigns (i.e., Aligned to Net Zero or Achieving Net Zero), considering fair share elements

Stewardship and engagement

Investor engagement support at bond issuance and before:

- Where possible, directly engage with sovereigns, for example to shape bond characteristics, use of proceeds, KPIs
- Seek to join collective sovereign engagement alternatives (Letters, platforms, etc)

Influence of the ecosystem

Use opportunities to shape the ecosystem:

- Contribute to industry Working Groups
- Be vocal about approach to net zero assessment
- Feedback policy makers, regulators, etc
- Engage with data providers and other stakeholders to improve data quality, reporting and transparency (e.g. consumption-based data, LULUCF, etc)

The role of benchmarks

The profile of sovereign bond portfolios is diverse across investors. Most investment funds, regardless of their strategy, hold high-quality sovereign bonds for **cash management purposes.** A significant portion of sovereign bond portfolios follow **liability management strategies**, that aim to meet future liabilities (e.g., portfolios of pension funds and insurers). Some strategies are **index-based strategies**, with most investors designing customised benchmarks based on existing sovereign bonds indices.

Popular sovereign bonds market indices:

- JP Morgan Government Bond Index (GBI) Global
  - JP Morgan EMBI Global Diversified (EMBI)
  - JP Morgan Emerging Local Markets Index (ELMI) Plus
  - JP Morgan Emerging Market indices (GBI-EM)
- Bloomberg Global Aggregate Treasuries
  - Bloomberg USD Emerging Market Sovereign Bond Index
- FTSE World Government Bond Index (WGBI)
- iBoxx Global Government Index

The country weights for these indices are often calculated based on the market value of the outstanding government bonds. This leads to indices that are often relatively concentrated with higher weights in United States, Japan, China and Western Europe.

Recommended Actions

❑ For indexed-based strategies that seek to align to net zero, investors are encouraged to use benchmarks that incorporate alignment criteria requirements to inform portfolio weights, in a way that would improve portfolio alignment and lead to real-economy decarbonisation.

Climate aware sovereign bond index

Due to limitations stemming from insufficient data availability and quality, trade-offs with risk/return performance, lack of standardisation, issuer engagement, and market liquidity, the market offering of climate aware sovereign bond indices remains limited. Some alternatives include broader ESG factors, or a climate-risk based approach:

- **Bloomberg Government Bond Carbon Scored Indices**: a group of alternative weighting methodologies applicable to any Bloomberg Government Bond Index.
- **FTSE Climate Risk-Adjusted World Government Bond Index (Climate WGBI)**: a tilting methodology that adjusts index weights according to each country's relative exposure to climate risk, with respect to resilience and preparedness to the risks of climate change.
- **Solactive Paris Aware Global Government Bond Index Series:** features PAB-like decarbonization mechanisms in the sovereign segment.
- **J.P. Morgan ESG EMBI Global Diversified Investment Grade Index (JESG EMBI IG):** includes sovereign and quasi-sovereign entities. Applies an ESG scoring and screening methodology to tilt toward issuers ranked higher on ESG criteria and green bond issues.
- **MSCI** will launch this year the **Climate-Tilted MSCI Government Bond Index** ("MGBI Climate") using PCAF-aligned emission intensities to tilt the weight of countries, and the **Climate Glidepath MSCI Government Bond Index** which repurposes the index constituents' cashflows (coupons, notional repayments) and reinvests those into bond issuers with lower emissions.
- **S&P Global** will launch this year the **Sustainable Government Solutions:** The **iBoxx Global Government ESG Tilted indices,** using ESG Risk Rating from Sustainalytics and addressing wealth bias by keeping the proportion of Developed and Emerging Markets constant to the parent; and **iBoxx Global Government Carbon Tilted indices**, using Trucost carbon intensity measure.

Thank you

vramirez@iigcc.org

www.iigcc.org

Pennine Place
2a Charing Cross Road
London
WC2H 0HF