



CLIMATE
POLICY
INITIATIVE

Net Zero Finance Tracker: Pseudocodes

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Authors: Valerio Micale, Nikita Marini, Shengzi Li, Tinglu Zhang, and Jake Connolly

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Targets and Objectives: Adoption of a mitigation target

Adoption of a mitigation target

The indicator describes whether institutions have set clear and comprehensive targets for climate action (primarily reducing their emissions), whether those are quantitative targets, and whether they are disclosed transparently. A clear, measurable and ambitious target is also an essential component of transition plan.¹ Full response under this indicator is aligned with frameworks such as TCFD,² SBTi,³ UNEP FI Guidelines for Climate Target Setting,⁴ GFANZ Financial Institution Net-zero Transition Plans,⁵ UN HLEG Recommendation,⁶ ACT Finance,⁷ and TPT Disclosure Framework.⁸

Data Sources: Accounting for Sustainability, BankTrack, CDP, CPI, ECIU, ESG Book, NZAM, NZBA, NZIA, NZAOA, Net-Zero Donut, Observatoire de la Finance Durable, PAAO, PRB, PRI (2021), RTZ, SBTi.

¹ "All transition plans must contain clear, measurable and ambitious targets for change". CBI. 2023. Guidance to assess transition plan. Available at:

https://www.climatebonds.net/files/reports/guidance_to_assess_transition_plans.pdf

² Recommendation on Metrics and Targets and Supplemental Guidance for the Financial Sector in: TCFD. 2021. TCFD Recommendation. Available at:

<https://www.tcfhub.org/metrics-and-targets/>

³ "All FIs shall set targets on their investment and lending activities as required by FI-C16, irrespective of the share of quantified scope 3 portfolio emissions as compared to the total scope 1 + 2 + 3 emissions of the FI". SBTi. 2023. Near-Term Financial Sector Science-based Target Guidance V2. Available at: <https://sciencebasedtargets.org/resources/files/Near-Term-Financial-Sector-Science-Based-Targets-Guidance-V2-Consultation-Draft.pdf>

⁴ "Banks shall set a 2050 target to support meeting the temperature goals of the Paris Agreement. Banks shall set an interim target for 2030 or sooner and may set further interim targets prior to that date". UNEP FI. 2022. Guidelines for Climate Target Setting-Supporting Note. Available at: <https://www.unepfi.org/wordpress/wp-content/uploads/2022/08/Supporting-Notes-for-Guidelines-for-Climate-Target-Setting.pdf>

⁵ "Metrics and Targets: Establish a suite of metrics and targets to drive execution of the net-zero transition plan and monitor progress of results in the near, medium, and long term. Include metrics and targets focused on aligning financial activity in support of the real-economy net-zero transition; on executing the transition plan; and on measuring changes in client and portfolio GHG emissions". GFANZ. 2022. Financial Institution Net-zero Transition Plan. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁶ "Recommendation 2: Setting Net-zero Target: Non-state actors must have short-, medium- and long-term absolute emissions reduction targets and, where appropriate, relative emissions reduction targets across their value chain that are at least consistent with the latest IPCC net zero greenhouse gas emissions modelled pathways that limit warming to 1.5°C with no or limited overshoot, and where global emissions decline at least 50% below 2020 levels by 2030, reaching net zero by 2050 or sooner". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁷ Module 1: Target. ACT. 2023. ACT 4 Finance-Assessing Low-carbon Transition. Available at: https://actinitiative.org/wp-content/uploads/documents/act-4-finance_investors_20230112_public_consultation.pdf

⁸ 4.3 GHG metrics and targets. TPT. 2023. TPT Disclosure Framework. Available at: https://transitiontaskforce.net/wp-content/uploads/2023/10/TPT_Disclosure-framework-2023.pdf

Assessment approach		
Full response	Externally validated aligned long-term and near-term targets, covering 90% or more of the relevant portfolio.	<p><u>Block 1: The target encompasses at least 90% of all assets in the institution's portfolio</u></p> <p>["A. Type of asset concerned by the target" = "All assets"] AND ["B. Percentage of relevant portfolio covered" >= 90%]</p> <p>AND</p> <p><u>Block 2: A near-term and a long-term target are both adopted and externally validated</u></p> <p>["C. Validated long-term (2030-2050) Target" != ""] AND ["D. Validated near-term (2025-2030) target" != ""]</p>
Partial response	Transparently assessed aligned long-term and near-term targets, covering a portion of the institution's relevant portfolio.	<p><u>Block 1: There are details on the target's coverage of portfolio emissions</u></p> <p>["A. Type of asset concerned by the target" != ""] OR ["B. Percentage of relevant portfolio covered" > 0%] OR ["E. Sector concerned by the target" != ""]</p> <p>AND</p> <p><u>Block 2: An intermediate net-zero target has been adopted</u></p> <p>["D. Validated near-term (2025-2030) target" != ""] OR [l. Intermediate Net-Zero target adopted = True]</p> <p>AND</p> <p><u>Block 3: A long-term net-zero target has been adopted</u></p> <p>["C. Validated long-term (2030-2050) Target" != ""] OR ["H. Net-zero target or long-term target adopted" = True]</p> <p>AND</p> <p><u>Block 4: The methodology used for the target is disclosed</u></p> <p>["G. Specifies scenario/methodology used for net-zero target" = True]</p>

Initial response	Target adopted but it is partial, or information is incomplete.	["A. Type of asset concerned by the target" != ""] OR ["B. Percentage of relevant portfolio covered" > 0%] OR ["C. Validated long-term (2030-2050) target" != ""] OR ["D. Validated near-term (2025-2030) target" != ""] OR ["E. Sector concerned by the target" != ""] OR ["F. Baseline year for target is disclosed" = True] OR ["G. Specifies scenario/methodology used for net-zero target" = True] OR ["H. Net-zero target or long-term target adopted" = True] OR ["I. Intermediate net-zero target adopted" = True] OR ["J. Disclosed the temperature alignment of its activities" <= 2.0] OR ["K. Has carbon neutrality target" = True] OR ["L. Has active portfolio/investment emission target" = True] OR ["M. Has other active climate-related targets" = True]		
Planned response	Commits to adopt a target	["N. Commits to adopt a mitigation target" = True] OR ["O. Commits to adopt an intermediate target" = True] OR ["P. Commits to adopt Paris-aligned targets" = True] OR ["Q. Commits to adopt short-term, long-term, and intermediate targets" = True]		
No action	No evidence of target.	No target identified		
Dataset and standardization				
Standardized action measured(*)	Source	Name in original dataset	Description	Data analysis
A. Type of asset concerned by the target ⁹	Net Zero Asset Managers initiative (NZAM)	Assets targeted	As the dataset only concerns Asset Managers specifically, we assume that the assets targeted are all of the institution's Assets Under Management.	If value != "": Value ---

⁹ Display information as "Asset(s) concerned by the target: ____"

	Science Based Targets Initiative (SBTi)	Target – Assets targeted	As no distinction is possible in the SBTi dataset, we assume that the entirety of the institution's portfolio is the object of the target.	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	CDP	C-FS4.1d_C4_Provide details of the climate-related targets for your portfolio. - Product type/Asset class/Line of business	The entry specifies the type of asset the target refers to. Possible values are "All asset classes", "All product types", "Listed equity", "Corporate loans", "Real estate mortgages", etc. The maximum value between "All assets" and the other classes is retained.	
	Observatoire de la Finance Durable	Alignment - Financial activity(ies) concerned by the commitment	List of activities on which the temperature alignment is calculated. List of activities on which the temperature alignment is calculated.	
		Empreinte Carbone - Financial activity(ies) concerned by the commitment	Perimeter of the financial activities covered by the temperature commitment.	
	Net-Zero Donut	Foundations: Objectives and priorities - Which asset classes are the financial institution affected by its interim objectives?	Financial activities covered by the financial institution's mitigation targets, as self-reported. The original values are subject to manual cleaning to achieve standardization vis-à-vis other sources.	
		Foundations: Objectives and priorities - List of the financial institution's asset classes affected by the interim targets		
		Foundations: Objectives and priorities - List of the financial institution's financial activities concerned by the financial institution's net zero ambition		
		Foundations: Objectives and priorities - List of the financial institution's financial activities to which its intermediate objectives apply		
Foundations: Objectives and priorities - List of asset classes included in each of the financial institution's intermediate objectives				
CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.		

			<p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does the mitigation target cover all its assets?' - 'Does it specify the type of asset concerned by the mitigation target?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
B. Percentage of relevant portfolio covered ¹⁰	Science Based Targets Initiative (SBTi)	Target	Provides information on what percentage of total investments and lending activities is covered by the portfolio target.	<p>If value != "": Value</p> <p>---</p> <p>If information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
	Net Zero Asset Managers initiative (NZAM)	Net Zero Asset managers: Initial Targets / % of AUM initially committed	This data entry provides the % of AUM that are going to be managed in line with net zero as part of the organization initial targets.	
	Observatoire de la Finance Durable	Alignment - Share of activity concerned (% of portfolio)	Percentage of the activities specified in the field "Financial activity(ies) concerned by the commitment" in the same dataset that are concerned by the commitment.	
	Observatoire de la Finance Durable	Empreinte Carbone - Share of activity concerned (% of portfolio)		
	CDP	C-FS4.1d_C6_Provide details of the climate-related targets for your portfolio. - Portfolio coverage of target	Percentage of portfolio covered by the target	
	PRI (2021)	ISP 37.1 – Target	Provides details on the climate targets set by the institution. When the target is of the type "Aligning entire group-wide portfolio with net zero", we extract the percentage value contained in the description of the target. If the description states "net zero" or "all assets", we automatically assign a target value of 100%.	
	BankTrack	Coal: 2030 decarbonisation target	<p>The NZBA tracker of BankTrack details information regarding banks' decarbonisation targets in four carbon-intensive sectors (Coal, Oil & Gas, Power Generation and Iron & Steel).</p> <p>These four indicators specify the decarbonisation target that the bank has committed to reach by 2030.</p>	
		Oil & Gas: 2030 Decarbonisation target		
Power Generation: 2030 Decarbonisation target				
Iron and Steel: 2030 Decarbonisation Target				
Net-Zero Donut	Foundations: Objectives and priorities - Objective of decarbonization of the financial institution by 2050 (should be total decarbonization of each scope)	Reports the share of the financial institution's financial assets that are subject to a decarbonization/net-zero target. Values are self-reported.		
	Foundations: Objectives and priorities - Share of the financial			

¹⁰ Display information as: "Share of relevant portfolio covered by the target: ____".

		institution's total assets committed to the intermediate objective		
		Foundations: Objectives and priorities - Share of the financial institution's total assets committed to the NZ ambition		
		Foundations: Objectives and priorities - Percentage of the financial institution's investment and lending activities covered by its interim objectives		
		Foundations: Objectives and priorities - Share of the financial institution's assets covered by its interim targets		
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it specify the percentage of relevant portfolio covered by the mitigation target? This means what percentage of total investments and lending activities is covered by the portfolio target.' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
C. Validated long-term (2030-2050) target	Science Based Targets Initiative (SBTi) (*) ¹¹	Long term – Target Year	Long-term targets indicate the degree of emission reductions organizations need to achieve net-zero according to the SBTi's Corporate Net-Zero Standard criteria. These targets must be achieved no later than 2050 (or 2040 for the power sector). Targets sourced from the SBTi website are already validated.	If value !=/="": Value ---
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.	IF information from datasets in the examined year is not available after considering all datasets AND

¹¹ Display the year of targets as "SBTi Validated Long term target for ___"

			<p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it have a SBTi validated long-term (2030-2050) net-zero target? This means this entity has a net-zero target validated by Science Based Targets Initiative (SBTi), and the target time need to be between 2030 and 2050.' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p> <p>"</p> <p>Example 3: No. Answer cannot be found in the given report.</p>	<p>IF Value of preceding year = True: True Else: False</p>
D. Validated near-term (2025-2030) target	Science Based Targets Initiative (SBTi) (*) ¹²	Near term – Target Year	<p>Near-term targets outline how organizations will reduce their emissions, usually over the next 5-10 years. These targets galvanize the action required for significant emissions reductions to be achieved by 2030. Near-term targets are also a requirement for companies wishing to set net-zero targets. Targets sourced from the SBTi website are already validated.</p>	<p>If value != "": Value</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it have a SBTi validated short-term (2025-2030) net-zero target? This means this entity has a net-zero target validated by Science Based Targets Initiative (SBTi), and the target time need to be between 2025 and 2030.' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
E. Sector concerned by the target ¹³	BankTrack	Coal: type of target	<p>The NZBA tracker of BankTrack details information regarding banks' decarbonisation targets in four carbon-intensive sectors (Coal, Oil & Gas, Power Generation and Iron & Steel.</p> <p>These four indicators specify for which sector the decarbonisation targets that the bank has committed to reach by 2030 apply.</p>	<p>If value != "": Value</p> <p>---</p> <p>IF information from datasets in the examined year is not available after</p>
		Oil & Gas Type of target		
		Power Generation: Type of target		
		Iron and Steel: Type of Target		

¹² Display the year of targets as "SBTi Validated Near term target for ____"

¹³ Display information as "Sector(s) concerned by the target: ____"

	Net-Zero Donut	Foundations : Objectives and priorities - List of sectors included in each of the financial institution's intermediate objectives	Lists the sectors that are concerned by the reporting entity's mitigation target. The original string undergoes some manual cleaning in order to standardize the reported values.	considering all datasets AND IF Value of preceding year = True: True Else: False
		Foundations : Objectives and priorities - List of sectors of activity of the assets included in the scope of the financial institution's intermediate objectives		
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it specify the sectors concerned by the mitigation target? This could be all sectors or some sectors, and has to be the sectors related to the net zero target'. <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
F. Baseline year for the target is disclosed ¹⁴	BankTrack	Coal: baseline year	<p>The NZBA tracker of BankTrack details information regarding banks' decarbonisation targets in four carbon-intensive sectors (Coal, Oil & Gas, Power Generation and Iron & Steel).</p> <p>These four indicators specify the baseline year of the absolute decarbonisation target that the bank has committed to reach by 2030.</p>	<p>If value != "": Value ---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
		Oil & Gas: Baseline year		
		Power generation baseline year		
		Iron and Steel Baseline Year		
	Science Based Targets Initiative (SBTi)	Target – Base year	Provides information of baseline year in the format of "from a xxxx base year"	
CDP	C4.1a_C9_Provide details of your absolute emissions target(s) and progress made against those targets. - Base year	Provide the base year of the absolute emission target.		

¹⁴ Display information as: "Baseline year for target: ____."

		C4.1b_C10_Provide details of your emissions intensity target(s) and progress made against those target(s). - Base year	Provide the base year of the emission intensity target.	
	NZAOA	Sub-portfolio Target - Base year	Provide the base year of reducing portfolio emission target in the format of: (base year: xxxx)	
	ECIU Net Zero Tracker	End target – Baseline year	Provide the baseline year of the end target.	
	Observatoire de la Finance Durable	Empreinte Carbone - emissions_reference_year	Provide the reference year of the carbon emission calculation.	
	Net-Zero Donut	Metrics and targets: Metrics and targets - Base year(s) used by the financial institution for its intermediate objectives	Provide the base year of the intermediate target set by the reporting financial institution.	
	CPI	Primary data extraction	<p>"Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does its net-zero target have a baseline year? The baseline year is the starting point against which progress towards a net-zero target is measured. It typically represents the initial year in which emissions are quantified, and from which future reductions or offsetting efforts are measured'. <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
G. Specifies scenario/methodology used for net-zero target ¹⁵	BankTrack	Net zero scenario used for coal target setting	<p>The NZBA tracker of BankTrack details information regarding banks' decarbonisation targets in four carbon-intensive sectors (Coal, Oil & Gas, Power Generation and Iron & Steel.</p> <p>These four indicators specify the scenario used for the decarbonisation target that the bank has committed to reach by 2030.</p>	<p>If value != "": Value</p> <hr/>
		Net Zero scenario used for oil & gas target setting		
		Net zero scenario used for Power Generation target setting		
		Net Zero Scenario used for Iron and Steel target		

¹⁵ Display information as "Scenario or methodology used for the net-zero target: ____".

	Net Zero Asset Managers initiative (NZAM)	Scenario(s)	The NZAM provides the scenario of the interim net-zero target.	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	CDP	C3.2a_C1_Provide details of your organization's use of climate-related scenario analysis. – Climate-related scenario	The scenario used for climate-related analysis.	
	Net-Zero Donut	Foundations: Objectives and priorities - Name of scenarios used in the construction of interim decarbonisation targets	Specifies the scenario that is used for the definition of the financial firm's mitigation target. Values are self-reported and manually cleaned for standardization vis-à-vis other sources.	
		Foundations: Objectives and priorities - What scenarios were used by the financial institution to define their interim objectives in the energy sector		
		Foundations: Objectives and priorities - Scenario used by the financial institution for its interim objectives aligned with the Paris Agreement		
		Foundations: Objectives and priorities - Recognized methodology used by the financial institution to set up its intermediate objectives (if internal methodology, explain the steps)		
	Science Based Targets Initiative (SBTi)	Company name	The SBTi's target dashboard shows companies and financial institutions that have set science-based targets or have committed to developing targets. Commitments demonstrate an organization's intention to develop targets and submit these for validation within 24 months.	
	Observatoire de la Finance Durable	Alignment – Methodology for calculating temperature or alignment	Contains a description of the methodology used in calculating the temperature alignment/carbon footprint of the financial activities, including, when this exists, the name of the external validator and of the tool used	
		Empreinte Carbone - Calculation methodology		
	Net Zero Asset Managers initiative (NZAM)	Net Zero Asset managers: Methodology	As part of their initial target commitments, members of the Net Zero Asset Manager initiative have to provide information on interim target(s) covering the proportion of assets to be managed in line with net zero This data entry indicates the methodology used to calculate the coverage of the net-zero commitment	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ	

			<p>entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it specify the scenario used by the net-zero target? This means a pathway to achieve a state where the amount of greenhouse gases emitted into the atmosphere is balanced by the amount removed'. <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
H. Net-zero target or long-term target adopted	Net Zero Asset Managers initiative (NZAM)(*) ¹⁶	Net Zero Asset managers: Initial Targets / Target(s)	This data entry provides the target year, or years, for the initial target(s)	<p>If value is != "" or True: True</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
	Net Zero Banking Alliance (NZBA)	Members - Net Zero Banking Alliance	Initial target published. The list of members also includes updated information on and links to Alliance members' published decarbonisation targets.	
	Net Zero Insurance Alliance (NZIA)	Members - Net-Zero Insurance Alliance	As member of Net-Zero Insurance Alliance commits to transitioning all operational and attributable greenhouse gas (GHG) emissions from its insurance and reinsurance underwriting portfolios to net-zero emissions by 2050	
	Net-Zero Asset Owner Alliance (NZAOA)	Members of NZAOA	As member of NZAOA commits to transitioning their investment portfolios to net-zero GHG emissions by 2050 – consistent with a maximum temperature rise of 1.5°C.	
	Race to Zero (RTZ)	Member of Race to Zero	As member of Race To Zero, announces minimum commitment to halve emissions by 2030, and to achieve Net Zero carbon emissions by 2050 at the latest, and include all emissions, including scope 1, 2, 3, and for financial entities, all portfolio/financed/facilitated/insured emissions	
	ESG Book	esg_26401 - GHG emissions reduction targets	Does the firm have specific targets to reduce GHG emissions?	
	CDP	C4.2c_C4_Provide details of your net-zero target(s). - Target year for achieving net zero – Long-term target.	Provides year in which the entity expects to have achieved net-zero. The variable is transformed into a Boolean that is true if the year is greater than 2030.	
	PRI (2021)	ISP 37.1	Provides details on the climate targets set by the institution. If the target is of the type "Aligning entire group-wide portfolio with net zero", the year is extracted from the field containing the deadline and, if greater than 2030 and smaller or equal to 2050, the value of the indicator is taken to be true.	

¹⁶ Display the year of targets as "NZAM initial target for ___"

	BankTrack	Long term net zero target	Informs whether the company has a long-term net-zero target. If the value reported is equal to "2050" or "< 2050", the value of the Boolean is set as True.		
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have a long-term (2030-2050) mitigation target or a net-zero target?' Answers are then manually verified to ensure their relevance and to extract the relevant information.		
	Observatoire de la Finance Durable	Alignment - Expected date of completion	Year by which the target should be attained		If value > 2030: True Else: ""
		Empreinte Carbone - Expected date of completion of the commitment			
	ECIU Net Zero Tracker	End target year	Year in which the target is expected to be achieved by the reporting institution.	---	
Net-Zero Donut	Metrics and targets: Metrics and targets - List of target years for the financial institution's intermediate objectives	Year targeted by the reporting financial institution for its intermediate objectives		IF information in the examined year is not available AND IF Value of preceding year != "": Value Else: ""	
	Foundations: Objectives and priorities - List of target years for each of the financial institution's intermediate objectives				
I. Intermediate net-zero target adopted	CDP	C4.2c_C4_Provide details of your net-zero target(s). - Target year for achieving net zero – Short-term target.	Provides year in which the entity expects to have achieved net-zero. If this year is before 2025, we take it as a short-term commitment which also implies a long-term one (e.g., if net-zero by 2024, then will still be net-zero in 2050).		
	Race to Zero (RTZ)	Member of Race to Zero	As member of Race To Zero, announces minimum commitment to halve emissions by 2030, and to achieve Net Zero carbon emissions by 2050 at the latest, and include all emissions, including scope 1, 2, 3, and for financial entities, all portfolio/financed/facilitated/insured emissions	If value = True: True --- IF information from datasets in the	

	Net-Zero Asset Owner Alliance (NZAOA) (*) ¹⁷	Alliance Member Targets for 2025 / Sub-portfolio Target	Members of NZAOA adopting an intermediate target for 2025. The alliance uses its own Target Setting Protocol (TSP) - recognized by the investor agenda - as its approach for a target setting based on science.	examined year is not available AND IF Value of preceding year = True: True Else: False
	CDP	C4.2c_C4_Provide details of your net-zero target(s). - Target year for achieving net zero – Intermediate target	Provides year in which the entity expects to have achieved net-zero. The variable is transformed into a Boolean that is true if the year is greater than 2025 and smaller or equal to 2030.	
	PRI (2021)	ISP 37.1	Provides details on the climate targets set by the institution. If the target is of the type "Aligning entire group-wide portfolio with net zero", the year is extracted from the field containing the deadline and, if smaller or equal to 2030, the value of the indicator is taken to be true.	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have an intermediate net-zero target (2025-2030)?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
	Observatoire de la Finance Durable	Alignment - Expected date of completion	Year by which the target should be attained	
		Empreinte Carbone - Expected date of completion of the commitment		
	ECIU Net Zero Tracker	End target year	Year in which the target is expected to be achieved by the reporting institution.	---
Net-Zero Donut	Metrics and targets: Metrics and targets - List of target years for the financial institution's intermediate objectives	Year targeted by the reporting financial institution for its intermediate objectives	IF information in the examined year is not available AND IF Value of preceding year =/= "": Value Else: ""	
	Foundations: Objectives and priorities - List of target years for each of the financial institution's intermediate objectives			

¹⁷ Display the year of targets as "NZAOA near-term for ___"

J. Disclosed the temperature alignment of its activities	Observatoire de la Finance Durable	Alignment - Temperature target ¹⁸	Temperature alignment of the targeted activities specified in column "Financial activity(ies) concerned by the commitment", as assessed in column "Methodology for calculating temperature or alignment".	If value =/= "": Value --- IF information in the examined year is not available AND IF Value of preceding year =/= "": Value of preceding year Else: ""
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it disclose the temperature alignment of its activities? This means the reference temperature of the decarbonization scenario used by the reporting financial institution'. Answers are then manually verified to ensure their relevance and to extract the relevant information.	
K. Has carbon neutrality target	Observatoire de la Finance Durable	Empreinte Carbone - Carbon neutrality target (Yes/No - Year of achievement)	Entity has a target for carbon neutrality (if yes, specifies year)	If value = True: True Else: False --- IF information in the examined year is not available AND IF Value of preceding year = True: True Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have a carbon neutrality target?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
L. Has active portfolio/investment emission target	CDP	C4.1_Did you have an emissions target that was active in the reporting year?	The variable indicates the type of emission target that the entity has set. It can take the values "Absolute target", "Portfolio target", "Intensity target", and "No target". It is transformed into a Boolean that is true when the value is "Portfolio target".	If value = True: True Else: False --- IF information in the examined year is not available AND IF Value of preceding year = True: True
		C4.1b_C6_Provide details of your emissions intensity target(s) and progress made against those target(s). – Scope 3 category(ies)	Lists the Scope 3 categories that are concerned by each of the targets set. We transform the variable into a Boolean that is true if Category 15 emissions are concerned by the target.	
	PRI (2021)	ISP 37.1 – NZ target	The indicator provides details on the existence of climate change targets put in place by the organization. When the associated target is	

¹⁸ Display the temperature alignment as "Temperature target of examined portfolio/AUM: __ °C".

			of the type "Aligning entire group-wide portfolio with net zero", the value of this Boolean is true.	Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have an active portfolio/investment emission target?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
M. Has other active climate-related targets	CDP	C4.1a_C1_Provide details of your absolute emissions target(s) and progress made against those targets. – Target reference number	Reference number (in the form "Abs1" to "Abs10") of each target of a given entity. Non-"Question not applicable" values indicate the existence of some target.	If value = True: True Else: False <hr/> If information in the examined year is not available AND IF Value of preceding year = True: True Else: False
		C4.2_Did you have any other climate-related targets that were active in the reporting year?	The variable indicates whether the entity has some additional climate-related targets in place in the reporting year (the year they were first set is reported in variable C4.2a_C2). We transform this variable into a Boolean that is true whenever its value is either "Net Zero Targets", "Target(s) to increase low-carbon energy consumption or production", "Other climate-related target(s)", or "Target(s) to reduce methane emissions".	
		C4.2a_C1_Provide details of your target(s) to increase low-carbon energy consumption or production. – Target reference number	Reference number (in the form "Low1" to "Low4") of the target for that given entity. If a value exists (i.e., it is not "Question not applicable"), it means that a target to increase its low-carbon energy consumption or production has been set.	
	PRI (2021)	ISP 37.1 – Other target	The indicator provides details on the existence of climate change targets put in place by the organization. When a target exists and is different from "Aligning entire group-wide portfolio with net zero", the value of this Boolean is true.	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are:	

			<p>- 'Does it have other climate-related targets? The target does not necessarily be net-zero or carbon neutrality, but has to be climate-related' .</p> <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
N. Commits to adopt a mitigation target	Science Based Targets Initiative (SBTi)	Company name	The SBTi's target dashboard shows companies and financial institutions that have set science-based targets or have committed to developing targets. Commitments demonstrate an organization's intention to develop targets and submit these for validation within 24 months.	If any of the values are True: True ---
	UNEP FI - Principles for Responsible Banking (PRB)	Member of PRB	As members of PRB, the institution commits to Set Targets to bring the bank's business and portfolio into alignment with the respective Sustainable Development Goals and Paris Climate Agreement.	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	Accounting For Sustainability	Member of Pension Fund Chair Net Zero Statement of Support	As a signatory of the Statement, the institution Committing to set net zero targets to align our investment portfolios with a 1.5°C pathway	
O. Commits to adopt an intermediate target	Net-Zero Asset Owner Alliance (NZAOA)	Members of NZAOA	As member of NZAOA, commits to set intermediate individual targets within 12 months of joining	If any of the values are True: True ---
	Net Zero Asset Managers initiative (NZAM)	Signatories of The Net Zero Asset Managers initiative	As member of the Net Zero Asset Managers initiative, commits to set interim targets for 2030, targeting 50% emissions reduction	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	Net Zero Insurance Alliance (NZIA)	Members – Net-Zero Insurance Alliance	As member of Net-Zero Insurance Alliance commits to establish, to the extent permissible by applicable laws and regulations, its intermediate, science-based targets every five years in line with Article 4.9 of the Paris Agreement. The first intermediate target will be based on one or more scientific metrics that build upon recognised methodologies, to be defined within eighteen months of the official launch of the NZIA through the publication of an NZIA target-setting protocol	
P. Commits to adopt Paris-aligned targets	Paris Aligned Asset Owners (PAAO)	Member of the Paris Aligned Asset Owners initiative	As a signatory of the Paris Aligned Asset Owners initiative, commits to set up targets aligned with Net Zero	If any of the values are True: True ---
				IF information from datasets in the examined year is not available after considering all datasets AND

				IF Value of preceding year = True: True Else: False
Q. Commits to adopt short-term, long-term, and intermediate targets	Net Zero Banking Alliance (NZBA)	Members - Net Zero Banking Alliance	As a member of the Net Zero Banking Alliance, the bank follows the Principles for Responsible Banking. Further to that it commits to set short- and long-term targets, as well as intermediary targets every 5 years	If any of the values are True: True --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False

(*) = Information that can be displayed as is in the entity pages.

Targets and objectives: Adoption of a climate investment target

Adoption of a climate investment target		
<p>The indicator describes whether institutions have set and disclosed clear, accountable, and measurable targets to provide a volume of financial services and investments for climate action. Financing the climate solution is a critical part in financial institutions' transition plan and strategies.¹⁹ Full response under this indicator is in line with frameworks such as: SBTi,²⁰ ACT Finance,²¹ NZAOA Target Setting Protocol,²² as well GFANZ's climate solutions financing strategies for Transition Plans.²³ TCFD's capital deployment metrics also feature as progress indicator for climate-related opportunities.²⁴</p> <p>Data sources: CDP, CIC, CPI, Net-Zero Donut, NZAOA, WRI Green Targets.</p>		
Assessment approach		
Full response	Quantified target disclosed, with a timeline	["A. Quantified target disclosed" = TRUE] AND ["B. Timeline specified" = TRUE]
Partial response	Quantified target disclosed	["A. Quantified target disclosed" = TRUE]

¹⁹ "Target-Financing target: This indicator assesses the financial institution's roadmap on climate solutions financing real economy as introduced in Part B and include financing and related services to enable and support 1) climate solutions; 2) companies already aligned to net zero; 3) the transition of companies committed to aligning; and 4) the managed phaseout of high-emitting physical assets". GFANZ. 2022. Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

²⁰ "Portfolio alignment: Near-term: FIs target a growing share of their portfolios to align with relevant 1.5°C pathways and support growth of net-zero aligned activities. Long-term: FIs target a long-term state where all of their portfolio holdings are net-zero aligned". SBTi. 2023. The SBTi Financial Institutions Net-Zero Standard (Consultation Draft). Available at: <https://sciencebasedtargets.org/resources/files/The-SBTi-Financial-Institutions-Net-Zero-Standard-Consultation-Draft.pdf>

²¹ "Financial institutions should use metrics and targets to monitor and describe progress in supporting the key financing strategies they selected to prioritize in their transition plans. The four key financing strategies are positive actions to decarbonize the ". ACT. 2023. ACT 4 Finance-Assessing Low-carbon Transition. Available at: https://actinitiative.org/wp-content/uploads/documents/act-4-finance_investors_20230112_public_consultation.pdf

²² "Financing transition targets: Report climate solution investments and ideally showing a positive trend in climate solution investments over time." UNEP FI. 2023. NZAOA Target Setting Protocol 3rd edition. Available at: <https://www.unepfi.org/wordpress/wp-content/uploads/2023/01/AOA-Target-Setting-Protocol-Third-edition.pdf>

²³ GFANZ. 2023. "Scaling Transition Finance and Real-economy Decarbonization" Available at: <https://assets.bbhub.io/company/sites/63/2023/11/Transition-Finance-and-Real-Economy-Decarbonization-December-2023.pdf>

²⁴ Capital deployment metrics includes climate related opportunities by Capex and Revenues. See: TCFD. 2021. "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures". Table A2.1. Available at: www.tcfddhub.org/wp-content/uploads/2022/04/Table-A2.1.pdf

Initial response	Target adopted but information is incomplete	["B. Timeline specified" = TRUE] OR ["C. Investment target adopted" = TRUE]
Planned response	Commits to adopt a target	["D. Commits to finance climate solutions" = TRUE]
No action	No evidence of target	No target identified

Dataset and standardization

Standardized action measured(*)	Source	Name in original dataset	Description	Data analysis
A. Quantified target disclosed	WRI – Green Targets	Commitment in USD(*) ²⁵	Sustainable Financial Commitment target: cumulated total in USD. The dataset includes data for the largest 50 private banks, ranked by AUM. Explores finance commitments in terms of magnitude, specificity, and accountability. This indicator refers to the size of the current sustainable finance commitment, if any, in USD	If any of the values > 0 OR True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
		1. Annualized commitment in USD(*) ²⁶	The total finance commitment of banks in USD, annualized, is based on the timespan of the commitment provided in the dataset.	
	Net-Zero Asset Owner Alliance (NZAOA)	Alliance Member Targets for 2025 / Climate solution investment target	Members of NZAOA adopting a climate solution investment target, with evidence of the amounts disclosed.	
	CPI PFIC 2021	Goal amount (millions)(*) ⁷	Investment pledge by the institution as extracted from public disclosures.	
		Annualized goal amount (millions)(*) ⁸	Amount derived by dividing the "Goal amount (millions)" by the difference between "Target year" and the year of target announcement.	
	CDP	C4.2b_C10_Provide details of any other climate-related targets, including methane reduction targets. - Figure or percentage in target year(*) ⁷	The variable reports the total value of green finance (as identified via the categories in variable C5 of the same module) set as target by the entity, in the local currency. This value is transformed in USDm and summed up across all the lines referring to the same entity.	
C4.2b_C10_Provide details of any other climate-related targets, including methane reduction targets. – Figure or		The indicator reports the annual amount of green finance commitments. It is computed internally as the ratio between the total "Green Finance" target and the number of years resulting from the difference between target year and year in which target was set.		

²⁵ Display as "Quantified target disclosed: USD _____ m". In case of multiple values reported for the same entity, we retain the most recent one. In case of multiple values reported for the same entity in the same year, the maximum value is retained.

²⁶ Display as "Annualized target disclosed: USD _____ (/1,000,000)m". In case of multiple values reported for the same entity, we retain the most recent one. In case of multiple values reported for the same entity in the same year, the maximum value is retained.

		percentage in target year – Annualized(*) ⁸		
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have a quantified climate finance target?' Answers are then manually verified to ensure their relevance and to extract the relevant information	
B. Timeline specified	WRI – Green Targets	End year(*)	The indicator identifies whether the end year of the goal is available	If any of the values >0: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True
	Net-Zero Asset Owner Alliance (NZAOA)	Alliance Member Targets for 2025 / Climate solution investment target(*)	Members of NZAOA adopting a climate solution investment target. End year	
	CPI PFIC 2021	Target year(*)	Year by which the target announced should be achieved.	
	CDP	C4.2b_C9_Provide details of any other climate-related targets, including methane reduction targets. - Target year(*)	Specifies the target year set by the entity by which their "Green Finance" finance target is expected to be met. In case of multiple target years specified, we take the furthest one in time from the year of reporting.	
	CPI	Primary data extraction (*)	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Did it specify a timeline for its climate finance target?' Answers are then manually verified to ensure their relevance and to extract the relevant information	
C. Investment target adopted	Net-Zero Asset Owner Alliance (NZAOA)	Alliance Member Targets for 2025 / Climate solution investment target	Members of NZAOA adopting a climate solution investment target, with no evidence of the amounts disclosed.	If any of the values is True: True Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ	---

			<p>entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Did it adopt climate finance investment target? ' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information</p>	<p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True</p>
D. Commits to finance climate solutions	Net Zero Donut	<p>Foundations : Objectives and priorities - <u>Climate financing plan</u></p> <p>Metrics and targets - The financial institution plans to finance climate solutions</p>	Indicates whether the financial institution plans to finance climate solutions	<p>If any of the values is True: True Else: False</p>
	Climate Investment Coalition (CIC)	Member of CIC	At COP26 in Glasgow (2021), CIC supported the mobilisation and announcement of a collective commitment of US\$130 billion to be invested in clean energy and climate solutions by 2030, made by 41 Nordic and UK pension funds.	<p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True</p>

(*) = Information that can be displayed as is in the entity pages.

Targets and objectives: Adoption of fossil fuel phase-out and exclusion targets

Adoption of fossil fuel phase-out and exclusion targets		
<p>The indicator assesses institutions' policies with respect to fossil fuels. Three levels of goals are here considered: (1) Fossil fuel phase-out policies, referring to financing or enabling the early retirement of high-emitting physical assets; (2) Exclusion policies prohibiting new/additional investment in portfolios that do not have mitigation plans or whose activities involve expansion of high-emitting sources;²⁷ (3) Divestment goals from target divestment from fossil fuels.²⁸ Exclusion and phase-out policies are part of ACT framework's engagement targets, and GFANZ's managed phaseout financing strategies for Transition Plans,²⁹ and HLEG Recommendation.³⁰ Divestment approaches are hereby only considered as secondary strategies for decarbonization.³¹</p> <p>Data sources: BankTrack, CDP, CPI, DivestInvest, Fossil Free Divestment, Net Zero Donut, NZAM, NZAOA, Powering Past Coal Alliance.</p>		
Assessment approach		
Full response	Has comprehensive fossil fuel exclusion or phase-out policies, or has no fossil fuel assets.	["A. Extent of divestment target" = "Fossil Free"] OR ["B. Fossil Fuel Exclusion policy" = "All fossil fuels"] OR ["E. Has phase-out policy" = "All fossil fuels"]
Partial response	Has partial or undefined fossil	["B. Fossil Fuel Exclusion policy" = "Coal Mining" OR "Coal Power Generation" OR "Natural gas extraction" OR "Oil extraction" OR "Oil upstream" OR "Natural gas upstream" OR "Partial"]

²⁷ Examples include the prohibition of services or financing to entities in scope whose activities involve expansion of high-emitting sources. GFANZ. 2022. Financial Institution Net-Zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

²⁸ Divestment is the act of selling or disposing of financial assets, such as stocks, bonds, or investments, in companies or industries that are involved in activities harmful to climate (e.g. fossil fuels). It is often used as a strategy by organizations to reduce their exposure to transition risks deriving from potential policy response to climate change.

²⁹ GFANZ. 2023. "Scaling Transition Finance and Real-economy Decarbonization" Available at: <https://assets.bbhub.io/company/sites/63/2023/11/Transition-Finance-and-Real-Economy-Decarbonization-December-2023.pdf>

³⁰ "Recommendation 5: On oil and gas, oil and gas phase-out policies from financial institutions must include a commitment to end financing and investing in support of: (i) exploration for new oil and gas fields, (ii) expansion of oil and gas reserves, and (iii) oil and gas production". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

³¹ Divestment can also drive an impact on the real economy by affecting cost of capital for carbon-intensive companies, adding social pressure to companies, influencing adoption of norms, but it is generally disregarded as primary strategy for decarbonization (compared to e.g. shareholder engagement, early decommissioning). See: Täger M., K. Dittrich, J. Kob. "A call for clarity: what is finance's theory of (climate) change?" Blog: The Climate Finance Dispatch. Available at: <https://warwick.ac.uk/fac/soc/wbs/research/ikon/research/climate-finance/blog/#issue8>

	fuel exclusion or phase-out policies.	OR ["D. Policy framework includes undefined exclusion policies" = True] OR ["E. Has phase-out policy" = True]		
Initial response	Has a divestment goal, or other undefined fossil fuel policies.	["A. Extent of divestment target "= "Full" OR "Partial" OR "Coal and Tar Sands", OR "Coal Only"] OR ["C. Has an undefined policy on coal and other fossil fuel investments" = True]		
Planned response	Commits to adopt a target	["F. Commits to exclude/phase-out thermal coal" = True]		
No action	No evidence of target.	No action identified		
Dataset and standardization				
Standardized action measured(*)	Source	Name in original dataset	Description	Data analysis
A. Extent of divestment target	Fossil Free Divestment(*)	Type of divestment	Institutions and corporations are classified into four categories depending on their level of commitments in fossil fuel divestment. The classification includes: Fossil Free (has no investment in fossil fuel companies, and won't invest in the future), Full (made binding commitments to divest from any fossil fuel company), Partial (made binding commitments to divest from some fossil fuel company), Coal and Tar Sands (made binding commitments to divest from any coal and tar sands companies) and Coal only (made binding commitments to divest from any coal companies).	Value as reported --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: Value as reported Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it specify the extent of its extent of divestment target?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
B. Fossil Fuel Exclusion policy	CPI PFIC 2021 (*)	FF Exclusion - Stop investments in	List of sectors that the entity has announced it will no longer invest in	Value as reported
		FF Exclusion - Stop financing	List of sectors that the entity has announced it will no longer finance	---

		FF Exclusion - Stop insuring	List of sectors that the entity has announced it will no longer insure	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: Value as reported Else: False
	Net Zero Donut	Implementation strategy : Policies and conditions - Exclusion policy	Indicates whether the financial institution has an exclusion policy	
	CDP(*)	C-FS3.6b_C2_Provide details of your exclusion policies related to industries and/or activities exposed or contributing to climate-related risks. - Type of exclusion policy	For each reporting company, the set of industries/activities subject to an exclusion policy is reported, ranging from individual activities ("Coal mining", "Arctic oil and gas", etc.) to whole categories of activities, such as "All coal" or "All fossil fuels". These commitments imply the absence of financing of any projects contributing to climate-related risks, as well as of investment in companies exposed to the type of activity that is reported to be excluded.	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have a fossil fuel exclusion policy?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
C. Has an undefined policy on coal and other fossil fuel investments	Net Zero Asset Managers initiative (NZAM)	Net Zero Asset Managers: Initial Targets / Policy on coal and other fossil fuel investments	This data entry provides an assessment over whether a policy exist that reduces investment in coal and fossil fuels	Value as reported
	Net Zero Donut	Implementation strategy: Policies and conditions - Oil and gas exit policy	Indicates whether the financial institution has an oil and gas exit policy	---
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: Value as reported

			<p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it have policy on coal and other fossil fuel investments?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information</p>	Else: False
D. Policy framework includes undefined exclusion policies	CDP	C-FS3.6_Does the policy framework for your portfolio activities include climate-related requirements for clients/investees, and/or exclusion policies?	<p>Indicates whether the company has some policy on the portfolio inclusion of companies/activities contributing or exposed to climate-related risk.</p> <p>Only the answer "Yes, we have exclusion policies for industries and/or activities exposed or contributing to climate-related risks" is considered to a True value to this indicator.</p>	<p>If any of the value is True: True Else: False</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: Value as reported Else: False</p>
	Powering Past Coal Alliance ³²	Member of PPC Alliance	<p>Business and other non-government members commit to powering their operations without coal. All members commit to supporting clean power generation through their policies (whether public or corporate, as appropriate) and investments, and to restricting financing for unabated coal power generation, ie without carbon capture and storage.</p>	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it have a policy framework including exclusion policies?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
E. Has a phase-out policy	Powering Past Coal Alliance ³³	Phase-out date	<p>Indicates whether the phase-out date specified by the institution is before 2025 or after 2025.</p>	<p>If any of the values =/= "" or True: True Else: False</p>

³² Display this information as: "Has exclusion policy for coal".

³³ Display original information as: "Phase-out date for coal: _____".

	BankTrack ³⁴	Coal: type of target	The NZBA tracker of BankTrack details information regarding banks' decarbonisation targets in four carbon-intensive sectors (Coal, Oil & Gas, Power Generation and Iron & Steel). It also indicates if banks have set decarbonisation targets for other carbon-intensive sectors such as Agriculture, Aluminium, Cement, Commercial & residential real estate and Transport. These two indicators specify whether the bank has a phase-out target for the following investments, respectively: - Coal, - Oil & Gas.	--- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: Value as reported Else: False
		Oil & Gas Type of target		
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have a phase-out policy?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
F. Commits to exclude/phase-out thermal coal	NZAOA	Member of NZAOA	As a signatory of NZAOA, the company commits to adopt the following principles within 12 months of their membership: - Other than coal plants currently under active construction, no further thermal coal power plants should be financed, built, developed or planned. - There should be an immediate cancellation of all new thermal coal projects, including thermal coal plant, coal mines and related infrastructure (i.e. supplying products or services to thermal coal-based projects or business models) that are in pre-construction phase. - There should be a phase-out of all unabated existing coal-fired electricity generation in accordance with 1.5°C pathways, as provided by the IPCC and referenced by the International Energy Agency (IEA) 12 and Powering Past Coal Alliance (PPCA).	If value = True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: Value as reported Else: False

(*) = Information that can be displayed as is in the entity pages.

³⁴ Display this information as: "Has phase-out policy for _____", where the blank is either "Coal" or "Oil & Gas" (or both), depending on the truth value of the two indicators.

Implementation actions: Internal accountability frameworks

Internal accountability frameworks		
<p>The indicator measures to what extent accountability and incentives exist for chief and operations-level staff, as well as whether dedicated climate change responsible person(s) exist in the organization to coordinate climate action. GFANZ Transition Plan has Governance covering roles, responsibility, and remuneration as one of the themes in financial institutions' transition plan. Full response under this indicator is aligned with frameworks such as TCFD,³⁵ best practice recommendations from European Central Bank,³⁶ GFANZ Financial Institution Net-zero Transition Plans,³⁷ NZIF 2.0³⁸ and ACT 4 Finance-Assessing Low-carbon Transition.³⁹</p> <p>Data Sources: CDP, CPI, ESG Book, FinanceMap, Net-Zero Donut, PRB, PRI.</p>		
Assessment approach		
Full response	Dedicated responsible investment staff, and evidence that all organization is accountable for climate change	["A. Has dedicated responsible investment staff" = True] AND ["B. Board is accountable for CC" = True] AND ["C. Chief-level staff is accountable for CC" = True] AND ["D. Business-level staff is accountable for CC" = True]
Partial response	Dedicated responsible investment staff, and evidence	["A. Has dedicated responsible investment staff" = True] AND [{"B. Board is accountable for CC" = True}] OR

³⁵ Governance a) and b). TCFD. 2017. TCFD Recommendation. Available at: <https://www.tcfddhub.org/governance/>

³⁶ "Governance structure should allow for top-down and bottom-up discussions involving all relevant functions, including the business lines."

ECB. 2022. "Good Practice for Climate-related and Environmental Risk Management". Available at:

<https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.thematicreviewcercompendiumgoodpractices112022-b474fb8ed0.en.pdf>

³⁷ Governance- Roles, responsibilities, and remuneration Define roles for the Board or strategy oversight body and senior management ensuring they have ownership, oversight, and responsibility for the net-zero targets. Assign appropriate individuals and teams to all aspects of both design and delivery of the transition plan. Use remuneration incentives for all roles, where possible. Review the transition plan regularly to ensure material updates/developments are incorporated; challenges are reviewed as an opportunity to correct course; and implementation risks are properly managed. GFANZ. 2022. Financial Institution Net-zero Transition Plans. Available at:

<https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

³⁸ Governance and Strategy-Assign implementation responsibility for net zero strategy to the investment committee and implementation oversight to the board. IIGCC. 2024. NZIF 2.0. Available at: https://www.iigcc.org/hubfs/2024%20resources%20uploads/IIGCC_NZIF%202.0_consultation_2024.pdf

³⁹ Management-oversight of climate change issues/capability and climate change management incentives. ACT. 2023. Accessing Low-carbon Transition for Investor. Available at: https://actinitiative.org/wp-content/uploads/documents/act-4-finance_investors_20230112_public_consultation.pdf

	that part of the organization is accountable for climate change	["C. Chief-level staff is accountable for CC" = True] OR ["D. Business-level staff is accountable for CC" = True}}
Initial response	First measures introduced to increase accountability	["A. Has dedicated responsible investment staff" = True] OR ["B. Board is accountable for CC" = True] OR ["C. Chief-level staff is accountable for CC" = True] OR ["D. Business-level staff is accountable for CC" = True]
Planned response	Commits to adopt measures to increase accountability	["E. Commits to integrate sustainability principles in governance" = True]
No action	No evidence of action	No action identified.

Dataset and standardization

Standardized action measured (*)	Source	Name in original dataset	Description	Data analysis
A. Has dedicated responsible investment staff	PRI (2019)	SG_07.5CC_A6_a1_Oversight_Accountability_For_Climate_Related_Issues	Dedicated responsible investment staff in the organisation has oversight/accountability responsibilities for climate-related issues	If any of the values are True: True Else: False
	CPI PFIC 2021	Changes in Business Practices	Description of new business practice - New department or key person or other organizational structure to support climate goals	
	Net Zero Donut	Governance : Roles, responsibilities, and remuneration – Dedicated staff	Indicates the number of people that are dedicated to climate issues within the institution	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Has it dedicated responsible investment staff?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	--- IF Dataset from current year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
B. Board is accountable for CC	PRI (2019)	SG_07.5CC_A1_a1_Oversight_Accountability_For_Climate_Related_Issues	Board members or trustees in the organisation have oversight/accountability responsibilities for climate-related issues	If any of the values are True: True Else: False
		SG_07.6CC_Board_Level_Roles_Climate_Related_Issue_Oversight_Accounta	Provide details on board-level processes for the oversight/accountability and/or implementation responsibilities for climate-related issues	

		bility_Implementation_Responsibilities_Indicate_Responsibilities_Executed		---
	PRI (2021)	ISP 28	Specifies if and how the board or the equivalent function of the company exercises oversight over climate-related risks and opportunities.	IF Dataset from current year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	CDP	C1.1_Is there board-level oversight of climate-related issues within your organization?	Indicates whether the entity has board-level oversight of climate-related issues	
		C1.1a_C1_Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues. - Position of individual(s)	Indicates the position of the individual(s) within the entity's board with responsibility for climate-related issues. If a relevant position is reported (i.e., the value is not "Question not available"), the variable is True, and False otherwise.	
	Net-Zero Donut	Governance: Roles, responsibilities, and remuneration – BoD responsibility	Indicates whether the financial institution's Board of Directors is responsible for the smooth running of the transition plan	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Is its board accountable for climate change?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
C. Chief-level staff is accountable for CC	PRI (2019)	SG_07.5CC_A2_a1_Oversight_Accountability_For_Climate_Related_Issues	Chief Executive Officer (CEO), Chief Investment Officer (CIO), Chief Risk Officer (CRO), Investment Committee in the organisation have oversight/accountability responsibilities for climate-related issues	If any of the values are True: True Else: False
		SG_07.5CC_A3_a1_Oversight_Accountability_For_Climate_Related_Issues	Other chief-level staff or heads of departments in the organisation have oversight/accountability responsibilities for climate-related issues	
	FinanceMap	Governance - Does the organization's management play a role in managing climate-related risks and opportunities?	Does the organization's management play a role in managing climate-related risks and opportunities?	---
	CDP	C1.2_C1_Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues. - Name of the position(s) and/or committee(s)	Indicates whether a staff member with responsibilities over investments has responsibilities on climate-related issues	IF Dataset from current year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	ESG Book	esg_24401 - Environmental supervision	Does the firm have a management level position or committee responsible for environmental issues?	
	Net-Zero Donut	Governance: Roles, responsibilities, and remuneration - Executive remuneration	The indicator specifies whether the compensation of the executive-level staff is linked to the performance of the company in its climate commitments.	

	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Is its chief-level staff accountable for climate change?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
D. Business-level staff is accountable for CC	PRI (2019)	SG_07.5CC_A4_a1_Oversight_Accountability_For_Climate_Related_Issues	Portfolio managers in the organisation have oversight/accountability responsibilities for climate-related issues	<p>If any of the values are True: True Else: False</p> <p>---</p> <p>IF Dataset from current year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
		SG_07.5CC_A5_a1_Oversight_Accountability_For_Climate_Related_Issues	Investment analysts in the organisation have oversight/accountability responsibilities for climate-related issues	
		SG_07.5CC_A6_a1_Oversight_Accountability_For_Climate_Related_Issues	Dedicated responsible investment staff in the organisation has oversight/accountability responsibilities for climate-related issues	
		SG_07.5CC_A7_a1_Oversight_Accountability_For_Climate_Related_Issues	Dedicated investor relations staff in the organisation has oversight/accountability responsibilities for climate-related issues	
		SG_07.5CC_A8_a1_Oversight_Accountability_For_Climate_Related_Issues	External managers or service providers in the organisation have oversight/accountability responsibilities for climate-related issues	
		SG_07.5CC_A9_a	Any other staff in the organisation have oversight/accountability responsibilities for climate-related issues	
PRI (2021)	ISP 29	Specifies what is the role of management in assessing and managing climate-related risks and opportunities within the company. If the role is a positive one (different than "Our management does not have responsibility for assessing and managing climate-related risks and opportunities") the Boolean is true.		
CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Is its business-level staff accountable for climate change?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>		
CDP	C1.3_C1_Do you provide incentives for the management of climate-related issues, including the attainment of targets? - Provide incentives for the management of climate-related issues	Indicates whether the entity provides incentives for the management of climate-related issues, including the attainment of targets		

E. Commits to integrate sustainability principles in governance	Principles for Responsible Banking (PRB)	Member of PRB	Commits to implement these Principles through effective governance and a culture of responsible banking.	If any of the values are True: True Else: False
	CDP	C1.1d_C1_Does your organization have at least one board member with competence on climate-related issues? - Board member(s) have competence on climate-related issues - Plan	Indicates whether the entity plans to have at least one board member who is competent on climate-related issues in the following two years	--- IF Dataset from current year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False

(*) = Information that can be displayed as is in the entity pages.

Implementation actions: Shareholder and client engagement

Shareholder and client engagement

Ownership of shares or debt obligations comes with a certain amount of alleged control or at least with a platform which can be used to convince or help management to decarbonise.⁴⁰ The indicator measures whether the organization commits to engaging shareholders or clients on climate action and whether there is evidence of the organization taking the necessary steps by mandating climate reporting requirements or through active ownership on portfolio companies. Positive engagement activities are measured by evidence of shareholder authority and voting rights, proven impact or engagement on business practices and models, with no evidence of negative actions that oppose the transition. Engagement strategy with stakeholders in support of the net-zero objectives contribute to an effective transitioning plan.

⁴⁰ Täger M., K. Dittrich, J. Kob. "A call for clarity: what is finance's theory of (climate) change?" Blog: The Climate Finance Dispatch. Available at: <https://warwick.ac.uk/fac/soc/wbs/research/ikon/research/climate-finance/blog/#issue8>

Full response under this indicator is aligned with frameworks including GFANZ Financial Institution Net-zero Transition Plans,⁴¹ UN HLEG Recommendation,⁴² ACT Finance,⁴³ NZAM,⁴⁴ PRI Stewardship for Sustainability,⁴⁵ TPT,⁴⁶ NZIF 2.0,⁴⁷ and TCFD.⁴⁸

Data Sources: CDP, Climate Action 100+ , CPI, FinanceMap, Net Zero Donut, NZAM, NZAOA, NZIA, PAII, PRB, PRI, PSI, ShareAction

Assessment approach

Full response	Indications of positive engagement on business practices and transparency, and no negative action	<p>Block 1: there's evidence of positive engagement with stakeholders/clients regarding business practices</p> <p>{{"A. Successfully voted or engaged to drive climate-related behavior in investees" = Positive Action} OR [{"B. Voted or engaged to drive climate-related behavior in investees" = Positive Action}]}</p> <p>AND</p> <p>Block 2: there's no evidence of negative engagement with stakeholders/clients regarding business practices</p> <p>{{"A. Successfully voted or engaged to drive climate-related behavior in investees" != Negative Action AND != Mixed Action} AND [{"B. Voted or engaged to drive climate-related behavior in investees" != Negative Action AND != Mixed Action}]}</p>
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⁴¹ "Engagement strategy - Engagement with clients and portfolio companies: Proactively and constructively provide feedback and support to clients and portfolio companies to encourage net zero-aligned transition strategies, plans, and progress with an escalation framework with consequences when engagement is ineffective." GFANZ, 2022. GFANZ Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁴² "Recommendation 4: Include voting (especially proxy) strategies in line with decarbonisation and escalation policies". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁴³ "Module 7: Investee engagement: The financial institution has an engagement strategy, ideally governed by policy and integrated into financial attribution and climate strategy, to influence, enable, or otherwise shift investee companies' strategy, business model and activities in order to reduce GHG emissions". ACT. 2023. ACT 4 Finance-Assessing Low-carbon Transition. Available at: https://actinitiative.org/wp-content/uploads/documents/act-4-finance_investors_20230112_public_consultation.pdf

⁴⁴ "Commitment 7. Implement a stewardship and engagement strategy, with a clear escalation and voting policy, that is consistent with our ambition for all assets under management to achieve net zero emissions by 2050 or sooner". NAZM. 2020. The Net Zero Asset Managers Commitment. Available at: <https://www.netzeroassetmanagers.org/commitment/>

⁴⁵ "For the Investee stewardship, the advanced level is: Some priority investees have made progress against the milestones communicated by the strategy, and the strategy can demonstrate that it has engaged in stewardship activities to contribute to this progress. For any priority investees that did not meet their milestones, the strategy either used escalation measures within one year of the milestone being missed, or explained why it did not do so". PRI. 2023. PRI Stewardship for Sustainability Evaluation Tool. Available at: <https://www.unpri.org/download?ac=19336>

⁴⁶ "For financial services entities this may include engagement and, where relevant, other stewardship activities, with investee companies". TPT. 2023. TPT Disclosure Framework. Available at: https://transitiontaskforce.net/wp-content/uploads/2023/10/TPT_Disclosure-framework-2023.pdf

⁴⁷ "Engage with existing and potential clients to encourage uptake of net zero investment strategies and products, provide research and analysis to support climate risk assessment and net zero investing ". IIGCC. 2024. NZIF 2.0. Available at: https://www.iigcc.org/hubfs/2024%20resources%20uploads/IIGCC_NZIF%202.0_consultation_2024.pdf

⁴⁸ TCFD suggests that institutions should describe "engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks in order to improve data availability and asset managers' ability to assess climate-related risks". TCFD. "Supplemental Guidance for the Financial Sector." Available at: <https://www.tcfhub.org/Downloads/pdfs/E20%20More%20information%20on%20supplemental%20guidance%20for%20the%20financial%20sector.pdf>

		<p>AND</p> <p>Block 3: there's evidence of positive engagement with stakeholders/clients regarding transparency</p> <p>["C. Engages with investees on transparency requirements" = True]</p>
Partial response	Indications of general positive engagement, and no negative action	<p>Block 1: there's evidence of positive engagement with stakeholders/clients regarding business practices or transparency</p> <p>{["A. Successfully voted or engaged to drive climate-related behavior in investees" = Positive Action] OR ["B. Voted or engaged to drive climate-related behavior in investees" = Positive Action] OR ["C. Engages with investees on transparency requirements" = True]}</p> <p>AND</p> <p>Block 2: there's no evidence of negative engagement with stakeholders/clients</p> <p>{["A. Successfully voted or engaged to drive climate-related behavior in investees" != Negative Action AND != Mixed Action] AND ["B. Voted or engaged to drive climate-related behavior in investees" != Negative Action AND != Mixed Action]}</p>
Initial response	First steps at engaging (including with suppliers), but possible presence of negative engagement, too	<p>["A. Successfully voted or engaged to drive climate-related behavior in investees" = Positive Action OR Mixed Action] OR ["B. Voted or engaged to drive climate-related behavior in investees" = Positive Action OR Mixed Action] OR ["C. Engages with investees on transparency requirements" = True] OR ["D. Engages with other external parties on climate-related issues" = True]</p>
Planned response	Commits to engage	["E. Commits to engage on CC or sustainable practices" = True]
No action	No evidence of action	No action identified

Dataset and standardization

Standardized action measured (*)	Source	Name in original dataset	Description	Data analysis
A. Successfully voted or engaged to drive climate-	FinanceMap	Stewardship – Climate Engagement Impact	Have they driven climate-related behaviour on climate through engagements?	If all the available observed values are Positive Action: Positive Action
			Has their use of shareholder authority been ambitious and forceful in influencing companies to become Paris-Aligned?	

related behavior in investees		Stewardship – Use of Shareholder Authority		Else If both one Positive Action and one Negative Action are observed: Mixed Action Else if all the available observed values are Negative Action: Negative Action
	CPI PFIC 2021	Changes in Business Practices	Description of new business practice adopted by the entity. The value of this variable is taken to be true if the type of change is "Utilize influence as a shareholder to promote climate goals". Additionally, only cases for which the commitment has been achieved are retained.	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Did it successfully vote or engage to drive climate-related behavior in investees?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
B. Voted or engaged to drive climate-related behavior in investees	FinanceMap	Stewardship – Engagement on Paris Aligned Business Models	Are they engaging companies to transition their business models in line with the Paris Agreement?	If all the available observed values are Positive Action: Positive Action Else If both one Positive Action and one Negative Action are observed: Mixed Action Else if all the available observed values are Negative Action: Negative Action
		Stewardship – Resolutions: Climate-Relevant Voting	Have they voted at company AGMs in support of the aims of Paris Agreement?	
	PRI (2019)	SG_13.4CC_C_Inform_Active_Ownership	The organization uses scenario analysis to inform active ownership, to influence companies to adopt sustainable business practices.	
	CDP	C12.1_Do you engage with your value chain on climate-related issues?	Indicates whether the organization engages with its value chain on climate-related issues (Boolean)	
		C-FS12.2_C1_Does your organization exercise voting rights as a shareholder on climate-related issues? - Exercise voting rights as a shareholder on climate-related issues	Indicates whether the company exercises its voting rights as a shareholder on climate-related issues, either directly or indirectly (Boolean)	
		C-FS12.1b_C2_Give details of your climate-related engagement strategy with your clients. - Type of engagement	Indicates how the company tries to influence client behaviour by engaging and incentivizing its customers. The existence of an impact of this engagement, including measures of its success is used as proof of the effective existence of a relevant action.	
		C-FS12.1c_C1_Give details of your climate-related engagement strategy with your investees. - Type of engagement	Indicates whether the company tries to influence investee behaviour by engaging and incentivizing their investee or by innovating the markets in which they operate.	
	C-FS12.2a_C4_Provide details of your shareholder voting record on climate-	Describes the type of climate-related issues that were supported in shareholder resolutions by the reporting institution. Accepted values are: - Aligning public policy position (lobbying)		

		related issues. - Climate-related issues supported in shareholder resolutions	<ul style="list-style-type: none"> - Board oversight of climate-related issues - Climate transition plans - Climate-related disclosures 	
	ShareAction – Voting Matters	Climate category score and vote breakdown - For	ShareAction collects information on the voting on ESG matters by a set of Asset Managers/Owners. This variable takes the value "Positive Action" if the institution under scrutiny voted in favor of at least one climate-related resolution.	
		Climate category score and vote breakdown - Against	ShareAction collects information on the voting on ESG matters by a set of Asset Managers/Owners. This variable takes the value "Negative Action" if the institution under scrutiny voted against at least one climate-related resolution.	
	Net Zero Donut	Engagement strategy: Clients and portfolio companies – Oil and gas exclusion policy	Indicates whether the financial institution systematically asks portfolio companies to cease their oil and gas activities	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Did it vote or engage to drive climate-related behavior in investees?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
C. Engages with investees on transparency requirements	PRI (2021)	ISP 34	Indicates whether the company has TCFD reporting requirements on external investment managers where it has externally managed assets or TCFD reporting requirements on companies.	<p>If any of the values is True: True Else: False</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
	Net-Zero Donut	Engagement strategy: Clients and portfolio companies – Annual engagement report	Indicates whether the company publishes an annual engagement report regarding its target to engage with customers on financed emissions.	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it engage with investees on transparency requirements?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	

D. Engages with other external parties on climate-related issues	CDP	C12.2_Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?	Indicates whether the company's suppliers are required to meet climate-related requirements as part of the purchasing process of the company (Boolean)	If any of the values is True: True Else: False ---
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it engage with other external parties on climate-related issues?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
E. Commits to engage on CC or sustainable practices	PRI (2019)	Member of PRI	As PRI member, commits to be an active owner and to incorporate ESG issues into ownership policies and practices	If any of the values is True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	Climate Action 100+	Participant member of Climate Action 100+	As participant member of CA 100+, commits to engage with the companies they invest in to ensure that they take action to reduce GHG emissions across the value chain, consistent with the Paris Agreement goal of limiting global average temperature increase to well below above pre-industrial levels, aiming for 1.5 degrees. Notably, this implies the need to move towards net-zero emissions by 2050 or sooner.	
	PSI	Member of PSI	As PRI member commits to work together with clients [and business partners] to raise awareness of ESG issues, manage risk and develop solutions.	
	Net Zero Insurance Alliance (NZIA)	Members - Net-Zero Insurance Alliance	As member of Net-Zero Insurance Alliance commits to engaging with clients and potential clients, particularly those with the most GHG-intensive and GHG-emitting activities, on their decarbonisation strategies and net-zero transition pathways."	
	Net Zero Asset Managers initiative (NZAM)	Signatories of The Net Zero Asset Managers initiative	As member to the Net Zero Asset Managers initiative, commits to 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.	
	Paris Aligned Investment Initiative (PAII)	Signatory of the Paris Aligned Investment Initiative	As a signatory of the Paris Aligned Investment Initiative, commits to implementing a stewardship and engagement strategy, with clear voting policy	
	Net-Zero Asset Owner Alliance (NZAOA)	Alliance Member Targets for 2025 / Engagement target	Commits to engage with clients and investee companies	

	PRB	Member of PRB	As member of PRB, commits to work responsibly with clients and customers to encourage sustainable practices and enable economic activities that create shared prosperity for current and future generations.	
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(*) = Information that can be displayed as is in the entity pages.

Implementation actions: Policy engagement

Policy engagement

The indicator describes the commitment to and level of engagement (or lobbying) with government and industry representatives on climate change in a way that encourages, and does not oppose, the transition. This requires regulators and supervisors to approve laws and policies that help align profitability with climate goals and remove barriers to climate-friendly investment.⁴⁹ Positive engagement activities are measured by evidence of engagement with governments or regulator on government reforms, on the adoption of standards and taxonomies, incorporation of climate in investor duties, with no evidence of negative actions that oppose the transition. GFANZ has engagement strategies with industry, government and public sector as one of the themes in financial institutions' transition plan.

Full response under this indicator is aligned with frameworks such as ACT Finance,⁵⁰ UN HLEG Recommendation,⁵¹ GFANZ Financial Institution Net-zero Transition Plans,⁵² TPT,⁵³ and NZIF 2.0.⁵⁴

Data Sources: BEI, CDP, CPI, FinanceMap, IA, Net Zero Donut, NZAM, NZAOA, NZIA, PAII, PRI, PSI, WMB

⁴⁹ Täger M., K. Dittrich, J. Kob. "A call for clarity: what is finance's theory of (climate) change?" Blog: The Climate Finance Dispatch. Available at: <https://warwick.ac.uk/fac/soc/wbs/research/ikon/research/climate-finance/blog/#issue8>

⁵⁰ "Module 8: 8.3: Policy engagement: The financial institution is not opposed to any significant climate relevant policy and/or supports climate-friendly policies. 8.2: The financial institution is not on the Board of, providing funding beyond membership to, or otherwise supporting any associations, alliances, coalitions or thinktanks that have climate-negative activities or positions. 8.4: Collaboration with local authorities is a key instrument by which financial institution can indirectly influence policy on climate in their territory". ACT. 2023. ACT 4 Finance-Assessing Low-carbon Transition. Available at: https://actinitiative.org/wp-content/uploads/documents/act-4-finance_investors_20230112_public_consultation.pdf

⁵¹ "Recommendation 6: Aligning Lobby and Advocacy: Non-state actors must align their external policy and engagement efforts, including membership in trade associations, to the goal of reducing global emissions by at least 50% by 2030 and reaching net zero by 2050. This means lobbying for positive climate action and not lobbying against it". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁵² "Engagement strategy - Direct and indirect lobbying and public-sector engagement should, in a consistent manner, support an orderly transition to net zero, and as appropriate, encourage consistency of clients' and portfolio companies' lobbying and advocacy efforts with the institution's own net-zero objectives". GFANZ, 2022. GFANZ Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁵³ "Engagement with industry/Engagement with government, public sector, communities, and civil society". TPT. 2023. TPT Disclosure Framework. Available at: https://transitiontaskforce.net/wp-content/uploads/2023/10/TPT_Disclosure-framework-2023.pdf

⁵⁴ "Participate in policy advocacy (directly or collectively) to international, national and sub-national policymakers for the economic policies and regulations required to achieve net zero objectives. Participate in regulator-industry initiatives to develop voluntary and mandatory standards of transition plans and other disclosures, such as Paris-aligned accounts". IIGCC. 2024. NZIF 2.0. Available at: https://www.iigcc.org/hubfs/2024%20resources%20uploads/IIGCC_NZIF%202.0_consultation_2024.pdf

Assessment approach		
Full response	Indications of positive engagement on climate change and financial reforms and no negative action	<p><u>Block 1: There is evidence of full support of climate-related policies</u></p> <p>{["A. Directly participates to policy processes for climate/sustainable government reforms and regulation" = Positive action] AND ["C. Positions itself in favor of specific financial regulation, including the use of reporting standards and taxonomies, as well as prudential regulation" = Positive action]}</p> <p>AND</p> <p><u>Block 2: There is no evidence of any negative action</u></p> <p>{["A. Directly participates to policy processes for climate/sustainable government reforms and regulation" =/= Negative action AND =/= Mixed Action] AND ["B. Positions itself in favor of climate/sustainable government reforms and regulation" =/= Negative action AND =/= Mixed Action] AND ["C. Positions itself in favor of specific financial regulation, including the use of reporting standards and taxonomies, as well as prudential regulation" =/= Negative action AND =/= Mixed Action]}</p>
Partial response	Indications of general support and no negative action	<p><u>Block 1: There is evidence of some support of climate-related policies</u></p> <p>{["A. Directly participates to policy processes for climate/sustainable government reforms and regulation" = Positive action] OR ["B. Positions itself in favor of climate/sustainable government reforms and regulation" = Positive action] OR ["C. Positions itself in favor of specific financial regulation, including the use of reporting standards and taxonomies, as well, as well as prudential regulation" = Positive action]}</p> <p>AND</p> <p><u>Block 2: There is no evidence of any negative action</u></p> <p>{["A. Directly participates to policy processes for climate/sustainable government reforms and regulation" =/= Negative action AND =/= Mixed Action] AND ["B. Positions itself in favor of climate/sustainable government reforms and regulation" =/= Negative action AND =/= Mixed Action] AND ["C. Positions itself in favor of specific financial regulation, including the use of reporting standards and taxonomies, as well as prudential regulation" =/= Negative action AND =/= Mixed Action]}</p>
Initial response	First steps at engaging, but possible presence of negative	<p>{["A. Directly participates to policy processes for climate/sustainable government reforms and regulation" = Positive Action OR Mixed Action] OR ["B. Positions itself in favor of climate/sustainable government reforms and regulation" = Positive Action OR Mixed Action] OR</p>

	engagement, too	["C. Positions itself in favor of specific financial regulation, including the use of reporting standards and taxonomies, as well as prudential regulation" = Positive Action OR Mixed Action]
Planned response	Commits to engage	["D. Commits to work with business partners on ESG"= True] OR ["E. Commits to work with governments on ESG"= True] OR ["F. Commits to work with industry on responsible investment"= True] OR ["G. Commits to work with industry on a sustainable economy"= True] OR ["H. Commits to influence climate policy"= True] OR ["I. Commits to work with governments on NZ transition"= True] OR ["J. Commits to work with governments and industry on NZ transition"= True] OR ["K. Commits to conduct engagement activities in line with the goals of the Paris Agreements" = True]
No action	No evidence of action	No action identified.

Dataset and standardization

Standardized action measured (*)	Source	Name in original dataset	Description	Data analysis
A. Directly participates to policy processes for climate/sustainable government reforms and regulation	CDP	C12.3a_C1_On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year? – Focus of policy, law, or regulation that may impact the climate	Indicates the type of policy on which the organization engages directly with policy-makers. A non-missing value is taken as indication that the company directly engages with policy-makers on climate-related issues	If all the available observed values are Positive Action: Positive Action Else If both one Positive Action and one Negative Action are observed: Mixed Action
		C12.3c_C1_Provide details of the funding you provided to other organizations in the reporting year whose activities could influence policy, law, or regulation that may impact the climate. – Type of organization	Indicates the type of organization (trade associations, think tanks, private/public initiatives, etc.) the company funds. A non-missing value is taken as indication that the company directly engages with policy-makers on climate-related issues	Else if all the available observed values are Negative Action: Negative Action ---
	Net Zero Donut	Engagement strategy: Government and public sector – UNFCCC process engagement	Indicates whether the financial institution participates in UNFCCC processes	---
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or	IF information from datasets in the

			<p>Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it directly participate to policy processes for climate/sustainable government reforms and regulation?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	<p>examined year is not available AND IF Value of preceding year = True: True Else: False</p>
B. Positions itself in favor of climate/sustainable government reforms and regulation	FinanceMap	Policy Engagement – Sustainable Taxonomy	Does the organisation support a classification system for what can be considered 'sustainable' investment activities, e.g. the EU's Sustainability Taxonomy?	<p>If all the available observed values are Positive Action: Positive Action</p> <p>Else If both one Positive Action and one Negative Action are observed: Mixed Action</p> <p>Else if all the available observed values are Negative Action: Negative Action</p> <p>---</p> <p>IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False</p>
		Policy Engagement – Labels, standards & Benchmarks	Does the organisation support ESG standards, labels and/or benchmarks for financial products?	
		Policy Engagement – Reforming the Financial Sector	Does the organisation support the need for systemic reforms to deliver a sustainable financial system?	
	CDP	C12.3b_C1_Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate. – Trade association	Indicates the name of the trade association that the company engages with. Any response is taken as indication that the company indirectly engages with policy-makers on climate-related issues	
	PRI (2021)	ISP 23.1	Indicates whether the reporting organization has a method that it, or the external investment managers or service providers acting on its behalf, uses to engage with policymakers for a more sustainable financial system	
CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it position itself in favor of climate/sustainable government reforms and regulation?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>		
C. Positions itself in favor of specific financial regulation, including the use of reporting	FinanceMap	Policy Engagement – Investor Duties	Does the organisation support policy to incorporate ESG factors into investor duties?	<p>If all the available observed values are Positive Action: Positive Action</p>
		Policy Engagement – Prudential Regulation	Does the organisation support policy to incorporate ESG factors into risk management/ prudential regulation?	

standards and taxonomies, as well as prudential regulation		Policy Engagement – Climate Science Stance	Does the organisation support a science-based response to sustainability crises such as climate change for the finance sector (i.e. as specified by IPCC)?	Else If both one Positive Action and one Negative Action are observed: Mixed Action
		Policy Engagement – Need for Sustainable Finance Regulation	Does the organisation support the need for sustainable finance regulation?	
	Net Zero Donut	Engagement strategy: Government and public sector – Regulatory transparency stance	Indicates whether the financial institution is in favour of broadening regulatory transparency demands for financial institutions	Else if all the available observed values are Negative Action: Negative Action --- IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False
		Engagement strategy: Government and public sector – Climate policy stance	Indicates whether the financial institution is not opposed to a significant climate policy and/or supports climate-friendly policies/climate-relevant financial regulations.	
CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it position itself in favor of specific financial regulation, including the use of reporting standards and taxonomies, as well as prudential regulation?' Answers are then manually verified to ensure their relevance and to extract the relevant information.		
D. Commits to work with business partners on ESG	PSI	Member of PSI	As a member of PSI commits to work together with [clients] and business partners to raise awareness of ESG issues, manage risk and develop solutions.	If any values is True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False

E. Commits to work with governments on ESG	PSI	Member of PSI	As a member of PSI, commits to work together with governments, regulators and other key stakeholders to promote widespread action across society on ESG issues.	<p>If value is True: True Else: False</p> <p>---</p> <p>IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False</p>
F. Commits to work with industry on responsible investment	PRI	Member of PRI	As a member of PRI, commits to promote acceptance and implementation of the Principles within the investment industry	<p>If value is True: True Else: False</p> <p>---</p> <p>IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False</p>
G. Commits to work with industry on a sustainable economy	BEI	Member of BEI	As a member of BEI, commits to pioneering actionable pathways towards a sustainable economy. The BEI co-produces horizon scanning applied research, develops leadership tools and convenes academic and industry collaborations.	<p>If value is True: True Else: False</p> <p>---</p> <p>IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False</p>
H. Commits to influence climate policy	WMB	Has committed to... "Responsible Climate Policy"	Commits to Responsible Corporate Engagement in Climate Policy. As such, they have agreed to the followings: 1) set up processes to internally audit all activities that a company takes part in that influences	<p>If value is True: True</p> <p>---</p>

			climate policy, 2) work to ensure that all of this activity is consistent, including influences of trade groups and business associations that represent the company and 3) communicate on actions and outcomes, for example via disclosure to CDP or other public statements.	IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False
I. Commits to work with governments on NZ transition	WMB	Has committed to... "NZ2050"	Commits to advocate for policies for net zero transition. Supporters to the B Team Movement pledge to use their influence to advocate for policies that support an economy-wide transition to net-zero greenhouse gas emissions by 2050.	If value any of the values is True: True Else: False
	IA	Member of the Investor Agenda	Signatories to the Agenda are committed to working with governments to ensure policy mechanisms are developed and implemented to transition to a climate-resilient, net-zero emissions economy by 2050 or sooner, with interim targets in line with credible 1.5°C pathways.	---
	Net Zero Asset Managers initiative (NZAM)	Signatories of The Net Zero Asset Managers initiative	As member to the Net Zero Asset Managers initiative, commits to ensure that direct and indirect policy advocacy we undertake is supportive of achieving global net zero emissions by 2050 or sooner	IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False
	Paris Aligned Investment Initiative (PAII)	Signatory of the Paris Aligned Investment Initiative	As a signatory of the Paris Aligned Investment Initiative, commits to policy advocacy to support net zero emissions	---
J. Commits to work with governments and industry on NZ transition	Net Zero Insurance Alliance (NZIA)	Members - Net-Zero Insurance Alliance	As member of Net-Zero Insurance Alliance commits to 1) supporting the implementation of global policy frameworks relevant to the net-zero transition and the insurance industry, 2) engaging with governments for science-based just transition, 3) engaging with insurance associations, insurance and financial regulators and supervisors, governments, trade bodies, policymakers, the UN and other intergovernmental organisations to promote the goals of the NZIA, and to seek consistency of regulatory, supervisory and governmental policy frameworks with the net-zero transition"	If value any of the values is True: True Else: False ---
	NZAOA	Member of NZAOA	As member of NZAOA advocates on, and engages on, corporate and industry action, as well as public policies, for a low-carbon transition of economic sectors in line with science and under consideration of associated social impacts	IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False
K. Commits to conduct engagement activities in line with the goals of the Paris Agreements	CDP	C12.3_C2_Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate? - Does your organization have a public commitment or position statement to conduct your	Does the organization have a public commitment or position statement to conduct its engagement activities in line with the goals of the Paris Agreement?	If value is True: True Else: False ---

		engagement activities in line with the goals of the Paris Agreement?		IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False
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(*) = Information that can be displayed as is in the entity pages.

Implementation actions: Climate risk strategy

Climate risk strategy

The indicator is based on pillar two of TCFD's framework, about assessment of the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material. The net-zero transition planning will be informed by financial institutions' efforts to identify climate-related risks and opportunities.⁵⁵

The full response of this indicator is aligned with frameworks and literatures such as TCFD,⁵⁶ GFANZ Financial Institution Net-zero Transition Plans,⁵⁷ UN HLEG Recommendation,⁵⁸ ISSB,⁵⁹ NZIF 2.0,⁶⁰ WEF,⁶¹ and S&P Global Corporate Sustainability Assessment.⁶²

Data Sources: CAFI, CDP, CPI, FinanceMap, PRI, TCFD

⁵⁵ GFANZ, 2022. GFANZ Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁵⁶ "Strategy: Organizations should describe how resilient their strategies are to climate-related risks and opportunities, taking into consideration a transition to a low-carbon economy consistent with a 2°C or lower scenario and, where relevant to the organization, scenarios consistent with increased physical climate-related risks". TCFD. 2022. TCFD Recommendation for Financial Sector. Available at: <https://www.tcfddhub.org/strategy/>

⁵⁷ GFANZ suggest that FI's transition plans should be in line with credible transition scenarios or pathways. GFANZ, 2022. GFANZ Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁵⁸ "Reference credible sector pathways consistent with limiting warming to 1.5°C with no or limited overshoot (e.g. IPCC, IEA, Network for Greening the Financial System (NGFS), One Earth Climate Model (OECM)) and explain any material difference between the non-state actor's transition plan and sector pathways". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁵⁹ "The objective of climate-related financial disclosures on risk management is to enable users of general purpose financial reports to understand an entity's processes to identify, assess, prioritise and monitor climate-related risks and opportunities, including whether and how those processes are integrated into and inform the entity's overall risk management process". ISSB. 2023. IFRS S2. Available at: <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards-issb/english/2023/issued/part-a/issb-2023-a-ifrs-s2-climate-related-disclosures.pdf?bypass=on>

⁶⁰ "Integrate climate considerations into the process for selecting a portfolio/ fund custodian". IIGCC. 2024. NZIF 2.0. Available at: https://www.iigcc.org/hubfs/2024%20resources%20uploads/IIGCC_NZIF%202.0_consultation_2024.pdf

⁶¹ "Integrating risk and opportunity into business process: company risk factor disclosures should clearly identify the principal risks facing the company specifically (as opposed to generic sector risks), the Board appetite in respect of these risks, how these risks have moved over time and the response to those changes". World Economic Forum. 2020. Toward Common Metrics and Consistent Reporting of Sustainable Value Creation. Available at: https://www3.weforum.org/docs/WEF_IBC_ESG_Metrics_Discussion_Paper.pdf

⁶² In S&P Global Corporate Sustainability Assessment, under climate strategy, organizations should assess financial risk and opportunities arising from climate change, climate-related scenario analysis and physical climate risk adaptation. S&P. 2023. S&P CSA Handbook - Global Corporate Sustainability Assessment. Available at: <https://www.spglobal.com/esg/csa/methodology/>

Assessment approach		
Full response	Assesses climate risks and scenarios and incorporates them in strategy, using various timeframes and reputable climate scenarios	<p><u>Block 1: climate risk, opportunities and scenarios are all integrated in the organization's strategy</u></p> <p>{{"A. Considers the impact of climate risks and opportunities in strategy, or financial planning" = True} AND ["B. Uses climate scenarios to inform strategy" = True]}</p> <p>AND</p> <p><u>Block 2: assessment of risks and scenarios is transparent and reliable</u></p> <p>{{"C. Assesses climate-risks and opportunities for different time horizons" = True} AND ["D. Provides temperature trajectories for the scenarios examined" = True] AND ["E. Uses reputable Energy Transition scenarios" = True] AND ["F. Uses reputable Physical climate risk scenarios" = True]}</p>
Partial response	Assesses climate in strategy, with some degree of transparency on the use of scenarios	<p><u>Block 1: the organization's strategy integrates climate considerations</u></p> <p>{{"A. Considers the impact of climate risks and opportunities in strategy, or financial planning" = True} OR ["B. Uses climate scenarios to inform strategy" = True]}</p> <p>AND</p> <p><u>Block 2: organization provides some degree of transparency on the use of scenarios</u></p> <p>{{"C. Assesses climate-risks and opportunities for different time horizons" = True} OR ["D. Provides temperature trajectories for the scenarios examined" = True] OR ["E. Uses reputable Energy Transition scenarios" = True] OR ["F. Uses reputable Physical climate risk scenarios" = True]}</p>
Initial response	First steps at developing a climate risk strategy	<p>["A. Considers the impact of climate risks and opportunities in strategy, or financial planning" = True] OR ["B. Uses climate scenarios to inform strategy" = True] OR ["C. Assesses climate-risks and opportunities for different time horizons" = True] OR ["D. Provides temperature trajectories for the scenarios examined" = True] OR ["E. Uses reputable Energy Transition scenarios" = True] OR ["F. Uses reputable Physical climate risk scenarios" = True]</p>

Planned response	Commits to adopt a climate risk strategy	["G. Commits to assess climate risk" = True]
No action	No evidence of action	No action identified

Dataset and standardization

Standardized action measured (*)	Source	Name in original dataset	Description	Data analysis
A. Considers the impact of climate risks and opportunities in strategy or financial planning.	FinanceMap	Governance - Does the organization consider climate-related risks and opportunities in business, strategy and financial planning?	Does the organization consider climate-related risks and opportunities in business, strategy and financial planning? Question is based on TCFD's framework for Climate Risk Strategy. If no evidence of negative actions and some evidence of positive actions is found, this indicator is treated as True.	<p>If any of the values are True: True Else: False</p> <p style="text-align: center;">---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
	PRI (2019)	SG_01.6CC_Indicate_Whether_Organisation_Identified_Transition_Physical_Climate_Related_Risks_Opportunities_Factored_Investment_Strategies_Products_Within_Organisation_Investment_Time_Horizon	Identified transition and physical climate-related risks and opportunities and factored them into the investment strategies and products, within the organization's investment time horizon.	
		SG_13.6CC_Indicate_Whether_Organisation_Evaluated_Potential_Impact_Climate_Related_Risks_Beyond_Investment_Time_Horizon_Investment_Strategy	Evaluated the potential impact of climate-related risks, beyond the investment time horizon, on its investment strategy.	
	CDP	C2.3_Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?	Has the entity identified any climate-related risks with potential to have substantive financial or strategic impact	
		C2.4_Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?	Has the entity identified any climate-related opportunities with potential to have substantive financial or strategic impact	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it consider the impact of climate risks and opportunities in strategy or financial planning?'	

			Answers are then manually verified to ensure their relevance and to extract the relevant information.	
B. Uses climate scenarios to inform strategy	FinanceMap	Governance - Does the organization test the resilience of its business strategy using different climate-related scenarios?	Does the organization test the resilience of its business strategy using different climate-related scenarios? Question is based on TCFD's framework for Climate Risk Strategy. If no evidence of negative actions and some evidence of positive actions is found, this indicator is treated as True.	If any of the values are True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	PRI (2019)	SG_13.1_A_Yes_Order_Assess_Future_Esg_Factors	The indicator indicates whether the organisation carries out scenario analysis and/or modelling in order to assess future ESG factors	
		SG_13.4CC_A_Initial_Assessment	the indicator describes whether the organisation is using scenario analysis for initial assessment	
		SG_13.1_B_Yes_Order_Assess_Future_Climate_Related_Risks_Opportunities	The indicator indicates whether the organisation carries out scenario analysis and/or modelling in order to assess future climate-related risks and opportunities	
		SG_13.5CC_A_Board_Members_Trustees_C_Level_Roles_Investment_Committee	Indicates whether Board members, trustees, C-level roles, Investment Committee use scenario analysis	
	PRI (2021)	ISP 33	The indicator specifies whether the organisation use scenario analysis to assess climate-related investment risks and opportunities.	
	CDP	C3.2_C1_Does your organization use climate-related scenario analysis to inform its strategy? - Use of climate-related scenario analysis to inform strategy	Indicates whether the company makes use of climate-related scenario analysis to inform strategy	
C3.2a_C1_Provide details of your organization's use of climate-related scenario analysis. - Climate-related scenario_G		Indicates the type of climate-related scenario used by the company to inform its investment strategy ("Transition scenario" or "Physical climate scenario").		
CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it use climate scenarios to inform strategy?' Answers are then manually verified to ensure their relevance and to extract the relevant information.		
C. Assesses climate-risks and opportunities for different time horizons	FinanceMap	Governance - Does the organization consider climate-related risks and opportunities over the different time horizons?	Does the organization consider climate-related risks and opportunities over the different time horizons?	If any of the values are True: True Else: False

			Question is based on TCFD's framework for Climate Risk Strategy. If no evidence of negative actions and some evidence of positive actions is found, this indicator is treated as True.	---
	PRI (2019)	SG_01.7CC_Indicate_Whether_Organisation_Assessed_Likelihood_Impact_Climate_Risks	<p>The indicator indicates whether the organisation has assessed the likelihood and impact of climate risks.</p> <p>It allows to identify the time horizons linked to the climate-related risks and opportunities that the organisation has identified, as well as timescale relevant for each of the risks and opportunities identified by the organisation and details on how the organisation assessed and determined the impact and likelihood of these risks.</p>	<p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
	PRI (2021)	ISP 30	<p>The indicator describes which climate-related risks and opportunities the organization has identified within its investment time horizon(s).</p> <p>Options include: Specific financial risks in different asset classes, Specific sectors and/or assets that are at risk of being stranded, Assets with exposure to direct physical climate risk, Assets with exposure to indirect physical climate risk, Specific sectors and/or assets that are likely to benefit under a range of climate scenarios, Specific sectors and/or assets that contribute significantly to achieving our climate goals, Other climate-related risks and opportunities identified.</p>	
		ISP 31	<p>The indicator describes which climate-related risks and opportunities the organization has identified beyond its investment time horizon(s).</p> <p>Options include: Specific financial risks in different asset classes, Specific sectors and/or assets that are at risk of being stranded, Assets with exposure to direct physical climate risk, Assets with exposure to indirect physical climate risk, Specific sectors and/or assets that are likely to benefit under a range of climate scenarios, Specific sectors and/or assets that contribute significantly to achieving our climate goals, Other climate-related risks and opportunities identified.</p>	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it assess climate-risks and opportunities for different time horizons?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
D. Provides temperature	PRI (2019)	SG_13.7CC_A_Analysis_Based_2_C_Lower_Scenario	Indicates if climate scenario used is based on 2C or lower scenario.	If any of the values are True:

trajectories for the scenarios examined		SG_13.7CC_B_Analysis_Based_Abrupt_Transition_Consistent_Inevitable_Policy_Response	Indicates if climate scenario used is based on Inevitable Policy Response "disorderly" scenario.	True Else: False ---
		SG_13.7CC_C_Analysis_Based_4_C_Higher_Scenario	Indicates if climate scenario used is based on 4C or higher scenario.	
	CDP	C3.2a_C3_Provide details of your organization's use of climate-related scenario analysis. - Temperature alignment of scenario	Indicates the temperature alignment used for each of the scenarios used by the company.	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it provide temperature trajectories for the scenarios examined?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
E. Uses reputable Energy Transition scenarios	PRI (2019)	SG_13.8CC_B1_a_Beyond_2_Degrees_Scenario_B2Ds	Indicates whether the organisation uses Energy Transition scenarios, specifically the Beyond 2 Degrees Scenario (B2DS)	If any of the values are True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
		SG_13.8CC_C1_a_Energy_Technology_Perspectives_Etp_2_Degrees_Scenario	Indicates whether the organisation uses Energy Transition scenarios, specifically the Energy Technology Perspectives (ETP) 2 Degrees scenario	
		SG_13.8CC_D1_a_Sustainable_Development_Scenario_Sds	Indicates whether the organisation uses Energy Transition scenarios, specifically the Sustainable Development Scenario (SDS)	
		SG_13.8CC_E1_a_New_Policy_Scenario_Nps	Indicates whether the organisation uses Energy Transition scenarios, specifically the New Policy Scenario (NPS)	
		SG_13.8CC_F1_a_Current_Policy_Scenario_Cps	Indicates whether the organisation uses Energy Transition scenarios, specifically the Current Policy Scenario (CPS)	
		SG_13.8CC_G1_a_Re_Map	Indicates whether the organisation uses Energy Transition scenarios, specifically the RE Map	
		SG_13.8CC_H1_a_Advanced_Energy_R_Evolution	Indicates whether the organisation uses Energy Transition scenarios, specifically the Advanced Energy [R]evolution	
		SG_13.8CC_I1_a_Deep_Decarbonisation_Pathway_Project_Ddpp	Indicates whether the organisation uses Energy Transition scenarios, specifically the Deep Decarbonisation Pathway Project (DDPP)	
	SG_13.8CC_J1_a_Bnef_Reference_Scenario	Indicates whether the organisation uses Energy Transition scenarios, specifically the BNEF reference scenario		
CDP	C3.2a_C1_Provide details of your organization's use of climate-related	Indicates the type of climate-related scenario used by the company to inform its investment strategy ("Transition scenario" or "Physical climate scenario"). The original value is transformed into a Boolean which is True		

		scenario analysis. - Climate-related scenario_G - Transition scenario	if and only if the scenario reported is a Transition scenario and if the model used is not a customized/bespoke one but rather a reputable one such as B2DS, NZE 2050, NGFS, etc.	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it use reputable Energy Transition scenarios for its climate risk strategy?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
F. Uses reputable Physical climate risk scenarios	PRI (2019)	SG_13.8CC_K1_a_Representative_Concentration_Pathway_Rcp_8_5	Indicates whether the organisation uses Physical climate scenarios from the IPCC Representative Concentration Pathways - RPC 8.5	If any of the values are True: True Else: False
		SG_13.8CC_L1_a_Rpc_6	Indicates whether the organisation uses Physical climate scenarios from the IPCC, and IPCC Representative Concentration Pathways (RCP). Specifically, if this scenario assumes RPC 6	
		SG_13.8CC_M1_a_Rpc_4_5	Indicates whether the organisation uses Physical climate scenarios from the IPCC, and IPCC Representative Concentration Pathways (RCP). Specifically, if this scenario assumes RPC 4.5	
		SG_13.8CC_N1_a_Rpc_2_6	Indicates whether the organisation uses Physical climate scenarios from the IPCC, and IPCC Representative Concentration Pathways (RCP). Specifically, if this scenario assumes RPC 2.6	
	CDP	C3.2a_C1_Provide details of your organization's use of climate-related scenario analysis. - Climate-related scenario	Indicates the type of climate-related scenario used by the company to inform its investment strategy ("Transition scenario" or "Physical climate scenario"). The original value is transformed into a Boolean which is True if and only if the scenario reported is a Physical climate scenario and if the model used is not a customized/bespoke one but rather an RPC one.	---
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it use reputable Physical climate risk scenarios for its climate risk strategy?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False

G. Commits to assess climate risks	TCFD	Supporters of the Task Force on Climate-Related Financial Disclosures (TCFD)	List of organizations that support and commit to implement recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)	If any of the values are True: True Else: False ---
	CAFI	Member of Climate Action in Financial Institutions (CAFI)	As member of CAFI, supports Assessment and Management of Climate Risk	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False

(*) = Information that can be displayed as is in the entity pages.

Annex

The TCFD recommendations mapped against the PRI Reporting Framework

TCFD RECOMMENDATION	MAPPING OF TCFD RECOMMENDATIONS TO PRI CLIMATE INDICATORS (PRIMARY)	OTHER RELEVANT PRI INDICATORS
Governance		
a) Describe the board's oversight of climate-related risks and opportunities.	SG 07.6 CC	SG 01.9 CC SG 07.5 CC

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b) Describe management's role in assessing and managing climate-related risks and opportunities.	SG 07.7 CC	SG 07.5 CC
Strategy		
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	SG 01.6 CC	SG 01.7 CC SG 01.8 CC SG 13.6 CC
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	SG 13.4 CC	SG 13.1 CC SG 13.5 CC SG 13.7 CC SG 13.8 CC
Risk Management		
a) Describe the organisation's processes for identifying and assessing climate-related risks.	SG 14.8 CC	
b) Describe the organisation's processes for managing climate-related risks.	SG 14.8 CC	
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	SG 14.8 CC	SG 13.9 CC
Metrics and Targets		
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	SG 14.6 CC	SG 14.1 SG 14.3
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	SG 14.6 CC	SG 14.3
c) Describe the targets used by the organisation to manage climate-related risks and opportunities, and the performance against the targets.	SG 14.6 CC	SG 14.7 CC SG 14.3

Figure 4

Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
<p>Disclose the organization's governance around climate-related risks and opportunities.</p>	<p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.</p>	<p>Disclose how the organization identifies, assesses, and manages climate-related risks.</p>	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>
<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>
<p>a) Describe the board's oversight of climate-related risks and opportunities.</p>	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p>	<p>a) Describe the organization's processes for identifying and assessing climate-related risks.</p>	<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</p>
<p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<p>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</p>	<p>b) Describe the organization's processes for managing climate-related risks.</p>	<p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p>
	<p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>	<p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p>	<p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>

Implementation actions: Climate risk management

Climate risk management		
<p>The indicator is based on pillar three of TCFD's framework, about disclosure of how the organization identifies, assesses, and manages climate-related risks, in short: the organization's internal climate risk due diligence and related procedures. In terms of the relationship between risk and transition planning, risk management practices will help financial institutions identify the need for transition plans and help achieve net-zero goals.⁶³ The full response under this indicator is aligned with frameworks such as ACT Finance,⁶⁴ GFANZ Financial Institution Net-zero Transition Plans,⁶⁵ PRI,⁶⁶ TCFD,⁶⁷ and ISSB.⁶⁸</p> <p>Data Sources: CAFI, CDP, CPI, CPLC, GCAP, ESG Book, FinanceMap, Net Zero Donut, PRI, TCFD, WMB.</p>		
Assessment approach		
Full response	Evaluates and manages climate-related risks, comprehensively using	<p>Block 1: existence of processes for the assessment and management of climate risk</p> <p>{["A. Has a process to assess climate risk" = True AND "B. Has a process to manage climate risk" = True] OR ["C. Has a process to assess and manage climate risk" = True] OR ["D. Integrates climate into overall risk management" = True]}</p>

⁶³ GFANZ, 2022. GFANZ Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁶⁴ "5.5: Risk Management: The financial institution should fully considering climate as a systemic risk. As a result, integrating climate in its own risk management process, informing its global strategy, and impacting its financing conditions". ACT. 2023. ACT 4 Finance-Assessing Low-carbon Transition . Available at: https://actinitiative.org/wp-content/uploads/documents/act-4-finance_investors_20230112_public_consultation.pdf

⁶⁵ "Climate-related risk management focuses on the integration of climate-related financial risks into risk governance, processes, and strategies". GFANZ, 2022. GFANZ Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁶⁶ "Investors must consider climate risk at the portfolio, sector, asset class, and individual security level, while also integrating climate issues into a broader risk assessment process". PRI, 2022. Climate risk: An investor resource guide. Available at: <https://www.unpri.org/climate-change/climate-risk-an-investor-resource-guide/9329.article>

⁶⁷ "Risk and Management: A) Describe the organization's processes for identifying and assessing climate-related risks. B) Describe the organization's processes for managing climate-related risks. C) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management. TCFD. 2017. TCFD Recommendation. Available at: <https://www.tcfhub.org/risk-management/>

⁶⁸ "The objective of climate-related financial disclosures on risk management is to enable users of general purpose financial reports to understand an entity's processes to identify, assess, prioritise and monitor climate-related risks and opportunities, including whether and how those processes are integrated into and inform the entity's overall risk management process". ISSB. 2023. IFRS S2. Available at: <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards-issb/english/2023/issued/part-a/issb-2023-a-ifrs-s2-climate-related-disclosures.pdf?bypass-on>

	appropriate tools	<p>AND</p> <p><u>Block 2: comprehensive use of appropriate tools for management of risks</u></p> <p>{["E. Uses tools to manage climate-related risks" = True] AND ["F. Coverage in the use of tools" = "All assets"]}</p>
Partial response	Evaluates and manages climate-related risks with the support of tools	<p><u>Block 1: existence of processes for the assessment and management of climate risk</u></p> <p>{["A. Has a process to assess climate risk" = True AND "B. Has a process to manage climate risk" = True] OR ["C. Has a process to assess and manage climate risk" = True] OR ["D. Integrates climate into overall risk management" = True]}</p> <p>AND</p> <p><u>Block 2: use of tools for management of risks</u></p> <p>{["E. Uses tools to manage climate-related risks" = True OR "F. Coverage in the use of tools" != ""]}</p>
Initial response	First steps at managing climate risk	<p>["A. Has a process to assess climate risk" = True] OR ["B. Has a process to manage climate risk" = True] OR ["C. Has a process to assess and manage climate risk" = True] OR ["D. Integrates climate into overall risk management" = True] OR ["E. Uses tools to manage climate-related risks" = True] OR ["F. Coverage in the use of tools" != ""]</p>
Planned response	Commits to manage climate risk	<p>["G. Commits to manage climate risks" = True] OR ["H. Commits to adopt a carbon price" = True]</p>
No action	No evidence of action	No action identified

Dataset and standardization

Standardized action measured (*)	Source	Name in original dataset	Description	Data analysis
A. Has a process to assess climate risk	FinanceMap	Governance - Does the organization have processes for identifying and assessing climate-related risks?	Does the organization have processes for identifying and assessing climate-related risks? Question is based on TCFD's framework for Climate Risk Management. If no evidence of negative actions and	If any of the values is True: True

			some evidence of positive actions is found, this indicator is treated as True.	Else: False
	CDP	C-FS2.2b_C1_Do you assess your portfolio's exposure to climate-related risks and opportunities? - We assess the portfolio's exposure	Indicates whether entity assesses the portfolio's exposure to climate-related risks and opportunities	--- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have a process to assess climate risk?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
B. Has a process to manage climate risk	FinanceMap	Governance - Does the organization have processes for managing climate-related risks?	Does the organization have processes for managing climate-related risks? Question is based on TCFD's framework for Climate Risk Management. If no evidence of negative actions and some evidence of positive actions is found, this indicator is treated as True.	If any of the value is True: True Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have a process to manage climate risk?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	--- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
C. Has a process to assess and manage climate risk	PRI (2019)	SG_07.7CC_Management_Level_Roles_Assess_Manage_Climate_Related_Issues_Provide_Information_Structure_Processes_Involved	The indicator indicates whether the organisation has provided description for management-level roles that assess and manage climate-related issues and provides further information on the structure and processes involved. Includes management's role in assessing and managing climate-related risks and opportunities.	If any of the values is True: True Else: False
		SG_01.9CC_Indicate_Whether_Organisation_Wide_Strategy_Place_Identify_Manage_Material_Climate_Related_Risks_Opportunities	Has an organization-wide strategy in place to identify and manage material climate-related risks and opportunities.	---

	PRI (2021)	ISP 34	Indicates which risk management processes the organisation has in place to identify and assess climate-related risks. Accepted options are: Internal carbon pricing, Hot spot analysis, Sensitivity analysis, TCFD reporting requirements on external investment managers where the company has externally managed assets, TCFD reporting requirements on companies, Other risk management processes in place (described).	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	CDP	C2.1_Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?	Indicates whether the entity has a process for identifying, assessing, and responding to climate-related risks and opportunities	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it have a process to assess and manage climate risk?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
D. Integrates climate into overall risk management	FinanceMap	Governance - Does the organization integrate its processes for identifying, assessing, and managing climate-related risks into their overall risk management?	Does the organization integrate its processes for identifying, assessing, and managing climate-related risks into their overall risk management? Question is based on TCFD's framework for Climate Risk Management. If no evidence of negative actions and some evidence of positive actions is found, this indicator is treated as True.	If any of the values is True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	PRI (2019)	SG_14.8CC_Indicate_Whether_Climate_Related_Risks_Integrated_Overall_Risk_Management_Explain_Risk_Management_Processes_Used_Identifying_Assessing_Managing_Climate_Related_Risks	Indicate whether climate-related risks are integrated into overall risk management	
	PRI (2021)	ISP 10.1	Specifies whether the organization incorporates physical, transition and regulatory changes related to climate change into calculations for expected risks and returns of asset classes.	
	Net Zero Donut	Implementation strategy: Products and services – Integrates climate risks	Indicates whether the financial institution has integrated climate risks into its global risk management and applied to all its asset classes	
		Implementation strategy: Products and services – Climate risk management	Indicates whether climate risks are an integral part of the financial institution's overall risk management	
CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are:		

			- 'Does it integrate climate into overall risk management?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
E. Uses tools to manage climate-related risks and opportunities	PRI (2019)	SG_13.4CC_B_Incorporation_Into_Investment_Analysis	The indicator describes whether the organisation is using scenario analysis for incorporation in investment analysis	If any of the values is True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND
		SG_14.3_A_Scenario_Analysis	The indicator indicates whether the organisation uses Scenario analysis to manage climate-related risks and opportunities.	
		SG_14.3_B_Disclosures_Emissions_Risks_Clients_Trustees_Management_Beneficiaries	The indicator indicates whether the organisation uses Disclosures on emissions risks of clients/trustees/management/beneficiaries to manage climate-related risks and opportunities.	
		SG_14.3_C_Climate_Related_Targets	The indicator indicates whether the organisation uses Climate-related targets to manage climate-related risks and opportunities.	
		SG_14.3_D_Encouraging_Internal_External_Portfolio_Managers_Monitor_Emissions_Risks	The indicator indicates whether organisation Encourages internal and/or external portfolio managers to monitor emissions risks as a tool to manage climate-related risks and opportunities.	
		SG_14.3_E_Emissions_Risk_Monitoring_Reporting_Formalised_Contracts_Appointing_Managers	The indicator indicates whether in the organization uses Emissions-risk monitoring and reporting formalised into contracts when appointing managers to monitor emissions risks as a tool to manage climate-related risks and opportunities.	
		SG_14.3_F_Weighted_Average_Carbon_Intensity	The indicator indicates whether the organisation uses Weighted average carbon intensity to manage climate-related risks and opportunities. Weighted average carbon intensity being portfolio's exposure to carbon-intensive companies, expressed in tonnes CO ₂ e / \$M revenue. Metric recommended by the FSB Task Force.	
		SG_14.3_G_Carbon_Footprint_Scope_1_2	The indicator indicates whether the organisation uses Carbon footprint (scope 1 and 2) to manage climate-related risks and opportunities.	
		SG_14.3_H_Portfolio_Carbon_Footprint	The indicator indicates whether the organisation uses Portfolio carbon footprint to manage climate-related risks and opportunities. (Portfolio Carbon Footprint being the Total carbon emissions of a portfolio, normalised by the market value of the portfolio, expressed in tonnes CO ₂ e / \$M invested.	
		SG_14.3_I_Total_Carbon_Emissions	The indicator indicates whether the organisation uses Total carbon emissions to manage climate-related risks and opportunities. Total Carbon Emissions being The absolute greenhouse gas emissions associated with a portfolio, expressed in tonnes CO ₂ e .	
SG_14.3_J_Carbon_Intensity	The indicator indicates whether the organisation uses Carbon intensity to manage climate-related risks and opportunities. Carbon Intensity being the Volume of carbon emissions per million dollars of revenue (carbon efficiency of a portfolio), expressed in tonnes CO ₂ e / \$M revenue.			
SG_14.3_K_Exposure_To_Carbon_Related_Assets	The indicator indicates whether the organisation uses Exposure to carbon-related assets to manage climate-related risks and opportunities. Exposure to Carbon-Related Assets being The amount or			

			percentage of carbon-related assets in the portfolio, expressed in \$M or as a percentage of the current portfolio value.	IF Value of preceding year = True: True Else: False
PRI (2021)	ISP 38.1 - Metrics		The indicator provides details about the metric(s) identified for transition risk monitoring and management by the organisation. Tracked metrics are: Total carbon emissions, Carbon footprint, Carbon intensity, Weighted average carbon intensity, Implied temperature warming, Percentage of assets aligned with the EU taxonomy (or similar taxonomy), Avoided emissions metrics (real assets).	
	ISP 39.1 - Metrics		The indicator provides details about the metric(s) identified for physical risk monitoring and management by the organisation. Tracked metrics are: Weather-related operational losses for real assets or the insurance business unit, Proportion of our property, infrastructure or other alternative asset portfolios in an area subject to flooding, heat stress or water stress, Other metrics.	
	ISP 34		Indicates which risk management processes the organisation has in place to identify and assess climate-related risks. Accepted options are: Internal carbon pricing, Hot spot analysis, Sensitivity analysis, TCFD reporting requirements on external investment managers where the company has externally managed assets, TCFD reporting requirements on companies, Other risk management processes in place (described).	
Net Zero Donut	Engagement strategy : Clients and portfolio companies – Low-carbon economy tools development		Indicates whether the financial institution is actively developing internal tools and implementing policies to foster financing for the low-carbon economy. It demonstrates the application of tools and policies through its investments. The innovative tools are used in key strategic sectors (high-emitting or green) and allow the financial institution to increase its contribution to financing the low-carbon economy.	
	Foundations : Objectives and priorities - What is the reference temperature of the decarbonization scenario used by the financial institution		Specifies the reference temperature of the decarbonization scenario used by the reporting financial institution	
CDP	C-FS2.2d_C1_Does your organization consider climate-related information about your clients/investees as part of your due diligence and/or risk assessment process? - We consider climate-related information		Indicates whether the company considers climate-related information about its clients/investees as part of the due diligence and/or risk assessment processes	
	C-FS3.7_C1_Does your organization include climate-related requirements in your selection process and engagement with external asset managers? - Climate-related requirements included in selection process and engagement with external asset managers		Indicates whether climate-related requirements are included in the selection process and engagement with external asset managers	

		C-FS3.8_C1_Does your organization include covenants in financing agreements to reflect and enforce your climate-related policies? - Climate-related covenants in financing agreements	Indicates whether the organization includes covenants in financing agreements to reflect and enforce its climate-related policies	
		C3.5_C1_In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition? - Identification of spending/revenue that is aligned with your organization's climate transition	Indicates whether the organization identifies any spending/revenue that is aligned with the organization's climate transition. Alignment can be with respect to: - Climate transition plan, or - Sustainable finance taxonomy.	
	GCAP (*)	Action Undertaken / Financial Actions / "Carbon Price Established"	GCAP tracks climate-related actions from companies and investors. These include whether and when an internal carbon price has been established	
	CDP (*) ⁶⁹	Putting a price on carbon 2017 / "Companies currently using an internal price on carbon"	CDP's 2017 report " Putting a price on carbon ", provides list of companies using internal price on carbon as well as the actual carbon price adopted.	
		C11.3_Does your organization use an internal price on carbon?	Indicates whether the organization uses an internal carbon price. Carbon prices can be used for: - Managing climate-related risks, - Identifying climate-related opportunities, - Transitioning to low-carbon, - Changing internal behavior	
		C11.3a_C4_Provide details of how your organization uses an internal price on carbon. - Actual price(s) used (Currency /metric ton)	Carbon price used (Currency /metric ton). Carbon prices can be used for: - Managing climate-related risks, - Identifying climate-related opportunities, - Transitioning to low-carbon, - Changing internal behavior	
	ESG Book(*) ⁷⁰	esg_27011 - Carbon pricing	Does the firm use an internal carbon price?	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.	

⁶⁹ At entity level, disclose actual carbon price.

⁷⁰ At entity level, disclose actual carbon price.

			<p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it use tools to manage climate-related risks and opportunities?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
F. Coverage in the use of tools ⁷¹	PRI (2019)	SG_14.6CC_B1	The indicator indicates whether use of Disclosures on emissions risks to clients/trustees/management/beneficiaries covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	<p>Maximum observed value between: "minority of assets", "majority of assets", "all assets".</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets: use information in preceding year. Else: False</p>
		SG_14.6CC_C1	The indicator indicates whether use of Climate-related targets covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	
		SG_14.6CC_D1	The indicator indicates whether Encouraging internal and/or external portfolio managers to monitor emissions risks to assess climate-related risks and opportunities covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	
		SG_14.6CC_E1	The indicator indicates whether Emissions-risk monitoring and reporting formalised into contracts when appointing managers to monitor emissions risks covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	
		SG_14.6CC_F1	The indicator indicates whether use of Weighted average carbon intensity covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	
		SG_14.6CC_G1	The indicator indicates whether use of Carbon footprint (scope 1 and 2) covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	
		SG_14.6CC_H1	The indicator indicates whether use of Portfolio carbon footprint covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	
		SG_14.6CC_I1	The indicator indicates whether use of Total carbon emissions covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	
	PRI (2021)	ISP 38.1 – Asset coverage	<p>The indicator specifies the asset coverage for the following tracked metrics: Total carbon emissions, Carbon footprint, Carbon intensity, Weighted average carbon intensity, Implied temperature warming, Percentage of assets aligned with the EU taxonomy (or similar taxonomy), Avoided emissions metrics (real assets).</p> <p>The maximum value across these metrics is retained, between "(1) for all of our assets", "(2) for the majority of our assets", and "(3) for a minority of our assets".</p>	
		ISP 39.1 – Asset coverage	The indicator specifies the asset coverage for the following tracked metrics: Weather-related operational losses for real assets or the insurance business unit, Proportion of our property, infrastructure or other	

⁷¹ Depending on analysis outcome of this indicator is: "Use of tools covers all assets of the organization", OR "Use of tools covers a majority of assets of the organization", OR "Use of tools covers a minority of assets of the organization", OR ""

			<p>alternative asset portfolios in an area subject to flooding, heat stress or water stress, Other metrics.</p> <p>The maximum value across these metrics is retained, between "(1) for all of our assets", "(2) for the majority of our assets", and "(3) for a minority of our assets".</p>	
		ISP 10.1 – Asset coverage	<p>The indicator specifies the share of assets for which physical, transition and regulatory changes related to climate change are integrated into calculations for expected risks and returns.</p> <p>The maximum value across these metrics is retained, between "(1) for all of our assets", "(2) for the majority of our assets", and "(3) for a minority of our assets".</p>	
	CDP	C-FS2.2c_C2_Describe how you assess your portfolio's exposure to climate-related risks and opportunities. – Proportion of portfolio covered by risk management process	<p>Reports share of the portfolio that is covered by the risk management process.</p> <p>Multiple lines exist, associated to different portfolios. If all lines report a value of 100%, then we assign the value "All assets" to the entity. If the majority of lines (but not all) report a value of 100%, then the value assigned is "Majority of assets", otherwise the value is "Minority of assets".</p>	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Is the use of tools of the organization covered all assets?' - 'What is the coverage of the organization in the use of tools?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
G. Commits to manage climate risks	TCFD	Supporters of the Task Force on Climate-Related Financial Disclosures (TCFD)	List of organizations that support and commit to implement recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)	If any of the values is True: True Else: False
	CAFI	Member of Climate Action in Financial Institutions (CAFI)	As member of CAFI, supports Assessment and Management of Climate Risk	<p>---</p> <p>IF information from datasets in the examined year is not available after</p>

				considering all datasets AND IF Value of preceding year = True: True Else: False
H. Commits to adopt a carbon price	CPLC	Member of the Carbon Pricing Leadership Coalition (CPLC)	As member of CPLC, demonstrates leadership by committing to set an internal carbon price, as tool to manage climate risks.	If any of the values is True: True Else: False
	WMB	Has committed to... "Carbon pricing"	WMB tracks companies committed to UN Global Compact's Business leadership Criteria on Carbon Pricing and/or committed to World Bank's statement on Putting Price on Carbon (CPLC).	
	CDP	C11.3_Does your organization use an internal price on carbon? - Plan	Indicates whether the organization plans to use an internal carbon price in the next two years	--- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False

(*) = Information that can be displayed as is in the entity pages.

Annex

The TCFD recommendations mapped against the PRI Reporting Framework

TCFD RECOMMENDATION	MAPPING OF TCFD RECOMMENDATIONS TO PRI CLIMATE INDICATORS (PRIMARY)	OTHER RELEVANT PRI INDICATORS
Governance		
a) Describe the board's oversight of climate-related risks and opportunities.	SG 07.6 CC	SG 01.9 CC SG 07.5 CC

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b) Describe management's role in assessing and managing climate-related risks and opportunities.	SG 07.7 CC	SG 07.5 CC
Strategy		
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	SG 01.6 CC	SG 01.7 CC SG 01.8 CC SG 13.6 CC
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	SG 13.4 CC	SG 13.1 CC SG 13.5 CC SG 13.7 CC SG 13.8 CC
Risk Management		
a) Describe the organisation's processes for identifying and assessing climate-related risks.	SG 14.8 CC	
b) Describe the organisation's processes for managing climate-related risks.	SG 14.8 CC	
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	SG 14.8 CC	SG 13.9 CC
Metrics and Targets		
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	SG 14.6 CC	SG 14.1 SG 14.3
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	SG 14.6 CC	SG 14.3
c) Describe the targets used by the organisation to manage climate-related risks and opportunities, and the performance against the targets.	SG 14.6 CC	SG 14.7 CC SG 14.3

Figure 4

Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
<p>Disclose the organization's governance around climate-related risks and opportunities.</p>	<p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.</p>	<p>Disclose how the organization identifies, assesses, and manages climate-related risks.</p>	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>
<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>
<p>a) Describe the board's oversight of climate-related risks and opportunities.</p>	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p>	<p>a) Describe the organization's processes for identifying and assessing climate-related risks.</p>	<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</p>
<p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<p>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</p>	<p>b) Describe the organization's processes for managing climate-related risks.</p>	<p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p>
	<p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>	<p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p>	<p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>

Implementation actions: Disclosure of climate risk

Disclosure of climate risk

The indicator describes whether an organization has committed to the disclosure of climate risks and whether it started disclosures. The main reference for climate risk disclosures is TCFD reporting, from 1st January 2024 replaced by the ISSB framework. The full response of this indicator is aligned with frameworks and literatures such as TCFD,⁷² Bloomberg Law's analysis on ESG tool,⁷³ PRI analysis,⁷⁴ NZIF 2.0,⁷⁵ UN HLEG Recommendation⁷⁶ and ISSB⁷⁷.

Data Sources: Accounting for Sustainability, CDP, Climate Action 100+, CPI, IFRS Sustainability Alliance, NZAM, NZIA, PAAO, PAII, PRI, TCFD.

⁷² Based on TCFD, Which Organizations Should Implement the TCFD Recommendations? To promote more informed investing, lending, and insurance underwriting decisions, the Task Force recommends all organizations with public debt or equity implement its recommendations. Because climate-related issues are relevant for other types of organizations as well, all organizations are encouraged to implement these recommendations. In particular, implementation by asset managers and asset owners, including public- and private-sector pension plans, endowments, and foundations, will help their clients and beneficiaries better understand the performance of their assets, consider the risks of their investments, and make more informed investment choices. TCFD. 2022. Task Force on Climate-related Financial Disclosures. Available at: <https://assets.bbhub.io/company/sites/60/2022/12/tcf-2022-overview-booklet.pdf>

⁷³ Bloomberg compared the current major ESG framework: GRI standards, SASB, UNGC, and TCFD, it shows that TCFD can help organizations prepare more consistent and comparable disclosures of their material, climate related risks and opportunities, and how they manage them. Importantly, the TCFD Recommendations framework were also developed in alignment with other existing reporting frameworks (e.g., CDP, SASB, CDSB, GRI, and IIRC). Therefore, organizations reporting under those frameworks may already have tools that would be useful for the collection and reporting of climate-related information under the TCFD framework. Bloomberg Law. 2022. The Essential ESG Toolkit. Available at: https://assets.bbhub.io/bna/sites/7/2022/07/ESG_General_Report_BLAW_V4.pdf

⁷⁴ In the PRI's paper of a comparative analysis of several coming mainstream climate disclosure rules and standard, including SEC Proposed Rule, IFRS Exposure S1 and S2, and ESRS, the assessment indicates that each draft standard has considerably leveraged the TCFD recommendations and guidance across each pillar, although with varying degrees of alignment. PRI. 2022. Briefing Paper-Draft Climate Disclosure Rules and Standards Comparative Analysis. Available at: <https://www.unpri.org/download?ac=17147>

⁷⁵ "Assess and disclose climate financial risk assessment in line with legal obligations, fiduciary duties, and industry best practice (e.g. TCFD and ISSB)". IIGCC. 2024. NZIF 2.0. Available at: https://www.iigcc.org/hubfs/2024%20resources%20uploads/IIGCC_NZIF%202.0_consultation_2024.pdf

⁷⁶ "Recommendation 10. Accelerating the Road to Regulation - International standards must continue to draw on these norms to lay out broadly agreed ground rules for mass adoption, particularly across borders (e.g. International Sustainability Standards Board (ISSB), ISO), while also drawing on third-party verification to ensure integrity". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁷⁷ From 2024—as the ISSB Standards start being applied around the world—the IFRS Foundation will take over these responsibilities from the TCFD. IFRS. 2023. Available at: <https://www.ifrs.org/sustainability/tcf-2024/>

Assessment approach				
Full response	Publishes TCFD/ISSB disclosures and actively urges external managers and/or service providers to include TCFD principles in their reporting	["A. Publishes TCFD/ISSB disclosures" = True] AND ["B. Requests that external managers and/or service providers incorporate TCFD into reporting" = True]		
Partial response	Publishes TCFD/ISSB disclosures or actively urges external managers and/or service providers to include TCFD principles in their reporting	["A. Publishes TCFD/ISSB disclosures" = True] OR ["B. Requests that external managers and/or service providers incorporate TCFD into reporting" = True]		
Initial response	First steps in disclosing climate risk	N/A		
Planned response	Commits to disclose climate risks	["C. Commits to engage for corporate TCFD disclosures" = True] OR ["D. Commits to TCFD reporting" = True]		
No action	No evidence of action	No action identified		
Dataset and standardization				
Standardized action measured (*)	Source	Name in original dataset	Description	Data analysis
A. Publishes TCFD disclosures	PRI (2019)	SG_1.10CC_A_Public_Pri_Climate_Transparency_Report	Uses Public PRI Climate Transparency Report to publish TCFD disclosures?	If any of the values is True: True Else:
		SG_1.10CC_B_Annual_Financial_Filings	Uses Annual financial filings to publish TCFD disclosures	
		SG_1.10CC_C_Regular_Client_Reporting	Uses Regular client reporting to publish TCFD disclosures	

		SG_1.10CC_D_Member_Communications	Uses Member communications to publish TCFD disclosures	False ---
		SG_1.10CC_E_Other	Uses other means to publish TCFD disclosures	
	CDP	C12.4_C1_Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s). - Publication	Indicates in which publications the organization discloses its response to climate change and GHG emissions performance. Accepted values are: - In mainstream reports, incorporating the TCFD recommendations, - In mainstream reports, in line with the CDSB framework (as amended to incorporate the TCFD recommendations), - Other, please specify: TCFD Report	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Does it publish TCFD disclosures (Task Force on Climate-related Financial Disclosures)?' Answers are then manually verified to ensure their relevance and to extract the relevant information.		
B. Requests that external managers and/or service providers incorporate TCFD into reporting	PRI (2019)	SG_07.8CC_A_Request_External_Managers_Service_Providers_Incorporate_Tcfd_Mainstream_Financial_Filings_Annual_Financial_Reports_Regulatory_Reporting_Similar	Requests that external managers and/or service providers incorporate TCFD into mainstream financial filings (annual financial reports, other regulatory reporting or similar)	If any of the values is True: True Else: False
		SG_07.8CC_B_Request_Incorporation_Tcfd_Regular_Client_Reporting	Requests that external investment managers and/or service providers incorporate TCFD into regular client reporting	
		SG_07.8CC_C_Request_External_Managers_Complete_Pri_Climate_Indicator_Reporting	Requests that external investment managers and/or service providers complete PRI climate indicator reporting	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
		SG_07.8CC_D_Request_Responses_Tcfd_Fund_Manager_Questions_Pri_Asset_Owner_Guide	Requests external investment managers and/or service providers to respond to TCFD Fund Manager questions in the PRI Asset Owner Guide	
	PRI (2021)	ISP 34	Indicates whether the company has TCFD reporting requirements on external investment managers where it has externally managed assets or TCFD reporting requirements on companies.	

	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it request that external managers and/or service providers incorporate TCFD into reporting? This could be external managers and/or service providers incorporate TCFD into mainstream financial filings or regular client reporting, etc.' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
C. Commits to engage for corporate TCFD disclosures	Climate Action 100+	Participant member of Climate Action 100+	As members of Climate Action 100+, commits to engage as investor/shareholder for enhanced corporate disclosure in line with the final recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and, sector-specific Global Investor Coalition on Climate Change (GIC)	<p>If any of the values is True: True Else: False</p> <hr/> <p>If information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
D. Commits to TCFD reporting	TCFD	Supporters of the Task Force on Climate-Related Financial Disclosures (TCFD)	List of organizations that support and commit to implement recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)	<p>If any of the values is True: True Else: False</p> <hr/> <p>If information from datasets in the</p>
	IFRS Sustainability Alliance	Member organisation	<p>The IFRS Sustainability Alliance is a global membership programme for sustainability standards, integrated reporting and integrated thinking.</p> <p>While there are no formal reporting requirements or official time commitments required to be a member of the IFRS Sustainability Alliance, the does seek an intentional and demonstrated commitment</p>	

			to learn and support efforts to build a global baseline of sustainability disclosures for the capital markets join the Alliance.	<p>examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
Accounting For Sustainability	Signatory of Pension Fund Chair Net Zero Statement of Support		By signing the statement of support, organizations affirm their commitment to support the voluntary recommendations of the industry led Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosures (TCFD).	
Paris Aligned Investment Initiative (PAII)	Signatory of the Paris Aligned Investment Initiative		As a signatory of the Paris Aligned Investment Initiative, commits to reporting annually on the strategy and actions implemented and progress towards achieving objectives and targets, and in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.	
Net Zero Asset Managers initiative (NZAM)	Signatories of The Net Zero Asset Managers initiative		As member of the Net Zero Asset Managers initiative, commits to publish TCFD disclosures	
Net Zero Insurance Alliance (NZIA)	Members - Net-Zero Insurance Alliance		As member of Net-Zero Insurance Alliance commits to support the implementation of corporate disclosure frameworks relevant to the net-zero transition and the insurance industry, such as the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD), and considering emerging frameworks such as the Task Force on Nature-related Financial Disclosures (TNFD).	

(*) = Information that can be displayed as is in the entity pages.

Annex

The TCFD recommendations mapped against the PRI Reporting Framework

TCFD RECOMMENDATION	MAPPING OF TCFD RECOMMENDATIONS TO PRI CLIMATE INDICATORS (PRIMARY)	OTHER RELEVANT PRI INDICATORS
Governance		
a) Describe the board's oversight of climate-related risks and opportunities.	SG 07.6 CC	SG 01.9 CC SG 07.5 CC

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b) Describe management's role in assessing and managing climate-related risks and opportunities.	SG 07.7 CC	SG 07.5 CC
Strategy		
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	SG 01.6 CC	SG 01.7 CC SG 01.8 CC SG 13.6 CC
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	SG 13.4 CC	SG 13.1 CC SG 13.5 CC SG 13.7 CC SG 13.8 CC
Risk Management		
a) Describe the organisation's processes for identifying and assessing climate-related risks.	SG 14.8 CC	
b) Describe the organisation's processes for managing climate-related risks.	SG 14.8 CC	
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	SG 14.8 CC	SG 13.9 CC
Metrics and Targets		
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	SG 14.6 CC	SG 14.1 SG 14.3
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	SG 14.6 CC	SG 14.3
c) Describe the targets used by the organisation to manage climate-related risks and opportunities, and the performance against the targets.	SG 14.6 CC	SG 14.7 CC SG 14.3

Figure 4

Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
<p>Disclose the organization's governance around climate-related risks and opportunities.</p>	<p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.</p>	<p>Disclose how the organization identifies, assesses, and manages climate-related risks.</p>	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>
<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>	<p>Recommended Disclosures</p>
<p>a) Describe the board's oversight of climate-related risks and opportunities.</p>	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p>	<p>a) Describe the organization's processes for identifying and assessing climate-related risks.</p>	<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</p>
<p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<p>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</p>	<p>b) Describe the organization's processes for managing climate-related risks.</p>	<p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p>
	<p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>	<p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p>	<p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>

Implementation actions: Disclosure of investment data

Disclosure of investment data

The indicator assesses whether the organization has set up, or plans to set up, internal procedures that allow for the harmonized disclosure of investment in new green projects or high-emissions activities. The transparency of the information of actors' progress (such as investment data) toward net zero is critical to track if they are meeting their net-zero commitments in transition plans.⁷⁸

The full response under this indicator is aligned with frameworks such as CDP,⁷⁹ GFANZ Financial Institution Net-zero Transition Plans,⁸⁰ UN HLEG

Recommendation,⁸¹ ISSB and TCFD.⁸²

Data Sources: CAFI, CDP, CIC, CPI, Net Zero Donut, WRI.

⁷⁸ "Recommendation 8: Currently, much of the information about the transition plans of non-state actors and their progress toward net zero is limited in its availability and depth. This makes it difficult to know if non-state actors are on track to meet their net zero commitments". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁷⁹ (C-FS14.0): For each portfolio activity, FI need to state the value of their financing and insurance of carbon-related assets in the reporting year. CDP. 2023. CDP Climate Change 2023 Questionnaire. Available at: <https://guidance.cdp.net/en/guidance?cid=46&ctype=theme&idtype=ThemeID&incchild=1µsite=0&otype=Questionnaire&tags=TAG-13071%2CTAG-605%2CTAG-599>

⁸⁰ "GFANZ believes financial institutions should be transparent about key elements of their transition plan in a clear, consistent, and comparable way. GFANZ recommends that financial institutions disclose their net-zero transition plans, including interim targets, to stakeholders and disclose progress against their plans with their climate disclosures at least annually". GFANZ, 2022. GFANZ Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁸¹ Recommendation 4: Creating a Transition Plan "Demonstrate alignment to funding and enabling real-world decarbonisation (e.g. green taxonomies)". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁸² "Metrics and Targets for Financial Sector: 1) Bank, insurance company, asset owner and asset manager should describe the extent to which their lending and other financial intermediary business activities, where relevant, are aligned with a well below 2°C scenario 2)bank should also provide the amount and percentage of carbon-related assets relative to total assets as well as the amount of lending and other financing connected with climate-related opportunities". TCFD. 2022. TCFD Recommendation for Financial Sector. Available at: <https://www.tcfhub.org/metrics-and-targets/#:~:text=Banks%20should%20also%20provide%20the,connected%20with%20climate%2Drelated%20opportunities>.

Assessment approach					
Full response	Evidence of reporting system for climate investment data	["A. Reporting system for investment data in place" = True]			
Partial response	N/A	N/A			
Initial response	First steps at disclosing climate investment data	N/A			
Planned response	Commits to disclose climate investment data	["B. Plans to disclose investment data" = True]			
No action	No evidence of action	No action identified			
Dataset and standardization					
Standardized action measured(*)	Source	Name in original dataset	Description	Data analysis	
A. Reporting system for climate investment data is in place	World Resources Institute	2. Includes plans for reporting	The indicator looks at whether an accounting system is in place to measure progress on sustainable finance	If any of the values is True: True Else: False	
	CDP	C3.5_C1_In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition? - Identification of spending/revenue that is aligned with your organization's climate transition	Indicates whether the organization identifies any spending/revenue that is aligned with the organization's climate transition. Alignment can be with respect to: - Climate transition plan, or - Sustainable finance taxonomy.		---
	Net Zero Donut	Implementation strategy : Products and services – Climate Solutions Funding		Indicates how much funding has the financial institution allocated to "climate solutions" in the last fiscal year (specify the type of funding)	IF information from datasets in the examined year is not available after considering all datasets AND
		Implementation strategy : Products and services – Share of Climate Solutions		Indicates the share of "Climate Solutions" Outstanding or Amount of Investment in "Climate Solutions" (includes "Impact")	

		Implementation strategy : Products and services – Climate Solutions Measurement	Measurement of the financial institution's investments in climate solutions (gross investment or share of total investments)	IF Value of preceding year = True: True Else: False
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it have a reporting system for sustainable investment data in place? This means the institution has an accounting system in place to measure progress on sustainable finance'. - <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
B. Plans to disclose climate investment data	Climate Action in Financial Institutions	Member of Climate Action in Financial Institutions (CAFI)	As member of CAFI, supports tracking of green investment, including increases in financing of clean energy, energy efficiency, climate resilience or other climate-related activities and investments (principles 4 and 5).	<p>If any of the values is True: True Else: False</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
	Climate Investment Coalition (CIC)	Member of CIC	The Climate Investment Coalition (CIC) catalyses systemic impact to the economy by mobilising commitments from investors to global climate solution investments made by 2030, and requires every committing member to provide an annual reporting on their commitments, to track the allocation and use of commitments towards 2030.	
	CPI	Primary data extraction	<p>"Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - Does it plan to disclose sustainable investment data? This means the institution is going to disclose climate investment data, but it doesn't have a reporting system in place yet. The investment should be green investment, including increases in financing of clean energy, energy efficiency, climate resilience or other climate-related activities and investments. <p>Answers are then manually verified to ensure their relevance and to extract the relevant information."</p>	

(*) = Information that can be displayed as is in the entity pages.

Implementation actions: Disclosure of emissions data

Disclosure of emissions data

Commitment to and disclosure of emissions, and breadth of disclosure. The indicator measures whether the organization is committing to disclose its emissions, and whether there is evidence that emissions are already been tracked by the organization. Tracking of emissions that covers the full range of activities (scope 1, 2, and 3) is here rated higher. The transparency of the information of actors' progress (such as emissions data) toward net zero is critical to track if they are meeting their net-zero commitments in transition plans.⁸³

The full response under this indicator is aligned with frameworks such as CDP,⁸⁴ UN HLEG Recommendation,⁸⁵ PCAF,⁸⁶ GRI-G4 Financial Sector Disclosure,⁸⁷ GFANZ Financial Institution Net-zero Transition Plans,⁸⁸ NZIF 2.0,⁸⁹ and ISSB.⁹⁰

Data Sources: CAFI, CDP, CPI, ESG Book, FinanceMap, Net Zero Donut, NZBA, NZAOA, PCAF, PRI, WRI.

⁸³ "Recommendation 8: Currently, much of the information about the transition plans of non-state actors and their progress toward net zero is limited in its availability and depth. This makes it difficult to know if non-state actors are on track to meet their net zero commitments". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁸⁴ Portfolio Impact, details of organization's portfolio emissions are required to be disclosed including coverage and amount. CDP. 2023. CDP Climate Change 2023 Questionnaire. Available at: <https://guidance.cdp.net/en/guidance?cid=46&ctype=theme&idtype=ThemeID&incchild=1µsite=0&otype=Questionnaire&tags=TAG-13071%2CTAG-605%2CTAG-599>

⁸⁵ "Recommendation 8: Non-state actors must annually disclose their greenhouse gas data, net zero targets and the plans for, and progress towards, meeting those targets, and other relevant information against their baseline along with comparable data to enable effective tracking of progress toward their net zero targets". UN HLEG. 2022. INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

⁸⁶ "Reporting requirements and recommendations: All financial institutions that commit to using this Financed Emissions Standard shall fulfil certain requirements when disclosing their financed emissions publicly. All financed emissions shall be accounted for in their scope 3 category 15 reporting". PCAF. 2022. Financed Emissions – The Global GHG Accounting & Reporting Standard. Available at: <https://carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf>

⁸⁷ "If the financial institution also produces estimates related to the emissions of the financing portfolio, these figures should be disclosed separately from other data". GRI. 2013. GRI G4 Financial Services Sector Disclosure. Available at: <https://www.globalreporting.org/search/?query=Financial+Services+Sector+Disclosures>

⁸⁸ "GFANZ recommends that all scopes of GHG emissions should be actively managed and disclosed". GFANZ, 2022. GFANZ Financial Institution Net-zero Transition Plans. Available at: <https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf>

⁸⁹ "NZIF recommends the following actions for investors using the framework and considers them essential: Disclose baseline portfolio scope 1 and 2 financed emissions, with portfolio scope 3 emissions disclosed separately". IIGCC. 2024. NZIF 2.0. Available at: https://www.iigcc.org/hubfs/2024%20resources%20uploads/IIGCC_NZIF%202.0_consultation_2024.pdf

⁹⁰ "An entity shall disclose information relevant to the cross-industry metric categories of Scope 1, Scope 2 and Scope 3". ISSB. 2023. IFRS S2. Available at: <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards-issb/english/2023/issued/part-a/issb-2023-a-ifs-s2-climate-related-disclosures.pdf?bypass=on>

Assessment approach				
Full response	All financed emissions or portfolio emissions have been disclosed and verified	Financed emissions or portfolio emissions have been disclosed [{"A. Financed emissions disclosed" = True} OR [{"B. Portfolio Emissions are disclosed" = True}] AND There is evidence that all are covered [{"D. Coverage of portfolio emissions is tracked" = All assets}] AND Emission levels are externally verified [{"H. Disclosed emissions are verified externally" = True}]		
Partial response	Some or unspecified portfolio or financed emissions are tracked or disclosed	[{"C. Portfolio emissions tracked" = True} AND [{"D. Coverage of portfolio emissions tracked" =/= All assets}] OR [{"A. Financed emissions are disclosed" = True} OR [{"B. Portfolio Emissions are disclosed" = True}]		
Initial response	First observable steps taken towards emissions disclosure	[{"E. Scope 1 and/or 2 emissions are disclosed" = True} OR [{"F. Baseline emissions are disclosed" = True} OR [{"G. Unspecified Scope 3 emissions are disclosed" = True} OR [{"H. Disclosed emissions are verified externally" = True} OR [{"I. Some level of emissions is tracked" = True}]		
Planned response	Commits to disclose emissions	["J. Institution commits to track and disclose emissions" = True]		
No action	No evidence of action	No action identified		
Dataset and standardization				
Standardized action measured (*)	Source	Name in original dataset	Description	Data analysis

A. Financed emissions are disclosed	FinanceMap	Governance – Does the organization disclose absolute Scope 1, Scope 2, and relevant Scope 3 greenhouse gas (GHG) emissions, including financed emissions data?	Does the organization disclose absolute Scope 1, Scope 2, and relevant Scope 3 greenhouse gas (GHG) emissions, including financed emissions data? If no evidence of negative actions and some evidence of positive actions is found, this indicator is treated as True.	If any of the value is True: True Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Did it disclose financed emissions? This indicates whether the organization disclose absolute Scope 1, Scope 2, and relevant Scope 3 greenhouse gas (GHG) emissions, including financed emissions data'. Answers are then manually verified to ensure their relevance and to extract the relevant information.	--- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
B. Portfolio Emissions are disclosed	Partnership for Carbon Accounting Financials (PCAF)	Members of PCAF with "Disclosed" status	Emissions disclosed. Entities with disclosed status have reported their financed emissions. The inclusion of these disclosures does not constitute a certification or endorsement by PCAF regarding the level of alignment of a disclosure with the PCAF Standard.	If any of the values is > 0 or True: True Else: False
	ESG Book ⁹¹	em_61800 - Scope 3 (cat 15)	Scope 3 tCO2e emissions – investments	--- IF information from datasets in the examined year is not available after considering all datasets AND
	CDP ¹	C6.5a_C17_Disclose or restate your Scope 3 emissions data for previous years. - Scope 3: Investments (metric tons CO2e)	Scope 3: Investments emissions (metric tons CO2e) as disclosed in the survey	IF Value of preceding year = True: True Else: False

⁹¹ Display the entity value as "Scope 3, Cat. 15 emissions:___ CO2e Tonnes (metric)"

	CDP ⁹²	C-FS14.1a_C1_Provide details of your organization's portfolio emissions in the reporting year. - Portfolio emissions (metric unit tons CO2e) in the reporting year	Portfolio emissions (metric unit tons CO2e) in the reporting year across all different activities of the firm (Banking, Investing, Insurance), when applicable. Value are summed up to obtain a unique value for each of the reporting entities.	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Did it disclose portfolio emissions? This means the portfolio emissions (metric unit tons CO2e) in the reporting year across all different activities of the firm.' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
C. Portfolio emissions are tracked	PRI (2019)	SG_14.3_H_Portfolio_Carbon_Footprint	The indicator indicates whether the organisation uses Portfolio carbon footprint to manage climate-related risks and opportunities. (Portfolio) Carbon Footprint being the Total carbon emissions of a portfolio , normalised by the market value of the portfolio, expressed in tonnes CO2e / \$M invested.	If any of the values is True: True Else: False
		SG_14.3_I_Total_Carbon_Emissions	The indicator indicates whether the organisation uses Total carbon emissions to manage climate-related risks and opportunities. Total Carbon Emissions being the absolute greenhouse gas emissions associated with a portfolio , expressed in tonnes CO2e.	---
	CDP	C-FS14.1_C2_Does your organization measure its portfolio impact on the climate? – Disclosure metric	"Indicates whether the organization measures some level of impact on climate by its portfolio and how this impact is measured. If the metric is ""Portfolio emissions"", we take it as evidence of some tracking of portfolio emissions done by the entity."	IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False

⁹² Display the entity value as "Portfolio emissions: ___ tCO2e (metric)"

	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it have portfolio emissions tracked?' This indicates whether the organisation uses Portfolio carbon footprint or Total carbon emissions to manage climate-related risks and opportunities. (Portfolio) Carbon Footprint being the Total carbon emissions of a portfolio, normalised by the market value of the portfolio, expressed in tonnes CO2e / \$M invested." <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
D. Coverage of portfolio emissions is tracked	PRI (2019)	SG_14.6CC_H1	The indicator indicates whether use of Portfolio carbon footprint covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	Maximum observed value between: "minority of assets", "majority of assets", "all assets". ---
		SG_14.6CC_I1	The indicator indicates whether use of Total carbon emissions covers ("minority of assets" = 1, "majority of assets" = 2, "all assets" = 3)	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it track all assets portfolio emissions? This means the use of Portfolio carbon footprint or total carbon emissions covers, could be all assets'. - 'Does it track part of the portfolio emissions? This means the use of Portfolio carbon footprint or total carbon emissions covers, could be majority of assets or minority of assets'. 	IF information from datasets in the examined year is not available after considering all datasets: use information in preceding year. Else: False

			Answers are then manually verified to ensure their relevance and to extract the relevant information.	
E. Scope 1 and/or 2 emissions are disclosed	ESG Book ⁹³	em_60000 – Scope 1	Scope 1 tCO ₂ e emissions. Emissions are self-reported by the reporting institution via questionnaire.	If ALL values are non-missing: True. --- IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False
	ESG Book ⁹⁴	em_60100 – Scope 2 (location based)	Scope 2 tCO ₂ e emissions calculated using location-based method. Emissions are self-reported by the reporting institution via questionnaire.	
	ESG Book ⁹⁵	em_60200 – Scope 2 (market based)	Scope 2 tCO ₂ e emissions calculated using market-based method. Emissions are self-reported by the reporting institution via questionnaire.	
	CDP	C6.1_C1_What were your organization's gross global Scope 1 emissions in metric tons CO ₂ e? - Gross global Scope 1 emissions (metric tons CO ₂ e)	Gross global Scope 1 emissions (metric tons CO ₂ e). Emissions are self-reported by the reporting institution via questionnaire.	
	CDP ⁴	C6.3_C1_What were your organization's gross global Scope 2 emissions in metric tons CO ₂ e? - Scope 2, location-based	Scope 2, location-based emissions (metric tons CO ₂ e). Emissions are self-reported by the reporting institution via questionnaire.	

⁹³ Display the entity value as: "Scope 1 emissions: __tCO₂e".

⁹⁴ Display the entity value as: "Scope 2 emissions (location based): __tCO₂e".

⁹⁵ Display the entity value as: "Scope 2 emissions (market based): __tCO₂e".

	CDP ⁵	C6.3_C2_What were your organization's gross global Scope 2 emissions in metric tons CO2e? - Scope 2, market-based (if applicable)	Scope 2, market-based emissions (metric tons CO2e). Emissions are self-reported by the reporting institution via questionnaire.	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Did it disclose Scope 1 and/or 2 emissions?' Answers are then manually verified to ensure their relevance and to extract the relevant information..	
F. Baseline emissions are disclosed	CDP ⁶	C5.2_C3_Provide your base year and base year emissions. - Base year emissions (metric tons CO2e)	Total emissions in the base year, expressed in tCO2e	If any of the value is > 0 or True: True Else: False
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'Did it disclose baseline emissions?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	--- IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False

⁶ Display all the entity values disclosed as: "Scope 1 emissions in base year: ___tCO2e", "Scope 2 emissions in base year: ___tCO2e", "Scope 3 emissions in base year (all Scope 3 categories): ___tCO2e", "Scope 3 – Category 15 (Investments) emissions in base year: ___tCO2e".

G. Scope 3 emissions are disclosed	ESG Book ⁹⁷	em_60300 - Scope 3 (total)	Scope 3 tCO2e emissions. Emissions are self-reported by the reporting institution via a questionnaire.	<p>If any of the values is non-missing: True Else: False</p> <p>---</p> <p>IF information from datasets in the examined year is not available AND IF Value of preceding year = True: True Else: False</p>
	CDP ⁵	C6.5_C2_Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions. - Emissions in reporting year (metric tons CO2e)	Scope 3 emissions in reporting year (metric tons CO2e)	
	Net-Zero Donut	Metrics and targets: Metrics and targets - The financial institution publishes its absolute scope 3 emissions	Indicates whether the institution examined publishes its absolute scope 3 emissions.	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Did it disclose Scope 3 emissions?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information."</p>	
H. Disclosed emissions are verified externally	CDP	C10.1_C1_Indicate the verification/assurance status that applies to your reported emissions. - Verification/assurance status	For each emission scope (1 to 3), states whether a third-party verification or assurance process in place. A true value is assigned to this action only when all three scopes are externally validated.	If any of the values is True: True Else: False

⁹⁷ Display the entity value as: "Scope 3 emissions (all Scope 3 categories): ___tCO2e".

	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Did it verify its disclosed emissions externally? This indicates whether a third-party verification or assurance process in place'. <p>Answers are then manually verified to ensure their relevance and to extract the relevant information."</p>	<p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
I. Some level of emissions is tracked	PRI (2019)	SG_14.3_G_Carbon_Footprint_Scope_1_2	The indicator indicates whether the organisation uses Carbon footprint (scope 1 and 2) to manage climate-related risks and opportunities.	<p>If any of the values is True: True Else: False</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False</p>
		SG_14.3_J_Carbon_Intensity	The indicator indicates whether the organisation uses Carbon intensity to manage climate-related risks and opportunities. Carbon Intensity being the Volume of carbon emissions per million dollars of revenue (carbon efficiency of a portfolio), expressed in tonnes CO2e / \$M revenue.	
	ESG Book	esg_26701 - GHG emissions data disclosure	Does the firm disclose quantitative GHG emissions data?	
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'Does it have some level of emissions tracked? This indicates whether the organisation uses Carbon footprint (scope 1 and 2) or Carbon intensity to manage climate-related risks and 	

			opportunities, or disclose some level of quantitative GHG emissions data'. Answers are then manually verified to ensure their relevance and to extract the relevant information."	
J. Commits to track and disclose emissions	Partnership for Carbon Accounting Financials (PCAF)	Members of PCAF	Commitment to disclose emissions. Lists PCAF members (financial institutions i.e. commercial banks, development banks, asset owners/managers, insurance companies, etc.), who have committed and disclosed the greenhouse gas emissions associated with their portfolio of loans and investments.	If any of the values is True: True Else: False --- IF information from datasets in the examined year is not available after considering all datasets AND IF Value of preceding year = True: True Else: False
	Net Zero Banking Alliance (NZBA)	Members - Net Zero Banking Alliance	As a member of the Net Zero Banking Alliance, the bank follows the Principles for Responsible Banking. Further to that it commits to publish absolute emissions and emissions intensity in line with best practice and within a year of setting targets	
	Net-Zero Asset Owner Alliance (NZAOA)	Members of NZAOA	As member of NZAOA, commits to annually and publicly disclose investment portfolios' emissions profile and emissions reductions	
	Climate Action in Financial Institutions (CAFI)	Member of Climate Action in Financial Institutions (CAFI)	As member of CAFI, supports tracking of climate performance, including GHG, and green investment	

(*) = Information that can be displayed as is in the entity pages.

Progress: Real economy impact – Project-level clean energy financing

Real economy impact – Project-level clean energy financing

This indicator measures how entities have directly contributed to funding of new clean energy projects via direct/primary investment. Investment figures are broken down to track USDm investment by **technology** (Biofuel/Biomass, Hydroelectric Energy, Solar Energy, Wind Energy, Waste-to-Energy, Power Grids, Nuclear Energy, Carbon Capture and Storage, Energy Storage, Other Climate Solutions), **capital type** (Debt, Equity, Other/Unknown), **region of destination** (Western Europe, Central Asia & Eastern Europe, US & Canada, Latin America & Caribbean, Middle East & North Africa, Sub-Saharan Africa, South Asia, East Asia & Pacific, Oceania, China, Unknown), and **IPCC country classification** (Developed, Developing, and LDC).

Projects appearing in multiple data sources are removed from the data source containing least information (e.g., on the identity of the financing institution or on the location of the project) and identified via fuzzy-matching of project names.

The final project-level data is also used to calculate project-level investment that has been **indirectly enabled** by financial entities, according to the same splits described above (for more information, refer to the CPI methodology on attribution of indirect financing).

Solution, capital type, and region categories are based on CPI's Global Landscape of Climate Finance taxonomies of low-carbon activities for the power sector.

Note that financing data was retrieved in March 2024; any subsequent update of the datasets by the provider is therefore not reflected.

Data Sources: BNEF, fDi, IJ Global, PPI.

Assessment approach

Direct investment in climate solutions (USDm)	<p>Stacked bar chart displaying*:</p> <p>Sum of ["A. Investment in Biofuel/Biomass solutions (USDm)"] + Sum of ["B. Investment in Hydroelectric energy solutions (USDm)"] + Sum of ["C. Investment in Solar energy solutions (USDm)"] + Sum of ["D. Investment in Wind energy solutions (USDm)"] + Sum of ["E. Investment in Waste-to-Energy solutions (USDm)"] + Sum of ["F. Investment in Power Grids (USDm)"] + Sum of ["G. Investment in Nuclear energy (USDm)"] + Sum of ["H. Investment in Carbon Capture and Storage solutions (USDm)"] + Sum of ["I. Investment in Energy Storage solution (USDm)"] + Sum of ["J. Investment in Other Climate solutions (USDm)"]</p> <p>* The same set of projects is also used for the other visualizations mentioned above (type of capital, geographical, and IPCC country classification splits).</p>
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Dataset and standardization

Standardized action measured	Source	Name in original dataset	Description	Data analysis
A. Investment in Biofuel/Biomass solutions (USDm)	BNEF	Disclosed Transaction Value (\$m)	<p>Climate finance flows are primary investments made in new infrastructure, assets or activities contributing to climate change mitigation and adaptation. This indicator measures institutions' commitments provided to relevant impact sectors in all countries worldwide, on an annual basis.</p> <p>After standardizing solutions according to CPI's GLCF's methodology, we filter the column 'solution_cpi' on the following values: 'Biofuel/Biomass', 'Biogas'.</p>	<p>Display data as is in USDm</p> <hr/> <p>IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0</p>
	IJ Global	Transaction Value (USDm)		
B. Investment in Hydroelectric energy solutions (USDm)	BNEF	Disclosed Transaction Value (\$m)	<p>Climate finance flows are primary investments made in new infrastructure, assets or activities contributing to climate change mitigation and adaptation. This indicator measures institutions' commitments provided to relevant impact sectors in all countries worldwide, on an annual basis.</p> <p>After standardizing solutions according to CPI's GLCF's methodology, we filter the column 'solution_cpi' on the following values: 'Hydro power', 'Hydro power – Small', 'Hydro power – Large'.</p>	<p>Display data as is in USDm</p> <hr/> <p>IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0</p>
	IJ Global	Transaction Value (USDm)		
	BNEF	Disclosed Transaction Value (\$m)	Climate finance flows are primary investments made in new infrastructure, assets or activities contributing to climate change	Display data as is in USDm

C. Investment in Solar energy solutions (USDm)	IJ Global	Transaction Value (USDm)	mitigation and adaptation. This indicator measures institutions' commitments provided to relevant impact sectors in all countries worldwide, on an annual basis.	IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0
	PPI	TotallInvestment	After standardizing solutions according to CPI's GLCF's methodology, we filter the column 'solution_cpi' on the following values: 'Solar - PV', 'Solar - CSP', 'Solar', 'RE Off Grid Solar'.	
D. Investment in Wind energy solutions (USDm)	BNEF	Disclosed Transaction Value (\$m)	Climate finance flows are primary investments made in new infrastructure, assets or activities contributing to climate change mitigation and adaptation. This indicator measures institutions' commitments provided to relevant impact sectors in all countries worldwide, on an annual basis.	Display data as is in USDm IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0
	IJ Global	Transaction Value (USDm)	After standardizing solutions according to CPI's GLCF's methodology, we filter the column 'solution_cpi' on the following values: 'Wind - Onshore', 'Wind - Offshore', 'Wind'.	
E. Investment in Waste-to-Energy solutions (USDm)	BNEF	Disclosed Transaction Value (\$m)	Climate finance flows are primary investments made in new infrastructure, assets or activities contributing to climate change mitigation and adaptation. This indicator measures institutions' commitments provided to relevant impact sectors in all countries worldwide, on an annual basis.	Display data as is in USDm IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0
	IJ Global	Transaction Value (USDm)	After standardizing solutions according to CPI's GLCF's methodology, we filter the column 'solution_cpi' on the following values: 'Waste-to-Energy'.	
F. Investment in Power Grids (USDm)	BNEF	Disclosed Transaction Value (\$m)	Climate finance flows are primary investments made in new infrastructure, assets or activities contributing to climate change mitigation and adaptation. This indicator measures institutions' commitments provided to relevant impact sectors in all countries worldwide, on an annual basis.	Display data as is in USDm IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0
	IJ Global	Transaction Value (USDm)	After standardizing solutions according to CPI's GLCF's methodology, we filter the column 'solution_cpi' on the following values: 'New Power Grid for RE', 'Minigrids', 'RE Minigrid', 'Power Grid - Retrofit', 'Smart Grid'.	
G. Investment in Nuclear energy (USDm)	IJ Global	Transaction Value (USDm)	IJ Global provides Project Finance information on global flows in a series of sectors including 'Oil & Gas', 'Mining', 'Power [Generation]', and 'Renewables'. Data is filtered for the following subsectors: 'Nuclear'.	Display data as is in USDm

	fDi	Capital investment	<p>fDi intelligence provides plant-level information for direct investments in the power sector.</p> <p>Data is filtered for the following subsectors: 'Nuclear electric power generation'.</p>	<p>IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0</p>
H. Investment in Carbon Capture and Storage solutions (USDm)	IJ Global	Transaction Value (USDm)	<p>IJ Global provides Project Finance information on global flows in a series of sectors including 'Oil & Gas', 'Mining', 'Power [Generation]', and 'Renewables'.</p> <p>Data is filtered for the following subsectors: 'Carbon Capture & Storage'.</p>	<p>Display data as is in USDm</p> <hr/> <p>IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0</p>
I. Investment in Energy Storage solution (USDm)	BNEF	Disclosed Transaction Value (\$m)	<p>Climate finance flows are primary investments made in new infrastructure, assets or activities contributing to climate change mitigation and adaptation. This indicator measures institutions' commitments provided to relevant impact sectors in all countries worldwide, on an annual basis.</p> <p>After standardizing solutions according to CPI's GLCF's methodology, we filter the column 'solution_cpi' on the following values: 'Energy Storage'.</p>	<p>Display data as is in USDm</p> <hr/> <p>IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0</p>
	IJ Global	Transaction Value (USDm)		
J. Investment in Other Climate solutions (USDm)	BNEF	Disclosed Transaction Value (\$m)	<p>Climate finance flows are primary investments made in new infrastructure, assets or activities contributing to climate change mitigation and adaptation. This indicator measures institutions' commitments provided to relevant impact sectors in all countries worldwide, on an annual basis.</p>	<p>Display data as is in USDm</p> <hr/> <p>IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0</p>
	IJ Global	Transaction Value (USDm)		
	PPI	TotalInvestment	<p>After standardizing solutions according to CPI's GLCF's methodology, we filter the column 'solution_cpi' on the following values: 'Renewable – Unspecified', 'Unspecified', 'Unspecified – Energy efficiency', 'Unspecified – Multiple Objectives', 'District Heating', 'Other Marine', 'Geothermal'.</p>	

Progress: Real economy impact – Project-level fossil fuel financing

Real economy impact – Project-level fossil fuel financing

This indicator measures how entities have directly contributed to the funding of new fossil fuel projects via direct/primary investment. Investment figures are broken down to track USDm investment by **technology** (Oil and Gas Supply Chain, Coal mining, Oil-Powered Energy Production, Gas-Powered Energy Production, Coal-Powered Energy Production, Other), **capital type** (Debt, Equity, Other/Unknown), **region of destination** (Western Europe, Central Asia & Eastern Europe, US & Canada, Latin America & Caribbean, Middle East & North Africa, Sub-Saharan Africa, South Asia, East Asia & Pacific, Oceania, China, Unknown), and **IPCC country classification** (Developed, Developing, and LDC).

Projects appearing in multiple data sources are removed from the data source containing least information (e.g., on the identity of the financing institution or on the location of the project) and identified via fuzzy-matching of project names.

The final project-level data is also used to calculate project-level investment that has been **indirectly enabled** by financial entities, according to the same splits described above (for more information, refer to the CPI methodology on attribution of indirect financing).

Tracked financing flows generally focus on the construction of new fossil fuel capacity, but may include new infrastructure with unspecified purpose that may constitute transition finance.

Note that financing data was retrieved in March 2024; any subsequent update of the datasets by the provider is therefore not reflected.

Data Sources: fDi, GCPFT, GOGET, IJ Global, PPI.

Assessment approach

Project-Level Fossil Fuel Financing (USDm)	<p>Stacked bar chart displaying:*</p> <p>Sum of ["A. Oil and Gas Supply Chain (USDm)"] + Sum of ["B. Coal mining(USDm)"] + Sum of ["C. Oil-Powered Energy Production (USDm)"] + Sum of ["D. Gas-Powered Energy Production (USDm)"] + Sum of ["E. Coal-Powered Energy Production (USDm)"]</p> <p>* The same set of projects is also used for the other visualizations mentioned above (type of capital, geographical, and IPCC country classification splits).</p>
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Dataset and standardization

Standardized action measured	Source	Name in original dataset	Description	Data analysis
A. Oil and Gas Supply Chain (USDm)	IJ Global	Transaction Value (USDm)	<p>IJ Global provides Project Finance information on global flows in a series of sectors including 'Oil & Gas', 'Mining', 'Power [Generation]', and 'Renewables'.</p> <p>Data is filtered for the following subsectors/solution: 'Industrial, Extraction, and Manufacturing Processes' - 'Petrochemical', 'Industrial, Extraction, and Manufacturing Processes' - 'Oil and Gas', [Fuel Transmission & Distribution' - 'Oil and Gas', 'Fuel Transmission & Distribution' - 'Downstream'</p>	Display data as is.
	World Bank PPI	Transaction Value (USDm)	<p>The World bank provides a project finance database focusing on low- and middle-income countries coverings: energy, transport, water and sewerage, ICT backbone, and Municipal Solid Waste.</p> <p>After standardization, data is filtered for the following subsectors/solution: 'Fuel Transmission & Distribution' - 'Oil and Gas'</p>	---
	GOGET	Transaction Value (USDm)	<p>GEM creates an oil and gas plant tracker called Global Oil and Gas Extraction Tracker.</p> <p>After standardization, data is filtered for the following subsectors/solution: 'Fuel Transmission & Distribution' - 'Oil and Gas'</p>	IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0
	fDi	Transaction Value (USDm)	<p>Finance Times' Foreign Direct Investment dataset covering 'Oil, Gas and coal for greenfield projects</p> <p>After standardization, data is filtered for the following subsectors/solution: 'Industrial, Extraction, and Manufacturing Processes' - 'Oil and Gas'</p>	
B. Coal mining (USDm)	IJ Global	Transaction Value (USDm)	<p>IJ Global provides Project Finance information on global flows in a series of sectors including 'Oil & Gas', 'Mining', 'Power [Generation]', and 'Renewables'.</p>	Display data as is.

			Data is filtered for the following solution_cpi: 'Coal Mining'	
	fDi	Transaction Value (USDm)	Finance Times' Foregin Direct Investment dataset covering 'Oil, Gas and coal for greenfield projects After standardization, data is filtered for the following solution_cpi: 'Coal Mining'	IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0
C. Oil-Powered Energy Production (USDm)	IJ Global	Transaction Value (USDm)	IJ Global provides Project Finance information on global flows in a series of sectors including 'Oil & Gas', 'Mining', 'Power [Generation]', and 'Renewables'. Data is filtered for the following solution_cpi: 'Oil-fired'.	Display data as is.
	World Bank PPI	Transaction Value (USDm)	The World bank provides a project finance database focusing on low- and middle-income countries coverings: energy, transport, water and sewerage, ICT backbone, and Municipal Solid Waste. After standardization, data is filtered for the following solution_cpi: 'Oil-fired'	IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0
	GOGET	Transaction Value (USDm)	GEM creates an oil and gas plant tracker called Global Oil and Gas Extraction Tracker. After standardization, data is filtered for the following solution_cpi: 'Oil-fired'	
D. Gas-Powered Energy Production (USDm)	IJ Global	Transaction Value (USDm)	IJ Global provides Project Finance information on global flows in a series of sectors including 'Oil & Gas', 'Mining', 'Power [Generation]', and 'Renewables'. Data is filtered for the following subsectors: 'Gas-fired'.	Display data as is.
	GOGET	Transaction Value (USDm)	GEM creates an oil and gas plant tracker Data is filtered for the following solution_cpi: 'Gas-Fired'	
	fDi	Transaction Value (USDm)	Finance Times' Foreign Direct Investment dataset covering 'Oil, Gas and coal for greenfield projects After standardization, data is filtered for the following solution_cpi: 'Gas-Fired'	IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0
	World Bank PPI	Transaction Value (USDm)	The World bank provides a project finance database focusing on low- and middle-income countries coverings: energy, transport, water and sewerage, ICT backbone, and Municipal Solid Waste. After standardization, data is filtered for the following solution_cpi: 'Gas-Fired'	

E. Coal-Powered Energy Production (USDm)	IJ Global	Transaction Value (USDm)	<p>IJ Global provides Project Finance information on global flows in a series of sectors including 'Oil & Gas', 'Mining', 'Power [Generation]', and 'Renewables'.</p> <p>Data is filtered for the following subsectors: 'Coal'.</p>	<p>Display data as is.</p> <p>---</p> <p>IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0</p>
	GCPFT	Transaction Value (USDm)	<p>GEM provides project finance for coal plants in their Global Coal Project Finance Tracker.</p> <p>After standardization, data is filtered for the following solution_cpi: 'Coal'</p>	
	World Bank PPI	Transaction Value (USDm)	<p>The World bank provides a project finance database focusing on low- and middle-income countries coverings: energy, transport, water and sewerage, ICT backbone, and Municipal Solid Waste.</p> <p>After standardization, data is filtered for the following solution_cpi: 'Coal'</p>	
	GOGET	Transaction Value (USDm)	<p>GEM creates an oil and gas plant tracker called Global Oil and Gas Extraction Tracker.</p> <p>After standardization, data is filtered for the following solution_cpi: 'Coal'</p>	
F. Other Fossil Fuel Investment (USDm)	IJ Global	Transaction Value (USDm)	<p>IJ Global provides Project Finance information on global flows in a series of sectors including 'Oil & Gas', 'Mining', 'Power [Generation]', and 'Renewables'.</p> <p>Data is filtered for the following subsectors: 'Other Oil & Gas' and 'Petrochemical' (in the 'Oil & Gas' sector), and 'Other Power' and 'Manufacturing' (in the 'Power' sector).</p>	<p>Display data as is.</p> <p>---</p> <p>IF data = 0 AND examined year > max year of coverage of dataset: "not available" Else: 0</p>

Progress: Real economy impact – Corporate-level green lending

Real economy impact – Corporate-level green lending				
<p>The indicator tracks lending instruments made available to green projects, namely loans and bonds made available for green projects as defined according to Green Loan Principles and Green Bond Principles (in USDm).</p> <p>The eligible projects under the Green Bond Principles (GBP) and the Green Loan Principles (GLP) are not explicitly defined as the principles provide guidance on the process and disclosure for issuers. However, examples of projects that have been financed through green bonds include renewable energy projects, such as wind and solar power, energy-efficient buildings, sustainable water management, and clean transportation.</p> <p>Data Sources: BNEF, CBI.</p>				
Assessment approach				
Direct investment in climate solutions (USDm)		Histogram displaying: Sum of ["A. Green Loans (USDm)"] + Sum of ["B. Green Bonds (USDm)"]		
Dataset and standardization				
Standardized action measured	Source	Name in original dataset	Description	Data analysis
A. Green Lending (USDm)	Bloomberg New Energy Finance	Green Loans (USDm)	The Green Loan Principles define green loans as any loan instrument made available exclusively to finance or re-finance, in whole or in part, new and/or existing eligible Green Projects. Green loans are commonly aligned in the market with the Green Loan Principles. The GLP's definition of use of proceeds that qualify as "green" is aligned to the definition in the 2017-version of the GBP and any subsequent updates.	IF BNEF's "Green Loans (USDm)" data is available: Display data as is in USDm. Else: IF CBI's "Green Loans (USDm)" data is available: display data as is in USDm.
	Climate Bond Initiative	Green Loans (USDm)	The total value of all newly issued labelled green loans, per year, with the estimated allocation to a range of impact sectors relevant to climate action and other environmental measures.	---

				IF data from both datasets = 0 AND examined year > max year of coverage of both datasets: "not available" Else: 0
B. Green Bonds (USDm)	Bloomberg New Energy Finance	Green Bonds (USDm)	The Green Bond Principles are voluntary process guidelines, issued by ICMA, that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond. The year indicates the year the security was issued.	IF BNEF's "Green Bonds (USDm)" data is available: Display data as is in USDm. Else: IF CBI's "Green Bonds (USDm)" data is available: display data as is in USDm.
	Climate Bond Initiative	Green Bonds (USDm)	The total value of all newly issued labelled green bonds (including certified and non-certified), per year, with the estimated allocation to a range of impact sectors relevant to climate action and other environmental measures.	--- IF data from both datasets = 0 AND examined year > max year of coverage of both datasets: "not available" Else: 0

Progress: Transition risk – Exposure to misaligned assets

Transition risk – Exposure to misaligned assets				
<p>The indicator measures whether entities' portfolio's composition is misaligned with respect to Paris agreement mitigation targets. Misaligned assets are reported both as a share of total portfolio value, as well as a share of assets examined in depth (e.g. assets in traditionally emission intensive sectors).</p> <p>Data Sources: InfluenceMap.</p>				
Assessment approach				
Total examined assets (USDm)		Stacked bar chart of: ["B. Misaligned PACTA Assets (USDm)"] AND ["C. Other PACTA Assets (USDm)"] AND ["D. Other Examined Assets (USDm)"]		
Share of Misaligned assets (%)		Ratio between: ["B. Misaligned PACTA Assets (USDm)"] AND ["A. Total Portfolio Value (USDm)"]		
Dataset and standardization				
Standardized action measured	Source	Name in original dataset	Description	Data analysis
A. Total Portfolio Value (USDm)	FinanceMap	Total portfolio value accessed (\$)	This value represents total value of the equity fund portfolio accessed by FinanceMap in their analysis. The value is based on data from the Refinitiv Lipper database.	If Value \neq "": Value/1,000,000 Else: "Data Not Available"
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total	--- IF information from datasets in the examined year is not available after considering all datasets AND

			<p>Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'How much is the total portfolio value of the organization?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	IF Value of preceding year exists: report data from preceding year
B. Misaligned PACTA Assets (USDm)	FinanceMap	Misaligned PACTA holdings value (\$)	This value represents the value of investment in assets that have been examined in depth (using the Paris Agreement Capital Transition Assessment, or PACTA tool) and which have been identified as misaligned with the IEA Net Zero Emissions by 2050 Scenario based on projected production data.	<p>If Value \neq "": Value/1,000,000 Else: "Data Not Available"</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets</p> <p>AND</p> <p>IF Value of preceding year exists: report data from preceding year</p>
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'How much is the misaligned PACTA assets of the organization? This value should represent the amount of assets that have been examined in depth (using the PACTA tool) and which have been deemed misaligned.' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
C. Other PACTA Assets (USDm)	FinanceMap	Non-Misaligned PACTA	Calculated as the difference between "Total PACTA sectors holdings value (\$)" and "Misaligned PACTA holdings value (\$)".	<p>If Value \neq "": Value/1,000,000 Else:</p>

		holdings value (\$)	This value represents the amount of assets that have been examined in depth (using the Paris Agreement Capital Transition Assessment, or PACTA tool) and which have not been found to be misaligned.	<p>"Data Not Available"</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets</p> <p>AND</p> <p>IF Value of preceding year exists: report data from preceding year</p>
D. Other Examined Assets (USDm)	FinanceMap	Other Examined Assets (\$)	Calculated as the difference between "Total portfolio value accessed (\$)" and the "Total PACTA holdings value (\$)" calculated above. This number represents the remaining portfolio value that has not been examined in depth (using the Paris Agreement Capital Transition Assessment, or PACTA tool) and therefore has neither been classified as 'Misaligned' nor as "Non-misaligned".	<p>If Value \neq "": Value/1,000,000</p> <p>Else: "Data Not Available"</p> <p>---</p> <p>IF information from datasets in the examined year is not available after considering all datasets</p> <p>AND</p> <p>IF Value of preceding year exists: report data from preceding year</p>

Progress: Transition risk – Portfolio exposure to fossil fuels

Transition risk – Portfolio exposure to fossil fuels	
<p>The indicator measures entities' material exposure to fossil fuel investments. Exposure is examined for a subset of the institution's portfolio for which information exists on exposure to companies of which the primary sector of operations is in, or uniquely associated with, upstream or midstream oil and gas and coal mining sectors. Activities included in the portfolio assessed include a variety of asset types, depending on data available, such as lending to, investing in, and insuring coal and oil & gas.</p> <p>Data Sources: CDP, Fossil Free Divestment, Fossil Free Funds, InfluenceMap, Investing in Climate Chaos, Net-Zero Donut, UN Sustainable Funds Database.</p>	
Assessment approach	
Exposure to fossil fuel (%)	<p>Maximum value between:</p> $\frac{["B. Exposure to Fossil Fuels (USDm)"]}{["A. Total Portfolio Value (USDm)"]}^*$ <p>AND</p> <p>If for year of reference ["C. FF Exposure of Investment" = 0]: 0%</p> <hr/> <p>If information from datasets in the examined year is not available after considering all datasets</p> <p>AND</p> <p>If Value of preceding year exists: report data from preceding year</p> <p>* The percentage portfolio exposure is calculated by taking pairs of values "A. Total Portfolio Value (USDm)" and "B. Exposure to Fossil Fuels (USDm)" coming from the same source; e.g., FinanceMap's "Fossil fuel holdings value (\$)" is divided by FinanceMap's "Total portfolio value accessed (\$)", even if other potential denominators are available. This is to ensure coherence of scope of assets considered.</p>

In cases of conflicting data sources, the largest portfolio value (i.e., the portfolio encompassing the largest amount of assets) and its associated share of fossil fuel exposure are reported.

Dataset and standardization

Standardized action measured (*)	Source	Name in original dataset	Description	Data analysis
A. Total Portfolio Value (USDm)	FinanceMap	Total portfolio value accessed (\$)	This value represents total value of the equity fund portfolio accessed by FinanceMap in their analysis. The value is based on data from the Refinitiv Lipper database.	If Value != "": Value Else: "Data Not Available" --- Information valid only for the year of reference
	CDP	C-FS14.0_C5_For each portfolio activity, state the value of your financing and insurance of carbon-related assets in the reporting year. - Percentage of portfolio value comprised of carbon-related assets in reporting year	We derive the total value of the portfolio by dividing the sum of the unique values of "C-FS14.0_C2" (Exposure to Fossil Fuels) by "C-FS14.0_C5" (Percentage of portfolio value comprised of carbon-related assets). Insurance assets are excluded from the calculation of the total portfolio.	
	Investing in Climate Chaos	Total investment (USDm)	Sum of total outstanding shares and bonds issued by the entire group (e.g., Amundi Asset Management is aggregated with its parent bank Cr�dit Agricole. Asset managers' third-party investments are included in the scope of this research).	
	UN Sustainable Funds Database	AUM, millions of USD	Total assets under management for a given fund. Information is aggregated at the FI level.	
	Net-Zero Donut	Total portfolio value (USDm)	The value of the overall portfolio is derived by dividing the dollar amount invested in either oil and gas or in thermal coal by the share that these activities represent in the overall investment portfolio, as reported by the firm	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: - 'How much is the total portfolio value of the organization?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
B. Exposure to Fossil Fuels (USDm)	FinanceMap	Fossil fuel holdings value (\$)	Total exposure of the asset manager's equity fund portfolio to companies belonging to the fossil fuel production value chain. Sector classification is based on the GICS, BICS, and NAICS categorizations.	If Value != "": Value Else:

	CDP	C-FS14.0_C2_For each portfolio activity, state the value of your financing and insurance of carbon-related assets in the reporting year. - Value of the carbon-related assets in your portfolio (unit currency – as specified in C0.4)	Value of fossil fuel exposure of the portfolio (e.g. oil, coal). Multiple lines (associated to different assets) are reported for the same organization. All these are summed to obtain a unique figure for each entity, with the exception of lines relating to insurance activities of the company, which are excluded from the calculation.	<p>“Data Not Available”</p> <p>---</p> <p>Information valid only for the year of reference</p>
	Investing in Climate Chaos	Total investments in Coal and Oil & Gas (USDm)	Sum of total outstanding shares and bonds issued by the entire group in the coal and oil & gas sectors.	
	UN Sustainable Funds Database	Net climate impact – Fossil fuels in total	Exposure to fossil fuels is assessed for each fund detained by an entity. Multiple funds accruing to the same FI are aggregated.	
	Net-Zero Donut	Metrics and targets : Metrics and targets - Amount of the financial institution's investments in thermal coal and oil and gas	Sum of self-reported exposure to thermal coal and oil and gas investments in the reporting firm's investment portfolio.	
		Metrics and targets : Metrics and targets - Amount of the financial institution's investments in thermal coal and oil and gas for the current year (in € million)		
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p> <ul style="list-style-type: none"> - 'How much is the organization's portfolio exposure to fossil fuels?' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
C. FF Exposure of Investment	Fossil Free Divestment	Type of divestment	Divestment status - Measures whether the organization has committed to divest or has already divested from fossil fuels.	<p>If value is “Fossil Free”: 0 USDm</p> <p>Else:</p> <p>“Data Not Available”</p> <p>---</p> <p>Information valid only for the year of reference</p>
	CPI	Primary data extraction	<p>Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above.</p> <p>The prompt(s) used for this standard action are:</p>	

			<ul style="list-style-type: none"> - 'How much is the organization's fossil fuel exposure of investment? This means whether the organization has committed to divest or has already divested from fossil fuels, whether the organization is fossil-free or not.' <p>Answers are then manually verified to ensure their relevance and to extract the relevant information.</p>	
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(*) = Information that can be displayed as is in the entity pages.

Progress: Real economy Impact – Portfolio emissions

Real economy impact – Portfolio emissions

The indicator measures the level of financed emissions (tCO₂) of the financial institution. Specifically, we track information on Scope 3 – Category 15 (Investments) emissions, portfolio emissions, or financed emissions. Emissions can be either:

- “Reported” by financial institutions.
- “Estimated” based on asset ownership of the financial institution considered, for example:
 - o Asset impact uses equity ownership consolidation methodology to estimate emissions, aggregating the relevant asset-based emissions for each successive level of the ownership tree weighted by the parent company's equity stake in the subsidiary or affiliate.⁹⁸
 - o MSCI uses emissions from investments as defined by the Greenhouse Gas Protocol [tCO₂e/yr], and those that companies may optionally report.
- “Interpolated”: In the absence of comparable emissions between various years within the same institution, latest emissions are used to fill data gaps.

Aggregate emissions data displays “minimum” and “maximum” emission values, and information of the type of data used (reported/estimated/interpolated).

Note: Where methodology changes have been verified within the same source, or where significant “outlier” emission changes were observed (e.g. increases or decreases of emissions by a factor of 5), we only considered the latest figures. Similarly, where multiple data sources were used to fill data gaps, leading to outlier data fluctuations (e.g. increases or decreases of emissions by a factor of 5), we prioritized datasets that are the most recent, the most complete, and the largest (for maximum values), or smallest (for minimum values). Despite this, data may in part still reflect improvements in the methodology. To the extent possible, raw data was also checked for potential errors (e.g. significant inconsistency between values reported in different years).

Data Sources: Asset Impact, CDP, CPI, ESG Book, MSCI, Net-Zero Donut, NZDPU.

⁹⁸ Asset Impact (2024 access). “How does AI consolidate asset-based activity, capacity, and emission indicators within the corporate ownership tree of a company?”

Assessment approach

Portfolio emissions

At aggregated level

Stacked bar chart displaying:

Sum of min(["A. Self-Reported Portfolio Emissions"]) +
 Sum of min(["B. Estimated Portfolio Emissions"]) +
 Sum of min(["C. Interpolated Portfolio Emissions"])

OR

Sum of max(["A. Self-Reported Portfolio Emissions"]) +
 Sum of max(["B. Estimated Portfolio Emissions"]) +
 Sum of max(["C. Interpolated Portfolio Emissions"])

NOTE: In cases where the combination of two or more data sources leads to significant jumps in emissions for an individual entity (>400% or <-80% change between two consecutive years), the entire series is updated according to the following algorithm:

1. The Asset Impact series is discarded (for the computation of *maximum* emissions only, due to the generally low estimates coming from this source and reflecting Asset Impact's attribution via equity ownership only),
2. The series with the oldest last data point is discarded (e.g., if Series A's last data point is in 2020 and Series B's last data point is in 2021, Series B is favoured over Series A),
3. The series with the smallest number of data points is discarded (e.g., if Series A covers emissions data from 2018 to 2021 and Series B covers emissions data from 2017 to 2021, Series B is favoured over Series A).

Additionally, raw data as coming from the sources reported below is manually checked to ensure year-to-year comparability within data source. If evidence of a change in the methodology (including expansion/reduction of the coverage) used for the computation of portfolio emissions is found, all the values preceding such change are updated with the first available value since the methodological change. If a value is found to be incorrect (due to incorrect reporting in the raw data), it is invalidated and, where possible, updated (for example, with a value coming from the entity's sustainability report).

At institution level

Stacked bar chart showing:

IF ["A. Self-Reported Portfolio Emissions"] != "":
 min(["A. Self-Reported Portfolio Emissions"]) OR max(["A. Self-Reported Portfolio Emissions"])
ELSE IF ["B. Estimated Portfolio Emissions"] != "":
 min(["B. Estimated Portfolio Emissions"]) OR max(["B. Estimated Portfolio Emissions"])*
ELSE IF ["C. Interpolated Portfolio Emissions"] != "":
 min(["C. Interpolated Portfolio Emissions"]) OR max(["B. Estimated Portfolio Emissions"])*
ELSE:
 "Data Not Available"

* If the source of the data is MSCI, then data cannot be disclosed at entity level and hence "Data Not Available" is displayed.

Dataset and standardization

Standardized action measured	Source	Name in original dataset	Description	Data analysis
A. Self-Reported Portfolio Emissions	ESG Book	em_61800 - Scope 3 (cat 15)	Scope 3 (cat 15 – investments) emissions are collected by ESG Book via direct surveys to the reporting companies	IF any value != "": min(values) and max(values) ELSE: "Data Not Available"
	CDP	C6.5a_C17_Disclose or restate your Scope 3 emissions data for previous years. - Scope 3: Investments (metric tons CO2e)	Scope 3: Investments emissions (metric tons CO2e) as disclosed in the survey	
		C-FS14.1a_C1_Provide details of your organization's portfolio emissions in the reporting year. - Portfolio emissions (metric unit tons CO2e) in the reporting year	Portfolio emissions (metric unit tons CO2e) are collected by CDP via direct reporting of submitting companies	
	Net-Zero Donut	Metrics and targets - Absolute Scope 3 emissions of the financial institution at the level of the investment portfolio	Portfolio emissions as reported by the reporting company in the GHG protocol. We extract the numerical value from the string using regular expressions (e.g., "9096395 TCO2EQ" becomes 9,096,395)	
	NZDPU	Scope 3 Category 15 (Investments) GHG emissions	Scope 3 Category 15 (Investments) GHG emissions as retrieved from CDP	
	CPI	Primary data extraction	Using gpt-3.5-turbo, we extract information from the ESG/sustainability reports, annual reports, and TCFD disclosures of the top 50 GFANZ entities and top 50 pension funds in our sample, as ranked by AUM or Total Assets, to complement information coming from the secondary sources above. The prompt(s) used for this standard action are: <ul style="list-style-type: none"> - 'How much is the disclosed Scope 3 (cat 15 – investments) emissions of the organization?' - 'How much is the estimated Scope 3 (cat 15 – investments) emissions of the organization?' Answers are then manually verified to ensure their relevance and to extract the relevant information.	
B. Estimated Portfolio Emissions	Asset Impact	Company Emissions – Equity Ownership	Asset impact uses equity ownership consolidation methodology to estimate emissions. The methodology aggregates the relevant asset-based activity (activity, capacity, or emissions) for each successive level of the ownership tree (from subsidiary or affiliate to parent company) weighted by the parent company's equity stake in the subsidiary or affiliate.	IF any value != "": min(values) and max(values) ELSE: "Data Not Available"

			Emissions linked to all of the company's assets are estimates for each sector of the economy, geography, and emission scope.	
	MSCI	Scope 3 - Category 15: Investments (all)	Estimated emissions from investments as defined by the Greenhouse Gas Protocol [tCO2e/yr]. This category includes both emissions associated with the types of investments required to be accounted for by the GHG Protocol guidance (debt investments with known use of proceeds) as well as those types that companies may optionally report (debt investment without known use of proceeds, managed investments).	
<i>C. Interpolated Portfolio Emissions</i>	Asset Impact, CDP, ESG Book, MSCI, Net-Zero Donut, NZDPU	<i>Same original sources as reported for actions "A. Self-Reported Portfolio Emissions" and "B. Estimated Portfolio Emissions"</i>	<p>In the absence of both a self-reported and an estimated portfolio emission value in a year, we interpolate the value for that given year as the average value between the years preceding and following the gap year, respectively.</p> <p>If the gap is larger than one year, then "No Data Available" is reported for those years.</p> <p>For years before the first year of disclosed/estimated emissions, we report the same value of the first year of disclosed/estimated emissions.</p> <p>For the last year in the dataset, in the absence of a disclosed/estimated emissions value, we report the last available value of disclosed/estimated emissions.</p>	<p><i>IF any value \neq "": min(values) and max(values) ELSE: "Data Not Available"</i></p>