THE 3fP-TRACKER

# *Indicators*

# THE 3fP-TRACKER - OVERVIEW OF INDICATORS

### Indicator Scales and Cause-Effect Chains

**The following tables provide the full scales for each 3fP indicator, structured by its three dimensions and respective subdimensions. The scales reflecting "10" represent the target state for each indicator, "4" and "7" define interim states, while "0" reflects the lowest state of no relevant regulation. The corresponding cause-effect chain as provided for each indicator gives the economic rationale for deriving the definitions of the scale.**

**TRANSPARENCY & DISCLOSURE** **(Dimension)**
Common disclosure framework (Sub-dimension)

1. DISCLOSURE ON GOVERNANCE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Reporting on climate change related governance aspects is mandatory. The regulation obliges, especially reporting on (i) board's oversight of climate change related risks and opportunities; and (ii) management's role in assessing and managing climate change related risks and opportunities. Disclosure regulation is including all financial market actors. | Disclosure about climate change related governance will foster that board members will perceive higher public pressure to assume responsibility. |
| 7 | Reporting on climate change related governance aspects is mandatory. The regulation specifies the required content unsatisfyingly / aspects above only partially covered. Disclosure regulation is including only some financial market actors. | |
| 4 | Non-binding recommendations for reporting on climate change related governance aspects./ Governance aspects in disclosure regulation is not sufficiently addressed. | |
| 0 | Neither non-binding recommendations nor obligations for reporting on climate change related governance aspects. | |

## 2. DISCLOSURE ON STRATEGY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Reporting on climate change related strategy aspects is mandatory. The regulation obliges, especially reporting on (i) the climate change related risks and opportunities the organization has identified over the short, medium, and long term; (ii) the impact of climate change related risks and opportunities on the organization's businesses, strategy, and financial planning; and (iii) the resilience of the organization's strategy, taking into consideration different climate change related scenarios, including a 2°C or lower scenario. Disclosure regulation is including all financial market actors. | Awareness about climate change related impacts on the strategy will institutionalize the organisation's adaptation to climate change within the strategic planning process. |
| 7 | Reporting on climate change related strategy aspects is mandatory. The regulation specifies the required content unsatisfyingly / aspects above only partially covered. Disclosure regulation is including only some financial market actors. | |
| 4 | Non-binding recommendations for reporting on climate change related strategy aspects./ Strategy aspects in disclosure regulation is not sufficiently addressed. | |
| 0 | Neither non-binding recommendations nor obligations for reporting on climate change related strategy aspects. | |

## 3. DISCLOSURE ON RISK MANAGEMENT

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Reporting on climate change related risk management is mandatory. The regulation obliges, especially reporting on (i) the organization's processes for identifying and assessing climate change related risks; (ii) the organization's processes for managing climate change related risks; and (iii) how processes for identifying, assessing, and managing climate change related risks are integrated into the organization's overall risk management. Disclosure regulation is including all financial market actors. | Obligation to disclose about climate change related risk management will change the practice and awareness about climate related risks and will increase institution's absorptive capacity and resilience to cope with climate risks. |
| 7 | Reporting on climate change related risk management aspects is mandatory. The regulation specifies the required content unsatisfyingly / aspects above only partially covered. Disclosure regulation is including only some financial market actors. | |
| 4 | Non-binding recommendations for reporting on climate change related risk management aspects./ The handling of risk management in disclosure regulation is not sufficiently addressed. | |
| 0 | Neither non-binding recommendations nor obligations for reporting on climate change related risk management aspects. | |

## 4. DISCLOSURE ON METRICS AND TARGETS

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Reporting on climate change related strategy aspects is mandatory. The regulation obliges, especially reporting on (i) metrics used by the organization to assess climate change related risks and opportunities in line with its strategy and risk management process; (ii) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks; (iii) any other metrics are standardized and mandatory for all / by sector/ subsector; and (iv) the targets used by the organization to manage climate change related risks and opportunities and performance against targets. Disclosure regulation is including all financial market actors. | Metrics and targets allow to compare and track progress - institutions will be motivated to outperform their peers and demonstrate progress in front of their stakeholders. |
| 7 | It is mandatory to report on metrics and targets. The application of some metrics might be fixed. The regulation do not provide a holistic framework / aspects above only partially covered. Disclosure regulation is including only some financial market actors. | |
| 4 | Concrete recommendations on metrics and targets to be disclosed. These can be relatively specific but are not obligatory./ Further regulation /establishment of standards is planned. | |
| 0 | There is neither regulation for disclosure of applied metrics and targets nor regulation to set a harmonized metrics system. | |

## 5. ADAPT ACCOUNTING STANDARDS

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Accounting standards reflect environmental impacts and provide clear guidelines how to account them (climate balance sheet, carbon footprints etc.). | Disclosure about climate related governance will foster that board members will perceive higher public pressure to assume responsibility. Disclosure on climate similar to financial accounting will increase the credibility of disclosed information. |
| 7 | Accounting standards reflect environmental impacts but lack guidelines how to account them (climate balance sheet, carbon footprints etc.). | |
| 4 | Accounting standards offer the possibility to account for environmental impacts. / Guidelines are planned and are currently developed. | |
| 0 | Accounting standards do not provide guidance on the accounting of environmental impact. / A change in guidelines is currently considered. | |

## 6. ACCOUNTING FOR STRANDED ASSETS RISK

<table>
<tr><th>SCALE</th><th>DESCRIPTION</th><th>CAUSE-EFFECT-CHAIN</th></tr>
<tr><td>10</td><td>Accounting standards clearly define stranded assets and how and when impairment tests for stranded assets has to be performed.</td><td rowspan="4">Stranded assets are now generally accepted to be fossil fuel supply and generation resources which, at some time prior to the end of their economic life (as assumed at the investment decision point), are no longer able to earn an economic return (i.e. meet the company’s internal rate of return), as a result of changes associated with the transition to a low-carbon economy. From a financial perspective, accountants have measures to deal with the impairment of assets (eg IAS 16) which seeks to ensure that an entity’s assets are not carried at more than their recoverable amount. Thus it would be necessary to adjust accounting standards in such a manner that the impairement of stranded asset is mandatory.</td></tr>
<tr><td>7</td><td>Accounting standards include impairment tests for stranded assets but offer large options for accountants to limit the depreciation.</td></tr>
<tr><td>4</td><td>Accounting standards offer the possibility to impair stranded assets w/o obligation. / Guidelines are planned and are currently developed.</td></tr>
<tr><td>0</td><td>Accounting standards do not include directions on the impairment of stranded asset or their depreciation is not allowed. / A change in guidelines is currently considered.</td></tr>
</table>

**TRANSPARENCY & DISCLOSURE** **(Dimension)**
Investors' fiduciary duties (Sub-dimension)

## 1. INVESTMENT EVALUATION TRANSPARENCY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Institutional investors and asset managers are required to develop and disclose a fully comprehensive shareholder engagement policy that describes how they monitor and evaluate investments including climate change related considerations. Regulation includes specific information which information in the context of climate change has to be disclosed as well as the extent of data, frequency and channel. | Clarify investor duties to better embrace long-term horizon and climate change related preferences |
| 7 | Institutional investors and asset managers are required to develop and disclose a fully comprehensive shareholder engagement policy that describes how they monitor and evaluate investments including climate change related considerations. Regulation does not explicitly state specific information which information in the context of climate change has to be disclosed as well as the extent of data, frequency and channel. | |
| 4 | Institutional investors and asset managers are required to develop and disclose a  shareholder engagement policy that describes how they monitor and evaluate investments including climate change related considerations. It is nor regulated how specific this policy should be and what kind of information has to be disclosed. | |
| 0 | There no regulation for shareholder engagement policy. | |

## 2. SHAREHOLDER RESPONSIBILITY FOR GOVERNANCE AND STRATEGY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Shareholder rights regulation covers shareholder's responsibility to drive climate change related governance and asks institutions to disclose investment strategies and long term strategy in a comprehensive and realistic manner. | Clarify investor duties to better embrace long-term horizon and climate preferences. |
| 7 | Some shareholder rights and related disclosure requirements are fixed but lack of consistency and completeness. | |
| 4 | Some shareholder rights existing but no obligation for institutions to proactively disclose related information. | |
| 0 | No shareholder rights in the context ecological governance and organization development and strategy | |

## 3. ASSET MANAGER RESPONSIBILITY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Comprehensive and extensive information duties of asset managers to institutional investors in regard to climate change related criteria, long-term orientation or other climate change relevant criteria for investment decision that allow an evaluation of the climate change related performance of assets under management. | Clarify investor duties to better embrace long-term horizon and climate preferences |
| 7 | Some information duties of asset managers to institutional investors in regard to climate change related criteria, long-term orientation or other climate change relevant criteria for investment decision that allow an evaluation of the climate change related performance of assets under management. Total information provided does not allow a qualified evaluation of assets. | |
| 4 | Only few information duties of asset managers to institutional investors in regard to climate change related criteria, long-term orientation or other climate relevant criteria for investment decision that allow an evaluation of the climate change related performance of assets under management. | |
| 0 | No information duties of asset managers to institutional investors in regard to climate change related criteria, long-term orientation or other climate change relevant criteria for investment decision that allow an evaluation of the climate change related performance of assets under management. | |

## 4. EXECUTIVE REMUNERATION POLICY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Regulation that remuneration policies need to reflect directors‘ climate change related performance is in place. Policies must clearly indicate the weight and methodology how climate change related factors are taken into account and it has to be outlined that climate change related factors have an appropriate impact on the overall performance evaluation of directors. | Clarify investor duties to better embrace long-term horizon and climate preferences. |
| 7 | Regulation that remuneration policies need to reflect directors‘ climate change related performance is in place. Policies must clearly indicate the weight and methodology how climate change related factor are taken into account. It is not outlined that climate change related factors shall have an appropriate impact on the overall performance evaluation of directors. | |
| 4 | Regulation that remuneration policies need to reflect directors‘ climate change related performance is in place. Regulation does not define details regarding the weight of climate change related factor and/or does not ask for transparency on the evaluation methodology. | |
| 0 | No regulation that remuneration policies need to reflect directors‘ climate change related performance is in place. | |

## 5. CLIMATE CHANGE RELATED RISK MANAGEMENT

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Asset owners and investment intermediaries must examine the materiality of risks and value drivers, including climate change related factors, regardless of the timeframe of the obligation to the beneficiary/member or client. Regulation clearly defines the level of quality such an examination should have. | Clarify investor duties to better embrace long-term horizon and climate preferences. |
| 7 | Asset owners and investment intermediaries must examine the materiality of risks and value drivers, including climate change related factors, consistent with the timeframe of the obligation to the beneficiary/member or client. Regulation is not very precise and offer many loopholes or is not exhaustive. / Regulation is planned and currently being elaborated. | |
| 4 | Recommendations for climate change related risk analysis. | |
| 0 | No guidance nor regulation climate change related risk analysis exists for investors. | |

## 6. CUSTOMER/BENEFICIARY CENTRICITY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | There is regulation that whether financially material or not, the climate change related preferences of members, clients and beneficiaries should be proactively sought and incorporated into investors' investment decision-making and the demands that they, in turn, make on the asset managers and other participants with which they interact to deliver their obligations to clients. | By proactively incorporating customers'/beneficiaries' climate change related preferences demand for green products will increase and foster the development of more green products. |
| 7 | There is regulation to proactively incorporate investment preference, especially in regard to climate and environment in the decision making process. The regulation is vastly formulated and not very precise. | |
| 4 | There are non-binding recommendations to proactively incorporate investment preference, especially in regard to climate change in the decision making process. | |
| 0 | There is no obligation to proactively incorporate investment preference, especially in regard to climate change in the decision making process. | |

**TRANSPARENCY & DISCLOSURE** **(Dimension)**
Consumer transparency (Sub-dimension)

## 1 PACKAGED RETAIL AND INSURANCE-BASED INVESTMENT PRODUCTS (PRIIPS)

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | There is regulation on the prospectus / information leaflet content regarding climate change related impacts and risks for PRIIPs targeting small scale investors. Regulation covers reporting on (i) positive/ negative screening list; (ii) climate change risk exposure and related financial impact; and (iii) information on the degree of short-termism/ long-termism of the product. | Consumer awareness may lead to increased public (reputational) pressure to improve climate performance as well as it may trigger the demand for more climate friendly products. |
| 7 | There is regulation on the prospectus / information leaflet content regarding climate change related impacts and risks for PRIIPs targeting small scale investors. Regulation is not very specific / just covers the aspects above partially. | |
| 4 | There are non-binding recommendations on the prospectus / information leaflet content regarding climate change related impacts and risks for PRIIPs targeting small scale investors./ Regulation is planned. | |
| 0 | There is no regulation on the prospectus / information leaflet content regarding climate change related impacts and risks for PRIIPs targeting small scale investors. | |

## 2 INVESTMENT ADVISOR DUTIES

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Investment advisor duties include to ask about investors‘ preferences concerning climate change related impact and are required to inform investor about related risks. | Consumer awareness may lead to increased public (reputational) pressure to improve climate performance as well as it may trigger the demand for more climate friendly products. |
| 7 | Investment advisor duties include either to ask about investors‘ preferences concerning climate change related impact or to inform investors about related risks. | |
| 4 | There are non-binding guidelines on investment advisor duties./ There are no explicit provisions on climate change related obligations./ Regulation is planned and currently elaborated. | |
| 0 | There are no investment advisor duties. | |

## 3. RETAIL FUND TRANSPARENCY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Retail fund disclosure duties include climate change related risk reporting and proxy indicators to measure their climate performance are indicated and clearly defined. | Consumer awareness may lead to increased public (reputational) pressure to improve climate performance as well as it may trigger the demand for more climate friendly products. |
| 7 | Retail funds are required to disclose information on climate change related risk. | |
| 4 | There are non-binding guidelines on retail funds disclosures in regard to climate change. | |
| 0 | Retails funds are not required to disclose any climate change related information. | |

## 4. GREEN LABELS/STANDARDS

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Green labels and standards for green nomination of products are in place. Requirements are reasonably high. There is an effective control mechanisms in place to avoid green washing. Labels show wide-spread availability and applicability. | Consumer awareness may lead to increased public (reputational) pressure to improve climate performance as well as it may trigger the demand for more climate friendly products. |
| 7 | There are green labels and standards for green nomination of products. However, their requirements are fairly low. The scope of applicability of green labels remains moderate. | |
| 4 | Existing green labels have very low requirements./ There only recommendations for green nomination of products but no standards and/or control mechanisms to avoid green washing./ Green labels are planned. / The scope of applicability for green labels is very limited. | |
| 0 | There are no green labels nor standards for green nomination of products. | |

## 1 REGULATORY BODY'S/BODIES' AWARENESS TO CLIMATE RISK INTEGRATION

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Regulatory bodies in charge of regulation for banks, insurance, pension funds and asset managers all communicate clearly and in a publicly available manner the full range of physical risks and transition risks resulting from climate change. Information provided is up-to-date with climate science (e.g. most recent IPCC assessment reports). They furthermore have developed and provide sound (study based) methodological guidance on how to streamline risk management considering climate change. | 'Regulatory bodies can contribute to streamlined consideration of climate change risks by providing knowledge and information as well as methods. Economic reasoning: they internalize the positive externality of knowledge spill-over. |
| 7 | Regulatory bodies raise awareness on climate change risk in a publicly available manner and they provide information/research on methods to consider climate risks in banks'/insurance companies'/pension funds'/ asset managers' risk management. | (HLEG FinRep, p.69: "supervisory [...] should develop, coordinate and share best practice on these issues [ESG and longer-term sustainability risk assessments for banks]. |
| 4 | Regulatory bodies raise awareness on climate change risk in a publicly available manner. | HLEG FinRep, p. 43: ESAs are recommended to "gradually build expertise on climate scenario analysis and other non-cyclical, non-linear risks that may get mispriced by financial markets (bubbles, stranded assets, etc.)...") |
| 0 | Regulatory bodies do not provide any information on integrating climate change risks in financial risk management. | |

## 2 CLIMATE CHANGE AND SYSTEMIC RISK

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | There is a well researched and publicly available knowledge base provided by the Ministry of Finance (or any other relevant government or regulatory body) on climate change related risks and their potential implication on a systemic level of the financial system, with an appropriate long-term perspective. Information provided is up-to-date with climate science (e.g. most recent IPCC assessment reports). | The consideration of climate change risk as a potentially systemic threat is a strategic contribution of the Government, in order to mainstream/ align the policy goals of climate policy with the goal of financial system stability |
| 7 | There is some information/studies or studies under way publicly available regarding the systemic level implications of climate risks on the financial system, with an appropriate long-term perspective. | |
| 4 | There is some initial information available on possible links between climate change risks and systemic stability of the financial system. | |
| 0 | There is no publicly available information on potential system relevant implications of climate change risks. | |

**SUPERVISION, RISK MANAGEMENT AND SYSTEM STABILITY** **(Dimension)**
Regulation / Supervision of banks (Sub-dimension)

## 1 SUPERVISION OF BANK GOVERNANCE/STRATEGY REFLECTING CLIMATE CHANGE RELATED RISK

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | There is a compulsory regulation on how banks need to demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an appropriate long-term perspective | 'Corporate culture and strategy that reflects climate change related risk is a key component to frame the transition to a sustainable finance system. |
| 7 | There is a regulatory guidance on how banks need to demonstrate that the board anticipates the full range of physical and transition risks re- sulting from climate change with an approriate long-term perspective. | |
| 4 | There is some initial practice on how banks need to demonstrate that the board anticipates climate change related risks resulting from climate change with an appropriate long-term perspective | |
| 0 | There is no practice on how banks need to demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an appropriate long-term perspective | |

## 2 MINIMUM REQUIREMENTS FOR BANK RISK MANAGEMENT (IN THE CONTEXT OF THE SUPERVISORY REVIEW PROCESS) INCLUDE ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Regulator's minimum requirements for bank risk management explicitly refer to the full range of climate change related risks and provide guidance how to include them and compulsorily apply them in the standard banking risk categories (market risk, liquidity risk, operational risk, credit risk) with an appropriate long-term perspective. | 'Regulators' compulsory requirement of integrating climate risks and an appropriate long-term perspective in standard banking risk categories contributes to a mainstreaming of these risks in the standard financial risk management perspective and an "informed consent on sustainability/climate change" (HLEG FinRep). |
| 7 | Climate risks are explicitly referred to in regulator's minimum requirements or additional support documents, together with initial guidance on how they can be included in standard banking risk categories and with an appropriate long-term-perspective, but their consideration is recommended only and not compulsory. | |
| 4 | Climate risks are in principle included in or at least implicitly covered by regulator's minimum requirements or additional support documents, however with no guidance on how to include them in standard banking risk categories. | |
| 0 | Climate risks are not referred to in regulator's minimum requirements for bank risk management nor in additional support documents. | |

## 3. SCOPE OF SUPERVISORY REPORTS OF THE REGULATOR (RISK PROFILE FOR BANKS) DURING THE ANNUAL SUPERVISORY REVIEW PROCESS COVERS ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | All physical and transition risks of climate change are fully considered with an appropriate long-term perspective in regulator's annual supervisory report of banks (e.g. "risk profile") and mainstreamed to the standard risk categories as used in these reports. | 'By including climate risks in the annual supervisory reports for each bank by the country regulator (or the European regulator), a front-running approach is taken that motivates banks to likewise consider climate risks. |
| 7 | Supervisory reports/Risk profiles do in a standardized way refer to climate change related risk with an appropriate long-term perspective, but risks are not integrated in/mainstreamed with standard risk categories and metrics. | |
| 4 | Supervisory reports/Risk profiles do only implicitly cover climate change related risks, with no standardized approach and at best some reference to an appropriate long-term perspective. | |
| 0 | No reference to climate change related risks in supervisory reports. | |

## 4. BANKING STRESS TESTS CONSIDER CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Banking stress test methodology includes the compulsory requirement to consider scenarios with all physical and transition risks of climate change with an appropriate long-term perspective. In particular, there is a guidance on concrete transformational assumptions as for instance: $CO_2$ prices/pathways; transformation pathways in key economic sectors in particular in the energy sector; adaptation scenarios; etc. | 'By expanding financial/macro economic stress testing by a short and long-term perspective of climate risks and their impact, climate risks can be considered mainstreamed. |
| 7 | Banking stress test methodology includes the explicit recommendation to include scenarios for physical and transition risks of climate change with an appropriate long-term perspective. | |
| 4 | Banking stress test methodology at least implicitly includes the option to include some aspects of climate change risks in stress tests with an appropriate long-term perspective. | |
| 0 | Banking stress test methodology does not refer to climate change risks. | |

## 5. CAPITAL REQUIREMENTS REFLECT ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Capital requirements do fully reflect underlying climate change risks (as understood today according to mainstream scenarios, e.g. 2-degree-compatibility) and the degree of resilience of assets, and taking an appropriate long-term perspective. | 'Capital requirements have to reflect the underlying risk of an asset, and it thus needs to include a perspective on climate change risks. Or otherwise said: climate-unfriendly assets need to be liable for their climate risks. |
| 7 | There is a consideration of climate risks for "brown" assets, no positive consideration of positive climate risks (i.e. opportunities) for green assets. There are no requirement that do hinder long-term sustainable investment while not being critical for safeguarding financial stability. | |
| 4 | Climate change risks do not play a role in capital requirements.  Neither are there distortions. | |
| 0 | Climate change risks are reflected in a distorting manner because "brown" assets are in fact treated more favourable than green assets (e.g. subsidized brown assets, or renewables being understood more risky due to less market maturity). There are requirement that hinder long-term sustainable investment while not being critical for safeguarding financial stability. | |

## 1 SUPERVISION OF INSURANCE GOVERNANCE REFLECTING CLIMATE CHANGE RELATED RISK

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | There is a compulsory guidance on how insurers need to demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an appropriate long-term perspective | Corporate culture that reflects climate change related risk is a key component to frame the transition to a sustainable finance system. |
| 7 | There is a regulatory guidance on how insurers need to demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an approriate long-term perspective. | |
| 4 | There is some initial practice on how insurers can demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an approriate long-term perspective. | |
| 0 | There is no practice on how insurers need to demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an approriate long-term perspective. | |

## 2 MINIMUM REQUIREMENTS FOR INSURANCE RISK MANAGEMENT INCLUDE ESG/ CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Regulator‘s minimum requirements for insurance risk management explicitly refer to the full range of climate change related risks and provide guidance how to include them and compulsorily apply them in the standard insurance risk categories with an appropriate long-term perspective. | '- Regulators‘ compulsory requirement of integrating climate risks and an appropriate long-term perspective in standard risk categories/ metrics contributes to a mainstreaming of these risks in the standard financial risk management perspective and an "informed consent on sustainability/climate change" (HLEG FinRep). |
| 7 | Climate risks are explicitly referred to in regulator‘s minimum requirements or additional support documents, together with initial guidance on how they can be included in standard insurance risk categories and with an appropriate long-term-perspective, but their consideration is recommended only and not compulsory. | |
| 4 | Climate risks are in principle included in or at least implicitly covered by regulator‘s minimum requirements or additional support documents, however with no guidance on how to include them in standard insurance risk categories. | |
| 0 | Climate risks are not referred to in regulator‘s minimum requirements for insurance risk management nor in additional support documents. | |

## 3. SCOPE OF SUPERVISORY REVIEW OF THE INSURANCE COMPANY COVERS ESG/ CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | All physical and transition risks of climate change are fully considered with an appropriate long-term perspective in regulator's annual supervisory report of insurers (e.g. "risk profile") and mainstreamed to the standard risk categories as used in these reports. | 'By including climate risks in the annual/regular supervisory reports for each insurer/ pension fund by the country/ sub-national regulator (or the European regulator), a front-running approach is taken that motivates insurance companies and pension funds to likewise consider climate risks. |
| 7 | Supervisory reports do in a standardized way refer to climate change related risk with an appropriate long-term perspective, but risks are not integrated in/mainstreamed with standard risk categories and metrics. | |
| 4 | Supervisory reports do only implicitly cover climate change related risks, with no standardized approach and at best some reference to an appropriate long-term perspective. | |
| 0 | No reference to climate change related risks in supervisory reports. | |

## 4. INSURANCE STRESS TESTS CONSIDER ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Insurance stress test methodology includes the compulsory requirement to consider scenarios with all physical and transition risks of climate change with an appropriate long-term perspective. In particular, there is a guidance on concrete transformational assumptions as for instance: CO2 prices/pathways; transformation pathways in key economic sectors in particular in the energy sector; adaptation scenarios; etc. | 'By expanding financial/macro economic stress testing by a short and long-term perspective of climate risks and their impact, climate risks can be considered mainstreamed. |
| 7 | Insurance stress test methodology includes the explicit recommendation to include scenarios for physical and transition risks of climate change with an appropriate long-term perspective. | |
| 4 | Insurance stress test methodology at least implicitly includes the option to include some aspects of climate change risks in stress tests with an appropriate long-term perspective. | |
| 0 | Insurance stress test methodology does not refer to climate change risks. | |

## 5. CAPITAL REQUIREMENTS REFLECT ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Capital requirements do fully reflect underlying climate change risks (as understood today according to main-stream scenarios, e.g. 2-degree-compatibility) and the degree of resilience of assets, and taking an appropriate long-term perspective. | 'Capital requirements have to reflect the underlying risk of an asset, and it thus needs to include a perspective on climate change risks. Or otherwise said: climate-unfriendly assets need to be liable for their climate risks. |
| 7 | There is a consideration of climate risks for "brown" assets, no positive consideration of positive climate risks (i.e. opportunities) for green assets. There are no requirement that do hinder long-term sustainable investment while not being critical for safeguarding financial stability. | |
| 4 | Climate change risks do not play a role in capital requirements.  Neither are there distortions. | |
| 0 | Climate change risks are reflected in a distorting manner because "brown" assets are in fact treated more favourable than green assets (e.g. subsidized brown assets, or renewables being understood more risky due to less market maturity). There are requirement that hinder long-term sustainable investment while not being critical for safeguarding financial stability. | |

## 1 SUPERVISION OF PENSION FUND GOVERNANCE REFLECTING CLIMATE CHANGE RELATED RISK

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | There is a compulsory guidance on how pension funds need to demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an appropriate long-term perspective | 'Corporate culture that reflects climate change related risk is a key component to frame the transition to a sustainable finance system. |
| 7 | There is a regulatory guidance on how pension funds need to demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an appropriate long-term perspective | |
| 4 | There is some initial practice on how pension funds can demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an appropriate long-term perspective | |
| 0 | There is no practice on how pension funds need to demonstrate that the board anticipates the full range of physical and transition risks resulting from climate change with an appropriate long-term perspective | |

## 2 MINIMUM REQUIREMENTS FOR PENSION FUND RISK MANAGEMENT INCLUDE CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Regulator‘s minimum requirements for pension funds risk management explicitly refer to the full range of climate change related risks and provide guidance how to include them and compulsorily apply them in the standard risk metrics with an appropriate long-term perspective. | '- Regulators‘ compulsory requirement of integrating climate risks and an appropriate long-term perspective in standard risk categories/ metrics contributes to a mainstreaming of these risks in the standard financial risk management perspective and an "informed consent on sustainability/climate change" (HLEG FinRep). |
| 7 | Climate risks are explicitly referred to in regulator‘s minimum requirements or additional support documents, together with initial guidance on how they can be included in standard pension funds risk metrics and with an appropriate long-term-perspective, but their consideration is recommended only and not compulsory. | |
| 4 | Climate risks are in principle included in or at least implicitly covered by regulator‘s minimum requirements or additional support documents, however with no guidance on how to include them in standard pension funds risk metrics. | |
| 0 | Climate risks are not referred to in regulator‘s minimum requirements for pension funds risk management nor in additional support documents. | |

## 3. SCOPE OF SUPERVISORY REVIEW OF THE PENSION FUNDS COVERS ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | All physical and transition risks of climate change are fully considered with an appropriate long-term perspective in regulator's annual supervisory report of pension funds and mainstreamed to the standard risk categories as used in these reports. | 'By including climate risks in the annual/regular supervisory reports for each insurer/pension fund by the country/sub-national regulator (or the European regulator), a front-running approach is taken that motivates insurance companies and pension funds to likewise consider climate risks. |
| 7 | Supervisory reports do in a standardized way refer to climate change related risk with an appropriate long-term perspective, but risks are not integrated in/mainstreamed with standard risk categories and metrics. | |
| 4 | Supervisory reports do only implicitly cover climate change related risks, with no standardized approach and at best some reference to an appropriate long-term perspective. | |
| 0 | No reference to climate change related risks in supervisory reports. | |

## 4. CAPITAL REQUIREMENTS FOR PENSION FUNDS REFLECT ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Capital requirements do fully reflect underlying climate change risks (as understood today according to mainstream scenarios, e.g. 2-degree-compatibility) and the degree of resilience of assets, and taking an appropriate long-term perspective. | 'Capital requirements have to reflect the underlying risk of an asset, and it thus needs to include a perspective on climate change risks. Or otherwise said: climate-unfriendly assets need to be liable for their climate risks. |
| 7 | There is a consideration of climate risks for "brown" assets, no positive consideration of positive climate risks (i.e. opportunities) for green assets. There are no requirement that do hinder long-term sustainable investment while not being critical for safeguarding financial stability. | |
| 4 | Climate change risks do not play a role in capital requirements.  Neither are there distortions. | |
| 0 | Climate change risks are reflected in a distorting manner because "brown" assets are in fact treated more favourable than green assets (e.g. subsidized brown assets, or renewables being understood more risky due to less market maturity). There are requirement that hinder long-term sustainable investment while not being critical for safeguarding financial stability. | |

**SUPERVISION, RISK MANAGEMENT AND SYSTEM STABILITY** **(Dimension)**
Regulation / Supervision asset managers and investment funds (Sub-dimension)

## 1 REQUIREMENTS FOR ORGANISATION, CAPITAL REQUIREMENTS AND RISK MANAGEMENT INCLUDE ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Regulator's minimum requirements for asset/fund managers explicitly refer to the full range of climate change risk and provide guidance how to include and compulsorily apply them in risk management and capital requirements of asset managers and investment funds, with an appropriate long-term perspective. | '- Regulators' compulsory requirement of integrating climate risks and an appropriate long-term perspective in standard risk management and capital requirements contributes to a mainstreaming of these risks in the standard financial risk management perspective and an "informed consent on sustainability/climate change" (HLEG FinRep). |
| 7 | Climate risks are referred to as material risks in regulator's minimum requirements or additional support documents, together with guidance on how they can be included with an appropriate long-term perspective, but their consideration is recommended only and not compulsory. | |
| 4 | Climate risks are at least implicitly referred to in regulator's minimum requirements or additional support documents, however with no guidance on how to integrate them in standard risk management. There is reference to an appropriate long-term perspective. | |
| 0 | Climate risks are not referred to in regulator's minimum requirements for asset/fund managers regarding risk management and capital requirements. | |

**SUPERVISION, RISK MANAGEMENT AND SYSTEM STABILITY** **(Dimension)**
Regulation / Supervision rating agencies (Sub-dimension)

## 1 REQUIREMENTS FOR ORGANISATION AND RISK MANAGEMENT INCLUDE ESG/CLIMATE RISKS AND A LONG-TERM PERSPECTIVE

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Regulator's minimum requirements for rating agencies regarding risk management explicitly refer to the full range of climate change risk and an appropriate long-term perspective, and provide guidance how to include them and compulsorily apply them. | Regulators' compulsory requirement of integrating climate risks and an approriate long-term perspective in standard rating agencies' risk categories/risk metrics contributes to a mainstreaming of these risks in the standard financial risk management perspective and an "informed consent on sustainability/climate change" (HLEG FinRep). |
| 7 | Climate risks are referred to as material risks and reference is given to an appropriate long-term perspective in regulator's minimum requirements or additional support documents, together with guidance on how they can be included, but their consideration is not compulsory. | |
| 4 | Climate risks are (at least implicitly) referred to in regulator's minimum requirements or additional support documents, however with no guidance on how to include them in standard risk categories and no guidance for an appropriate long-term perspective. | |
| 0 | Climate risks are not referred to in regulator's minimum requirements for rating agencies regarding risk management nor in additional support documents. | |

**ENABLING ENVIRONMENT** **(Dimension)**
Established and maintained common taxonomy (Sub-dimension)

## 1 ESTABLISHED AND MAINTAINED COMMON TAXONOMY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Green finance taxonomy as policy providing a shared classification of activities and that is obliging its appropriation by market participants. The taxonomy is objective and neutral. Furthermore, the taxonomy is linked to international climate goals and national policy pathways to achieve these. | It is assumed that a taxonomy has to be defined as a precondition and underlying basis for all further regulatory actions. Thereby, the taxonomy is supposed to be neutral and not subject to any political position while further regulation will indicate a political position. |
| 7 | Green finance taxonomy as policy that is obliging its appropriation by market participants. Furthermore, the taxonomy is linked to international climate goals and national policy pathways to achieve these. / Green finance taxonomy that is not neutral. / Green finance taxonomy covers only parts of the market e.g. green bonds. | |
| 4 | Green finance taxonomy as concept note/ governmental initiative w/o regulatory impact. This campaign is still mostly marketing driven aims to foster voluntary engagement e.g. by tendering a prize. | |
| 0 | No taxonomy at all. | |

**ENABLING ENVIRONMENT** **(Dimension)**
Supporting green finance with public incentives (Sub-dimension)

## 1 GOVERNMENT PROVIDES FINANCING INSTRUMENTS FOR GREEN INVESTMENTS

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | There are financing instruments, which address all major barriers for climate change related investments. These instruments include: guarantees, grants, funds. The government is improved in providing these instruments and it is already business as usual. | 'Public support can be necessary due to market failure (pricing in of externalities). Time limited support may induce the development of a green finance market. Dedicated financing instruments can help to change the risk perception of market participants and thereby increase their engagement in the long run. |
| 7 | The government provides either guarantees, grants or funds to address the barriers. | |
| 4 | There are plans to introduce financing instruments in the near future but no instruments are available yet. | |
| 0 | There are no financing instruments for climate change related investments. | |

## 2. THERE ARE SUBSIDIES FOR SUSTAINABLE INVESTMENTS / FISCAL POLICY / TAXATION OF PRODUCTS THAT REFLECT ESG CRITERIA

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | The government provides a variety of subsidies and carbon taxes /trading schemes to accelerate climate change related investments. These subsidies include: interest subsidies, subsidized credit lines and tax reliefs for profits gained from climate change related investments. | 'Public support can be necessary due to market failure (pricing in of externalities). Time limited support may induce the development of a green finance market. To encourage and accelerate green investment the public sector needs to foster supportive enabling environments. Incentives either through tax adjustments or subsidies can reduce the overall costs of climate change related options and therefore motivate the private sector to provide money. |
| 7 | There are either interest subsidies, subsidized credit lines, carbon taxes / trading schemes or tax reliefs. | |
| 4 | The government plans to provide subsidies and raise carbon tax / trading scheme in the near future but no instruments are available yet. | |
| 0 | There are no subsidies. | |

**ENABLING ENVIRONMENT** **(Dimension)**
2-Degree consistency of public sector acting (Sub-dimension)

## 1 GOVERNMENT REFLECTS CLIMATE CHANGE RELATED RISKS IN ITS INVESTMENT STRATEGY

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | The public investment strategy is clearly formulated and reflects all climate related risks. The strategy is transparent, consistent and thought in a long term perspective. | Acting as a role model can trigger behavioural change. Own public climate related investments can reduce the high risk perception of financial products and therefore spread confidence in the investment landscape. |
| 7 | Even though there is no clearly formulated investment strategy, in practice public investments reflect climate change related risks and a clear line can be seen. | |
| 4 | There is a plan to define a public investment strategy in near future, which takes climate change related risks into account. Some entities/federal states developed their own criteria for investments which include climate change related risks. But still, there is no clear line to see throughout the whole country. | |
| 0 | Climate related risks are not taken into account. There is no plan to develop a new holistic climate reflected investment strategy. | |

## 2 GOVERNMENT AGENCIES ISSUE GREEN BONDS

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | The government itself issues sovereign green bonds/ a government agency issues green bonds. The government/agency issues an ambitious volume and has plans to do so further. Issuing green bonds is part of the long-term strategy of government. | In fields that are not common yet, governments can reach wider confidence through behaving in an exemplary manner or even provide own public products. |
| 7 | A government agency issues green bonds/ a government agency issues green bonds. Green bonds is only a low-key business and volumes are modest. | |
| 4 | No green bonds have been issued but there is the plan to do so in the near future. | |
| 0 | Neither the government itself nor an agency issues green bonds/ no plans exist to issue green bonds in the future | |

## 3 GREEN PUBLIC INSTITUTION THAT PROVIDES FINANCIAL SERVICES

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | There is a green public institution that provides financial services. | In fields that are not common yet, governments can reach wider confidence through behaving in an exemplary manner or even provide own public products. |
| 7 | Within a public financial institution exists a green arm or a specialized green department which provides assistance for a transition to green economy and climate change/ the government plans to stablish a green public financial institution | |
| 4 | There is a public financial institution which provides green programmes/ government plans to introduce a green department within a public financial institution. | |
| 0 | There is no green public entity/ there are no plans to stablish something similar | |

## 4 CENTRAL BANKS DISCLOSURE ON CLIMATE-RELATED RISKS

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Reporting on climate change related aspects is mandatory. The central bank is obliged to, especially report on (i) board's oversight of climate change related topics that affect monetary policy (ii) assessing, measuring and managing climate change related risks and opportunities in its portfolio. | As a central stakeholder in the financial systems, central banks can act as role model for other financial institutions and thus actively support the development of disclosure o n climate change related aspects. |
| 7 | Reporting on climate change related aspects is mandatory. The regulation specifies the required content unsatisfyingly / aspects above are only partially covered. Disclosure regulation is including only some aspects of the central banks' portfolio. | |
| 4 | Non-binding / inconsistent reporting on climate change related aspects is in place. Abovementioned climate change related aspects in disclosure regulation are partially not covered. | |
| 0 | The central bank does not disclose climate change related aspects./Only very limited majorly insufficient information on climate change related activity is disclosed. | |

**ENABLING ENVIRONMENT** **(Dimension)**
Public capacity building and awareness raising on green finance (Sub-dimension)

## 1 PROVIDING FREE GREEN LABEL CERTIFICATIONS

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | The government provides free green label certifications, which ensure that financial products meet certain criteria. These labels broadly consider transparency and disclosure and ensuring availability of information necessary to evaluate the environmental impact of climate change related financial products. | 'The success of EU organic and ecolabels demonstrates that consumer labels can be efficient tools to mobilize citizens, change consumption patterns, and increase transparency and consumer protection. A green label for financial products could create more comparability and confidence for consumers. More than just defining a common taxonomy, its about the free providence of a certification. |
| 7 | The government provides a green label certification, which certifies some financial products, like green bonds, but does not cover the whole range of provided products. | |
| 4 | The government plans to introduce a free label certification, which verifies green financial products. | |
| 0 | There is no free green label certification/ There is no plan to introduce a free green label verification. | |

## 2 CONSUMER EDUCATION ON GREEN FINANCE IS INTEGRATED IN CURRICULA (SCHOOLS, UNIVERSITIES, GENERAL PUBLIC EDUCATION)

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | Green finance is a mandatory content of all curricula. Moreover, governmental agencies provide free comprehensive information material on green finance tailor made for civil society. | 'To lead consumers to be aware of climate change and the impact of finance towards it, the state should provide information and therefore raise the awareness of its market participants. This information should be targeted to civil society and generate a knowledge-base. |
| 7 | In some curricula (schools, universities, professional education or general public education) a modified form of green finance and sustainability is included. | |
| 4 | The government plans to include the topic of green finance in curricula. Governmental agencies provide information material for civil society, which partly include the topic of green finance. | |
| 0 | Green finance is not embedded in any curricula and no plans exist to change anything here. | |

## 1 GREEN PUBLIC-PRIVATE INITIATIVES OF FINANCIAL CENTRES

| SCALE | DESCRIPTION | CAUSE-EFFECT-CHAIN |
|---|---|---|
| 10 | The country's financial centre has a green initiative that is very actively seeking to implement all measures necessary to cover climate change related aspects. The green initiative is a cooperation between public and private partners and covers the majority of the financial industry. The initiative has successfully moved the financial industry towards integrating climate related aspects. | 'The cooperation of the private and the public sector on jointly developing climate change related aspects of finance will fosters its emergence and ensure a practical approach towards its implementation. |
| 7 | The country's financial centre has a green initiative that is actively seeking to implement key measures necessary to cover climate change related aspects. The green initiative is a cooperation between public and private partners and could be considered representative of the financial industry. The initiative has successfully implemented first projects towards integrating climate related aspects. | |
| 4 | The country's financial centre is in the process of setting up a green initiative that is seeking to implement measures necessary to cover climate change related aspects. The green initiative is a cooperation between public and private partners and has signed up first supporting institutions. The initiative has defined goals for the financial industry towards integrating climate related aspects. | |
| 0 | No green initiative is in place and no concrete plans for such an initiative exist. | |

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