

IOPS Technical Committee

**Draft guidelines on the application of ESG factors  
in supervision of pension fund investment and  
risk management**

5 June 2018  
Paris, France

- This document is for discussion and has been developed on the basis of comments received during and after the IOPS meeting in Dublin on 22 February 2018.
- Members will be kindly invited to provide their further written comments by 29 June 2018.
- The next draft will be presented at IOPS Technical Committee meeting in Beijing, China on 24 October 2018 after a possible further round of written comments.



## DRAFT GUIDELINES ON THE APPLICATION OF ESG FACTORS IN SUPERVISION OF PENSION FUND INVESTMENT AND RISK MANAGEMENT

### Background note

1. Investment and risk management of pension funds constitute one of the most important elements of governance. Some of the issues related to investment and risk management process of pension funds were already addressed in the OECD Core Principles of Private Pension Regulation (2016)<sup>1</sup>, the OECD/IOPS Good Practices for Pension Funds' Risk Management Systems (2011), and the OECD/IOPS Good Practices on Pension Funds' Use of Alternative Instruments and Derivatives (2011). The OECD Core Principles of Private Pension Regulation deal with investment and risk management process (Core Principle 4) in general<sup>2</sup>, whereas the above OECD/IOPS Practices focus on risk management and investment process of pension funds in the context of alternative instruments and derivatives.

2. However, recent developments show that in their investment analysis process pension funds (like other institutional investors) take more and more often into account environmental, social and governance (ESG) risks and opportunities in their investments<sup>3</sup>. In the context of pension funds, such an expectation may arise from fund members, investment managers or policy makers. Pension fund members might be concerned about various issues in relation to companies they invest in, such as for example, environmental factors, fair treatment of the labour force or production of controversial weapons. Members may therefore exert pressure on governing body to alter pension fund's asset allocation. Pension fund investment managers may be worried of the potential effects of the implementation of policy measures (new regulations) that may have adverse impact on the value of their investment portfolio. The drive for such change in the mind set can also be prompted by already existing new regulations and the rapidly evolving initiatives of international organisations. These relate to developments such as the Paris Agreement – a global climate treaty negotiated at the COP21 meeting in Paris in October 2016, the work of the PRI<sup>4</sup> and the Task Force on Climate-related Financial Disclosures<sup>5</sup>, or new IORP II Directive. Most recently, the Central Banks and Supervisors Network for Greening the Financial System was established to better understand and manage the financial risks and opportunity of climate change<sup>6</sup>.

3. The Paris Agreement commits signatories to follow through with their pledges to help contain global warming to within 2°C of pre-industrial levels by introducing legislation to mitigate climate change. From the perspective of the pension funds, this implies that a possible depreciation of assets in the future may occur due to changes in regulations and/or asset allocation by institutional investors. Indeed, following the

<sup>1</sup> <http://www.oecd.org/finance/principles-private-pension-regulation.htm>

<sup>2</sup> The Core Principle 4 provides implementing guidelines on such key features as: retirement income objective and prudential principles; prudent person standards – fiduciary standards and safeguards; investment policy – objectives, process and review; portfolio limits and other quantitative requirements; valuation of pension assets; performance assessment and monitoring procedure.

<sup>3</sup> See for example OECD (2017) *Investment governance and the integration of environmental, social and governance factors*, <https://www.oecd.org/finance/Investment-Governance-Integration-ESG-Factors.pdf>

<sup>4</sup> See a comprehensive report on the state of fiduciary duties: *Century Fiduciary Duty in the 21 Century*, UN Global Compact, UNEP Finance Initiative, PRI Principles for Responsible Investment, UNEP Inquiry: Design of a Sustainable Financial System, 2015, [http://www.unepfi.org/fileadmin/documents/fiduciary\\_duty\\_-\\_21st\\_century.pdf](http://www.unepfi.org/fileadmin/documents/fiduciary_duty_-_21st_century.pdf)

<sup>5</sup> <https://www.fsb-tcfd.org/>

<sup>6</sup> <https://www.banque-france.fr/en/communiqu-e-de-presse/joint-statement-founding-members-central-banks-and-supervisors-network-greening-financial-system-one> (19 January 2018)

implementation of the IORP II Directive, pension funds in the European Union classified as Institutions for Occupational Retirement Provision (IORP) will be required to conduct risk management assessment “which should, where relevant, include, inter alia, risks related to climate change, use of resources, the environment, social risks, and risks related to the depreciation of assets due to regulatory change (‘stranded assets’)”<sup>7</sup>. Moreover, the IORP II Directive will require that IOPRs explicitly disclose where ESG factors are considered in investment decisions and how they form part of their risk management system<sup>8</sup>.

[Please provide further examples of jurisdictions where ESG issues are addressed in legislation] For instance, in Brazil, Resolution 3792 requires investors to take social and environmental factors into account when making investment decisions.

4. Institutional investors, including pension funds, concerned about climate issues could disinvest from carbon investments. Another option is the disclosure of climate-related information (including carbon footprints) when institutional investors engage with the companies. The industry-led Task Force on Climate-related Financial Disclosures, established by the Financial Stability Board, works to help identify the information needed by investors, lenders, and insurance underwriters to appropriately assess and price climate-related risks and opportunities. The Task Force developed voluntary, consistent climate-related financial disclosures that would be useful to investors, lenders, and insurance underwriters in understanding material risks<sup>9</sup>. The Task Force expects that its recommendations will be followed not only by all financial and non-financial organisations with public debt or equity but also by organisations across all sectors, including asset managers and asset owners such as public- and private-sector pension plans and insurance companies. The rationale is that “climate-related financial information should be provided to asset managers’ clients and asset owners’ beneficiaries so that they may better understand the performance of their assets, consider the risks of their investments, and make more informed investment choices”.

5. The above developments mean that in order to be able to properly evaluate and supervise the investment decisions taken by pension fund managers, pension supervisors themselves need to have a better understanding of the ESG factors.

## Introduction to guidelines

6. Regulatory frameworks in most of the jurisdictions tend to focus (via risk-based controls and prudential standards) on governance of pension funds including risk management system but still do not explicitly refer to the Environmental, Social and Governance (ESG) factors<sup>10</sup>. This document contains a set of draft guidelines on the integration (i.e. interpretation, role and use) of ESG factors in the area of supervision of pension fund investment and risk management. These draft guidelines should be read in conjunction with the International Organisation of Pension Supervisors (IOPS) Principles of Private Pension Supervision<sup>11</sup> and good practices on pension funds investment governance<sup>12</sup>. The guidelines are

<sup>7</sup> IORP II Directive, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016L2341>, Preamble, point 57.

<sup>8</sup> “The relevance and materiality of ...[ESG]... factors to a scheme's investments and how such factors are taken into account should be part of the information provided by an IORP under this Directive. This does not preclude an IORP from satisfying the requirement by stating in such information that ...[ESG]... factors are not considered in its investment policy or that the costs of a system to monitor the relevance and materiality of such factors and how they are taken into account are disproportionate to the size, nature, scale and complexity of its activities.” (IORP II Directive, Preamble, point 57).

<sup>9</sup> Recommendations of the Task Force on Climate-related Financial Disclosures, December 2016, [https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16\\_1221\\_TCFD\\_Report\\_Letter.pdf](https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16_1221_TCFD_Report_Letter.pdf)

<sup>10</sup> OECD (2017), *Investment governance and the integration...*, op. cit.

<sup>11</sup> <http://www.iopsweb.org/principlesguidelines/IOPS-principles-private-pension-supervision.pdf>

voluntary in nature and are intended to guide regulators, supervisors, and other entities involved in supervision of pension risk management and investment. **Therefore, the word “should” is to be interpreted as an encouragement to supervisory authority to voluntarily adopt and implement them.** When elaborating these draft guidelines other existing international standards were considered to avoid duplication.

7. The subject matter is relatively new and dynamically evolving. Therefore, it will be critical for the IOPS to bring the views and experience of the Members on how the ESG factors should be considered and integrated in the supervision of investment and risk management of pension funds. The aim of this document is to gather these experiences and help supervisors respond to possible further regulatory developments in this area. The implementation of these draft guidelines may vary from jurisdiction to jurisdiction depending on the structure of private pension system. The implementation should also take into account the principle of proportionality, i.e. the scale of the pension funds and complexity of its governing structure.

8. Like the previously developed IOPS principles and guidelines, these guidelines are intended to apply to funded private pension funds or plans where assets are being invested in capital markets during accumulation and decumulation phases, regardless of whether these pension arrangements are voluntary or mandatory in nature and regardless of whether they serve as the primary or supplementary source of retirement income.

9. These draft guidelines use a working definition of Environmental, Social and Governance (ESG) factors elaborated by the OECD (2017): “indicators used to analyse a (investee) company’s prospects based on measures of its performance on environmental, social, ethical and corporate governance criteria.”<sup>13</sup> The investments by pension funds are long-term and are therefore exposed to the longer-term financial risks. ESG risks include those related to environmental issues (including climate change), unsustainable business or unsound corporate governance practices. In particular, complex and difficult to predict effects of climate change and related to them regulatory responses may have a long-term character and may not be immediately and fully reflected in financial markets. [ESG definition to be refined and possibly be illustrated by examples]

10. Other definitions might need to be elaborated at the later stages. For example, the definition of financial factors and non-financial factors. At this stage, for the use of these Guidelines *financial factors* are understood as those which may influence investment decisions (for example about disinvesting from a certain company) due to financial considerations (for example due to concerns about company’s future legal litigations or loss in shares’ value including ‘stranded assets’). *Non-financial factors* are those which also may influence investment decisions but such decisions are not motivated by financial reasons (for example a disinvestment from a company because of ethical considerations)<sup>14</sup>. Obviously, non-financial decisions still may have financial implications for the pension fund.

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<sup>12</sup> OECD/IOPS Good Practices on Pension Funds’ Use of Alternative Instruments and Derivatives (2011), OECD/IOPS Good Practices for Pension Funds’ Risk Management Systems (2011), IOPS Good Practices in the Risk Management of Alternative Investments by Pension Funds (2010).

<sup>13</sup> OECD (2017), *Investment governance and the integration...*, op. cit.

<sup>14</sup> Non-financial factors are “factors which might influence investment decisions that are motivated by other (non-financial) concerns, such as improving members’ quality of life or showing disapproval of certain industries.” (Definition by the UK Pensions Regulator (2014), *Fiduciary Duties of Investment Intermediaries Report Guidance*, <http://www.lawcom.gov.uk/project/fiduciary-duties-of-investment-intermediaries/> (22 January 2018)). In this vein, investment decisions influenced by these factors are not

11. Environmental risks may represent *physical risks* that stem from the direct impact of climate change on physical environment and individuals, for example, impacting resource availability, disrupting or damaging supply chain, or damaging property and assets in result of severe weather (droughts, floods, storms, change of sea and water levels, deforestation, waste and pollution etc.). They may also relate to *transition risks* that stem from the much wider set of changes in policy, law, markets, technology, investor sentiment and prices due to the transition towards a low-carbon economy<sup>15</sup>. Transition risks may therefore materialise themselves in re-pricing of carbon-intensive assets and reallocation of capital, adversely affecting asset owners and managers, including pension funds. Third group of risks related to climate change are *liability risks* that may affect insurers, governments and government agencies<sup>16</sup> due to legal or moral responsibility to cover financial losses caused by climate-change-induced events. *Social risks* relate to working conditions, including slavery and child labour; local communities, including indigenous communities; conflicts; health and safety issues; employee relations and diversity, etc.<sup>17</sup> Also, technological innovations, including digital changes can, beside opportunities, create some social and operational risks. *Governance risks* [better explanation to be provided] relate to executive pay, bribery and corruption, political lobbying and donations, board diversity and structure, tax strategy, etc.<sup>18</sup>

12. These draft guidelines are submitted for discussion by IOPS Members. At a later stage, they will also benefit from the input from the OECD Working Party on Private Pensions and other international organisations.

13. *Delegates are invited to comment on this second draft of the guidelines.*

## **I. ESG factors in the investment process**

*1.1. Supervisory authorities should require that a pension fund governing body consider all substantial financial factors, including environmental, social and governance factors (ESG) that may contribute to achieving the long-term retirement objectives of pension fund members and their beneficiaries. In particular, such wider considerations should be taken into account in pension fund's investment and risk management process.*

*1.2. Supervisory authorities should clarify to pension fund governing body, trustees or asset managers that the explicit integration of ESG factors into pension fund investment and risk management process does not on its own automatically conflict with their fiduciary duties.*

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motivated by financial reasons even though their effects can be quantified in financial terms (e.g. withdrawing investments from a particular industry due to ethical concerns).

<sup>15</sup> Some supervisors have already acknowledged that some climate risks can have financial consequences (see speech *Australia's new horizon: Climate change challenges and prudential risk* by Geoff Summerhayes, Executive Board Member delivered at the Insurance Council of Australia Annual Forum, Sydney, 17 February 2017, <http://www.apra.gov.au/Speeches/Pages/Australias-new-horizon.aspx> (10 January 2018); Bank of England, *The impact of climate change on the UK insurance sector. A Climate Change Adaptation Report* by the Prudential Regulation Authority, September 2018, <https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/impact-of-climate-change-on-the-uk-insurance-sector.pdf?la=en&hash=EF9FE0FF9AEC940A2BA722324902FFBA49A5A29A> (15 January 2018).

<sup>16</sup> Bank of England, *The impact of climate change...*, op. cit.

<sup>17</sup> United Nations Principles for Responsible Investment, <https://www.unpri.org/about/what-is-responsible-investment> (15 January 2018).

<sup>18</sup> United Nations Principles..., op. cit.

1.3. When offering a default investment arrangement, the pension fund's investment policy statement should include an explanation on how ESG factors are taken into account.

1.4. The overall risk/return objectives (i.e. financial considerations) need to be met while setting and implementing an investment. Therefore, pension funds should refrain from investing solely on non-financial (e.g. ethical) grounds unless pros and cons of such investment strategy can be quantified in financial terms.

### Annotation

14. (1.1) The OECD Core Principles of Private Pension Regulation state that the duty of pension providers is to manage the assets in the best interests of their members. Objectives of investment undertaken on behalf of pension fund members have been traditionally defined by governing bodies and asset managers in financial terms: pension funds are typically expected to maximise the risk-adjusted returns/retirement benefits or to preserve the real value of pension assets/retirement benefits. They do so by focusing on financial risks. ESG-related factors are often considered to be non-financial<sup>19</sup> or be part of non-financial performance indicators<sup>20</sup>. However, even so, ESG-related factors may have a direct, and potentially substantial, financial impact on savings and wealth-being of pension fund members, particularly in the longer term. Therefore, for the purpose of this document ESG factors will be considered as financial ones<sup>21</sup>. Indeed, ESG factors may materially impact the long-term risk and return of investments, company's valuation and reputational risk, as well on its operational efficiency (governance). As a result, a prudent investor should integrate these factors into their investment and risk management process.

15. (1.2.) Governing bodies of pension funds in some jurisdictions have already started integrating ESG factors in their investment and risk management process<sup>22</sup>. However in some jurisdictions, particularly in common law jurisdictions where trustees constitute the pension governing bodies, a lack of guidance from pension supervisory authorities on integration of ESG factors may create legal uncertainty on how such integration fits with governing bodies' legal, regulatory and other obligations<sup>23</sup>. ESG-related investment may provide opportunities related to clean technologies, reduce the risk of financial losses due to physical damages caused by climate changes or environmental and regulatory changes<sup>24</sup>, help addressing social needs (such as communication with workers and stakeholders) and improve governance (for example, by avoiding companies with little engagement with minority stakeholders, opaque standards or conflicts of interests) [literature references to be provided]. Improved reputation and governance may translate in better

<sup>19</sup> <http://esg.adec-innovations.com/about-us/faqs/what-is-esg/> (10 January 2018), see also OECD (2017), *Investment governance and the integration...*, op. cit.

<sup>20</sup> <http://lexicon.ft.com/Term?term=ESG> (10 January 2018)

<sup>21</sup> See OECD (2017), *Investment governance and the integration...*, op. cit.

<sup>22</sup> Such as Australia, Canada, France, the UK (to be completed by the IOPS members)

<sup>23</sup> The European Commission-appointed High Level Expert Group (HLEG) on sustainable finance has recommended it be clarified that managing ESG risks is an integral part of fiduciary duty. According to HLEG, a single set of principles on fiduciary duty and the related concepts of loyalty and prudence should be established in the European Union. The asset managers should, in line of their fiduciary duty, implement the identification, disclosure and effective management of potential physical and transition risks posed by climate change (HLEG (2017) Interim Report, July 2017, <http://www.eurosif.org/wp-content/uploads/2017/07/HLEG-on-Sustainable-Finance-IR-For-website-publication.pdf>). See also HLEG (2018) Final Report, [https://ec.europa.eu/info/publications/180131-sustainable-finance-report\\_en](https://ec.europa.eu/info/publications/180131-sustainable-finance-report_en)).

<sup>24</sup> Therefore reducing or avoiding the risk of stranded assets that may occur due to changes in demand and/or regulatory changes.



financial performance. The guidance from supervisory authorities should eliminate uncertainty on integration of ESG factors in decision-making by pension governing bodies.

16. (1.3.) Default investment strategies, like any others, should be defined and explained in pension fund's investment policy statement. Such policy should establish clearly the financial objectives of the pension fund and the manner, in which objectives will be achieved, with objectives being consistent with the retirement object of the pension fund. It should also cover at a minimum strategic asset allocation, performance objectives, any broad decisions regarding tactical asset allocation, and trade execution, the use of external managers and establishing mechanisms for monitoring the costs of their services. A default investment policy should outline how the pension fund intends to consider environmental, social and governance risks or why these risks are not considered.

17. (1.4.) Governing body of a pension fund should not offer their members investment portfolios that take into account solely non-financial factors (i.e. are based on ethical considerations) unless effects of such investment strategies can be quantified in financial terms [Opinion of Members is sought: Can pension funds invest by considering also non-financial factors? E.g. what about sharia investments?] Even if their effects can be quantified in financial terms, such portfolios should not be the only options available for pension fund members.

## **II. Integration and disclosure of substantial financial factors in the investment and risk management process [potentially to be split into II. Integration and III. Reporting & disclosure sections – Members views are solicited]**

1.5. *Supervisory authorities should require that governing body, trustees, or asset managers involved in development and implementation of pension funds' investment policy will integrate all substantial financial factors, including ESG factors, into their investment strategies (analysis and decision-making process) and will report how they integrate ESG factors in their investment and risk management process. [Integration of ESG factors may be subject to the principle of proportionality, i.e. the scale of the pension funds and complexity of its governing structure.]*

1.6. *Supervisory authorities should issue a regulation or guidelines on how pension fund's governing body, trustees, or asset managers while setting up their investment policy should analyse substantial financial factors, including ESG factors. These instruments would be based on a common IOPS international guidance note.*

1.7. *Supervisory authorities should require that, in their investment policy statements, governing body, trustees or asset managers of a pension fund disclose to its members information about pension fund investment policies in relation to long-term sustainability, including ESG factors, stewardship and non-financial factors. Pension funds should also regularly provide reports on their engagement with investees as well as request companies in which they invest to disclose their ESG-related policies.*

### **Annotation**

18. (1.5.) While pursuing financial returns, pension fund governing body, trustees or asset managers should consider all substantial factors that can financially impact a pension fund. However, prudential regulations should not make a separate case for ESG risk factors or any other emerging risks (such as for example digital innovations) but encourage pension funds' governing bodies, trustees or asset managers to consider whether they should fully integrate these factors into their risk management and investment management process. Governing body should therefore integrate risk factors that are relevant for a pension funds and its members, and have them implemented in the overall investment process. Supervisory authorities should avoid being overly prescriptive on how governing bodies should deal with ESG factors

but rather emphasize the need to document the ways a particular governing body is treating such factors. Supervisory authorities should also request that in case these factors are not integrated in investment and risk management process, explanations are provided. The granularity level of incorporation of ESG factors and other substantial financial risks in investment and risk management process should be subject to proportionality principle, as smaller pension funds that outsource investment management activities may at the beginning find it more difficult and costly to incorporate all but the most substantial factors.

19. (1.5.) Supervisory authorities should expect that pension funds will report on their awareness of ESG-related risks, estimated exposure to these risks, and methods they incorporate ESG factors in their investment and risk management process. In particular, pension funds may wish to present their plans for the transition towards low carbon economy and the ways they manage risks related to changes to market sentiment, new financial or environmental regulations or the emergence of new technologies.<sup>25</sup> A possible form of reporting of the integration of the ESG factors in the investment and risk management process can be the provision of the investment policy and the risk management rules to the supervisory authority. [Members views are sought on forms of reporting, e.g. publication of information, provision to supervisor or both?] Based upon the information received from supervised entities, supervisory authorities may consider developing a heat-map of potential ESG-related risks, including climate change, in its pension industry and/or identify entities with the best practices.

20. (1.6.) Supervisory authorities should issue guidelines to pension fund stakeholders on how governing body should accommodate or integrate in their investment policy factors that are financially material to the performance of an investment, including ESG factors, as well as any other issues that are financially significant<sup>26</sup>. Such guidelines will be developed by the IOPS. Supervisory authorities should ensure that pension fund managing body, trustees and asset managers analyse these factors in terms of implications for pension funds members and beneficiaries. Supervisory authorities may allow fund managers/providers to offer pension fund members investment options which integrate non-financial factors (e.g. ethical considerations) in the investment and risk management process, provided that such options do not exceed prudent limits and do not pose a risk of significant financial detriment to pension savings of members and their beneficiaries.

21. (1.6. cont.) Investment policy statement should define a pension fund's risk appetite in line with the members' preferences and specific attributes of the fund. Therefore such approach should be broader than incorporating the ESG aspects only. In particular, in order to be able to undertake any investment strategy that incorporates ESG or other emerging risks, governing body and asset managers should make sure they are able not only to identify but also measure and monitor these risks.

22. (1.6. cont.) Governing body of pension fund and asset managers should develop and implement an effective due diligence process for the selection of investments; determine appropriate measures to monitor the performance of investments on an ongoing basis; and review the investment objectives and investment strategies on a periodic basis. They should also formulate a liquidity management plan<sup>27</sup>.

23. (1.7.) Governing body of a pension fund or agents who exercise ownership rights of a pension fund, should disclose the information on their engagement with the companies the pension fund invests in,

<sup>25</sup> *The weight of money: a business case for climate risk resilience* by Geoff Summerhayes, Executive Board Member delivered at the Centre for Policy Development, Sydney on Wednesday, 29 November 2017, Sydney, <http://www.apra.gov.au/Speeches/Documents/CPD%20Speech%2029Nov2017.pdf> (10 January 2018)

<sup>26</sup> For example financial innovation issues such as block chain technology or robo-advice.

<sup>27</sup> Prudential Standard SPS 530, Investment Governance, APRA, July 2013, <http://www.apra.gov.au/Super/PrudentialFramework/Documents/Final-SPS-530-Investment-Governance-July-2013.pdf>



including voting and engagement rights, in order to safeguard sustainable returns in the long term. Investment, voting and engagement activities should be reported to pension fund members and stakeholders on regular basis<sup>28</sup>. Financial disclosures on ESG matters<sup>29</sup> (e.g. carbon footprints) should help investors appropriately assess and price ESG risks and opportunities, therefore creating the right incentives for investors, as well as help pension fund governing body, members and their beneficiaries understand the risks of pension fund investment and make more informed investment decisions. Pension funds should also be informed about the ESG-related policies of their investees (companies) and relevant disclosures.

### III. Other issues [for potential inclusion, to be further developed – Members views are solicited]

*1.8. Supervisory authorities should require that governing body, trustees or asset managers of a pension fund will develop appropriate scenario testing of its investment strategy, prior to implementation. Such test should consider all substantial financial factors, including ESG factors. The scope and complexity of stress tests should be subject to the principle of proportionality.*

#### **Annotation**

24. (1.8.) Governing body of a pension funds, trustees or asset managers should determine appropriate scenarios tests for each investment strategy. Scenario-based thinking about risks should support risk management. Such scenarios should cover a range of factors, including ESG factors<sup>30</sup> (climate risk scenarios in particular) that can cause extraordinary losses or make the control of risk in the investment strategy difficult. Governing body of a pension fund, trustees or asset managers should use these scenarios to undertake scenario testing in order to confirm that the particular investment strategy is appropriate, prior to implementation<sup>31</sup>. The principle of proportionality should apply.

<sup>28</sup> See for example NEST, Statement of investment policy, point 8.7, <https://www.nestpensions.org.uk/schemeweb/NestWeb/includes/public/docs/statement-of-investment-principles.PDF.pdf> (23 January 2018).

<sup>29</sup> With regard to climate-related information, the Task Force on Climate-related Financial Disclosures recommends institutional investors to disclose the information about: 1) the organization's governance around climate-related risks and opportunities; 2) the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning; 3) how the organization identifies, assesses, and manages climate-related risks; 4) the metrics and targets used to assess and manage relevant climate-related risks and opportunities. (*Recommendations of the Task Force...*, op. cit., p. 16).

<sup>30</sup> The Task Force on Climate-related Financial Disclosures recommends that financial investors describe the potential impact of different scenarios, including a 2°C scenario, on the organization's businesses, strategy, and financial planning. (*Recommendations of the Task Force...*, op. cit., p. 16).

<sup>31</sup> Cf. requirements for stress testing stipulated in Prudential Standard SPS 530, Investment Governance, APRA, July 2013, <http://www.apra.gov.au/Super/PrudentialFramework/Documents/Final-SPS-530-Investment-Governance-July-2013.pdf>