A review of the environmental, social and governance reporting among global pension plans and a proposed reporting framework

By John Anderson, Peter Devlin, Cristina Leicht, Constance Probst, Kalyani Das, Kurtney Durgaparsad and Yuvern Dokie

Presented at the Actuarial Society of South Africa's 2024 Convention
Cape Town International Convention Centre, 20–21 November 2024

ABSTRACT

In 1987, the United Nations Brundtland Commission defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." In recent years, the sustainability agenda has grown in importance, with many countries, regulators, industries shifting to implement sustainable practices. For retirement funds this means providing a lasting income in retirement for members, whilst ensuring a positive contribution to society and the environment. Retirement funds, with long-term liabilities, are therefore well placed and can play a significant role to contribute to the overall objective. This paper explores how retirement funds in various countries are progressing this agenda.

We then introduce a sustainability reporting index, which measures the breadth and quality of how retirement funds can report on pricing in social and environmental externalities in the provision of a pension promise. The sustainability reporting index includes the financial inclusion aspects of retirement funds as well as how social and environmental externalities can be factored into the running of a fund and how its assets are invested. It explores the key areas that need to be monitored, the types of data required and the types of analytics that can be used by various stakeholders.

The sustainability reporting index is intended to provide a benchmark against which various stakeholders can measure the effectiveness of their approach in pricing in these externalities. Actuaries of retirement funds can use the framework to go beyond focussing purely on the financial aspects of a fund, incorporating material non-financial aspects to ensure the provision of a sustainable pension income.

KEYWORDS
Externalities, sustainability reporting index

CONTACT DETAILS
Mr John Anderson, Alexforbes, Cape Town; Email: andersonjo@alexforbes.com
Mr Peter Devlin, Deloitte Consulting, Munich; Email: pdevlin@deloitte.de
Ms Cristina Leicht, Allvisa AG, Zürich; Email: cristina.leicht@allvisa.ch
Ms Constance Probst, Deloitte Consulting, Munich; Email: unprobst@deloitte.de
Ms Kalyani Das, Deloitte Consulting, Munich; Email: kalydas@deloitte.de
Ms Kurtney Durgaparsad, Alexforbes, Johannesburg; Email: naidookur@alexforbes.com
Mr Yuvern Dokie, Alexforbes, Johannesburg; Email: dokiey@alexforbes.com

1. INTRODUCTION

1.1 The concept of sustainability dates back hundreds, if not thousands, of years. Modern-day sustainable development revolves around integrating social and environmental issues alongside economic considerations (referred to as the "three-pillar approach"). A key milestone that brought this approach into the mainstream was the release of "Our Common Future" report by the United Nations Brundtland Commission (1987).

1.2 The United Nations Brundtland Commission defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs".

1.3 Since then, significant developments have taken place in relation to sustainability, including governments, regulators, and industries shifting towards sustainable practices.

1.4 A key component of these developments is to enable investors to obtain information from companies on externalities to enable price discovery in the market.

1.4.1 Externalities are the potential costs or benefits incurred by third parties who were not present in a transaction.

1.4.2 The inability of societies to honour property rights even when they can be defined gives rise to externalities, which are the unaccounted-for consequences for others, including future people, of actions taken by one or more persons. The qualifier "unaccounted-for" means that the consequences in question follow without prior engagement with those who are affected, or without due consideration for future people (Dasgupta, 2021).

1.4.3 Further to this, externalities can be positive or negative.

1.5 Overall, evidence to date suggests that certain key externalities are not yet fully priced into global markets.

1.5.1 The International Monetary Fund Financial Stability Report (2020) shows that climate risks are not priced into global equity valuations.

1.5.2 Dasgupta (2021) also argues that standard economic measures such as GDP (which is a key determinant in asset values and growth), do not account for the value of natural capital.

1.5.3 Whilst there has also been increasing data and reporting of companies around environmental, social and governance risks, Prall (2021) confirmed that there is a low correlation between the ratings awarded by the main environment, society, and the governance (ESG) rating providers for essentially the same measurement criteria (which investors would use to factor into their assessments of a particular stock).

1.5.4 The divergence in correlation of ESG ratings across the main ratings providers was confirmed by Berg et al. (2022), who found the correlation to be between 0.38 and 0.71.

1.5.5 Most investment strategies operate within the optimal risk/return paradigm, and systemic risks posed by factors such as climate change or social inequality are not fully integrated into investors' portfolio models. This creates a potential blind spot when it comes to financial risks and opportunities (Impact Investing Institute, 2020).

1.5.6 All investment has an impact on the real world. To a large extent, these impacts – for example job creation or natural resource consumption – are opaque to external investors, with limited information available from standard information sources (University of Cambridge Institute for Sustainability Leadership, 2019).

1.6 In order to assist various stakeholders with information related to material externalities, significant developments have taken place over the last decade concerning disclosure and reporting frameworks, which require institutions to report on their sustainable practices. This would assist in improving information available for investors to price externalities.

1.7 A key concept in such disclosures is in relation to the concept of double-materiality, which involves reporting on any material environmental, social and governance issues that affect the company or institution, as well as how the company's or institution activities impact these factors.

1.8 At present, the main standards and frameworks for sustainability-related reporting include: The Global Reporting Initiative (GRI), the International Sustainability Standards Board (ISSB) S1 and S2 standards, Sustainable Development Goals (SDGs), the Taskforce on Climate-Related Financial Disclosures (TCFD), the Taskforce for Nature-Related Financial Disclosures (TNFD), the Integrated Reporting Framework, the Global Impact Investing Network reporting framework (IRIS+) as well as various country and region-specific regulations and requirements (such as the European Sustainability Reporting Standards and the Sustainable Finance Disclosure Requirements).

1.9 Whilst there has been considerable consolidation of reporting requirements recently, there is still a large divergence in the adoption between countries and industries of these standards, as well as differences between the various approaches leading to difficulties in making comparisons for purposes of price discovery.

1.10 Retirement funds have an important role to play in channelling capital to responsible investments that minimise negative impacts or have a positive impact on the ESG of institutions. Given the long-term nature of the liabilities, (especially open) retirement funds are well placed to drive meaningful adoption of sustainable practices.

1.10.1 Such ESG-factored investments will enable sustainable returns for beneficiaries (International Finance Corporation, 2020).

1.10.2 Sun & Hu (2014) state that pension funds increase the capital supply to financial markets as well as promoting corporate governance, information disclosure and transaction efficiency.

1.10.3 The Financial Markets Law Committee (2024) argues that the approach taken by pension fund trustees can be expected to inform how the companies underlying their investments measure success and identify, address and monitor risk and return.

1.10.4 A study undertaken by Route2 & Aviva in 2021 concluded that switching the average individual's pension fund to sustainable investments can be 21 times more effective at cutting carbon footprints than individuals stopping flying, becoming vegetarian and moving to a renewable energy provider.

1.11 There is however no common global framework specifically relevant to retirement funds on how to report on their sustainable practices.

1.12 Within this context, we develop a sustainability reporting index that can be used to assist in ensuring that various stakeholders involved in managing a retirement fund on behalf of beneficiaries, provide information to enhance the pricing of externalities in delivering on the fund's pension objective. We then benchmark how the publicly available reporting and disclosure of some of the largest funds in various countries compare against this framework.

1.13 The framework and model can be used by advisors and trustees to review the management of a retirement fund and ensure that material sustainable issues are managed, monitored and reported.

2. CORE PURPOSE OF RETIREMENT FUND AND MATERIAL SUSTAINABILITY FACTORS

2.1 The core purpose of a retirement fund is to provide an income for an individual when they no longer derive an income from their human capital being used to work and derive an income. As such, a material aspect for retirement funds is to measure, monitor and report on whether members are on track for the income goals for which the retirement fund is set up.

2.1.1 For defined benefit funds this is to meet the pension promises by the sponsor of the fund which are defined and to ensure that the assets cover the liabilities.

2.1.2 For defined contribution funds, it is to set out whether individuals are on track and achieving the desired retirement outcomes, typically measured as a percentage of income replacement.

2.2 Studies confirm that the investment of pension fund assets impacts economic growth and market development.

2.2.1 Morina & Grima (2022) performed an econometric analysis which concluded that the investment of pension fund assets has positively impacted the economic growth of selected non-OECD countries (2002–2018).

2.2.2 Kajwang (2022) studied the relationship between pensions and economic growth – the results confirmed a positive relationship between retirement pension assets and economic growth.

2.2.3 An increase in the value of pension funds not only supplies the financial markets with more capital but also produces innovations in financial products, improves corporate governance, and improves the supervision and regulatory system, which are all good for financial development (Sun & Hu, 2014). In their study, Sun & Hu (2014) showed that the pension system and its value can explain differences between countries with respect to financial development and, more specifically, differences in stock markets.

2.2.4 Many studies have suggested that the lack of long-term pension funds investing in equities has contributed to the UK's lack of investment and thus low productivity growth.

2.2.5 A material aspect for retirement funds is to measure, monitor and report on is the level of contribution and assets, the extent to which ESG integration is embedded, the extent to which active stewardship is practised, and the impact (positive or negative) of such investments to the external environment.

2.3 Pension funds also influence financial literacy and financial planning capabilities of individuals.

2.3.1 Basiglio & Oggero (2020) studied the impact of pension information on individuals' economic outcomes. Specifically, the study found that the provision of pension information not only increases workers' knowledge about their benefits, but it also fosters individuals' retirement planning and decision-making. The study's literature review also showed that:

— only correctly informed workers are responsive to the incentives to work and the information letters, and
— other educational interventions, such as seminars, are found to increase both enrolment in retirement plans and the level of contributions paid in.

2.3.2 A study conducted by Mercer in 2017 highlighted that the extent to which individuals have confidence in their financial knowledge, leads to improved financial wellness outcomes (measured in terms of savings, insurance and reduced debt).

2.3.3 Alexforbes' empirical evidence from retirement fund member data between 2017 to 2023 confirmed that the decisions made by individuals around contributions, investment options, preservation and annuitisation selection were improved with event-driven financial information together with appropriate support and access to advice. As such, a material aspect for retirement funds to measure, monitor and report on is their ability to improve financial inclusion and decision-making.

2.4 Idiosyncratic risk is defined as risk that is unique to a specific country, company or industry. Retirement funds reduce this risk within their investment portfolios through diversification. Systematic risk (also known as market risk) relates to unavoidable risks that could affect a financial market and cause the values and prices of investments to change. Retirement funds can manage this risk via asset allocation in relation to their liabilities. Systemic risk, on the other hand, is risk that describes an event that causes a major collapse in the broader economy, market or industry and cannot be reduced through diversification. This form of risk has a very high potential impact, in some cases is long-term in nature and requires system changes in order to be addressed. Given the long-term horizon and their role in the financial sector, retirement funds should address the following key systemic risks.

2.4.1 **Climate change** Keen's report, "Loading the DICE against pension schemes" (2023), shows the growing systemic risks to financial and institutional investment and pension markets from the under-pricing of climate change. According to the Financial Markets Law Committee (2024), "… with climate-change related risks that are systemic, it is unlikely that diversification alone of a portfolio will be enough to avoid all the risks in the same way that non-systemic risks might be diversified away from";

2.4.2 **Nature and biodiversity risks** In 2023, the International Corporate Governance Network (ICGN), stated that "Biodiversity has jumped to the top of the global agenda, joining climate change and wealth inequality/social dislocation among the top three systemic risks facing investment institutions." (Walker, 2023)

2.4.3 **Diversity, equity and inclusion** The Taskforce for Inequality and Social Financial Disclosures (TISFD) was established in 2024, recognising the systemic effects of inequality and developing a framework to recognise and disclose these risks.

3. OVERVIEW OF EXISTING REPORTING FRAMEWORKS APPLICABLE IN SELECTED COUNTRIES

3.1 Germany

3.1.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.1.1.1 ESG laws in Germany mostly originate from EU regulations. As per the European Green Deal 2020, the European Commission aims to achieve climate neutrality in the European Union by 2050. ESG reporting consists of three interconnected regulations: the EU Taxonomy, the Non-Financial Reporting Directive (NFRD)/Corporate Sustainable Reporting Directive (CSRD), and EU Sustainable Finance Disclosure Regulation (SFDR).[1, 2]

3.1.1.2 The EU Taxonomy came into being in July 2020. EU Taxonomy is a classification system, which aims to have a common language to classify which economic activities can be considered as economically sustainable. An economic activity can be considered as sustainable or taxonomically eligible, if it contributes significantly to one of the six defined environmental objectives:

— mitigation of climate change,
— adaptation of climate change,
— sustainable use and protection of water and marine resources,
— transition to the circular economy,
— pollution prevention and control,
— protection and restoration of biodiversity and ecosystems, and does no harm to other environmental objectives and safeguards social issues.[3]

3.1.1.3 The purpose of the regulation is to protect market participants from "green washing" and to help investors to make informed sustainable decisions about their investments.

3.1.1.4 The NFRD mandates companies to publish a non-financial report on environmental, employee and social issues. The reports should also cover what portion of the revenue and capital expenditure/operating expenditure can be considered as environmentally sustainable.

1 https://iclg.com/practice-areas/environmental-social-and-governance-law/germany
2 https://www.greenomy.io/blog/relationships-csrd-eu-taxonomy-sfdr
3 https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

3.1.1.5 The NFRD was officially replaced by the Corporate Sustainable Reporting Directive (CSRD) in January 2023. Member states have eighteen months to transpose the directive into their national law. As per CSRD, large listed companies, banks, and insurance undertakings with more than 500 employees, are obliged to publish a non-financial statement containing information about *environmental, social and employee matters, respect for human rights, anti-corruption, and bribery matters, including policies in relation to ESG and implemented due diligence process*. The report shall serve the purpose of "double materiality", that is, undertakings shall not only report how they are affected by sustainability risks but also the possible adverse impact arising from their activities and how the entity manages those risks. In the case of non-compliance, entities must explain the reasons for not doing so.[4]

3.1.1.6 Another regulation is the Sustainable Finance Disclosure Regulation (SFRD), effective from 2021 on a comply or explain basis, which mandates financial market participants and financial advisors to disclose how they are integrating sustainability into their core business risk and how they allow sustainability into their investment process. Under the SFRD framework, EU Regulatory Technical Standards (RTS), effective from January 2023, provide more detailed quantitative guidelines for reporting.[5]

3.1.1.7 In addition, Germany has the Corporate Due Diligence Obligations in Supply Chains Act, effective from January 2023. The act regulates the responsibilities of companies with a certain number of employees on human rights and environmental protection on the global supply chain. The obligations of companies to safeguard human rights and protect the environment do not end at their own premises rather apply to their entire global supply chain. The responsibilities include protection against child labour, forced labour, and, discrimination, occupational health and safety, protection against land grabs, right to fair wages, right to form unions, and protection against environmental violations. Companies must identify, assess, and prioritise the above-mentioned risks, publish a policy statement, and take preventive measures to minimise these risks. Non-compliance will result in an administrative fine up to eight million euros or 2% of global revenue.[6]

3.1.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

EU SFRD and RTS are applicable to all pension funds (Pensionskassen and Pensionsfonds.)[7] Although not legally binding, many funds are signatories of global initiatives such as

4 https://www.greenomy.io/blog/relationships-csrd-eu-taxonomy-sfdr
5 Ibid.
6 https://www.bmas.de/EN/Europe-and-the-World/International/Supply-Chain-Act/supply-chain-act
7 https://www.bafin.de/SharedDocs/Veroeffentlichungen/DE/Merkblatt/VA/ mb_02_2023_ anwendung_zuordnungsansatz_va.html

Principles for Responsible Investment (PRI), Taskforce on Climate-related Financial Disclosures (TCFD), Taskforce on Nature-related Financial Disclosures (TNFD) or Say on Climate.

3.1.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

The reporting requirements mostly focus on environmental issues. Other than that, the Act on Corporate Due Diligence Obligations in Supply Chains focuses on social issues such as human rights or fair wages.

3.1.4 Are there any planned future changes to the reporting requirements?

3.1.4.1 Germany is on its way to implement CSRD into national law. The German Federal Ministry of Justice published the first draft on the German implementation of CSRD on 22 March 2024.

3.1.4.2 The EU parliament approved the Corporate Sustainable Due Diligence Directive (CSDDD) on 24 April 2024. Member states have a timeframe of 2024–2027 to transition the directive into national law. According to the directive, companies with more than 1,000 employees and global revenue of more than €450 million will have to *follow a thorough due diligence process to identify, mitigate, and prevent any negative impacts of their economic activities on human rights and the environment. The directive will also enhance the accountability in governance, as management and supervisory boards of the large companies will be held accountable for their decisions on sustainability matter. The directive also mandates companies to make transition plan to align their business to reach the goal of limiting global warming to 1.5°C.*[8]

3.2 United Kingdom

3.2.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.2.1.1 Numerous pieces of legislation regarding ESG exists under UK law.

3.2.1.2 On the environmental aspect, all companies are subject to the Climate Change Act 2008, the Environment Act 2021 or the Streamlined Energy and Carbon Reporting (SECR) Guidelines 2018. The Climate Change Act 2008, which was amended in 2019, is a legally binding national emissions reduction target that aims to achieve net zero by 2050. The Environment Act 2021 presents a framework of regulations on different areas such as air quality, biodiversity, water and waste management. whereas under SECR, companies must disclose information about their greenhouse gas emissions, energy consumption and actions taken by them to increase energy efficiency.

3.2.1.3 Following the EU directive NFRD 2014, non-financial reporting obligations

8 https://iclg.com/practice-areas/environmental-social-and-governance-law/germany

were first implemented in UK in 2017. Companies were therefore obliged to publish information on environmental matters, social issues, employee relations, human rights, anti-bribery, and corruption.

3.2.1.4 Most importantly, listed companies, asset managers, asset owners and any company with more than 500 employees or turnover of more than £500 million are subject to TCFD reporting. These entities must disclose information about governance, strategy, risk management, and the metrics and targets they utilise to mitigate climate-related risks. On the social side, two key laws apply. The first is the Modern Slavery Act 2015, which requires entities with annual turnover exceeding £36 million to publish a statement on their actions to prevent modern slavery and human trafficking across all business operations, including the supply chain. The second is the Equality Act 2010 (Gender Pay Gap Information) Regulations 2017, which mandates that companies with over 250 employees report their gender pay gap information annually. Governance regulations fall under the Companies Act 2006 and the Corporate Governance Code for listed companies, with compliance following a "comply or explain" basis..[9]

3.2.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

TCFD are specifically mandated for pension funds. Retirement funds in the UK are subject to the non-binding UK Stewardship Code 2020. The code comprises a set of "comply or explain" principles for asset managers and asset owners. Signatories are expected to take ESG factors into their investment decisions.[10] In addition, many larger UK companies are signatories of voluntary ESG initiatives for example the GRI or the UN Principles for Responsible Investment (UNPRI).[11]

3.2.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

On all aspects.

3.2.4 Are there any planned future changes to the reporting requirements?

The UK government is working to incorporate the ISSB sustainability standards IFRS S1 and IFRS S2 into national law. Most likely to be enacted by 2025, the standards will be known as the Sustainability Disclosure Standards and will be obligatory for listed companies. The UK is developing its own taxonomy to identify sustainable economic activity in a uniform way.[12]

9 https://iclg.com/practice-areas/environmental-social-and-governance-law/united-kingdom
10 https://www.frc.org.uk/library/standards-codes-policy/stewardship/ how-to-report-on-the-uk-stewardship-code/
11 https://iclg.com/practice-areas/environmental-social-and-governance-law/united-kingdom
12 Ibid.

3.3 United States of America

3.3.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.3.1.1 There are no mandatory federal ESG reporting requirements in the United States of America. Only the US Securities and Exchange Commission (SEC) requires listed companies to publish information that is material to investors, including ESG risks. Companies of all sizes are generally encouraged to publish ESG reports on a voluntary basis. At the state level, each state can be broadly categorised according to its stance on ESG matters as either "Pro-ESG" or "Anti-ESG".

3.3.1.2 On the one hand, pro-ESG states promote ESG factors in investment and proxy voting decisions. For example, many states have passed requirements to increase the diversity of the board of directors. States such as Colorado, Illinois, Maryland, and Maine have enacted regulations for their pension systems to integrate sustainability. The amendment of the Illinois Sustainability Act, effective from January 2024, for instance, mandates investment managers to provide a description of the process through which the manager integrates sustainability factors into investment decision-making, investment analysis and portfolio construction. The manager shall disclose this information annually to the respective public agency and to the pension fund, for which the manager is acting as a fiduciary.[13]

3.3.1.3 In California, entities, whose revenue exceed a certain threshold, are mandated to publish climate risk disclosures aligned with the TCFD framework and Scopes 1–3 emissions disclosures. Several other states have climate-related regulations in place regarding emissions targets, resilience strategies, electricity sector policies, and carbon pricing.[14, 15]

3.3.1.4 On the other side of the spectrum, states such as Arkansas, Indiana, North Dakota, Texas, and West Virginia have adopted "anti-ESG" legislation, which discourages the state pension funds from considering ESG factors in their investment decisions. States such as Kentucky, Oklahoma, Texas and West Virginia have "anti-boycott" laws, which authorise the state treasurer or comptroller to put a financial institution onto a restricted list, when said financial institution boycotts fossil fuel or arms industry firms. The treasurer or comptroller's office reviews the statements made by the board or senior executive of a company about sustainability, as well as the list of signatories of global initiatives such as Climate Action 100 or Net Zero Asset Managers Initiative and sends questionnaires to the targeted companies about their investment process and strategies. Based on that information, the treasurer or comptroller's office creates a restricted institutions list, which

13 https://www.ilga.gov/legislation/BillStatus.asp?DocTypeID=HB&DocNum=2782&GAID=17&SessionID=112&LegID=147908
14 https://iclg.com/practice-areas/environmental-social-and-governance-law/usa
15 https://corpgov.law.harvard.edu/2023/11/22/esg-and-public-pension-investing-in-2023-a-year-to-date-recap-and-analysis/

is regularly updated. Once on that list, the restricted financial institution will be prohibited from doing business with the state or being selected to manage the state pension assets.[16, 17]

3.3.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

3.3.2.1 All pension funds in the United States are regulated by the Employee Retirement Income Security Act (ERISA), 1974. Following a landmark ruling by the Department of Labor (DOL) in 2022, ERISA fiduciaries are now "permitted" to consider ESG factors in their investment decisions and to engage in proxy voting. In contrast, before the DOL 2022 ruling, plan fiduciaries were only allowed to consider sustainability matters as a "tiebreaker" and mainly focused on risk-return analysis in their investment decisions.[18]

3.3.2.2 No additional voluntary reporting requirements specific to the USA exist. But many companies are signatories of global ESG disclosure frameworks such as the GRI, TCFD, TNFD, etc.[19]

3.3.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

The existing metrics focus on environmental issues.

3.3.4 Are there any planned future changes to the reporting requirements?

Based on publicly available information, no changes are planned to reporting requirements.

3.4 Canada

3.4.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.4.1.1 There are no comprehensive mandatory ESG reporting requirements in Canada. However, several regulations for listed companies relating to corporate diversity, supply chain management and climate-related risks disclosure exist.

3.4.1.2 Corporate Diversity Reporting 2020 requires companies to report annually on the diversity of their boards and senior management. Corporations are required to report the representation of women, indigenous people, persons with disabilities, and minorities on their board.

3.4.1.3 The Fighting Against Forced Labor and Child Labor in Supply Chains Act took effect on 1 January 2024. The law focuses on increasing accountability of companies

16 https://iclg.com/practice-areas/environmental-social-and-governance-law/usa
17 https://corpgov.law.harvard.edu/2023/11/22/esg-and-public-pension-investing-in-2023-a-year-to-date-recap-and-analysis/
18 https://www.dol.gov/agencies/ebsa/about-ebsa/our-activities/resource-center/fact-sheets/final-rule-on-prudence-and-loyalty-in-selecting-plan-investments-and-exercising-shareholder-rights
19 https://iclg.com/practice-areas/environmental-social-and-governance-law/usa

in the elimination of child labour, forced labour and human rights violations, not only inside the country but also throughout their global supply chain. Companies must report annually, explaining how they prevent and reduce the above-mentioned risks.[20]

3.4.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

Those requirements do not specifically apply to retirement funds. The Canada Securities Authority (CSA) has issued guidance for ESG-related investment disclosure for funds.

3.4.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

Voluntary disclosures often focus on environmental issues such as stewardship or emissions reduction. Mandatory reporting requirements focus on governance and social issues.

3.4.4 Are there any planned future changes to the reporting requirements?

3.4.4.1 An ESG reporting framework is being developed in Canada. Based on the interest of the investors and stakeholders on ESG topics, it is expected that more and more regulations will come into force in the coming years. The Canadian Sustainability Standards Board (CSSB) has recently published the first draft of the proposed Canadian Sustainability Disclosure Standards CSDS1 and CSDS2, aligned with ISSB S1 and S2 standards. The ISSB S1 standard focuses on sustainability-related financial information disclosure and S2 focuses on climateirelated disclosure.[21] Currently under review, the framework is expected to be adopted voluntarily by Canadian companies from 2025.

3.4.4.2 The regulatory authority of Canadian pension plans, CAPSA, issued a draft guideline: Environmental, Social and Government Considerations in Pension Plan Management in 2022. According to the draft guideline, pension plan administrators will be required to publish information about the ESG considerations in their investment policy.[22]

3.4.4.3 Furthermore, the Sustainable Finance Action Council (SFAC) of Canada is working on developing Canada's climate investment taxonomy to define climate-compatible economic activities, similar to the EU taxonomy regulations.

3.5 Japan

3.5.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.5.1.1 There is no mandatory ESG reporting regulation in Japan. However, several existing laws and regulations focus separately on environmental, social or governance

20 https://www.brightest.io/canada-esg-reporting
21 https://www.frascanada.ca/en/sustainability/projects/adoption-csds1-csds2/ media-release-cssb-public-consultation
22 https://www.capsa-acor.org/StakeholderConsultation

issues: the Corporate Governance Code, Act on Equal Opportunity, Act on Promotion of Measures to cope with Global Warming, Climate Change Adaptation Act, to name a few.[23]

3.5.1.2 Since April 2022, the Tokyo Stock Exchange mandated corporations to comply with TCFD recommendations. Companies listed on the Tokyo Stock Exchange need to disclose information about their sustainability initiatives including consideration for the environment, human rights, and workplace safety in a "comply or explain" manner.[24]

3.5.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

Those requirements do not specifically apply to retirement funds. As per publicly available information, no other voluntary reporting requirements exist.

3.5.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

The reporting focuses on environmental issues.

3.5.4 Are there any planned future changes to the reporting requirements?

3.5.4.1 Like Canada, an ESG reporting framework is also being developed in Japan. The Council of Financial Services Agency (FCA) of Japan is currently discussing on how to incorporate sustainability disclosures in the securities report.

3.5.4.2 When compared to other developed countries, Japan falls significantly behind on gender diversity on boards and senior management positions. According to the Global Board Diversity Tracker 2022–23, average female representation on Japanese boards is 14%, compared to approximately 36% and 31% for Western Europe and North America (Canada and USA), respectively.[25] Japan's government's target is to have at least one female director on boards by 2025 with 30% female representation on boards of directors by 2030.[26]

3.6 Switzerland

3.6.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.6.1.1 The Swiss Federal Council, in response to the "For responsible companies – to protect people and the environment" initiative of June 2020, introduced a new regulation in the Swiss Code of Obligations effective from 1 January 2021.[27] This regulation mandates

23 https://www.globallegalpost.com/lawoverborders/environmental-social-governance-559211028/japan-1537100175#1
24 https://www.jpx.co.jp/english/news/1020/20210611-01.html
25 https://www.egonzehnder.com/global-board-diversity-tracker/customize-the-data?report=Board+size+%2F+Women+per+board&subgroup=US+%26+Canada&year=2022
26 https://www.invesco.com/apac/en/institutional/insights/esg/japans-investment-story-opportunities- from-esg-sustainable-investing.html
27 https://www.newsd.admin.ch/newsd/message/attachments/70879.pdf

transparency in reporting non-financial matters for companies meeting specific criteria, such as public interest, significant employee count, and surpassing certain financial thresholds. It requires annual reporting on environmental, social, labour, human rights, and anti-corruption issues. The report should cover the company's business operations, strategies, effectiveness assessment, risk management, and key performance indicators.[28] It must adhere to official language or English, be approved by top management, promptly published electronically, and remain publicly accessible for at least ten years. Violations incur fines as per the Criminal Code.[29]

3.6.1.2 Following this, the Swiss Federal Council enacted the Regulation on Reporting on Climate Matters in November 2022, as part of the Sustainable Finance Strategy, providing guidance on climate-related reporting requirements.[30] Companies reporting on climate matters are presumed to fulfil their environmental reporting obligations. Those not reporting on climate matters must demonstrate alternative means of fulfilling their environmental reporting or justify why they are not pursuing a climate-related strategy. Reports must be published electronically and in both human-readable and machine-readable formats.[31]

3.6.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

3.6.2.1 Notably, pension funds are not obliged to comply with the above legislative requirements.

3.6.2.2 In December 2022, the Swiss Pension Fund Association (ASIP) voluntarily published ESG reporting standards for their members.[32] According to the Swisscanto Pension Study, since 2015 the percentage of pension funds reporting on sustainability has grown from 8% to 37% in 2022.[33]

3.6.2.3 In its report on "Sustainable Finance" of November 2022, the Federal Council laid the strategic foundation for the federal government's work in the area of sustainable finance for the years 2022 to 2025, introducing 15 measures to achieve this goal.[34] As a measure of transparency regarding stewardship strategies, the Council recommends that financial institutions and pension funds use their websites to communicate the extent to which their engagement strategy and the exercise of voting rights relating to the sustainability goals that they support are compatible with the 2050 net zero target.[35]

28 https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-84741.html
29 https://www.newsd.admin.ch/newsd/message/attachments/73998.pdf
30 https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-91859.html
31 https://www.fedlex.admin.ch/filestore/fedlex.data.admin.ch/eli/cc/2022/747/20240101/de/pdf-a/fedlex-data-admin-ch-eli-cc-2022-747-20240101-de-pdf-a.pdf
32 https://www.asip.ch/de/newsroom/medienecke/attachment/219/
33 https://pensionstudy.swisscanto.com/22/app/uploads/Schweizer-Pensionskassenstudie-2022.pdf, Seite 53-54.
34 https://www.efd.admin.ch/efd/de/home/das-efd/nsb-news_list.msg-id-92274.html
35 https://www.newsd.admin.ch/newsd/message/attachments/74560.pdf

3.6.2.4 In March 2023, a motion was proposed to integrate Swiss sustainability goals into the Federal Law on Occupational Retirement, making it part of the fiduciary duty, but it was rejected in favour of voluntary compliance.[36] The August 2023 report by the Swiss Federal Council evaluated whether pension funds' investment guidelines hinder sustainable investing, stressing the ambiguity of "sustainability" and the importance of considering climate risks in investments.[37] It argues that, according to a study by the Federal Office for the Environment, the existing laws imply an obligation to consider climate risks in investments and that, additionally, the ESG Reporting Standard for Pension Funds by the ASIP recognises the pension funds' obligation to consider relevant environmental, social, and governance factors as a fiduciary duty.

3.6.2.5 The ASIP developed ESG reporting standards effective from 1 January 2023, aiming to enhance transparency, accountability, and alignment with sustainability goals in pension fund management practices.[38] The standards, which are voluntary, emphasise the fiduciary duty of pension fund management towards sustainable asset management. They encourage transparency and active communication of ESG activities and progress, advocating for the publication of sustainability reports on fund websites. The ASIP's ESG reporting standards were formulated by a working group comprising representatives from various associations and organisations involved in asset management and sustainable finance.

3.6.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

The proposed ASIP ESG metrics focus primarily on the environmental dimension, especially climate-related aspects, providing both basic and advanced reporting options. They cover stewardship activities, portfolio composition metrics, and engagement participation. Stewardship metrics include voting rights exercised and engagement activities, while portfolio composition metrics encompass greenhouse gas emissions, exposure to fossil fuels, and energy intensity for different asset classes. Advanced reporting includes additional metrics like investments in companies with net-zero emissions commitments and water consumption. However, recommendations for social and governance metrics are deferred due to the lack of widely accepted measures and questions about measurability, with indicators focusing on specific policy establishment issues.[39]

36 https://www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20233135
37 https://www.newsd.admin.ch/newsd/message/attachments/82318.pdf
38 https://www.asip.ch/de/newsroom/medienecke/attachment/219/
39 https://www.asip.ch/media/filer_public/24/82/248223cd-c602-4c86-bc73-4dfbe230bcca/13122022_esg-reporting_standard_fur_pensionskassen.pdf

3.6.4 Are there any planned future changes to the reporting requirements?

Since the standard for reporting is effective as of 1 January 2023, for the year 2023, no further changes were announced nor planned at the moment. The first reports under this standard were to be published in the first half of 2024.

3.7 South Africa

3.7.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.7.1.1 In South Africa, sustainability reporting by companies is shaped by the South African Constitution. It includes a justiciable Bill of Rights[40] that includes various socio-economic rights as well as the right to a healthy environment, which have informed and continue to inform the development of sustainability and ESG-related regulations in South Africa.

3.7.1.2 South Africa has a well-developed body of environmental laws at national, provincial, and municipal levels, and is a signatory to various international instruments, including the Paris Agreement.

3.7.1.3 The Broad-Based Black Economic Empowerment (B-BBEE) Act of 2003 is a central part of the South African government's transformation strategy. It aims to increase the numbers of black people who manage, own, and control the country's economy, and decrease racially based income inequalities. The financial sector in South Africa is governed by the Financial Sector Code (FSC), which was gazetted by the Minister of Trade, Industry, and Competition on 1 December 2017.[41]

3.7.1.4 Other aspects that shape sustainability activities and reporting include:

— Governance-related legislation and requirements covering corporate structures and management, executive compensation, strategic direction and oversight, compliance, anti-bribery and corruption, and cybersecurity.

— South Africa's National Development Plan (NDP) 2030[42] is a strategic plan for the future development of the nation. The primary objectives of the NDP are to eliminate poverty and reduce inequality by 2030.

— The King IV Report on Corporate Governance in South Africa, 2016 (King IV),[43] which provides principles of ESG considerations that companies should take into account when conducting business and when publishing annual reports, notes that under the current disclosure regime, there is no express obligation (statutory or otherwise) on companies to provide disclosures on ESG matters.

40 South African Government, Bill of Rights
41 Department of Trade, Industry and Competition, Financial Sector Code, 2017
42 National Planning Commission, 2030
43 Institute of Directors in South Africa, 2016

Whilst there are no mandatory sustainability disclosure requirements, listed companies are subject to the Johannesburg Stock Exchange (JSE) general disclosure obligations under the JSE Listings Requirements, which apply to financially material ESG issues. On 14 June 2022, the JSE issued two documents providing (a) sustainability and (b) climate-related disclosure guidance for use on a voluntary basis.

3.7.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

3.7.2.1 Regulation 28 of the Pension Funds Act, 1956, requires a pension fund to "consider any factor which may materially affect the sustainable long-term performance of the asset including, but not limited to, those of an [ESG] character" before investing in and whilst invested in an asset.[44] Whilst this is a requirement there are no explicit requirements on how to disclose and report on this aspect.

3.7.2.2 The Second Code for Responsible Investing in South Africa, 2022 (CRISA 2) builds on the first CRISA Code (2011) and contains five voluntary principles for stewardship and responsible investment as a key component of the South African governance framework. It is applicable to retirement funds on a voluntary basis and the effective date for reporting publicly on its application is 1 February 2023.

3.7.2.3 The King IV principles apply to retirement funds. The Financial Sector Conduct Authority (FSCA) has gone further and set out guidelines in Circular PF No. 130: "Good Governance of Retirement Funds".[45] This guideline was issued in 2007 and sets out a number of "best practice" principles for the good governance of a retirement fund.

3.7.2.4 As for how B-BBEE applies to retirement funds, the amended FSC provides for a "Voluntary Dispensation" for the Top 100 Retirement Funds (including umbrella funds) to report on B-BBEE annually. If sufficient disclosure by pension funds does not materialise, then consideration will be given to revising this dispensation.

3.7.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

For those companies and retirement funds that engage in voluntary sustainability reporting, the focus typically covers the following aspects:

- **Environmental** Reporting on carbon footprint, energy consumption, waste management, and resource efficiency.
- **Social** Addressing issues such as employee welfare, community engagement, health and safety standards, and diversity and inclusion. In particular, the B-BBEE requirements are specifically reported on.

44 Pensions Fund Act of 1956
45 FSCA, Circular PF 130

— **Governance** Transparency in management practices, board diversity, anti-corruption measures, and ethical business conduct.

3.7.4 Are there any planned future changes to the reporting requirements?

The FSCA has published a Sustainable Finance Consumer Risk Report and Roadmap 2024.[46] The roadmap, which has short-term (1–2 years), medium term (2–3 years) and long-term goals (4 years +), includes several key areas of focus:

— **South African green finance taxonomy** This involves considerations for developing a classification system for green finance.
— **Disclosure, reporting and assurance** This includes corporate disclosure and reporting, product disclosures, and retail disclosures.
— **Market development** This involves investment for a just transition.

The FSCA has also recently expressed its intent to initiate reporting guidelines for pension funds in line with the IFRS S1 (general) and S2 (climate) standard, which may be voluntary initially, but may to evolve to become a mandatory requirement in time.

3.8 Botswana

3.8.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.8.1.1 In Botswana, sustainability reporting by companies is influenced by both national regulations and broader international guidelines. Botswana has environmental laws that require companies to conduct Environmental Impact Assessments (EIAs) before undertaking major projects. The EIA Act mandates that companies assess the potential environmental impacts of their activities and provide mitigation strategies (Laws of Botswana, 2019).

3.8.1.2 For companies listed on the Botswana Stock Exchange (BSE), there are specific reporting requirements that may encompass aspects of sustainability. The BSE's listing requirements include adherence to the Corporate Governance Code, which encourages transparency and accountability, including the disclosure of ESG practices (Directors' Institute of Botswana, n.d.).

3.8.1.3 Botswana's National Development Plan outlines the country's strategic direction and priorities, which include sustainable development goals. Companies, especially those involved in large-scale projects, are expected to align their activities with the national development goals (Republic of Botswana, 2017). Certain sectors, such as mining and tourism, have specific regulatory requirements related to sustainability reporting. For example, the mining sector has the Mines and Minerals Act which requires mining companies to include sustainability practices in their operations, including environmental protection measures and community engagement.

46 Sustainable Finance Consumer Risk Report and Roadmap, FSCA, 2024

3.8.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

3.8.2.1 In Botswana, retirement funds are regulated by specific legislation that includes provisions related to sustainability reporting and responsible investment.

3.8.2.2 The primary regulatory body for retirement funds in Botswana is the Non-Bank Financial Institutions Regulatory Authority (NBFIRA). NBFIRA oversees the conduct and operations of retirement funds to ensure they adhere to regulatory standards, including those related to sustainability. NBFIRA issues guidelines and circulars that retirement funds must follow. These guidelines often emphasise the importance of incorporating ESG considerations into investment decisions and reporting. The Retirement Funds Act provides the legal framework for the establishment, management, and regulation of retirement funds in Botswana. This act includes provisions on governance, investment policies, and reporting requirements (NBFIRA, n.d.).

3.8.2.3 Retirement funds in Botswana can voluntarily align with international standards and best practices related to sustainability reporting and responsible investment.

- **Principles for Responsible Investment (PRI)** Some retirement funds may choose to become signatories to the PRI, committing to incorporate ESG issues into their investment practices and reporting.
- **Global Reporting Initiative (GRI) Standards** Adoption of GRI standards for sustainability reporting can help retirement funds provide comprehensive disclosures on their ESG performance.

For retirement funds, adherence to the Corporate Governance Code is crucial. This code encourages transparency, accountability, and the integration of sustainability into governance structures.

- **Disclosure of ESG Practices** The Corporate Governance Code requires retirement funds to disclose their ESG practices, ensuring stakeholders are informed about how sustainability factors are considered in fund management (Botswana Code of Corporate Governance).

3.8.2.4 Retirement funds in Botswana are encouraged to align their operations with national development goals and the UN SDGs. By aligning with the SDGs, retirement funds contribute to broader sustainable development objectives, promoting long-term value creation and social well-being.

3.8.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

- **Environmental** Reporting may include metrics on carbon footprint, energy consumption, water usage, and waste management.

— **Social** Metrics often cover labour practices, community engagement, health and safety, and human rights.
— **Governance** This includes board diversity, executive compensation, anti-corruption measures, and overall governance structure and practices.

3.8.4 Are there any planned future changes to the reporting requirements?

As of now, specific planned future changes to sustainability reporting requirements in Botswana have not been widely documented or made publicly available.

3.9 Namibia

3.9.1 What are the legislative requirements for companies in relation to sustainability reporting?

3.9.1.1 In Namibia, legislative requirements for companies regarding sustainability reporting are evolving, reflecting a growing emphasis on ESG factors. However, there are currently no specific, comprehensive laws mandating sustainability reporting for all companies. The landscape is shaped by a combination of sector-specific regulations, voluntary guidelines, and broader legislative frameworks that indirectly promote sustainability practices.

3.9.1.2 Companies listed on the Namibia Stock Exchange (NSX) are encouraged to adopt good corporate governance practices, which increasingly include sustainability reporting. The NSX guidelines are influenced by international standards, such as the GRI and the Integrated Reporting Framework. The Corporate Governance Code for Namibia (NamCode) (NSX, 2004) provides principles and practices for good corporate governance, encouraging companies to integrate sustainability into their business strategies and reporting. Although adherence to NamCode is not mandatory, it is recommended, especially for publicly traded companies.

3.9.1.3 Many Namibian companies voluntarily adhere to international frameworks and standards for sustainability reporting, such as the GRI and the UN SDGs.

3.9.2 Do these requirements apply to retirement funds and are there additional voluntary reporting requirements for retirement funds?

3.9.2.1 In Namibia, the regulatory framework for retirement funds does not explicitly mandate sustainability reporting. However, there are relevant regulations and guidelines that encourage good governance and responsible investment practices, which may include aspects of sustainability:

— **The Pension Funds Act, 1956 (as amended)** (Republic of Namibia, 1956) governs the establishment and operation of retirement funds in Namibia. While it does not specifically mandate sustainability reporting, it sets out fiduciary duties for fund trustees, including the prudent management of fund assets, which can encompass ESG considerations (Namibia Financial Institutions Supervisory Authority (NAMFISA)).

— **Regulation 28 under the Pension Funds Act** (Republic of Namibia, 1956) prescribes the limits for the investment of retirement fund assets. It encourages diversification and responsible investment practices, which may implicitly involve ESG considerations.
— **The Financial Institutions and Markets Act (FIMA)** (Republic of Namibia, 2021) aims to consolidate and modernise the regulation of financial institutions and markets, including retirement funds. FIMA emphasises good governance, risk management, and accountability, which align with broader sustainability principles. The implementation of FIMA may lead to more explicit sustainability requirements in the future.
— **The Namibia Financial Institutions Supervisory Authority (NAMFISA)** (Republic of Namibia, 2021) oversees the regulation of retirement funds and encourages adherence to good governance practices. While not a direct mandate, NAMFISA's guidelines and codes of conduct can influence sustainability reporting practices.
— **The Corporate Governance Code for Namibia (NamCode)** (NSX, 2004) provides principles for good corporate governance that apply to all sectors, including retirement funds. It encourages the integration of sustainability into governance practices.

3.9.2.2 While the current legislative framework does not impose explicit sustainability reporting requirements on retirement funds, the emphasis on prudent management, good governance, and responsible investment practices indirectly supports the inclusion of sustainability considerations.

3.9.2.3 While there are no mandatory sustainability reporting requirements specifically for retirement funds, there are voluntary frameworks and guidelines that encourage such practices. These frameworks help retirement funds enhance transparency, governance, and sustainability. The voluntary initiatives referenced are the UN PRI, GRI, IIRC, SDGs.

3.9.2.4 These voluntary frameworks and guidelines help retirement funds in Namibia improve their transparency and accountability, particularly in terms of sustainability and responsible investment practices.

3.9.3 On what aspects of sustainability (environment, social or governance) do the metrics, either voluntary or mandatory, focus?

For those companies and retirement funds that engage in voluntary sustainability reporting, the focus typically covers the following aspects which is similar to Botswana:

— **Environmental** Reporting on carbon footprint, energy consumption, waste management, and resource efficiency.
— **Social** Addressing issues such as employee welfare, community engagement, health and safety standards, and diversity and inclusion.
— **Governance** Transparency in management practices, board diversity, anti-corruption measures, and ethical business conduct.

3.9.4 Are there any planned future changes to the reporting requirements?

As of now, there are no announced legislative changes specifically targeting sustainability reporting for companies or retirement funds in Namibia.

4. SUSTAINABILITY REPORTING INDEX

4.1 The analysis in this study examined what was deemed as necessary ESG indicators, covering sections about the organisation, governance and strategy, delegated investment, diversity, equity and inclusion, financial inclusion, actuarial integration, nature and biodiversity and climate change.

4.2 A questionnaire was utilised with detailed questions in each section, where answers were either yes (counting 2 points), partial (counting 1 point) or no (with 0 points allocated). The full questionnaire is included in Appendix 1.

4.3 The questionnaire was based on an initial analysis done by the World Bank in 2021. The World Bank analysis covered key areas based on several commonly used sustainability reporting frameworks. Adjustments were then made to this questionnaire to ensure that the core and material elements identified in Section 3 were sufficiently covered. The specific adjustments made were as follows:

— Developments in disclosure frameworks since 2021 were included;
— Given their growing importance since 2021, dedicated sections for disclosures around Diversity, Equity and Inclusion as well as Nature and Biodiversity were included;
— A section for Financial Inclusion, which fulfils a core purpose of the objectives and material benefits that retirement funds provide (as set out in Section 3) were included;
— Specific questions in the relevant areas covering real-world impact were included to ensure that the principle of double-materiality is covered for the key material issues;
— Questions that were considered duplicate were removed from the original questionnaire;
— Specific questions were included in the relevant sections about the extent to which sustainability has been integrated into core actuarial processes that are critical to determining the fund's long-term funding and income goals.
— The results from the questionnaire were then converted into an index, representing a score out of 100% for each section of the questionnaire as well as an average overall score across the key themes.

5. SUSTAINABILITY REPORTING INDEX: RESULTS FROM BENCHMARKING SELECTION OF LARGE FUNDS

5.1 Details of the funds

5.1.1 The sustainability reporting index was calculated for each of the following funds, based on publicly available information.

Table 1. Details for the funds

Country	Name of Pension Scheme	Total Funds (Bill. USD*)	Type of Scheme	Website
Botswana	POPF	7.30	Both	https://www.bpopf.co.bw/
Canada	Ontario Teachers' Pension Plan	181.7	DB	https://www.otpp.com/en-ca/
Germany	Bayerische Versorgungs-kammer	0.36	DB	https://www.versorgungskammer.de/
Germany	Versicherungsverein des Bankgewerbes (BVV)	0.37	DB	https://www.bvv.de/
Germany	Mercedes-Benz Pension Fund	6.8	DB	Home | Mercedes-Benz Group
Japan	Government Pension Investment Fund	1,451	DB	https://www.gpif.go.jp/en/
Namibia	GIPE	2.31	DB	https://www.gipf.com.na/
South Africa	EPPF	10.47	DB	https://www.eppf.co.za/
South Africa	GEPF	123.7	DB	https://www.gepf.co.za/
South Africa	CRF	2.39	DC	https://crfund.co.za/
South Africa	De Beers	0.97	DB	https://debeerspensionfund.co.za/
South Africa	MGF	1.98	DC	https://www.mymgf.co.za/
South Africa	NFMW	1.55	DC	https://nationalfund.co.za/
South Africa	OM	8.55	DC	https://www.oldmutual.co.za/corporate/employers/retirement-solutions/superfund/
South Africa	Sentinel	4.87	Both	https://www.sentinel.za.com/main/
Switzerland	PKP		DC(DB)	Intranet
Switzerland	PKG		DC(DB)	https://pkg.ch/de
Switzerland	Publica		DC(DB)	https://www.publica.ch/de
Switzerland	Servisa		DC(DB)	https://www.servisa.ch/deutsch/
UK	NatWest Group Pension Fund	68.2	DC	https://nwgpensbenfund.org.uk/
UK	Universities Superannuation Scheme	95.7	Both	https://www.uss.co.uk/
USA	California Public Employees Retirement System	465	DB	https://www.calpers.ca.gov/
USA	Federal Retirement Thrift Investment Board	710	DC	https://www.tsp.gov/

*Approximate

5.1.2 The results for each of the individual funds included in this study are set out in Appendix 2.

5.1.3 The remainder of this section compares the results for each of the countries relative to the overall median results.

5.2 Overall results

Table 2 shows the median score in each of the key themes measured by the sustainability reporting index, together with the highest, lowest and standard deviation of the scores.

TABLE 2. Sustainability reporting index results for key themes

Criteria	Median	Lowest	Highest	Std deviation
About the organisation	73%	50%	92%	12%
Governance and strategy	48%	11%	83%	21%
Delegated investment	36%	0%	71%	20%
Financial inclusion	50%	27%	81%	16%
Diversity and Inclusion	20%	0%	58%	18%
Nature - biodiversity	1%	0%	25%	5%
Climate change	27%	0%	88%	31%
Actuarial integration	38%	0%	80%	22%
Grand total	**37%**	**15%**	**60%**	**11%**

5.2.1 The following graphs show the sustainability reporting index score for each of the funds included in the study, by theme and overall.

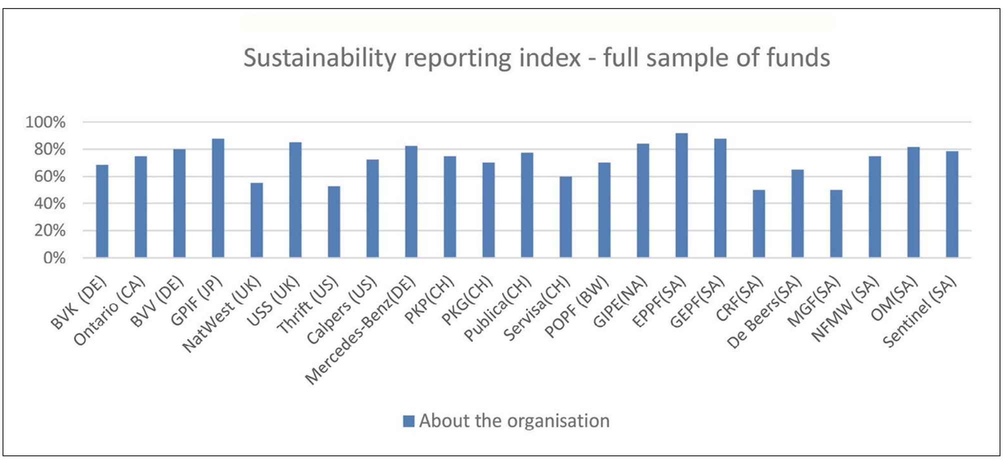

FIGURE 1. Results on the organisation

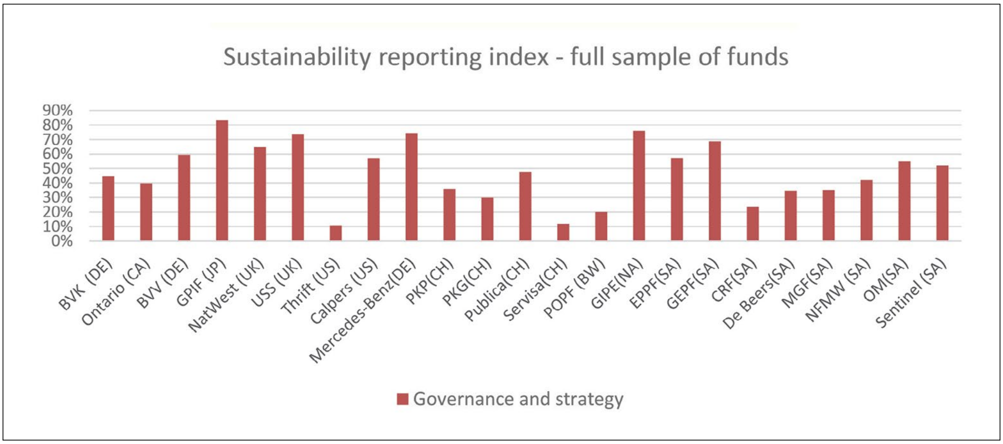

Figure 2. Results on governance and strategy

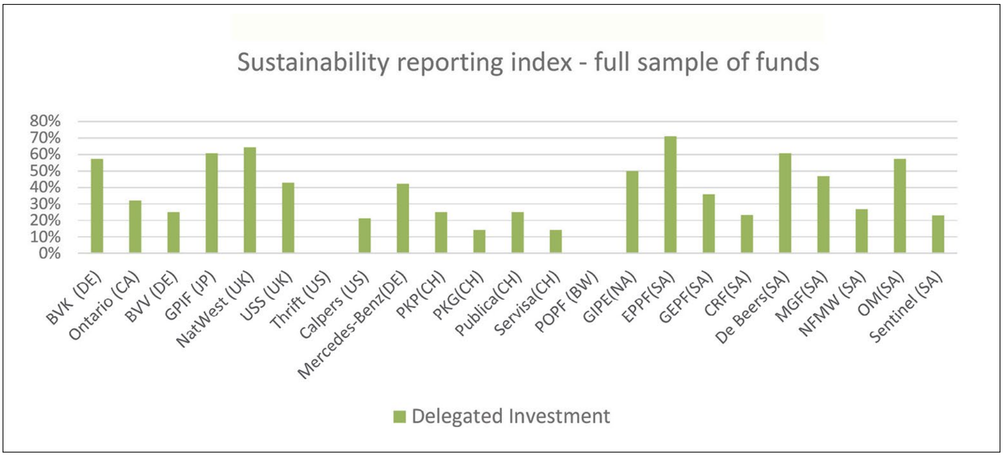

Figure 3. Results on delegated investment

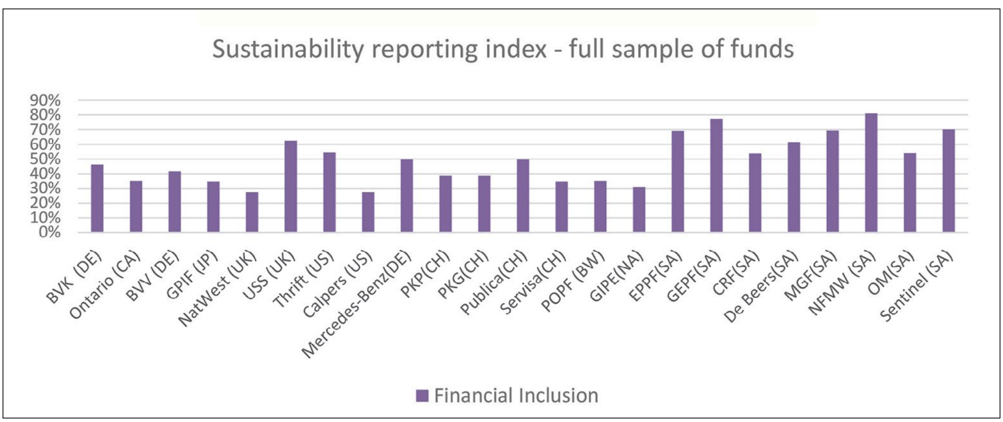

Figure 4. Results on financial inclusion

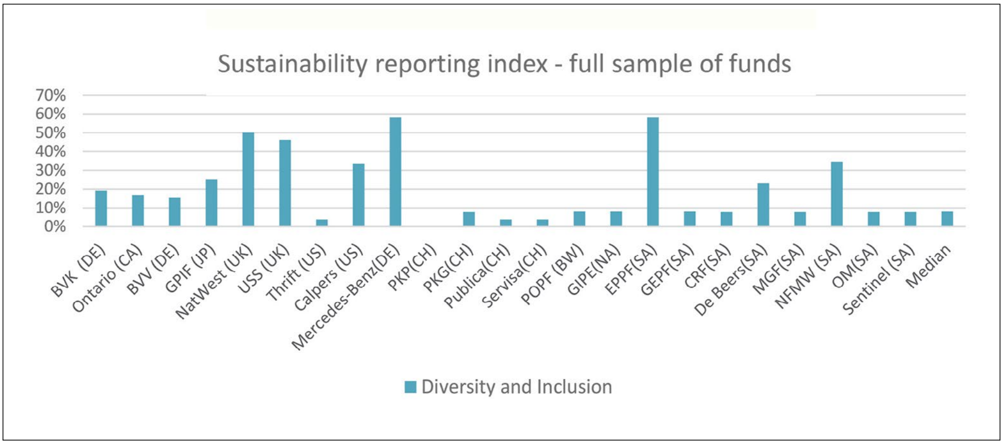

Figure 5. Results on diversity and inclusion

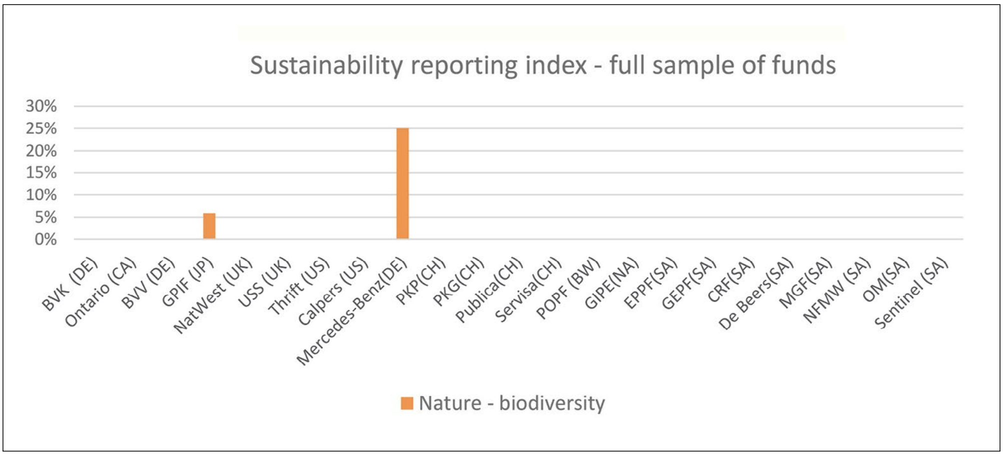

Figure 6. Results on nature – biodiversity

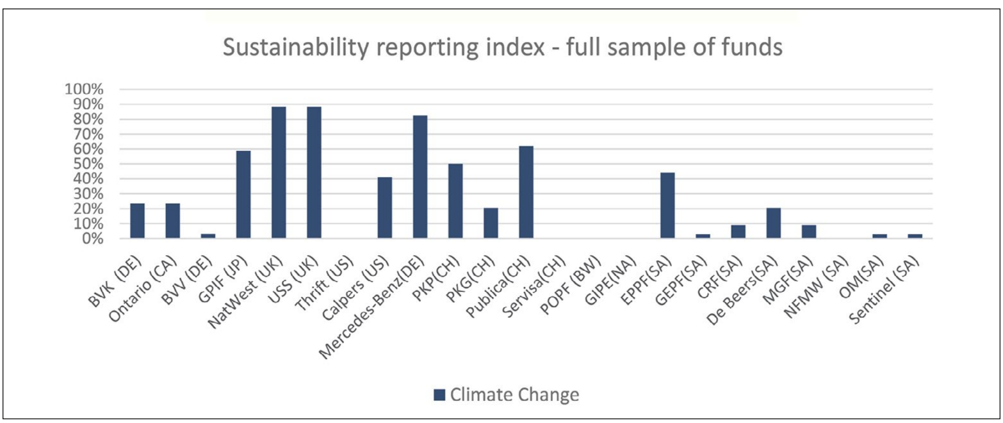

Figure 7. Results on climate change

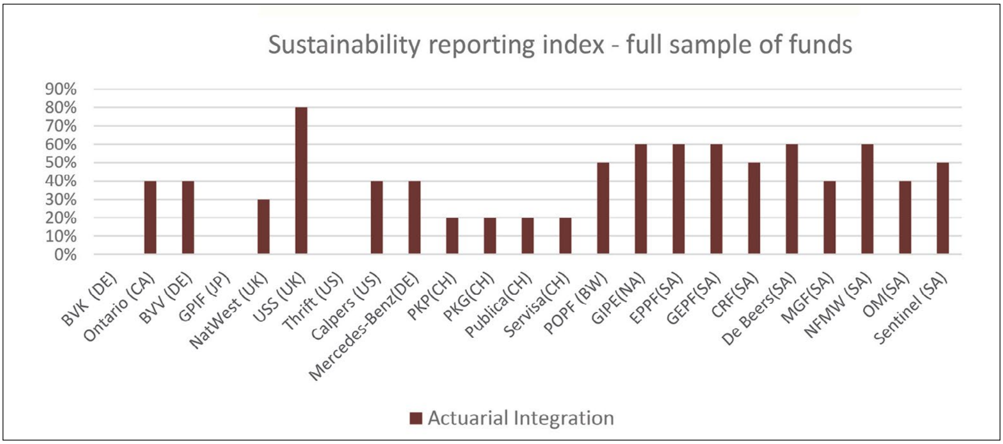

FIGURE 8. Results on actuarial integration

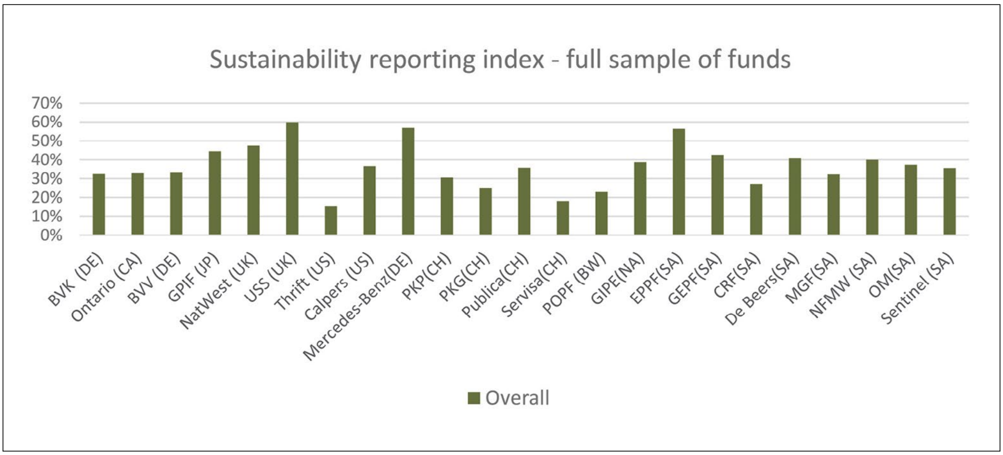

FIGURE 9. Results on overall scores

5.2.2 Key observations from the analysis of the most developed countries (Germany, UK, Canada, USA, Japan, Switzerland) includes:

5.2.2.1 In general, for most of the pension funds, it is easy to find information about the overview of organisations, their mission, business structure, and overarching policy statements about sustainability and environment, .

5.2.2.2 However, when it comes to the questions of sustainable investment strategy, financial inclusion, diversity management or climate change, funds share a varying degree of information.

5.2.2.3 In particular, in the nature and biodiversity metric, under the TNFD framework, no information was available. Notably, TNFD is not yet binding for countries studied in this paper.

5.2.2.4 In contrast, it is observed that funds provide detailed information about risks and opportunities, and different scenario analysis on the topic of climate change where TCFD reporting is mandatory (e.g. UK).

5.2.2.5 Our observation is that funds consider sustainability in their investment strategy and make the information available to the public only when they are legally obliged to do so. Where no legal obligation exists, there are two possibilities: either the funds do not consider ESG factors at all, or the funds do consider ESG in their risk management processes, but they do not publish the information.

5.2.2.6 The United Kingdom has the highest overall score, followed by Germany and Japan. In terms of legislation and practices as well as availability of data, the UK market is more developed than others.

5.2.2.7 There is no national ESG regulation in the US. Although the Federal Retirement Thrift is one of the largest pension funds of the world, its scores on all matrices are significantly lower than all other funds.

5.2.2.8 Overall, European pension plans are performing better in terms of integrating sustainability into their risk management and business processes compared to the North American funds (based on public information)

5.2.3 Key observations from the analysis of the Southern Africa region overall includes:

5.2.3.1 All regions have high scores in relation to information about the funds as well as actuarial integration.

5.2.3.2 South Africa has the highest overall score, followed by Namibia and Botswana. The South African market is more developed with additional requirements and practices as well as availability of data. Overall, the scores are quite low and point to an improvement being needed in the disclosure of relevant sustainability-related information to stakeholders.

5.2.3.3 In terms of ESG integration, Botswana had an extremely low score. This may be as a result of the information not being publicly available. However, this stood out in the analysis and significant improvement is required on this aspect for this country in particular.

5.2.3.4 Whilst policies in relation to ESG integration were largely observed in South Africa and Namibia, evidence in relation to the monitoring and effectiveness was lacking across the funds surveyed.

5.2.3.5 The score in relation to governance and strategy in Botswana was particularly low. This is an area that requires significant improvement.

5.2.3.6 Some evidence was observed in relation to addressing climate risks in South Africa, whereas there was no evidence of this in Namibia and Botswana.

5.2.3.7 Funds in South Africa generally scored much higher on financial inclusion than funds in both Namibia and Botswana. This is a function of the additional practices in South Africa. However, the monitoring of the effectiveness of communication and the impact on financial decision-making was generally not present in any of the countries.

5.2.3.8 Diversity, equity and inclusion scored highest in South Africa. This is a result of the history of the country.

5.2.3.9 There was virtually no evidence that nature and biodiversity risks were considered and monitored in any of the regions. This is to be expected given that nature and biodiversity disclosures are at an early stage of development.

5.2.4 Key observations from the analysis of the selected South African funds includes:

5.2.4.1 Less variability within each of the criteria is present compared to the full sample. This showed that within the specific areas, disclosure was generally within a small range.

5.2.4.2 Other than information about the fund, actuarial integration and financial inclusion, other areas of sustainability generally scored low. It may be that funds have chosen not to disclose those aspects and that the relevant practices are in place; however, it nevertheless points towards an improvement being needed in the disclosure of relevant sustainability-related information to stakeholders.

5.2.4.3 Whilst policies in relation to ESG integration were largely observed, evidence in relation to the monitoring and effectiveness was lacking across the funds surveyed.

5.2.4.4 Funds generally scored well on financial inclusion. However, the monitoring of the effectiveness of communication and the impact on financial decision-making was generally not present.

5.2.4.5 A surprising result was the relatively low level of disclosure around diversity, equity and inclusion – especially as this is a key aspect and focus in South Africa, given the country's history and legislation around transformation and B-BBEE requirements.

5.2.4.6 Other than policies in relation to diversity, equity and inclusion being in place, there was no evidence of monitoring and embedment in relation to this aspect.

5.2.4.7 For funds that scored higher around diversity, equity and inclusion, the focus was solely on transformation aligned to black economic empowerment (B-BBEE) in relation to the local components of their investment strategies. Funds did not apply a wider lens to diversity, equity and inclusion with no observed practices in relation to offshore investments.

5.2.4.8 Climate change, nature and biodiversity aspects consistently scored low across all funds. Only two funds scored above 10% for the climate change aspect, and no funds had any meaningful disclosure around nature and biodiversity risks. Given the significance of these systemic issues and their impact on funds and their funding levels, this is an area that requires more focus.

5.2.4.9 Defined benefit (DB) funds scored higher in relation to actuarial integration than defined contribution (DC) funds. This is understandable given the financial implications to sponsors in a DB fund. Improvements in how DC funds monitor and communicate expected replacement ratios is required. In the case of both DB and DC funds, there was no evidence that climate change and its implications have been factored into actuarial valuations or projections. Given the long-term implications of climate change this is an area that requires urgent attention to ensure that funds' strategies and funding plans take cognisance of this systemic risk, and to ensure that sufficient mitigation and transition plans are in place to manage the risks and opportunities.

5.3 Leading practices

The aim of Figure 10 is to show how the leading funds of the selected countries are performing. For this purpose, only funds with best performances in each country or region are included.

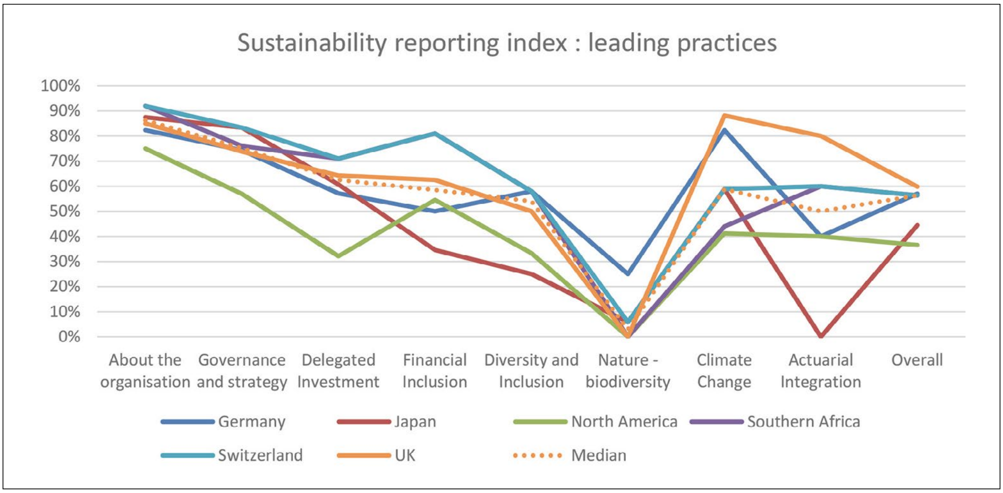

FIGURE 10. Best performance of leading funds

5.3.1 Germany: leading practices

Funds scoring relatively higher in Germany show the following best practices:

— Have policies regarding ESG objective, diversity and inclusion, climate-change, nature, and biodiversity.
— Have broad oversight of diversity, equity and inclusion-related risks and opportunities.
— Have clear objectives and targets for its sustainable investment practices.
— Are voluntary signatories of TCFD initiative.
— Publish comprehensive sustainability reports annually.

5.3.2 United Kingdom: leading practices

High scoring funds of the UK show the following best practices:

— Clearly describe how sustainability-related issues create long-term investment values.
— Publish specific objectives and targets for their sustainable investment activities.

- Monitor how sustainability-related issues are managed by external investment managers.
- Maintain effective member communication to facilitate well-informed decision-making.
- Clearly mention the process of identifying, assessing and managing climate-related risks and opportunities.
- Include climate change-related scenarios in actuarial assumptions.

5.3.3 Japan: leading practices

The following best practices are found in Japan:

- Disclosure of detailed breakdown of the assets under funds' management, and provision of the portion of assets managed by geography and by asset class. They clearly mention the ratio of assets covered by ESG integration.
- They have sustainable investment principles, stewardship principles and proxy voting principles.
- They describe how sustainability-related issues are managed by external asset managers in a detailed manner.

5.3.4 Switzerland: leading practices

The following leading features were observed:

- Pension funds implementing the ESG Reporting Standard provide good information on their organisation and sufficient details on financial inclusion and governance. This information is given in a general manner for the private funds and a more detailed overview is observed in the public funds.
- The extent of information on impact metrics remains limited due to minimal reporting standard requirements and difficulty in assessing double materiality from lack of data.
- Social factors are mostly addressed as policy, with only one pension fund among those observed addressing them specifically.
- Investment strategy goals are mostly set individually, and aim to not harm the fiduciary duty towards pensioners and insured actives. Exclusion policies are included as part of the reporting criteria; however, conversations will be pursued with companies that can improve their rankings (positive screening). Their progress will be monitored and the results will also be published.
- The number of pension funds following the ESG Reporting Standard is growing; formal disclosure is not a priority for many pension funds due to supplementary costs.
- Pension funds have a duty to maintain and inform members about the state of their benefits or progression, both globally and individually. Nonetheless, pension funds do not yet consider climate change or biodiversity risks in the setting of assumptions for actuarial reports on liabilities.

5.3.5 North America (USA, Canada): leading practices

Best practice includes:

— Mapping the United Nations SDGs to organisations' beliefs, policies and ESG strategic plans.
— Detailed policy regarding governance, and sustainable investment strategy.
— Disclosure of ESG reports or integrated annual reports.
— The resilience of funds' strategy is described by analysing different climate-related scenarios.
— Monitoring the effectiveness of communication and ensuring good decision-making for the defined contribution members.

5.3.6 Southern Africa (includes South Africa, Namibia, Botswana): leading practices

For the funds that scored the highest in each of the various categories, the following aspects stand out as best practices:

— Detailed policies in relation to sustainable investing, diversity, equity and inclusion, and climate change.
— Disclosure of ESG reports or integrated annual reports.
— Monitoring and communicating individual member outcomes on defined contribution funds.
— Demonstrating real-world impact in relation to investments (in addition to risk and return of investment portfolios).
— Monitoring effectiveness of communication and decision-making in relation to defined contribution members.
— Making retirement benefits counselling available to members at key events (joining a fund, annual option choices, on withdrawal, at retirement, annually after retirement)
— Funds being voluntary members of the PRI and CRISA 2.0 and adopting some sense of active ownership and ESG focus when setting out investment policies.

5.4 Impact monitoring, scenario analysis and stress testing

5.4.1 Impact monitoring incorporates investment portfolio impact monitoring, impact monitoring of asset managers, tracking member replacement ratio outcomes, tracking effectiveness of member engagement, as well as social and environmental real-world impacts.

5.4.2 Scenario analysis and stress testing are qualitative and quantitative techniques to test the resilience of retirement funds, over the short, medium and long term. These techniques are useful to ensure that systemic issues such as climate change are factored into the risk management of funds and are generally recommended as best practice.

5.4.3 The aim of Figures 11 and 12 is to show the scores (out of 100%) for two subcategories of the sustainability reporting index across all the funds included in the study: (i) impact monitoring and (ii) scenario analysis and stress testing. The questions included for each sub-category are set out in Appendix 1.

5.4.4 Key observations from the above analysis include:

5.4.4.1 In general, the overall scores in relation to impact monitoring are low. Based on the available information, funds seem to be finding it challenging to demonstrate and report on the real-world impact of the fund. Given the improvement in the availability of

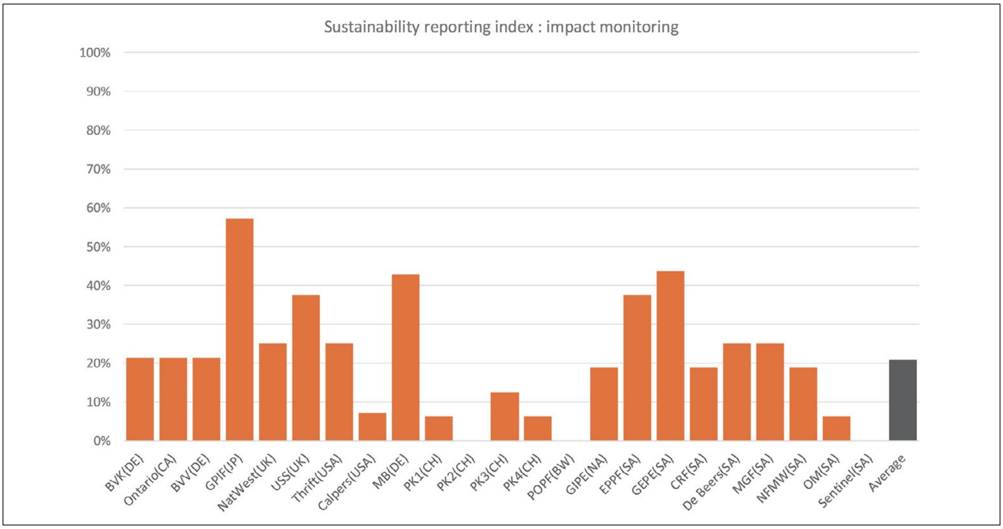

FIGURE 11. Impact monitoring

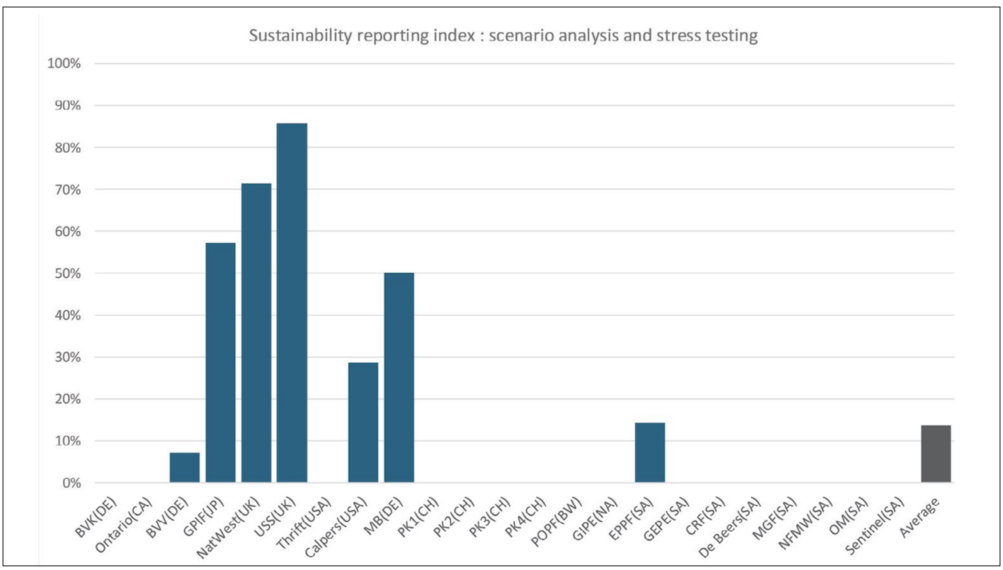

FIGURE 12. Scenario analysis and stress testing

data and the technology available to perform analytics, this is an area where actuaries are well-placed to assist – ultimately being able to monitor the real-world impact of various aspects of running funds to ensure that the core purpose and the influence that funds have on the economy can be realised (while recognising that a pension fund's administrator may have limited room to manoeuvre on certain issues due to the definition of fiduciary duty in that country).

5.4.4.2 Other than the UK, there is generally a very low level of incorporating scenario analysis and stress testing reported in the risk management of funds. It is likely that many countries and regulators will start including this as recommended best practice for managing systemic risks such as climate change, nature and biodiversity risk. Given the uncertainty and long-term implications of climate change, this is an area where actuaries can add significant value, by ensuring that funds are resilient and that the implications of climate change are incorporated into the management of the assets and liabilities of retirement funds. Tables 3 and 4 illustrate examples of what leading retirement funds are implementing for various climate transition scenarios, together with qualitative assessments in relation to defined contribution and defined benefit funds.

Table 3. XYZ Retirement Fund – impact of climate change on DC projected replacement ratios (for illustration only)

	Base	Orderly net-zero 1.5°C warming	Disorderly net-zero 1.5°C warming	Limited action 2.0°C–3.0°C – warming	High warming >4.5°C warming
Standard mortality assumptions	76%	71%	58%	53%	50%
Reduced mortality improvements	76%	71%	58%	55%	53%
Reduced longevity (low)	76%	71%	58%	56%	56%
Reduced longevity (high)	76%	71%	58%	58%	63%

Source : Alexforbes calculations based on illustrative assumptions for South African funds

Table 4. ABC Pension Fund – impact of climate change on pensioner-only DB funding levels across various climate scenarios (for illustration only)

	Base	Orderly net-zero	Disorderly net-zero	Limited action	High warming
Standard mortality assumptions	100%	94%	84%	77%	68%
Reduced mortality improvements	100%	94%	84%	79%	72%
Reduced longevity (low)	100%	94%	84%	81%	77%
Reduced longevity (high)	100%	94%	84%	84%	85%

Source : Alexforbes calculations based on illustrative assumptions for South African funds

6. BASIS OF OUR ANALYSIS

This paper has been written based on publicly available information only (see sources cited). No information has been used from the authors' roles at their respective employers. The authors are based in Germany, South Africa and Switzerland and every effort has been made to reflect the relevant regulations both inside and, where applicable ,outside these countries. Any errors or omissions are the authors alone. Note that this paper does not cover the issue of whether ESG disclosure has actually led to either better long-term investment returns or whether the pension plans offer greater security of benefits being paid etc.

7. CONCLUSIONS

News on climate change is ubiquitous in our daily lives whether via more traditional media such as newspapers and the radio or via social media. Because of the magnitude of the change required to move to a CO_2 neutral world, governments and non-state parties have brought into being multiple laws, regulations and international agreements. Furthermore, there is a perception that the use of (at least some) ESG requirements is now well accepted in the corporate sector (although the extent to which this occurs greatly depends on the country) and that their application in respect of pension funds is widespread. It was with this view that it was decided to write this paper and the results are somewhat surprising to the authors. In the conclusions drawn, it should be noted that while the survey covers only a small sample of global practices, the results give a good overview of the current situation.

7.1 Key takeaways

7.1.1 The power of retirement funds in shaping sustainable finance practices

Retirement funds are important and influential asset owners. According to the CFA Institute:

> Asset owners set the tone for the investment value chain. Their understanding of how ESG factors influence financial returns and how their capital affects the real economy can significantly drive the amount and quality of ESG investing from the investment value chain.

Given the finding in this study that the overall sustainability reporting is at a moderate level in general, in the authors' view, there is still significant scope for retirement funds to influence the investment value chain and improve the likelihood of ESG issues being appropriately priced into the pensions promise.

7.1.2 Leading funds as advocates

In each region there are funds that are leading practices irrespective of the legislative requirements. These funds are typically very involved in shaping the local market regulations and influencing the adoption of regulation within the relevant region. However, this study shows that relying on market forces and voluntary codes on their own will not increase the level and consistency of the reporting of ESG key performance indicators and disclosures.

7.1.3 National legislation plays a key role

The use of ESG key performance indicators and disclosure has grown under a multitude of national and trans-national initiatives. However, unless an ESG key performance indicator or disclosure requirement is mandatory to report on at the national level (with the main exception being the USA where states play a key role), then generally it is not reported upon except for the minority of leading funds. One could conclude that national states are the only actors that can really drive change in this area.[47]

7.1.4 Role of the actuary

Public disclosures do not really state how the information disclosed is used to derive adjusted actuarial assumptions either on the liability nor on the asset side. Here, we believe, actuaries are in the best position to drive the "translation" of disclosure requirements into useful actuarial scenarios and quantification methods to improve decision-making and increase the likelihood of systemic issues being priced into the pension promise.

7.1.5 What is disclosed?

7.1.5.1 The most common disclosures are "About the organisation", "Governance" and "Financial Inclusion" where nearly all pension plans provided reasonable level of information.

7.1.5.2 Areas where a reasonable level of emerging disclosure is present in leading funds, but improvements are required in most funds includes "Delegated Investment", "Diversity, Equity and Inclusion", "Actuarial Integration" and "Climate Change".

7.1.5.3 The least disclosed measure is "Nature – Biodiversity" where vast majority of plans provided no information (this, in our view, likely partly reflects the lack of guidance on what and how to report on this issue).

7.1.6 Why the relative lack of ESG disclosures?

7.1.6.1 Given that all pension administrators, actuaries and fiduciaries must know about the issues, why is there a relative lack of public disclosure of the issue? One can only speculate on the reasons why. Is it because the issues are so long-term it doesn't matter to market participants? Clearly current members of pension plans will live to the point in the future where climate change, as an example, makes a material difference to peoples' lives (one could argue that we are already at that point). What is likely happening is that

47 See Anatol Lieven's "Climate change and the nation state: The case for nationalism in a warming world" for an interesting view on why this is the case.

"long-term" here means longer than pension plan administrators' own career spans which reduces their interest in making "risky" changes now for a benefit beyond their own career span. This fear of changing now and risking a fall in short-term investment metrics, compared to others who do not follow, partly drives the issue.[48]

7.1.6.2 It could also be a result of varying interpretations of "fiduciary duty" and a perception that incorporating ESG considerations may lead to inferior outcomes.

7.1.6.3 It is possibly the result of the lack of data and the lack of skills to translate available data into meaningful tools for retirement funds to quantify and manage the risks and opportunities in relation to ESG issues.

7.1.6.4 Do pension plan administrators not see the additional value of embedding these issues in their processes and disclosures? Or are they thinking that they already implicitly embed all ESG requirements into their investment management process and that is sufficient?

7.1.6.5 Is this survey simply too early? This may be so as the key European Union law, the Corporate Sustainability Reporting Directive (CSRD), comes into force for all 2024 reports that are published in 2025. But this would not explain the situation outside the EU.

7.1.6.6 Do pension plan administrators simply feel that much of the social part of ESG reporting is someone else's problem (for instance via the European Supply Chain Due Diligence Act requirements that corporations will need to follow)?

7.1.6.7 Has no cost benefit analysis been undertaken to show that it is worth doing purely for business reasons? The costs of compliance are clear but the process itself doesn't, in the view of pension plan administrators, generate any particular benefits (even if one does not "buy into" the whole ESG politics)?

7.2 Going forward

7.2.1 It is clear that sustainability issues are progressing around the world and that there will be further development in regulation, data availability, technology and market practices.

7.2.2 Whilst some progress has been made, this study highlights some of the key gaps stakeholders should focus on in the various countries covered.

7.2.3 In particular, we have highlighted a significant need for impact monitoring, scenario analysis and stress testing across most of the countries covered. Actuaries are particularly suited to cater for this gap, ultimately ensuring that relevant issues are incorporated into the long-term asset-liability management of funds and thereby increasing the chances of systemic issues being appropriately factored into the price of pension provision. In particular, we suggest the development of relevant guidance in relation to climate

48 See Andrew Smithers' *The Economics of the Stock Market* for a view of this issue in relation to corporations and their managers' actions.

change risk as a start, given that this area has developed quickly and is the first key issue included in the proposed IFRS S2 reporting. Thereafter, other key themes can be focussed on as global reporting standards develop.

7.2.4 Lastly, to assist various stakeholders, including trustees, regulators, advisors and asset managers, it is intended to update the Sustainability Reporting Index annually in future, using this study as a baseline to monitor progress.

ACKNOWLEDGEMENTS

Special thanks go to Deloitte colleagues Mr Kodai Ishikawa and Ms Tara-Kim Koch for their valuable support.

ABBREVIATIONS AND ACRONYMS

ASIP	Swiss Pension Fund Association
B-BBEE	Broad-Based Black Economic Empowerment
BSE	Botswana Stock Exchange
CAPSA	Canadian Association of Pension Supervisory Authorities
CRISA	Code for Responsible Investing in South Africa
CSA	Canada Securities Authority
CSDDD	Corporate Sustainability Due Diligence Directive
CSDS	Canadian Sustainability Disclosure Standards
CSR	Corporate Social Responsibility
CSRD	Corporate Sustainability Reporting Directive
CSSB	Canadian Sustainability Standards Board
DB	Defined Benefit
DC	Defined Contribution
DEI	Diversity, Equity and Inclusion
DOL	Department of Labour
EIA	Environmental Impact Assessment
ERISA	Employee Retirement Income Security Act
ESG	Environmental, Social and Governance
FIMA	Financial Institutions and Markets Act
FCA	The Council of Financial Services Agency of Japan
FSC	Financial Sector Code
FSCA	Financial Sector Conduct Authority
GRI	Global Reporting Initiative
IRIS+	Impact Reporting and Investment Standards system
ISSB	International Sustainability Standards Board
JSE	Johannesburg Stock Exchange
KING IV	King IV Corporate Code of Conduct
NamCode	Corporate Governance Code for Namibia
NAMFISA	Namibian Financial Institutions Supervisory Authority
NBFIRA	Non-Bank Financial Institutions Regulatory Authority
NFRD	Non-Financial Reporting Directive
NSX	Namibian Stock Exchange
PRI	Principles for Responsible Investment
RTS	Regulatory Technical Standards
SDGs	United Nations Sustainable Development Goals
SEC	Securities Exchange Commission
SECR	Streamlines Energy and Carbon Reporting
SFAC	Sustainable Finance Action Council
SFDR	Sustainable Finance Disclosure Regulations
TCFD	Taskforce on Climate-Related Financial Disclosures
TISFD	Taskforce for Inequality and Social Financial Disclosures
TNFD	Taskforce on Nature-related Financial Disclosures

APPENDIX 1

The following questionnaire, based in the World Bank study,[49] has been used to access the funds. Questions are answered with Yes/No/Partial, with yes scoring 2, partial scoring 1 and no scoring 0.

About the Organisation
Has the organisation provided an overview of its history including the reasons for its creation?
Has the organisation explained the origins of its wealth (i.e. how is it funded)?
Has the organisation described its ownership structure?
Has the organisation described its overarching mission and objectives?
Has the organisation described the legal and other obligations that apply to it? Note: These include sustainability-related obligations, and other obligations that affect its approach to sustainability.
Has the organisation published an annual report describing its overall performance and strategy?
Has the organisation published an annual report describing its overall impact (i.e. the benefit it provides to stakeholders and the impact the fund has on society and the economy)?
Has the organisation reported on its investment performance over at least three years?
Has the organisation published details of its overall governance structure?
Has the organisation published the names of its board of directors?
Has the organisation published the names of its senior management team?
Has the organisation stated its total assets under management?
– By asset class?
– By geography [domestic versus international]?
– By whether the assets are internally or externally managed?
– By whether the assets are actively or passively managed?
– In terms of the proportion that are covered by ESG integration?
– In terms of the proportion that are covered by active ownership strategies?
– In terms of the proportion that are invested in sustainability-related areas?
Has the organisation had its sustainable investment-related reporting assured or otherwise reviewed by an external party?

Governance and Strategy
Do country-specific regulations exist in relation to sustainability disclosure?
Has the organisation published its investment beliefs?
Do the investment beliefs set out the organisation's views on the relevance of sustainability to its investment practices, processes and performance?
Does the organisation explain how sustainability-related issues create long-term investment value?
Does the organisation define what it means by 'long term'?
Has the organisation described its investment strategy, explaining how it will deliver on its investment beliefs?

49 https://www.wavespartnership.org/sites/waves/files/kc/Sustainable-Investment-Best-Practice-Disclosure-Checklist-for-Pension-Funds.pdf.

Has the organisation explained how sustainability is integrated into its risk management processes?
Has the organisation identified its material sustainability-related issues?
Does the organisation specify its investment objectives, e.g. by highlighting the benchmarks it uses to track and assess performance?
Does the organisation specify its impact / ESG objectives, e.g. by highlighting the benchmarks it uses to track and assess impact and ESG performance?
Does the organisation specify the timeframes over which it assesses performance?
Has the organisation published an overarching sustainable investment policy or similar document?
– Specify the coverage of the policy [in terms of the asset classes and AUM covered by the policy)?
– Identify any exceptions to the policy?
– Describe the integration of sustainability-related issues into its investment decision-making?
– Describe the organisation's approach to active ownership engagement?
– Describe the organisation's approach to voting on its listed equities holdings (if relevant}?
Has the organisation published a policy on managing conflicts of interest in its investment process?
Has the organisation identified its key stakeholders?
Has it indicated which of these it has engaged with?
Has it identified the key issues raised by these stakeholders and the actions taken as a result?
Has the organisation published an integrated report, highlighting its impact?
Has the organisation published objectives and targets for its sustainable investment activities?
Are the objectives and targets SMART (specific, measurable, achievable, realistic, time bound)?
Has the organisation explained how the targets are to be achieved?
Has the organisation set key performance indicators (KPIs) to assess progress towards the targets?
Has the organisation reported on progress against the targets?
Has the organisation described the factors that have affected its performance against these targets?
Has the organisation specified who is responsible for oversight of the sustainable investment policy?
Has the organisation specified who is responsible for implementation of the sustainable investment policy?
Has the organisation stated who is responsible for the delivery of the targets?
Has the organisation described how sustainable investment is incorporated in performance management and reward processes?
Has the organisation described how sustainable investment is incorporated in personal development processes (e.g. training)?
Has the organisation listed the sustainable investment initiatives it is a member of/signatory to?
Has the organisation listed the sustainability-related codes and other commitments it has made?
Has the organisation reported on its dialogue with public policymakers or regulators in support of sustainable investment?
Has the organisation published copies of the sustainable investment-related submissions it has made to governments, regulators or public policymakers?
Has the organisation undertaken sustainability-related scenario analysis and/or modelling?
If yes, has it provided a description of the scenario analysis?

Has the organisation described whether and how it considers ESG issues in asset allocation decisions?
Has the organisation indicated the percentage of its total AUM invested in sustainability-themed areas?
Has the organisation reported on the overall sustainability performance and impact of its investment portfolio (e.g. linking to UN SDGs)?

Delegated Investment
Does the fund describe how sustainability-related issues are managed by its external investment managers?
Does the fund specify the sustainability-related strategies (e.g. integration and engagement) that are to be applied by its external investment managers?
– Does it explain how these differ between asset classes?
– Does it explain how these differ between investment managers?
Does the fund describe how its investment managers are rewarded for their sustainability-related performance?
Does the fund describe the sustainability-related information it typically reviews when selecting external investment managers?
Does the fund specify what proportion of manager selection processes take account of sustainability-related information?
Does the fund describe how sustainability-related issues are incorporated into manager requirements (e.g. mandates)?
– The investment performance benchmarks (or other expectations) it sets for its external investment managers?
– The sustainability-related performance objectives (or other expectations) it sets for its external investment managers?
– The sustainability-related reporting it requires from its investment managers?
– The actions it takes if investment managers do not meet their contractual obligations or do not perform in line with the fund's policies and other commitments?
Does the fund describe how it monitors and reviews the sustainability-related progress that managers are making?
Does the fund report on the sustainability-related performance of its external managers?

Financial Inclusion
Has the organisation provided information of its funding position (in terms of assets and liabilities)?
Has the organisation set out a target in relation to the replacement ratio it is targeting as a long-term objective?
Does the organisation monitor whether members are on track for the targeted replacement ratios?
Does the organisation set out how it makes financial advice accessible to members?
Has the organisation set out its approach to member engagement and the level of support it provides to facilitate good decision-making?
Does the organisation cater for personalised member communication, taking into account individual profile data?
Has the organisation monitored / tracked the effectiveness of member engagement (number of members engaged, quality of engagements, quality of decisions made)?
Has the organisation set out its impact in relation to pooling member assets (cost savings, tax savings)?
Has the organisation set out its impact on savings rates?
Does the organisation make use of default investment strategies?
Does the organisation make use of default preservation strategies (when members exit)?
Does the organisation make use of default annuity strategies (when members retire)?
Has the organisation reported on its impact (positive or negative) on financial inclusion?

Diversity, Equity and Inclusion
Has the organisation published a diversity, equity and inclusion "DEI" policy?
Has the organisation described its board oversight of DEI-related risks and opportunities?
Has the organisation described the various parties (including principal officer, asset manager and administrator) roles in assessing and managing DEI-related risks and opportunities?
Has the organisation described the DEI-related risks and opportunities it has identified?
Has the organisation described its processes for identifying, assessing and managing DEI-related risks?
Has the organisation described how processes for identifying, assessing and managing DEI-related risks are integrated into its overall risk management processes?
Has the organisation described the metrics it uses to assess DEI-related risks and opportunities in line with its strategy and risk management process?
Has the organisation disclosed the gender and race profile of the board and fund management?
Has the organisation disclosed the gender and race profile of the management of its underlying investments?
Has the organisation disclosed metrics related to labour standards and human rights in relation to its underlying investments?
Has the organisation disclosed the pay gap of its underlying investments?
Has the organisation described the targets it uses to manage DEI-related risks and opportunities, and its performance against the targets?
Has the organisation reported on its impact (positive or negative) on DEI-related risks?

Climate Change
Has the organisation published a climate-change policy?
Has the organisation described its board oversight of climate-related risks and opportunities?
Has the organisation described the various parties (including principal officer, asset manager and administrator) roles in assessing and managing climate-related risks and opportunities?
Has the organisation described the climate-related risks and opportunities it has identified?
Has the organisation described the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario?
– Has the organisation described the scenarios it has used in its modelling?
– Has it described the results of its modelling?
– Has it explained how the results of the modelling have influenced its investment decisions?
Has the organisation described its processes for identifying and assessing climate-related risks?
Has the organisation described its processes for managing climate-related risks?
Has the organisation described how processes for identifying, assessing and managing climate-related risks are integrated into its overall risk management processes?
Has the organisation described the metrics it uses to assess climate-related risks and opportunities in line with its strategy and risk management process?
Has the organisation disclosed its portfolio-related Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks?
Has the organisation indicated the percentage of its total assets that have quality TCFD reporting?
Has the organisation indicated the percentage of its total AUM in investments that support effective adaptation?
Has the organisation described the targets it uses to manage climate-related risks and opportunities, and its performance against the targets?
Has the organisation reported on its impact (positive or negative) on climate-related risks?

Nature / Biodiversity
Has the organisation published a nature / biodiversity policy?
Has the organisation described its board oversight of nature-related risks and opportunities?
Has the organisation described the various parties (including principal officer, asset manager and administrator) roles in assessing and managing nature-related risks and opportunities?
Has the organisation described the nature-related risks and opportunities it has identified?
Has the organisation described the resilience of the organisation's strategy, taking into consideration different nature-related scenarios?
– Has the organisation described the scenarios it has used in its modelling?
– Has it described the results of its modelling?
– Has it explained how the results of the modelling have influenced its investment decisions?
Has the organisation described its processes for identifying and assessing nature-related risks?
Has the organisation described its processes for managing nature-related risks?
Has the organisation described how processes for identifying, assessing and managing nature-related risks are integrated into its overall risk management processes?
Has the organisation disclosed TNFD-related metrics and the related risks?
Has the organisation indicated the percentage of its total assets that have quality TNFD reporting?
Has the organisation indicated the percentage of its total AUM in investments that support nature-positive solutions?
Has the organisation indicated the percentage of its total AUM in investments that have medium to high dependency on or impact on nature?
Has the organisation indicated the percentage of its total AUM in investments that have activities in nature-sensitive locations?
Has the organisation described the targets it uses to manage nature-related risks and opportunities, and its performance against the targets?
Has the organisation reported on its impact (positive or negative) on nature-related risks?

Actuarial Integration
Does the fund perform a regular assessment of its assets and long-term liabilities (for DC funds – an assessment of the replacement ratio positions of individual members)?
Does the fund communicate its funding position? (For DC funds, does the fund communicate whether members are on track for their targeted replacement ratios)?
Do the actuarial assumptions include margins in addition to its best-estimate basis for solvency purposes (for DC funds – is a range of assumptions used to determine replacement ratios)?
Do the actuarial assumptions include scenarios in relation to climate change?
Do the actuarial assumptions include scenarios in relation to nature and biodiversity risks?

APPENDIX 2

The sustainability reporting index scores for each individual fund included in this study have been set out in this appendix.

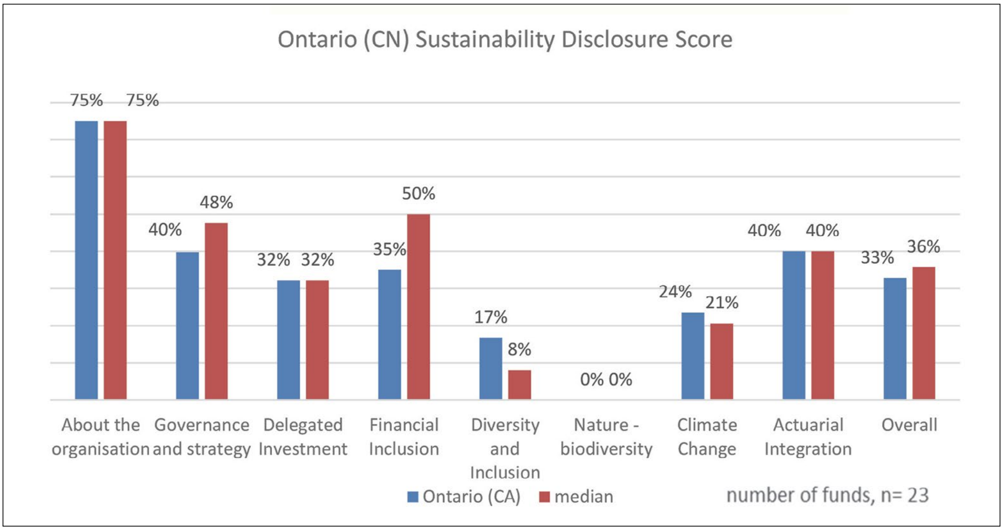

FIGURE 13. Ontario Teachers' Pension Plan (Canada)

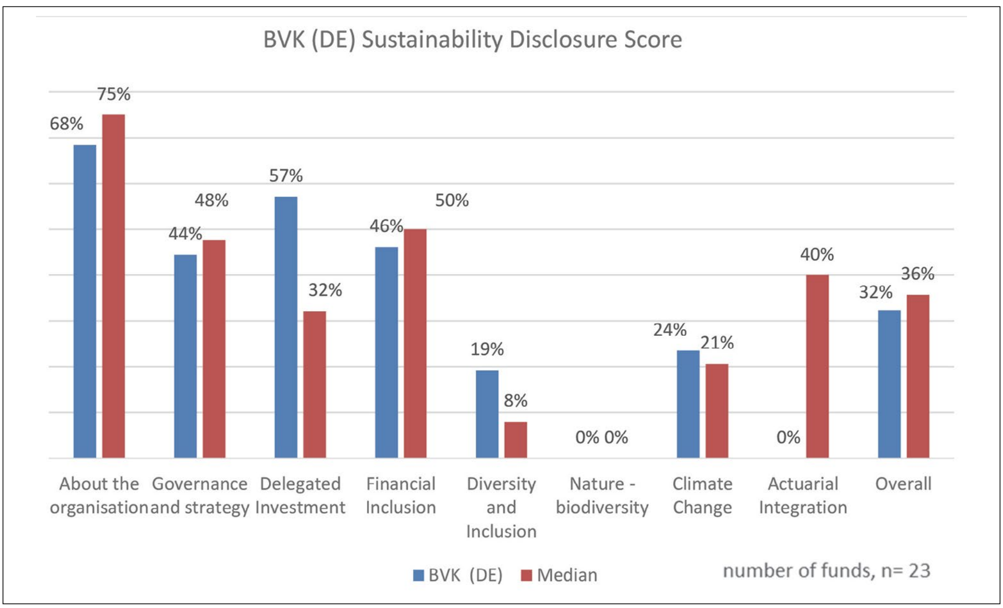

FIGURE 14. BVK(Germany)

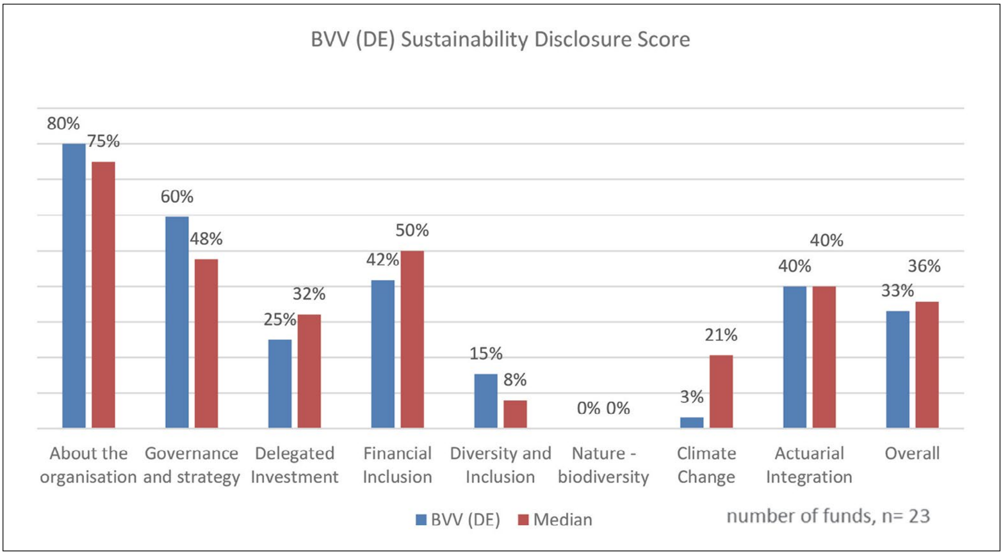

Figure 15. BVV (Germany)

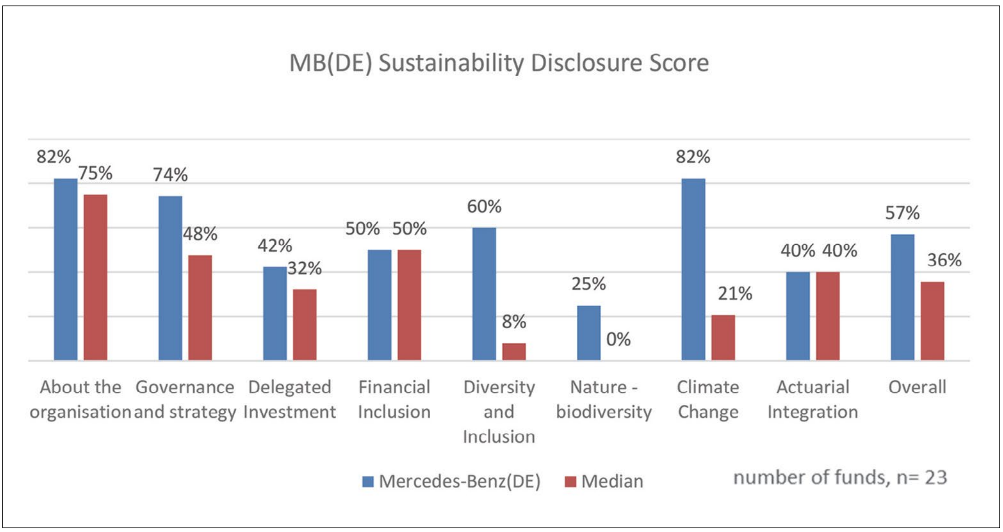

Figure 16. Mercedes-Benz (Germany)

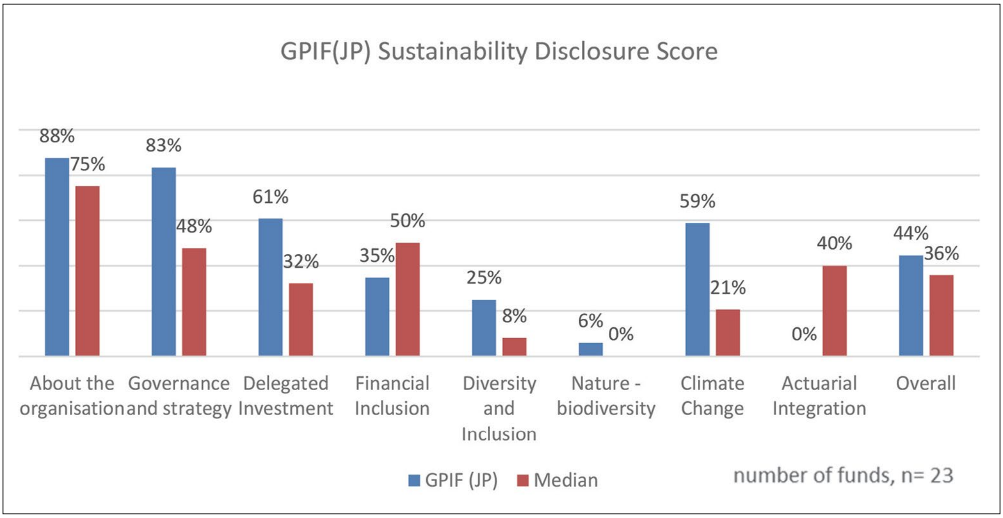

Figure 17. Government Pension Investment Fund (Japan)

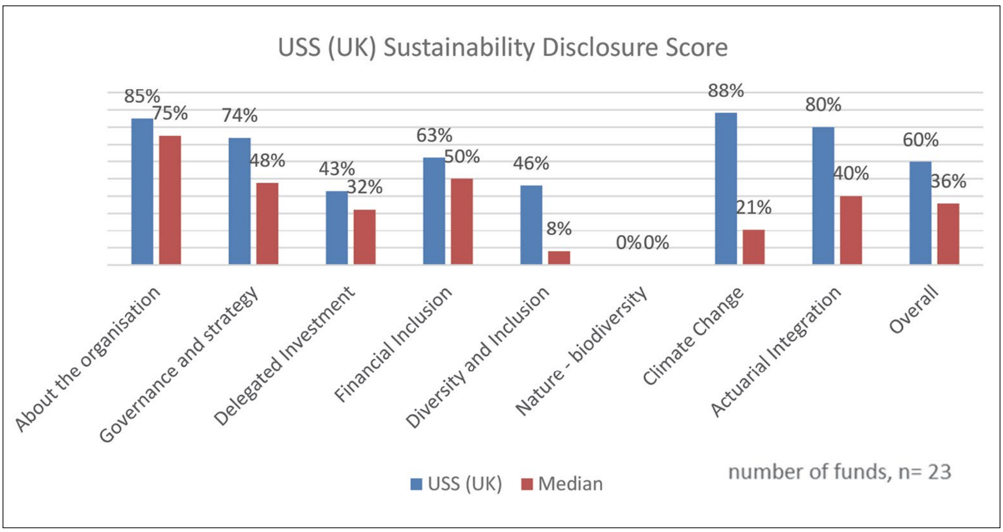

Figure 18. Universities Superannuation Scheme (UK)

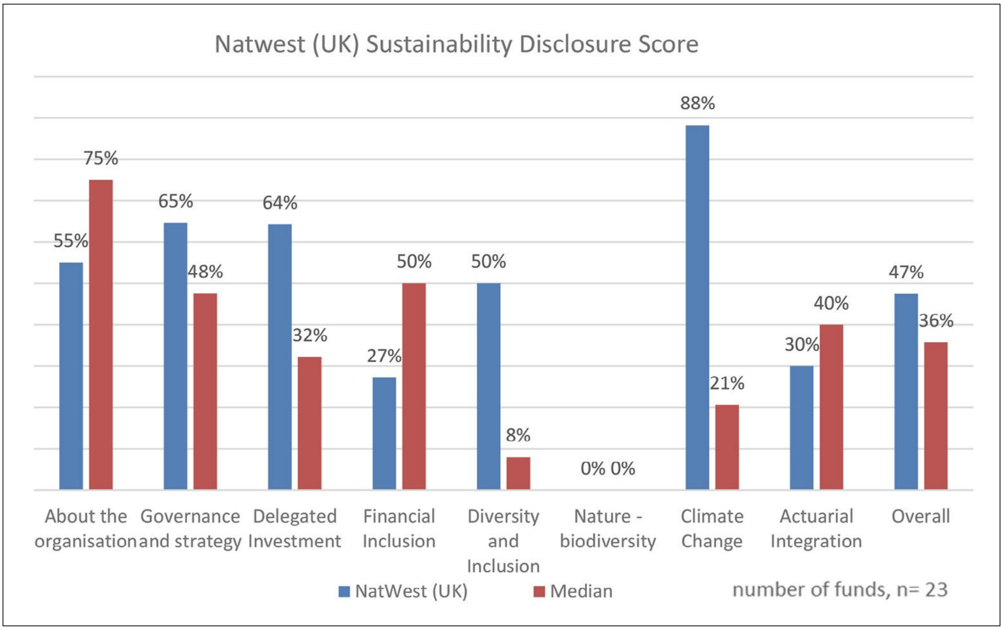

Figure 19. NatWest Group (UK)

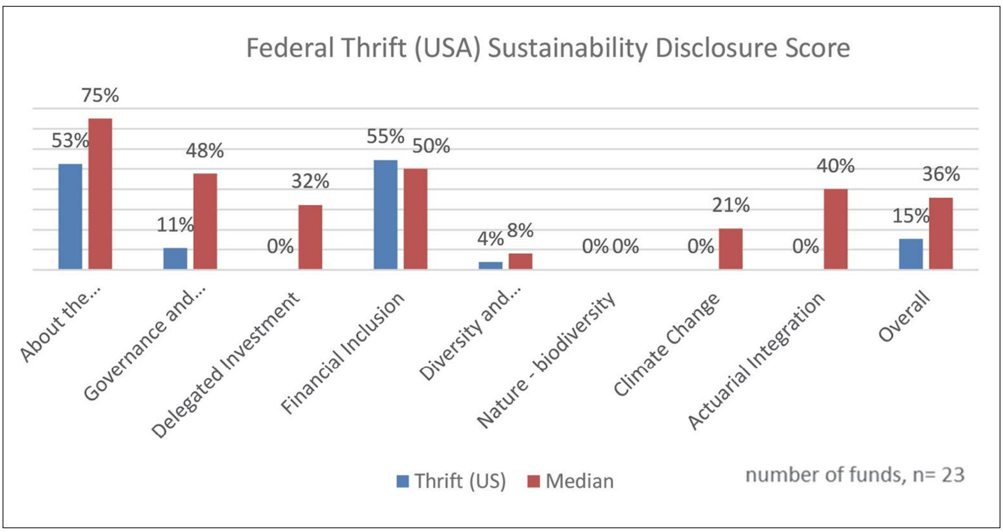

Figure 20. Federal Retirement Thrift Investment Board (USA)

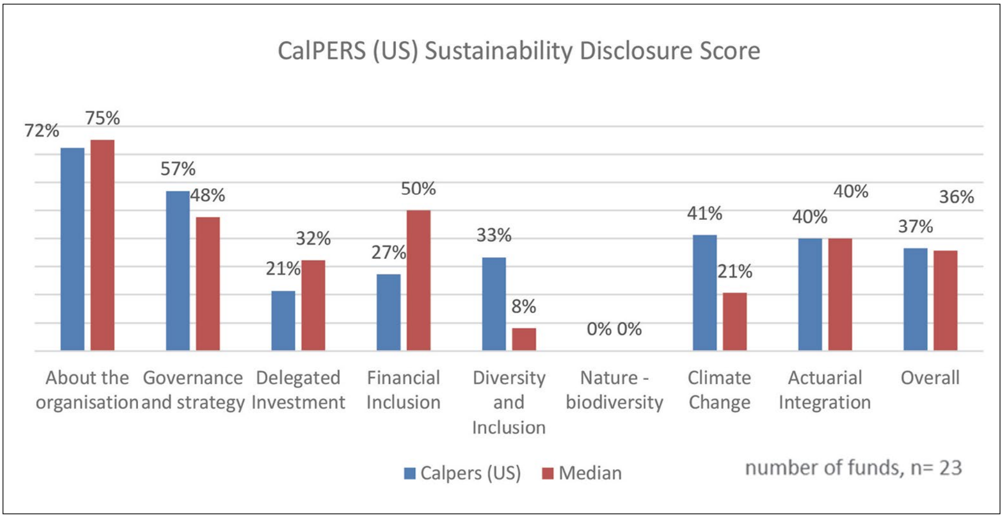

FIGURE 21. California Public Employees Retirement System (USA)

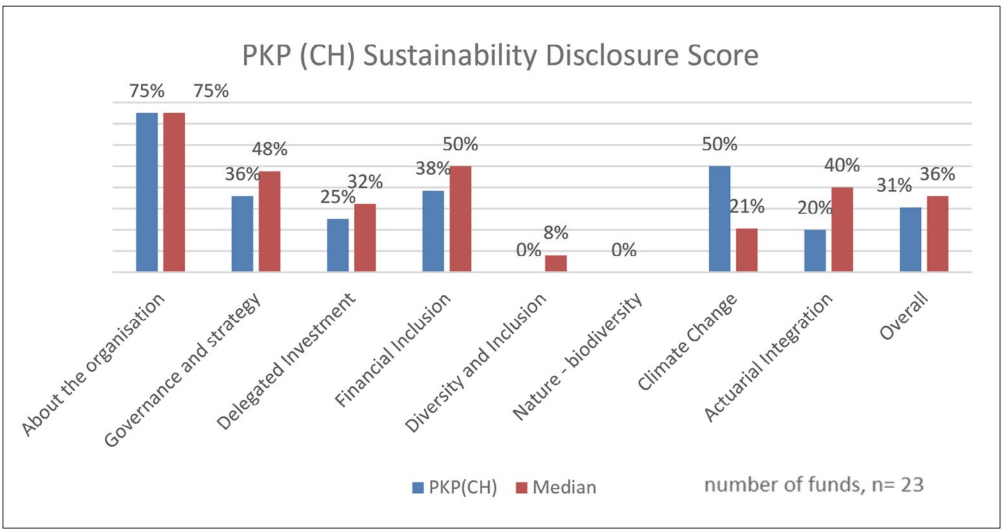

FIGURE 22. PKP (Switzerland)

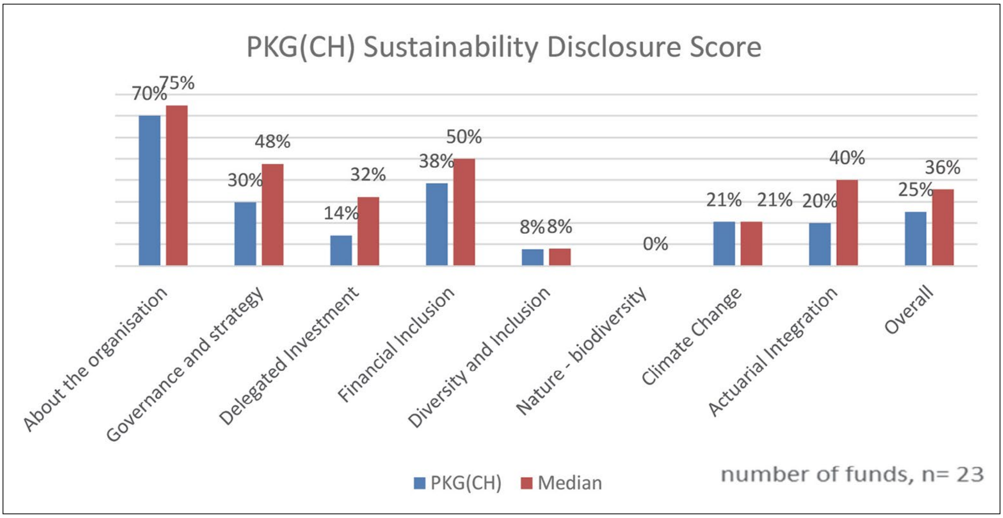

Figure 23. PKG (Switzerland)

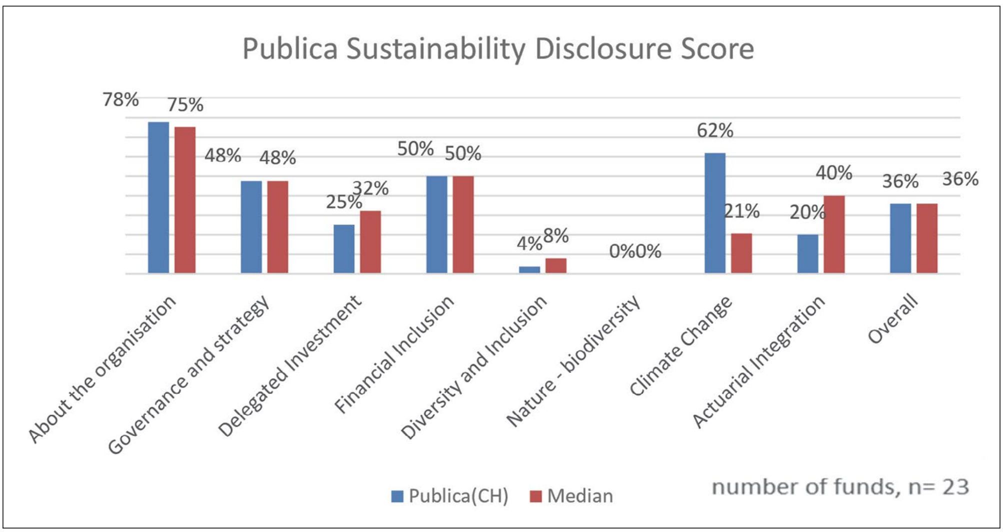

Figure 24. Publica (Switzerland)

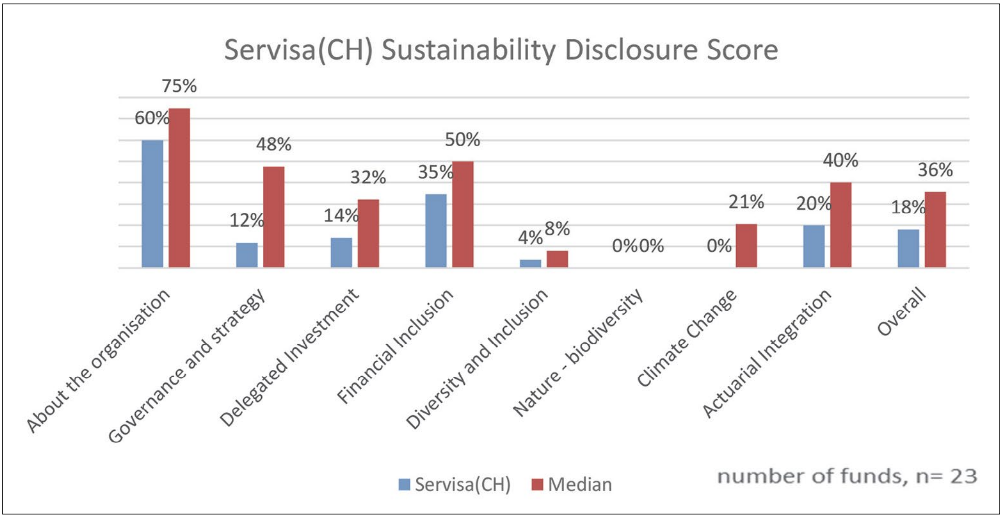

Figure 25. Servisa (Switzerland)

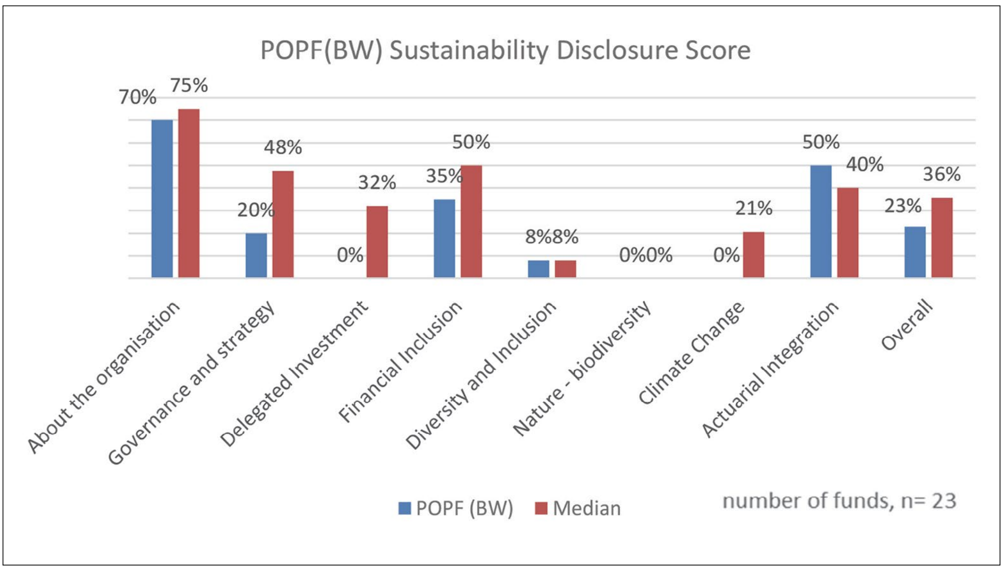

Figure 25. POPF (Botswana)

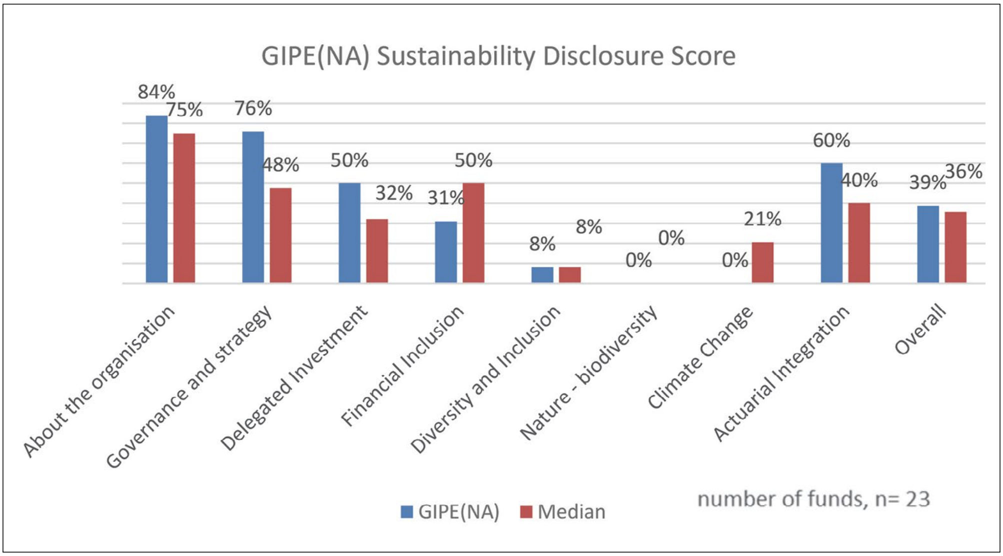

Figure 27. GIPE (Namibia)

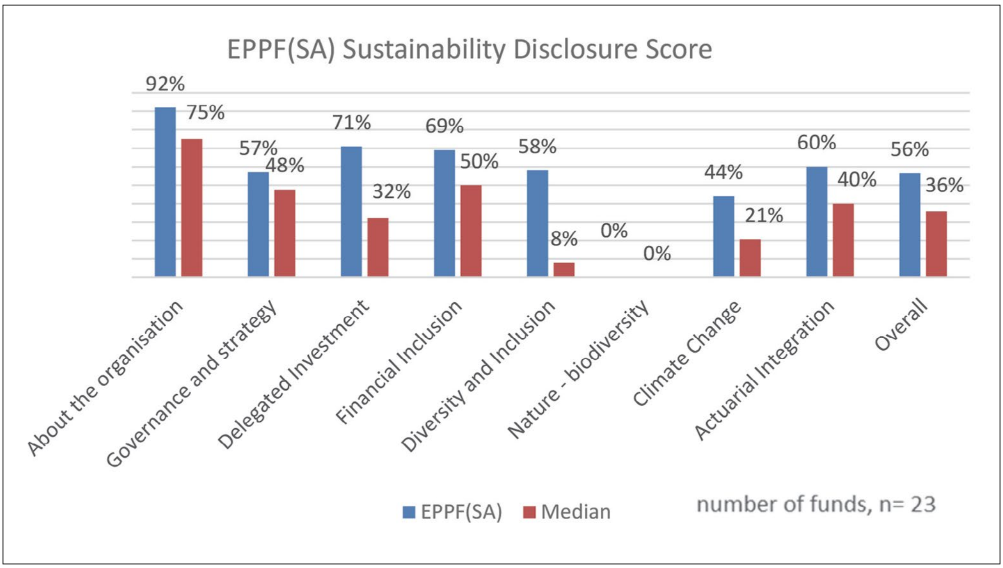

Figure 28. EPPF (South Africa)

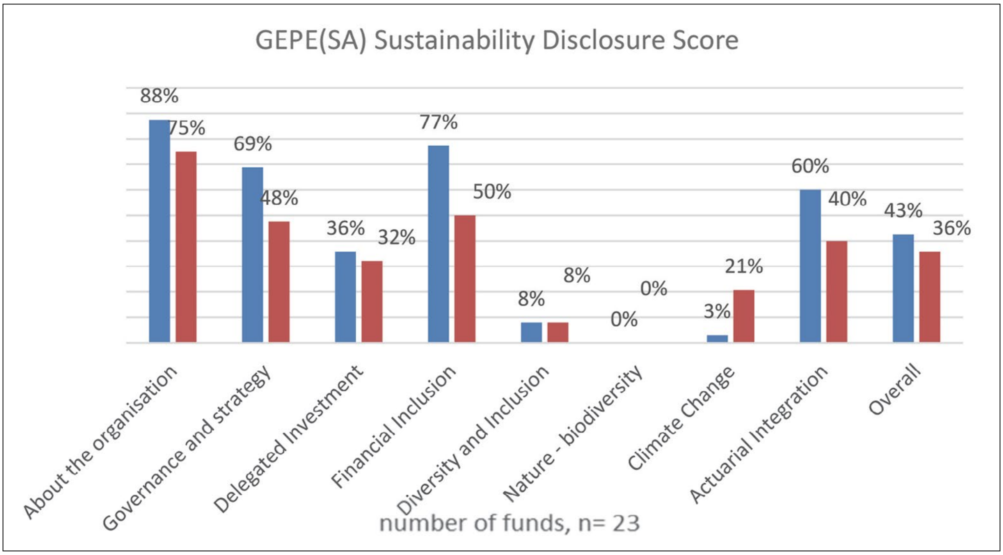

Figure 29. GEPE (South Africa)

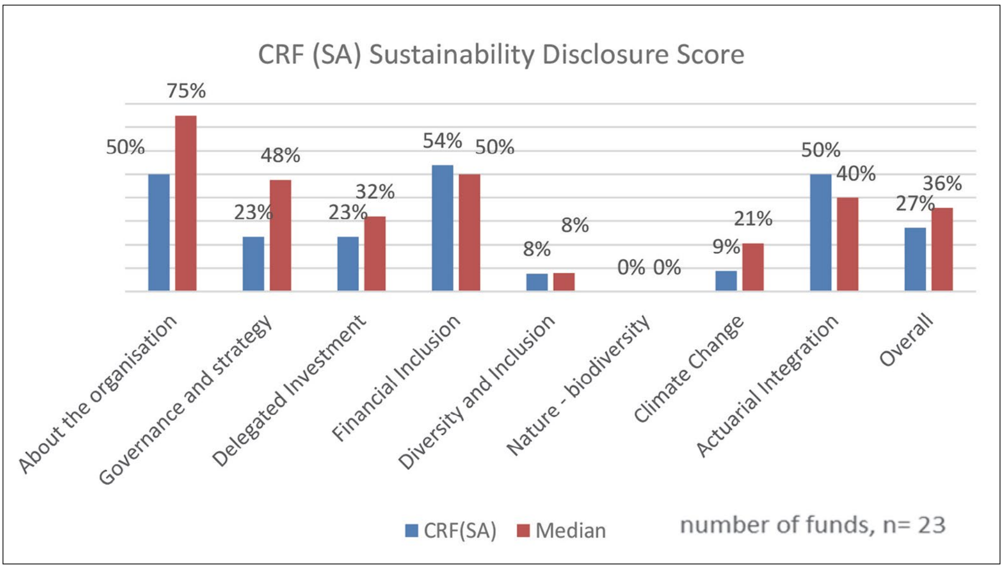

Figure 30. CRF (South Africa)

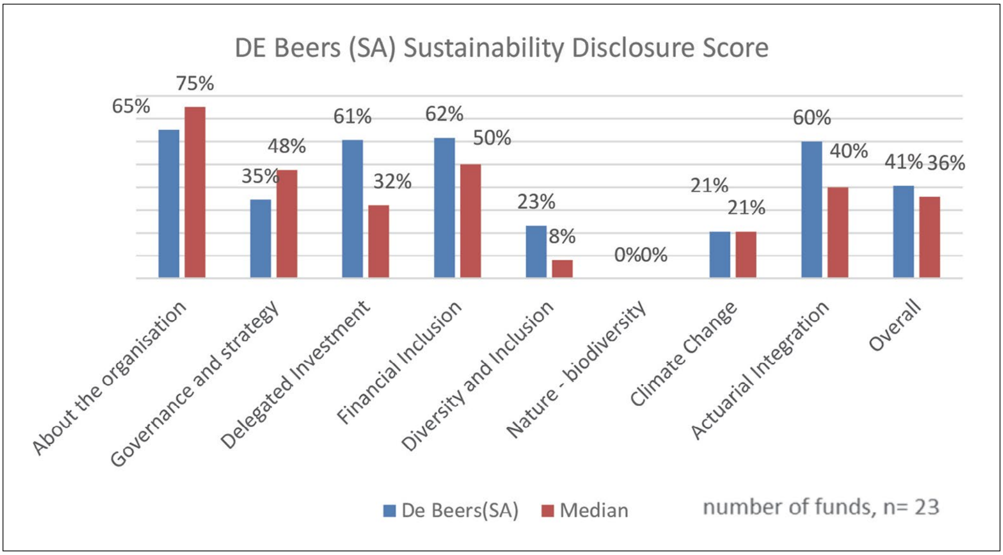

Figure 31. De Beers (South Africa)

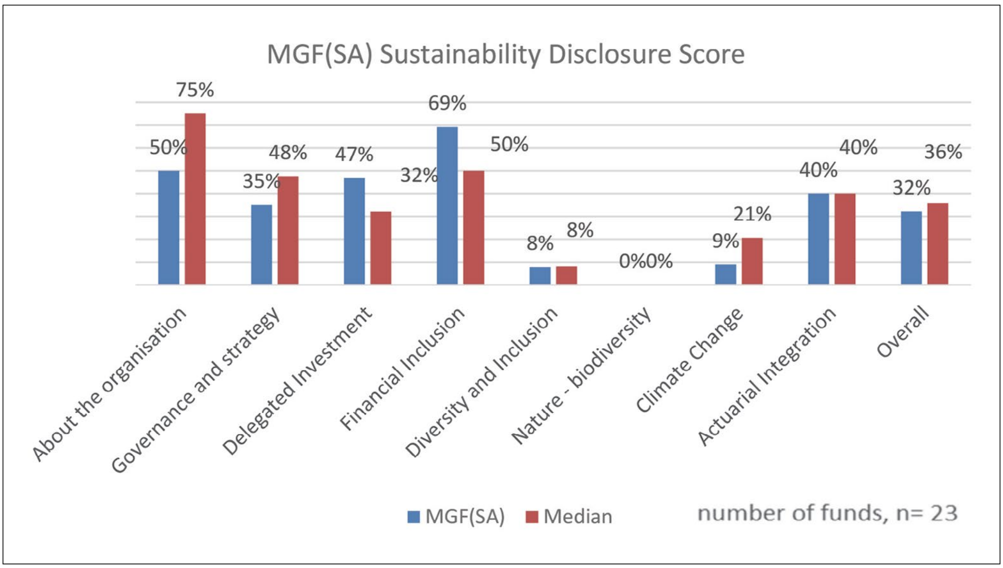

Figure 32. MGF (South Africa)

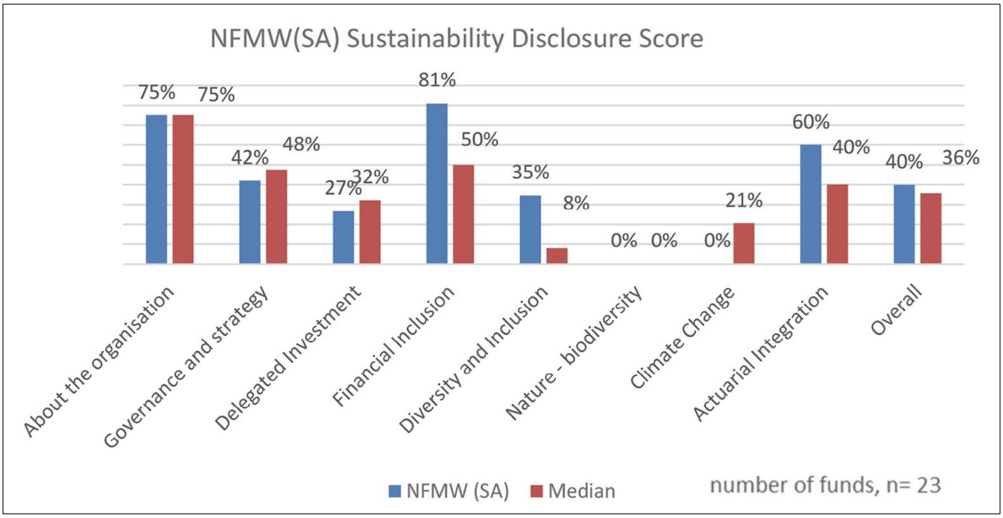

Figure 33. NFMW (South Africa)

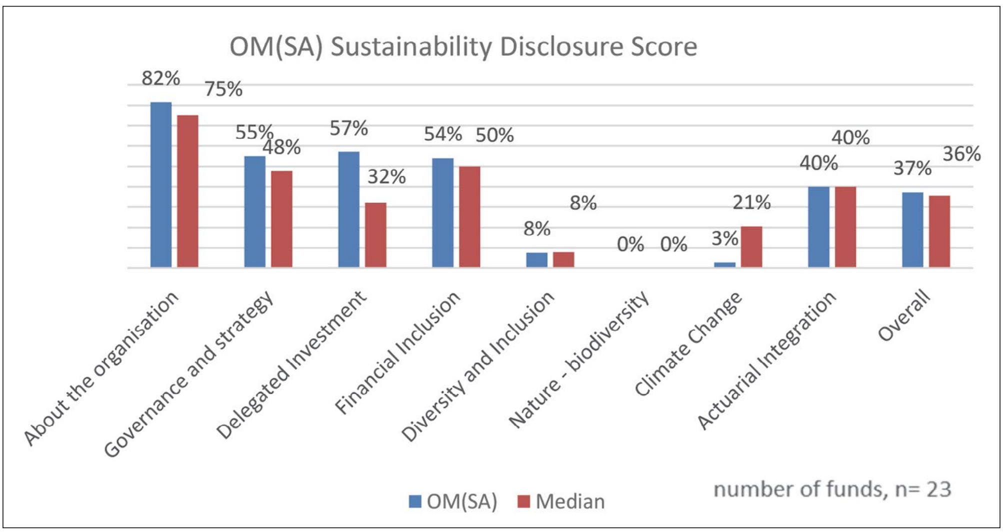

Figure 34. OM (South Africa)

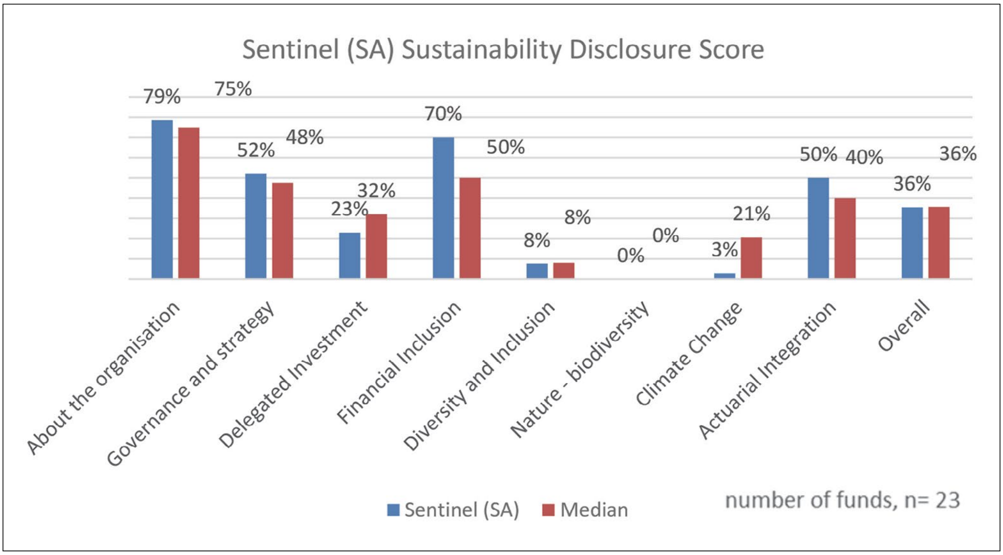

Figure 35. Sentinel (South Africa)

REFERENCES

Basiglio, S & Oggero, N (2020). The effects of pension information on individuals' economic outcomes: a survey. *Economies*, **8**(3), 67

Berg, F, Koelbel, JF & Rigobon, R (2022). Aggregate confusion: The divergence of ESG ratings. *Review of Finance*, **26**(6), 1315–1344

Brundtland, GH (1987). Our common future—Call for action. *Environmental conservation*, **14**(4), 291–294

Dasgupta, SP (2021). The economics of biodiversity. The Dasgupta review abridged version

Directors Institute of Botswana (n.d.). Botswana Code of Corporate Governance. Retrieved from Business Direct Pty Ltd: https://governance.co.bw/images/BotswanaCodeofCorporateGovernanceV4.pdf

Financial Markets Law Committee (2024). Pension fund trustees and fiduciary duties: decision-making in the context of sustainability and the subject of climate change

Impact Investing Institute. (2020). Impact investing principles for pensions. Impact Investing Institute paper

International Finance Corporation (2020). Sustainable finance practices in South African retirement funds. Foreword (iii)

International Monetary Fund (2020). Markets in the time of Covid-19. *IMF Global financial stability report*. 85–100

International Monetary Fund. Legal Dept (2020). *Law & Financial Stability*. International Monetary Fund

Kajwang, B (2022). Role of pension management on economic growth: A review of literature. *International Journal of Research in Business and Social Science (2147-4478)*, **11**(6), 635–641

Keen, S. (2023). Loading the DICE against pension funds. *Carbon Tracker Initiative*

Laws of Botswana (2019). Environmental assessment. Blackhall Publishing. Retrieved from: https://botswanalaws.com/consolidated-statutes/principle-legislation/environmental-asessment

Mercer (2017). Inside Employees' Minds. *Financial Wellness.* Volume 2

Morina, F & Grima, S (2022). The impact of pension fund assets on economic growth in transition countries, emerging economies, and developed countries. *Quantitative Finance and Economics*, **6**(3), 459–504

Namibian Stock Exchange (NSX) (2004). NamCode. Retrieved from Namibian Stock Exchange: https://nsx.com.na/images/reports/Namcode-Inside.pdf

Non-bank Financial Institutions Regulatory Authority (NBFIRA) (n.d.). Retirement funds. Retrieved from Non-bank Financial Institutions Regulatory Authority: https://www.nbfira.org.bw/retirement-funds

Prall, K (2021). ESG ratings : navigating through the haze. CFA Institute blog

Republic of Botswana (2017). National Development Plan 11. Retrieved from United Nations Botswana: https://botswana.un.org/sites/default/files/2020-10/NDP%2011%20full%202017.pdf

Republic of Namibia (1956). Pensions Fund Act 24 of 1956. Retrieved from Namibia Financial Institutions Supervisory Authority: https://www.namfisa.com.na/wp-content/uploads/2017/04/PENSION-FUNDS-ACT-24-OF-1956.pdf

Republic of Namibia. (2021). Financial Institutions and Markets Act. Retrieved from Namibia Financial Institutions Supervisory Authority: https://www.namfisa.com.na/wp-content/uploads/2021/10/Financial-Institutions-Markets-Act-2021-Act-No.-2-of-2021.pdf Route2 and Aviva (2021). Pension fund carbon savings research : a summary of the approach

Sun, S & Hu J (2014). The impact of pension systems on financial development : an empirical study. *Risk governance & control: financial markets & institutions*. **4**(3), 2014, Continued – 1

University of Cambridge Institute for Sustainable Leadership (2019). In search of impact : measuring the full value of capital. University of Cambridge, Sustainable Investment Leaders Group paper

Walker, R (2023). Biodiversity as a systemic risk. International Corporate Governance Network, *January 2023 Viewpoint*, 1–11