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How public pension and sovereign wealth funds mainstream sustainability

Practices of the frontrunners and a proposed integration framework

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Executive summary

Economic, social and corporate governance (ESG) factors constitute material risks as well as business opportunities for institutional investors, such as public pension and sovereign wealth funds (SWFs). As "universal owners" with large shareholdings in companies across a huge range of sectors and markets, these funds are in a unique position to drive ESG inclusion along the investment chain through active and responsible ownership.

Among the world's 50 largest public pension funds and 30 largest SWFs, the report finds that only 16 public pension funds and 4 SWFs published a sustainable or responsible investment report in 2019. This shows that these institutional investors still have a long way to go on ESG integration 15 years after the creation of the Principles for Responsible Investment (PRI).

By reviewing the annual sustainable investment reports of these 20 frontrunner funds, this study identifies a rich pool of good practices for sustainability integration in five strategic areas: governance, corporate sustainable investment policies, sustainability integration strategies, ESG integration along the investment chain, and evaluation and reporting.

Key findings of the report include:

- Strong leadership and a team dedicated to ESG integration are important drivers of change and good practice.
- Well-developed corporate sustainable investment policies, aligned with international ESG benchmarks and guidelines, are instrumental for ESG integration. At least 17 international benchmarks are used by the 20 frontrunners funds, with some more widely used than others.
- Sustainable investment strategies have evolved from relatively simple approaches (such as exclusion or negative screening) to more sophisticated ones. Impact investment (including SDG-themed investment) has been among the most widely used strategies reported by the 20 funds, showing an ongoing transition from responsible investment to sustainability-dedicated investment.
- Active ownership through systematic engagement and voting is required for affecting change on ESG and SDG-related issues along the investment chain.
- While the lack of consensus on a sustainability reporting framework and quantitative and qualitative indicators remains a severe challenge, frontrunner funds are making progress in utilizing international standards to enhance the quality of sustainability reporting, in particular on environmental issues.

Based on the best practices of the 20 frontrunning funds, *this study proposes a framework that can be used by their peers and asset managers to act on sustainability in-line with their operational model and strategic priorities.*

The ESG integration framework covers seven action areas:

I. Formulate a new generation of company values and mission aligned with sustainability
II. Put robust governance, policies and processes in place that are aligned with sustainability
III. Take a holistic approach to ESG integration
IV. Integrate sustainability along the investment value chain
V. Measure sustainability risks, impact, and performance
VI. Publish high-quality sustainable investment reports annually
VII. Partner with peers and international initiatives

About the UNCTAD Investment and Enterprise Division and the SDG Investors Partnership

The UNCTAD Investment and Enterprise Division is the focal point in the United Nations System for investment and enterprise development. As a global centre of excellence, the Division conducts leading-edge research and policy analysis, provides technical assistance to 160 member States and regional groupings, and builds international consensus among the 196 member States of the organization. Its mission is to promote investment and enterprise for sustainable development and prosperity for all.

The SDG Investors Partnership, initiated by the UNCTAD Investment and Enterprise Division, aims to foster partnerships among institutional investors, governments, and international organizations to facilitate institutional investment in key SDG sectors, in particular in developing countries. The Initiative, in partnership with all stakeholders, seeks to create an enabling environment for SDG-oriented investment by institutional investors through evidence-based research, dissemination of best practices and international standards, consensus building and policy advocacy on strategic issues that are critical for facilitating institutional investment in sustainable development.

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Abbreviations

ABP	Stichting Pensioenfonds ABP
Alecta	Tjänstepension hos Alecta
ATP	Arbejdsmarkedets Tillægspension
AUM	Assets under management
Bpf Bouw	Bedrijfstakpensioenfonds voor de bouwnijverheid
CalSTRS	California State Teachers' Retirement System
CDP	Carbon Disclosure Project
CPP	Canada Pension Plan
ESG	Environmental, Social and Governance
EU	European Union
FTSE	Financial Times Stock Exchange
GCI	Guidance on Core Indicators for Entity Reporting on Contribution towards Implementation of the SDGs
GHP	Greenhouse Gaz Protocol
GPFG	Government Pension Fund of Norway
GPIF	Government Pension Investment Fund
GRESB	Global Real Estate Sustainability Benchmark
GRI	Global Reporting Initiative
ICGN	International Corporate Governance Network
IORP II	Occupational Retirement Provision
ISAR	Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting
KPI	Key performance Indicator
LEED	Leadership in Energy and Environmental Design
MiFID II	Financial Instrument Market Directive II
MSCI	Morgan Stanley Capital International
NYS Common Retirement Fund	New York State Common Retirement Fund
NZSF	New Zealand Superannuation Fund
OECD	Organization for Economic Cooperation and Development
OTTP	Ontario Teachers' Pension Plan
PAL	Pension Fund Association for Local Government Officials
PFZW	Stichting Pensioenfonds Zorg en Welzijn
PPF	Pension Protection Fund
PPP	Public Private Partnerships

PRI	Principles for Responsible Investment
PSP	Public Sector Pension Investments
SASB	Sustainability Accounting Standards Board
SDGs	Sustainable Development Goals
SRD II	European Union Shareholder Rights Directive II
SWF	Sovereign Wealth Fund
TCFD	Task Force on Climate-related Financial Disclosures
Temasek	Temasek Holdings
UK	United Kingdom
UNGC	United Nations Global Compact
US	United States
USS	Universities Superannuation
VBDO	The Dutch Association of Investors for Sustainable Development
WSIB	Washington State Investment Board

1. Introduction

To achieve the United Nations' Sustainable Development Goals (SDGs), UNCTAD estimates that developing countries alone face an annual financing gap of $2.5 trillion (UNCTAD, 2014). Bridging this gap requires the mobilization of capital to relevant sectors and markets, such as health, energy and agriculture. However, it also demands the alignment of investments with more responsible and sustainable criteria that impact the environmental, social and governance (ESG) practices of economic actors.

Given their long-term obligations, public pension funds and sovereign wealth funds (SWFs) are in a better position to assess long-term risks to their portfolios, and the inter-generational nature of their business model tends to make them more responsive to ESG and SDG-related issues. Consequently, there has been a realization on the part of these large institutional investors that ESG factors constitute material risks for the sustainability of their investments. At the same time, as "universal owners" with large shareholdings in companies across a huge range of sectors and markets, these funds are in a uniquely powerful position to drive ESG inclusion along their investment chains through active and responsible ownership.[1]

There is a clear business case for ESG integration, in addition to a moral one. The COVID-19 pandemic again demonstrates that neglecting environmental risks can expose society and the economy to natural disasters, as well as pandemics, that can suddenly hurt the value of the assets held by pension funds, destabilize their actuarial positions and jeopardize their obligations to beneficiaries.

This report identifies 16 public pension funds and 4 SWFs that published a sustainable or responsible investment report in 2019 among the world's biggest public pension and sovereign wealth funds (50 pension and 30 SWFs), and examines how the 20 funds are mainstreaming sustainability into their investment decisions along their investment chain. The report aims to identify good practices as well as lessons that can be learned by their peers on how to integrate ESG and sustainability (including the SDGs) into their business model and investment decisions.[2] These ESG or sustainability-aligned investments are referred to collectively as sustainable investment in the report. These include: responsible investment, that is investments that behave responsibly in their investing strategies and operations, and sustainability-dedicated investments, that is investments targeting sustainability or SDG-themed areas or sectors such as clean energy, clean technology and food security, as defined by UNCTAD (UNCTAD, 2020a).

The findings of the report reveal that the 20 funds have been active in the promotion and integration of ESG and sustainability factors along the investment chain. As frontrunners (see methodology below), they are taking comprehensive steps to mitigate their exposure to ESG risks and pursuing opportunities associated with sustainable investing, with some funds going further and faster than others. However, as only 16 of the world's 50 largest public pension funds (32 per cent) and four of the world's 30 largest SWFs (13 per cent) published an ESG report in 2019, these institutional investors still have a long way to go on ESG integration.

[1] Refer to UNCTAD (2014) for the definition of investment chain.

[2] As discussed in sections 5.4 and 5.5, funds are moving from process-based ESG integration to impact-based sustainability-themed investment, including SDG investment. For succinctness, this report uses ESG integration in such a way that it also includes integration of the SDGs in investment decision making.

Scope and methodology

By reviewing a panel of the 50 largest global public pension funds and the 30 of the largest global SWFs,[3] by value of their assets under management (AUM), the study identified those funds, or their main asset managers, that published a separate ESG, responsible or sustainable investment report, or that published a chapter on the subject in their annual financial report in the case of SWFs in 2019.[4] This left a smaller group of 16 public pension funds and 4 SWFs (or a quarter of the funds in the original panel). It may be that other funds in the original panel of 80 funds are also pursuing ESG integration strategies, but they are not reported on. As disclosure and transparency are themselves critical elements of sustainability mainstreaming, the 16 public pension funds and 4 SWFs that report on their sustainable investment practices annually are referred to as "frontrunners" in this report. These frontrunner public pension funds and SWFs, with assets of $4.8 trillion and $430 billion respectively, accounts for about 10.5% and 5.8% of the respective AUM of pension funds and SWFs worldwide.

The analysis in this study looks into 16 indicators, covering governance and resources, corporate sustainable investment policies, sustainability investment and integration strategies, ESG integration along the investment chain, and evaluation and reporting (see figure 1.1). The ESG reports of the 20 funds comprise the main data sources for the analysis.[5]

Structure of the report

The report is structured around three key areas of ESG activity undertaken by public pension funds and SWFs, which are identified as having the most impact on ESG integration and outcomes. Following an introduction, chapters two to four examine the vision and policies of funds towards ESG, how it features in their governance structures, what are funds' internal ESG policies and to what extent do they meet external benchmarks and regulations. Chapters five and six analyze the strategies employed by funds to integrate ESG into their business and investment activities; that is, how the funds implement their ESG policies and values, including how funds engage with asset managers and investees along the investment chain. Chapter seven focuses on monitoring, evaluation and reporting structures used by funds and how they respond to external reporting and disclosure requirements. Chapter eight highlights the need for SWFs as a group to catch up with pension funds in sustainability integration. The report's conclusion draws together the most important findings of the analysis, and based on identified best practices, proposes a framework for ESG integration for pension funds, SWFs and their asset managers.

In this respect, the report identifies the current trends and likely evolution of ESG activities for institutional investors, as well as the impact of instruments and standards such as PRI, GRI, and TCFD.

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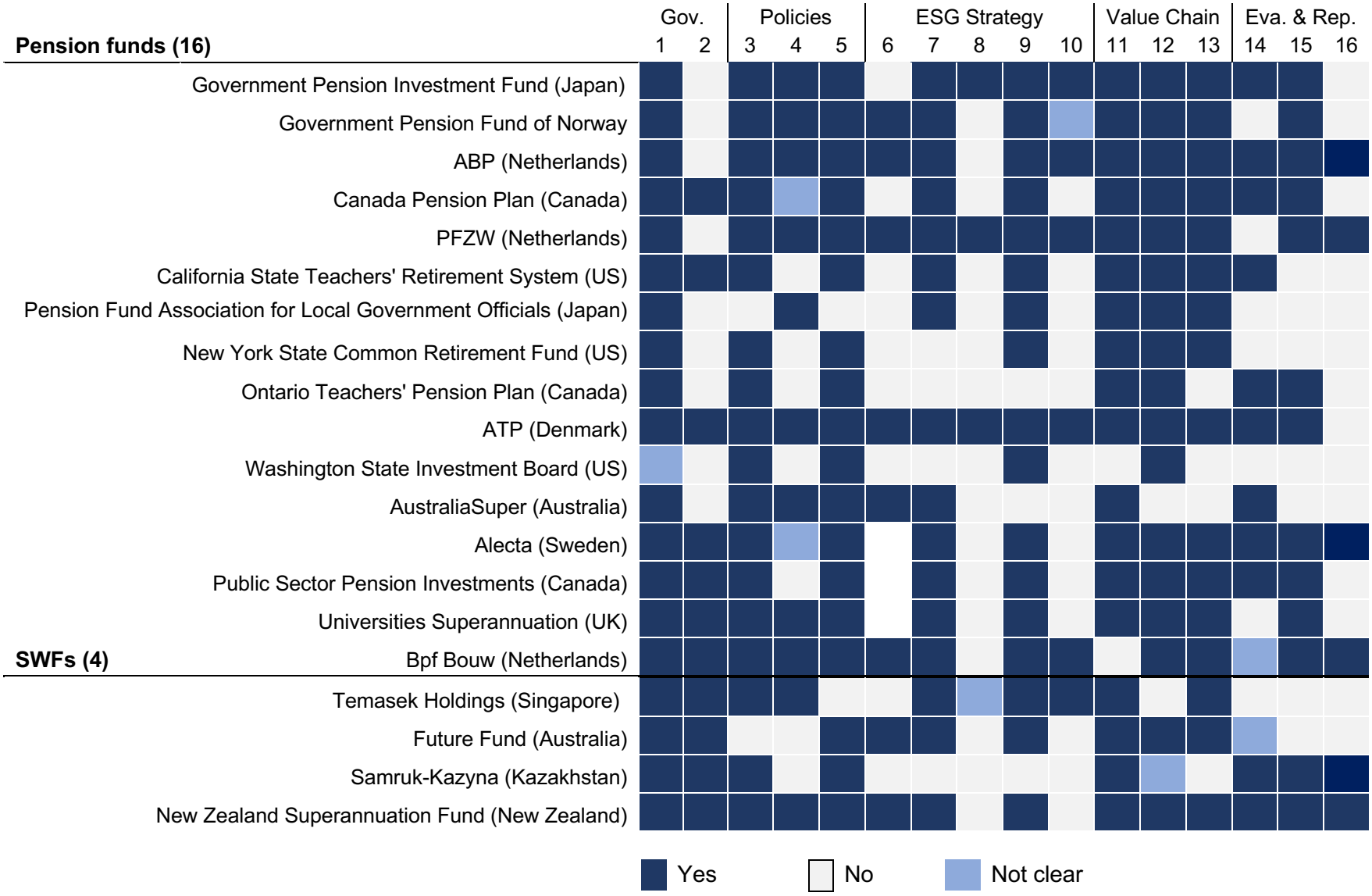
[3] The ranking of pension funds and SWFs are taken respectively from the Thinking Ahead Institute*'s Pensions & Investments World 300* for 2019 and the *Sovereign Wealth Funds 2019* report of IE University of Spain (Capapé et al, 2019). Additionally, one of the asset owners in the sample is the Government Pension Fund Global of Norway, managed by Norges Bank Investment Management (NBIM). It is often classed as a SWF because it receives the country's oil & gas related revenue, but this study considers it a pension fund and so it does not appear in the SWF sample.

[4] The list of the public pension funds and SWFs in the sample of this study is provided in Appendix 1.

[5] All example practices, facts and numbers with respect to ESG integration of the 20 funds in this paper are taken from their annual sustainable or responsible investment report in 2019, unless otherwise indicated.

Figure 1.1 Matrix of ESG integration by 20 public pension funds and SWFs (Largest to smallest by AUM)



Governance and resources (Gov.)

1. Is ESG/SDG integration embedded in the fund's vision, mission or mandate?
2. Is there any dedicated team established to coordinate ESG/SDG investments?

Policies

3. Does the fund make any efforts to meet any ESG-related regulations?
4. Is any international ESG/SDG-related standard or benchmark employed in the investment decision making process?
5. Has the investor developed any internal policies or guidelines regarding ESG/SDG integration?

ESG investment and integration strategies

6. Exclusion: does the fund use ESG-based negative screening/exclusions in investment decisions?
7. General integration: does the fund incorporate ESG consideration systematically in its investment decision making process?
8. Positive Screening: does the fund use any positive or best-in-class screening related to ESG in its investment process?
9. Impact investment: does the fund intentionally target ESG-oriented sectors (e.g. renewable energy, green housing) or capital market instruments (e.g. green bonds, ESG funds)?
10. SDG investment: does the fund consider SDGs in its investment decision process or asset allocation?

ESG integration along the investment value chain through active ownership

11. Does the fund have any active engagement schemes (e.g. consultations, dialogue) with any stakeholder in the investment value chain?
12. Does the fund actively exercise its voting rights in its portfolio companies?
13. Is there any policy, guidance or requirements on ESG (and SDG) integration provided to asset managers and/or portfolio companies?

Evaluation and reporting (Eva. & Rep.)

14. Does the fund monitor and evaluate its ESG/SDG performance?
15. Does the fund report on ESG/SDG issues according to any international reporting framework or guidelines?
16. Is ESG/SDG impact audited or certified by an external party?

Note: Information provided in the table are based on the review of the annual sustainable or responsible report of the funds.

2. Incorporating ESG in the fund's mission

To start the 'ESG integration journey', pension funds and SWFs need, firstly, to reorient their vision to make sustainability a core element of the fund's long-term mission. Incorporating specific aspirations around sustainability into the fund's mission ensures that strategy and business planning encompass ESG considerations (Strandberg Consulting, 2018).

Looking at the ESG integration practices of the frontrunners, this study confirms the continuing mainstreaming of ESG-aligned investment,[6] which tends to: (i) affirm a commitment and obligation to integrate ESG in all investment decisions; (ii) adopt long-termism as a guiding principle of fund investments to safeguard and create sustainable value; and (iii) mainstream ESG not only to manage risks (including financial, regulatory and reputation risks) but also to pursue opportunities linked to the transition to a more sustainable economy. Most of these elements are found in the mission statements of the 20 public pension funds and SWFs (see box 2.1 for examples).

Box 2.1 Mission and ESG integration: selected examples

Alecta, Sweden

Because our mission is to create security for the future, we have a long-term approach. We want and we need to contribute to the society of the future being a good one to live in and one that creates sustainable growth and new jobs. That is also how we create a healthy return… Our ambition is to help generate long-term value in businesses and society at large.

CPP, Canada

We believe that organizations that manage environmental, social and governance (ESG) factors effectively are more likely to endure and create sustainable value over the long term. As a long-term investor, CPPIB places great importance on ESG factors… We believe that properly considering ESG factors in investment decisions can lead to better long-term performance across the Fund. In light of this belief, CPPIB prudently dedicates resources to sustainable investing.

OTPP, Canada

An ESG lens brings focus to a much wider range of considerations that help us identify and evaluate emerging opportunities and be prepared for when they come. The care we take to ensure the companies we invest in are also managing ESG risks and opportunities makes us an attractive employer, partner and shareholder, and enhances our ability to earn the required returns to pay pensions for generations to come. Our long-term strategy to achieve stable returns to meet our pension promise include taking a systematic approach to identifying, assessing, and managing environment, social and governance (ESG) risks and opportunities.

PFZW, Netherlands

As a pension investor, we aim to achieve an optimal return for our clients while maintaining a responsible risk profile. Within this core task, we pay particular attention to responsible investment based on the conviction that this can reduce risks and offers opportunities to make a good return with investments that contribute to social and environmental solutions.

Source: 2019 annual responsible or sustainable investment reports of the funds.

[6] UNCTAD's 2010 study on the responsible investment practices of the top 100 pension funds (UNCTAD, 2010) highlighted the emergence of ESG-aligned investment by these institutional investors.

Pension funds arguably sacrifice some financial return in exchange for predictability and stability (Seidler, 2010), and historically weighted their portfolios towards lower risk fixed income investments. Several frontrunner pensions funds in this study emphasize that they pursue a “healthy return” (Alecta, Sweden) or “required return” (OTTP, Canada) compatible with their ESG responsibilities. However, some funds still state the pursuit of maximum returns in their mission. While there isn’t necessarily a performance penalty associated with the pursuit of ESG-aligned investments (Morgan Stanley, 2019), the commitment of funds to maximum returns could be at odds with their commitments to responsible and sustainable investment. In this context, and given that many pension funds already pursue non-maximal financial returns, a further move towards the pursuit of long-term sustainable investment with a strong commitment to sustainable development impact could be envisaged, and made explicit in their mission.

3. Establishing the governance structure for ESG Integration

Governance in this report refers to oversight structures, processes and systems regarding an organization's sustainable investment decision making and implementation. Good governance is the result of having appropriate structures and processes in place and conducting continuous reviews to ensure that such structures and processes are in line with the objectives and needs of the funds.

3.1 Commitment from the top

Governance is increasingly about the exercise of ethical and effective leadership, providing strategic direction and oversight of performance. The ultimate accountability for governance resides with the highest leadership levels of the fund, and a critical step for ESG integration, applicable to all investors, is to get senior management buy-in regarding the benefits of incorporating ESG factors into investment processes (PRI, 2020). Depending on the corporate governance model, especially of pension funds, the role of beneficiaries may also be important. If they have voting power to elect the board and influence priorities, integrating ESG issues into beneficiary duties can be another step towards fully integrating ESG into the fund and providing 'commitment from the bottom'.

A common practice of the 20 frontrunners in this study is the engagement of the board in the oversight of sustainable investment in the funds. Boards typically exercise effective leadership by:

- **Putting internal policies and processes in place.** The boards of the frontrunners have developed a wide range of company policies, principles and processes governing their sustainable investment practice. For example, the boards of 13 funds have developed sustainable investment policies to describe their role as a responsible investor (see section 4.4).
- **Regularly reviewing and discussing ESG matters at the board meeting.** For example, the board of the GPIF (Japan) meets every two months to discuss ESG-related issues to oversee and promote responsible investing.
- **Ensuring availability of ESG investment knowledge and skills.** For example, by supporting the establishment of dedicated ESG investment teams inhouse. In some cases, they also leverage external and independent expertise. For example, GPFG (Norway) sets up an advisory board to advise on strategic issues such as corporate governance, strategy and policies. The board meets regularly with NBIM, the fund's investment manager, to review and provide advice on governance and stewardship matters, including voting policies and shareholder resolutions.

3.2 Executive leadership

Another important step for ESG integration is to establish a governing body to provide executive leadership. Ideally such a governing body should be headed by a senior leader such as the CEO, CFO or a senior executive dedicated to sustainable investment issues, and supported by the board. Meanwhile, given the interrelated nature of the processes involved in sustainability integration and the fact that they are spread across multiple operational functions, an effective governing body also requires the involvement of the management of key operational functions. These include risk management and compliance, investment management, finance, communication and human resources. This shows that sustainability,

which was usually the responsibility of the risk management and compliance department, has increasingly become a firm-wide effort.

For example, ATP (Denmark) has established a dedicated Committee for Responsibility to coordinate its firm's responsibility investment efforts. The Committee is chaired by the ATP CEO and includes the Chief Investment Officer (CIO) and the Chief Risk Officer (CRO) as well as relevant managers inside and outside the investment department. In PSP (Canada), its Responsible Investment Group spearheads its sustainable investment efforts to advance ESG strategy and integrate ESG factors throughout its investment processes across all asset classes.

3.3 Sustainable investment team

Practices of the frontrunners show that there are three main models when putting in place the necessary structure to implement sustainable investment.

a. The dedicated team model

This model refers to the establishment of a new dedicated ESG team with the required knowledge and expertise to support the implementation and execution of a sustainable investment strategy and activities. The fund may appoint a dedicated chief sustainability officer[7] or an existing senior executive to lead implementation. Since ESG-aligned investment and ESG integration need a new set of skills and knowledge, the dedicated team model provides the necessary expertise on ESG issues.

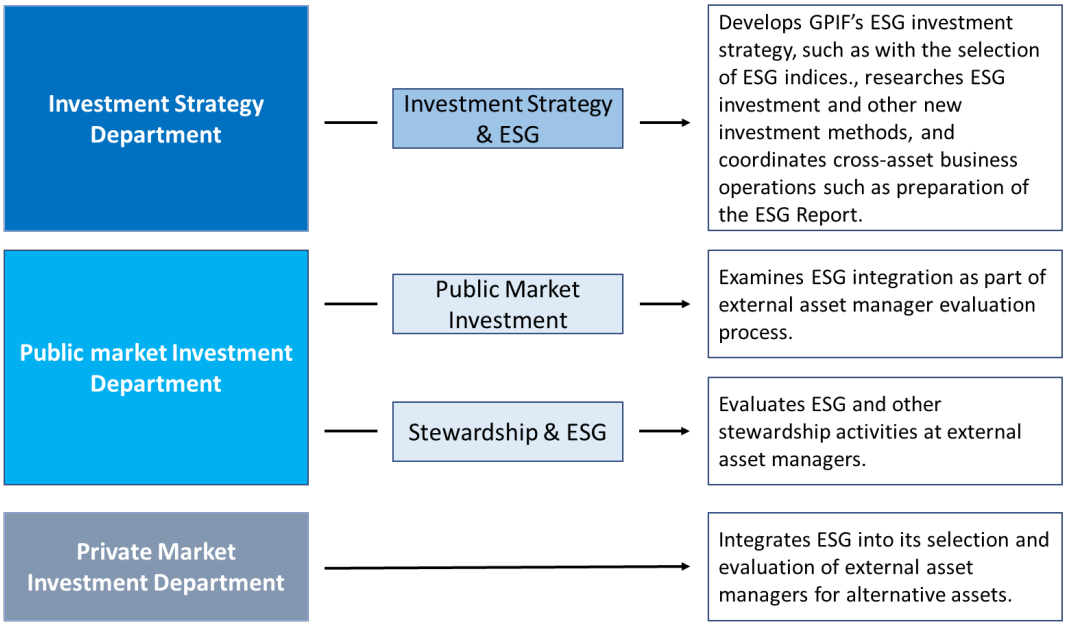
A fund can start with a dedicated team to provide support to the management and the investment teams through analytical and advisory work, or take up certain functions such as stewardship, investee engagement and proxy voting. In other cases, a new team can be established to look into emerging ESG investment opportunities. Examples include the Green Team of the CalSTRS (US) and the Responsible Investment Team of USS (UK).

b. The optimization model

This model adds sustainability elements to the existing functions and responsibilities of staff with the aim to fully leverage existing structures in ESG integration without the need for restructuring. Examples include GPIF (Japan) and OTTP (Canada). In GPIF (Japan), its Investment Strategy Department is tasked with developing their ESG investment strategy; its Public Market Investment Department takes care of external asset manager evaluation and stewardship related to ESG issues; and its Private Market Department is responsible for ESG integration in alternative assets (figure 3.1).

[7] In the case of ATP (Denmark), a climate officer is appointed to ensure that climate issues are integrated into investment processes across all the investment areas.

Figure 3.1 ESG integration structure of GPIF (Japan)



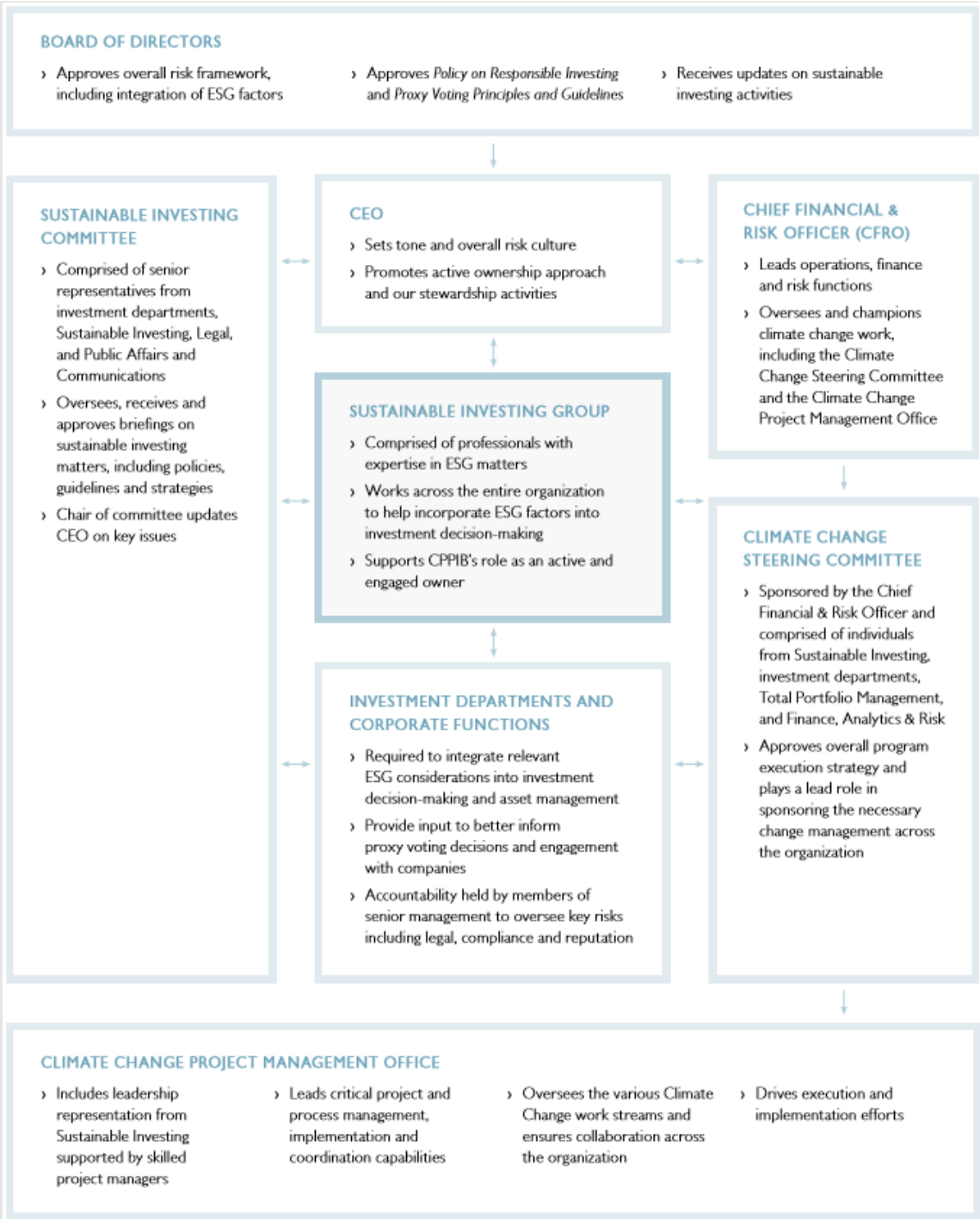
Source: UNCTAD adapted from GPIF *ESG Report 2018: For all Generations.* www.gpif.go.jp/en/investment/190905_Esg_Report.pdf

c. The integration model

The integration model combines the dedicated team and the optimization approaches, usually by establishing a dedicated team to lead and coordinate company-wide efforts which involve multiple functions to embed ESG in the fund's investment decisions and processes. The integration model can ensure the availability of required knowledge and expertise for ESG integration, while engaging all functions across the organization in the exercise. With the increasing maturity and sophistication of ESG integration, pension funds are increasingly embracing this approach.

ABP (Netherlands), ATP (Denmark), Alecta (Sweden), CPP (Canada), PFZW (Netherlands) and PSP (Canada) have adopted this model in different ways. In the case of CPP (Canada), multiple committees and working groups are established under a dedicated coordinating team to take up different but interrelated sustainable investment functions and responsibilities (figure 3.2). Whichever structure a fund decides to adopt with respect to ESG integration, it is necessary to involve all players at different levels and across functions, including investment, risk, financial and HR managers at different levels, and have their roles and responsibilities clearly defined.

Figure 3.2 CPPIB's integrated sustainable investing framework



Source: CPPIB 2018) *Report on Sustainable Investing: Investing Responsibly for CPP Contributors and Beneficiaries*. https://cdn4.cppinvestments.com/wp-content/uploads/2019/12/CPPIB_SIR_English.pdf

4. Putting ESG policies in place

Regulations and guidelines are important drivers of ESG integration by public pension and sovereign wealth funds, and this is reflected in the reports of the frontrunners in this study. These regulations and guidelines mainly fall into three categories: government regulations, stewardship codes and international guidelines. Although most of them are voluntary, public pension funds and SWFs are taking them into account in their ESG integration activities. Many best-practice funds use them as the benchmark to develop their own policies to provide internal and external asset managers with necessary guidance on sustainability issues. These efforts can help them put necessary policies and processes in place, and thus mitigate regulatory risks. Meanwhile, many of them are also involved in the development of national and international frameworks, guidelines and standards.

4.1 Government regulations

With the growth of the sustainable investment market, government regulations have proliferated. According to PRI, the world's 50 largest economies have put in place over 500 ESG-related policy measures that support, encourage or require investors to integrate ESG and sustainability in their operations and investment decisions, and more than half of them were adopted in the last six years (PRI, 2019). However, a majority of these regulations are voluntary, and not much is reported by the frontrunner funds regarding their implementation.

Nevertheless, this study identifies some signs of change. For example, according to their reports, European pension funds, such as ABP (Netherlands) and PFZW (Netherlands), were involved in the development of the European Union's 2016 Directive on Institutions for Occupational Retirement Provision (IORP II) and the 2018 Financial Instrument Market Directive II (MiFID II),[8] and are taking actions to implement them. The Government Pension Fund of Norway has followed the ethically motivated rules for observation and exclusion of companies proposed by the Norwegian government. The European Union has also been working on a series of policy instruments on sustainable investment, including the recently adopted EU taxonomy for sustainable activities, which will further drive sustainable investment practices and reporting in the market.[9]

In other regions, government regulations, including voluntary ones, have impacted the investment behavior of the pension funds. For example, GPIF of Japan reports on women's participation in its portfolio companies as required by the Act on the Promotion of Women's Participation and Advancement in the Workplace. Canadian funds also follow national legislations requiring them to factor sustainability into their investment decisions. It should also be noted that many pension funds across the world are subject to government regulations (and limits) on the markets and assets they can invest in (OECD, 2019a). However, almost without exception, the countries covered in this study set no limits on the markets or asset classes that pension funds can invest in. This may imply that an overly conservative regulatory environment may constitute possible constraints on institutional investors' capacity to mainstream sustainable investment in their operations. However, this effect cannot be overstated given the fact that even if a fund, in an extreme scenario, is only allowed to invest in fixed income products, it can still put the necessary processes in place, and can always

[8] IORP II requires pension funds to assess climate change and social risks in their investment decisions, and MiFID II requires investment advisors to take into account the sustainable preferences of their clients.
[9] European Commission Technical Expert Group on Sustainable Finance (TEG). European Commission, https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en

engage the issuers with respect to ESG integration. Meanwhile, sustainability-themed fixed income products such as green and social bonds are rapidly increasing in variety, number and assets, which are readily available for investment by institutional investors (UNCTAD, 2020).

4.2 Stewardship codes

The stewardship code is usually a non-mandatory, comply-and-explain set of principles requiring asset owners to exercise active ownership through engagement and proxy voting to encourage ESG integration in their portfolio companies.[10] Like national stewardship codes, the 2019 European Union Shareholder Rights Directive II (SRD II) obliges institutional and other registered holders of shares traded in markets inside the European Economic Area to publish engagement and proxy voting policies and disclose how they are implemented. Although the United States does not have a national stewardship code, the Investor Stewardship Group, a coalition of 45 investors, proposed the Framework for U.S. Stewardship and Governance, which outlines a set of six fundamental governance principles for U.S. listed companies and stewardship principles for U.S. institutional investors.

Of the 20 funds reporting on ESG, 16 (with the exception of the four domiciled in Canada and Norway) are subject to stewardship codes, which explains to a certain extent why a high level of investor engagement is observed among these funds.[11] In reference to their national code, 11 funds have developed their own stewardship or proxy voting policies or both of them.[12] The impact of a national stewardship code can go beyond the home country market. For example, USS (United Kingdom) votes globally on its listed investments, guided by its Voting and Engagement Policy, which is largely aligned with the UK Corporate Governance Code and Global Stewardship Principles.[13]

4.3 International ESG benchmarks and guidelines

The international benchmarks and guidelines, as a soft component of the ESG regulatory system, play an important role in bringing coherence and clarity to the market by providing necessary standards, criteria, and frameworks for ESG integration.

Frontrunner public pension funds and SWFs are actively integrating a wide range of international benchmarks into their operations. However, some benchmarks are more widely used than others, and several benchmarks have the potential to become internationally recognized industry standards, in particular for ESG reporting.

At least 17 international standards are currently used by the 20 funds reporting on ESG integration (see appendix 3), which can be categorized into:

- **Frameworks.** The most important overarching sustainability frameworks are the UN SDGs and the Paris Agreement (figure 4.1). Nine frontrunner funds report using the SDGs as a framework to guide their sustainable investment decisions or even link their portfolios to the SDGs (see section 5.5). However, only six of them report using the

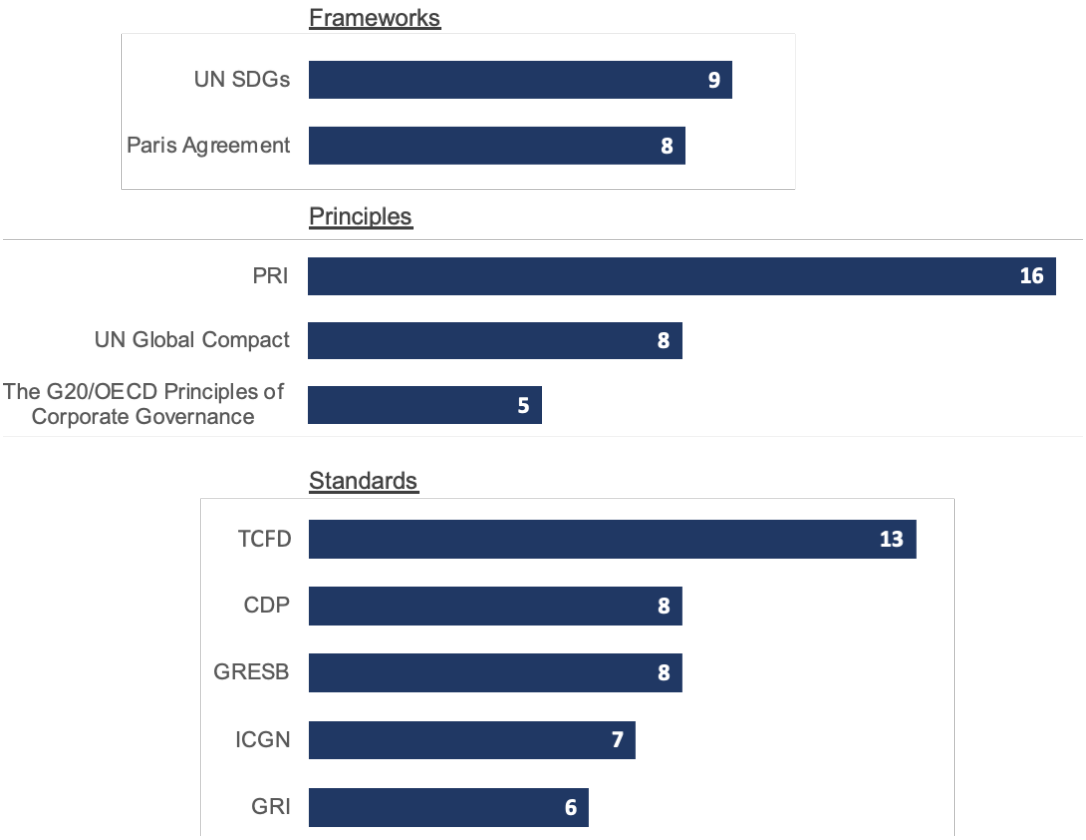
[10] Typically, the stewardship codes focus on governance issues such as conflict of interest, voting, monitoring and engaging with investees, and disclosure of relevant policies and practices.
[11] See Appendix 2 for selected national stewardship codes.
[12] The 16 funds include ABP (Netherlands), AustraliaSuper (Australia), Bpf Bouw (Netherlands), CPP (Canada), GPFG (Norway), GPIF (Japan), NYS Common Retirement Fund (US), OTPP (Canada), ATP (Denmark), USS (UK), and WSIB (US).
[13] USS Responsible investing – voting. USS, www.uss.co.uk/how-uss-invests/responsible-investment/voting

SDGs in real asset allocation (see section 5.5), which shows that SDG integration by pension and sovereign wealth funds remains at an early stage.

- **Principles**. Six international principles are used by funds as references or guidelines for sustainable investment. Most notable are the UN-supported PRI, the UN Global Compact, and the G20/OECD Principles of Corporate Governance (figure 4.1). Other important principles cited by the funds include the UN Guiding Principles on Business and Human Rights, and the OECD Guidelines for Multinational Enterprises.

- **Standards.** International standards are increasingly used by the funds, especially in ESG reporting (see chapter 7). In total, the 20 frontrunner funds referred to five standards as guidelines or benchmarks in their 2019 sustainable investment reporting. The most widely adopted standards include the Task Force on Climate-related Financial Disclosures (TCFD, climate-related reporting), CDP (climate-related reporting), the International Corporate Governance Network (ICGN, corporate governance-related reporting) and the Global Reporting Initiative (GRI, general sustainability reporting). The TCDF is gaining popularity and has the potential to become the industry standard for climate-related risk reporting. The GRI, as a general sustainability reporting standard, is increasingly adopted by pension funds. Several funds in this study indicated the need for industry specific reporting standards, such as the one produced by SASB, which are now used by PFZW (Netherlands), CalSTRS (US) and OTTP (Canada). Meanwhile, GRESB, the sustainability standards for green estate and infrastructure are used in asset evaluation (figure 4.1).

Figure 4.1 International ESG-related benchmarks used by the 20 frontrunner funds
(number of funds reporting on each benchmark)

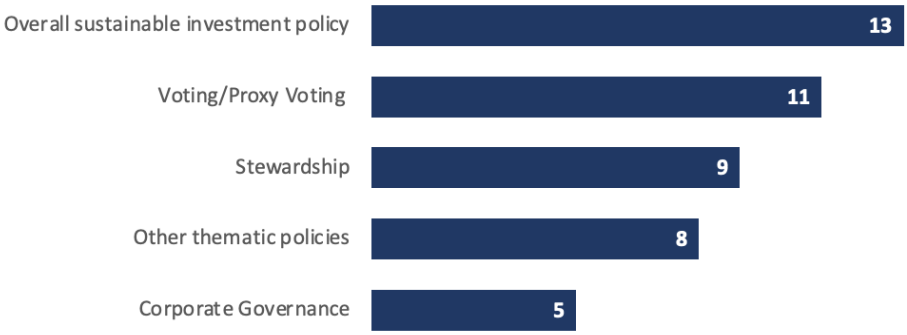


Source: UNCTAD

4.4 Company sustainable investment policies

Public pension funds and SWFs actively develop internal policies to guide ESG integration. These policies include overall company sustainable investment policies, stewardship and proxy voting policies, and thematic policies covering a wide range of ESG issues (figure 4.2).

Figure 4.2 Internal sustainable investment policies adopted by the 20 frontrunners
(number of funds reporting on each area)



Source: UNCTAD

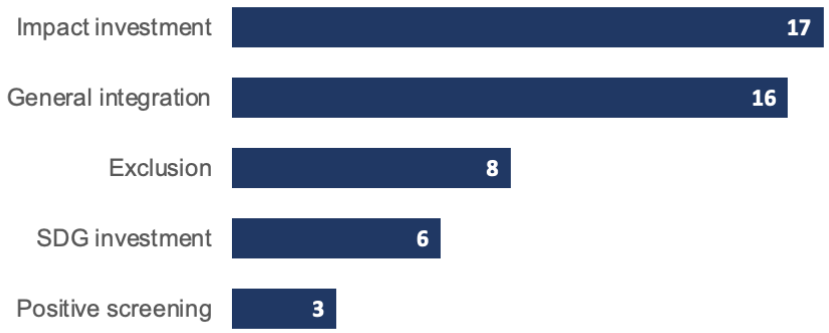
- **Sustainable investment policies.** Of the 20 frontrunner funds, 13 have published their own sustainable investment policy, which describes their role as a responsible long-term investor.[14] The document makes a fund's philosophy, principles, strategies and/or approaches on sustainable investment readily available for both internal and external stakeholders, and should be regarded as good practice.
- **Stewardship or voting policies.** Company policies on stewardship and proxy voting are also common among the frontrunner funds. As discussed earlier, 11 of the 16 public pension funds in this study have developed such policies, which define how they fulfill their responsibilities as a shareholder in listed companies.
- **Corporate governance and other thematic policies.** The frontrunners in this study report a large number of internal policies on specific sustainability issues, which both internal and external asset managers are expected to follow. Corporate governance of investee companies is the most common area and covers issues such as election of the board, shareholder rights, remuneration, and conflict of interest. In addition, some funds have also put in place policies on a wide range of other issues such as human rights, divestment, tax, and climate change. For example, PGGM (Netherlands) has developed policies on anti-bribery and corruption issues, and published recommendations on green and social bonds for the issuer. NBIM (Norway) has published seven expectation documents on ESG integration for its portfolio companies, focusing on children's and human rights, climate change, water management and ocean sustainability, tax and transparency, and anti-corruption.

[14] The 16 funds include 13 public pension funds: ABP (Netherlands), Alecta (Sweden), ATP (Denmark), CalSTRS (US), CPP (Canada), NYS Common Retirement Fund (US), PFZW (Netherlands), PSP (Canada), USS (UK), Bpf Bouw (Netherlands); and three SWFs: Future Fund (Australia), Samruk-Kazyna (Kazakhstan) and NZSF (New Zealand).

5. Mainstreaming sustainability in investment strategies

Like other investors seeking to better integrate ESG considerations into their portfolios, public pension funds and SWFs pursue one or more of a number of investment strategies (figure 5.1). The strategies have evolved from a relatively simple approach that might, for example, exclude certain assets to a more sophisticated strategy implying an active appraisal of assets, or selection of assets based on thematic criteria. The strategies used by the 20 funds in this study are summarized in the next sections with some best practices highlighted.

Figure 5.1 Most commonly reported ESG strategies by the 20 frontrunners
(number of funds reporting each strategy)



Source: UNCTAD

5.1 Exclusion or negative screening

Exclusion strategies or the negative screening of assets (for example for arms or tobacco) have a long-standing provenance. In the fund industry it is the most easily implemented approach and thus usually the starting point for ESG integration (UNCTAD, 2020b). However, among the 20 frontrunner funds, only eight report using an exclusion strategy. It may reflect the growing maturity of pension fund investment strategies that are moving towards more sophisticated approaches (see below), and also the decision by funds to privilege engagement over exclusion, at least as a first resort. For example, some funds (GPIF (Japan), CPP (Canada)) choose not to negatively screen investments as this may preclude the opportunity for dialogue and engagement with asset managers and investees; others consider exclusion as a last resort after all options for engagement have been exhausted (ATP, Denmark). Conversely, supporters of the strategy, such as ABP (Netherlands), believe that if an investment is in some way harmful by definition, then this fact cannot be altered by exerting influence as an investor and the investment should be excluded.

The motivations for excluding specific assets have expanded over time, partly because of funds' growing awareness of the potential financial consequences of their exposure to ESG risks and also because of demand from fund members and other stakeholders (CFA Institute and PRI, 2018). The more narrowly-focused excluded assets include tobacco and arms companies, but more recently investors have started to add fossil fuel companies to this list in acknowledgement of the climate emergency and the risk that rapid regulation of the sector may leave these assets financially stranded. According to the IMF, the number of institutional investors (including asset managers and investment companies) that pledge to divest fossil

fuels from their portfolios has increased from about 300 in 2015 to more than 900 in 2019 (IMF, 2019). The most notable example among the 20 funds in this study is the decision of the Government Pension Fund of Norway to divest from and exclude all fossil fuel companies.[15]

The scope of exclusions applied by the frontrunner funds has expanded beyond 'sin stocks' and fossil fuels. What could also be considered best practice in this area includes the exclusion of assets on the basis of aggressive tax avoidance by the investee (ATP, Denmark), labour rights violations of core ILO conventions (ABP, Netherlands), contraventions of international law (PFZW, Netherlands), and, finally, the perceived poor governance practices of companies that employ single gender boards (AustraliaSuper, Australia).

5.2 General integration of ESG criteria in the investment decision making process

General integration of ESG criteria goes a step further than purely excluding assets from portfolios. It requires the systematic consideration of ESG factors at every stage of the investment decision making process, from due diligence to asset allocation to engagement with asset managers and portfolio companies after investment. Most frontrunner funds in this study report pursuing a general integration strategy, either partially or wholly, in integrating ESG criteria in their investment decision making process. It should be noted that such an approach can help ensure that investments be carried out in a more responsible manner, but it may not necessarily target and contribute to specific sustainability themes.

As part of a general integration strategy, some funds provide assistance to asset managers, and guidance on voting protocols, as well as ensuring compliance with monitoring (GPIF, Japan). Some are beginning the process of integration by, for example, creating an advisory panel with a specific mandate to look into specific risks and opportunities related to the transition to a low carbon economy and seek out best practice in this area (NYS Common Retirement Fund, US).

Other funds monitor and assess sustainability issues as part of the general risk management of the fund, and address the overall risk exposure by taking ESG factors into account in due diligence, incorporating ESG factors in valuation models and/or developing policies, tools or inhouse indices to assess external asset managers and assets (GPFG, Norway; PFZW, Netherlands; PAL, Japan). Some funds also continue their due diligence after an investment has been made to ensure continued compliance with the fund's policy (ATP, Denmark)).

The assessment of ESG factors in the investment process can differ, depending on the type of asset and the extent to which the fund can exert an influence. For example, in order for assets to be considered a leading choice for ABP (Netherlands), companies should perform well on sustainability criteria, as well as return, cost and other risks, or show a potential for improvement in ESG performance through engagement. However, this engagement is performance dependent and time limited, and the fund will divest if improvements are not forthcoming within a set number of years. Such an approach earned ABP (Netherlands) the no.1 ranking in VBDO's assessment of Dutch pension funds and is considered best practice by the association (VBDO, 2019).

[15] "Norway Blocks Wealth Fund from Investing in Private Equity." *Institutional Investor*, April 10, 2018

5.3 Positive screening

Positive or best-in-class investment screening is not widely used, and is reported by only three frontrunner funds in this study - all pension funds.

The approaches taken by the three funds vary. GPIF (Japan) uses a weighting methodology that overweights carbon efficient companies within a given sector rather than excluding those with low carbon efficiency. This approach ensures the fund increases its exposure to a range of best practice companies, as well as creates criteria for identifying them.

The other two funds that report positive screening strategies in their ESG reports take an approach that share a similarity with general integration and impact investment (see below). PFZW (Netherlands) has structured its private equity funds around several 'solutions'-oriented themes, in particular in smaller, high impact companies. ATP (Denmark) incorporates a wide range of ESG-related indicators into its quantitative and qualitative indicators for screening investments that are based on information and data sourced from external data providers.

5.4 Impact investment

Impact investment strategies that intentionally target ESG-oriented sectors (such as renewables or green housing), or capital market instruments (such as green bonds or ESG funds) are the most common strategy used by the 20 frontrunner funds in this study, with only three funds not reporting the use of such an approach to asset selection. However, their approaches differ in terms of market and instrument selection and the degree of exposure to sustainability-themed assets that funds target. Nevertheless, this shows a general trend to move from behaviour- or process-based ESG integration to impact-oriented sustainability integration, or to move from responsible investment to sustainability-dedicated investment, which target sustainability-related themes or sectors.[16]

In terms of thematic area, most funds have been keen to invest in what can broadly be termed climate or environment related positive impact assets, such as carbon efficient assets, renewables, and green real estate and infrastructure. In terms of equity investments, the funds opt for either investing via financial market instruments or through private markets. For GPIF (Japan), for example, this has meant investing in S&P/JPX's Carbon Efficient Index, as well as in other thematic areas, including gender, via MSCI's Empowering Women Index. In 2016, NYS Common Retirement Fund (US) created its own low carbon emissions index, in partnership with Goldman Sachs Asset Management, and by 2018 had allocated $4 billion to the index. Several funds pursue investments in alternative assets through the private markets, particularly targeting real estate investments that meet the LEED criteria, infrastructure, healthcare, and also renewables.

Funds have also been active investors in debt instruments that have a sustainability dimension, such as green, social or sustainability bonds (ATP, Denmark; Alecta, Sweden; Bpf Bouw, Netherlands). Meanwhile, some funds, particularly in North America, have also been issuers of bond products. CPP (Canada) was the first ever pension fund to issue green bonds, completing its inaugural issuance in June 2018. Investors bought $1.5 billion of the 10-year bond, which Bloomberg reported was a record at the time for a single green bond transaction

[16] For definitions and the latest developments in responsible investment and sustainability-dedicated investment, see UNCTAD (2020a).

in Canada.[17] This was followed, in 2019, by CalSTRS that issued $281 million in municipal green bonds.

5.5 SDG Investment

As part of the move towards sustainability-dedicated investment, the consideration of the UN SDGs in funds' investment decision making processes and asset allocation has emerged as one of the latest iterations of ESG integration and sustainable investing. It is becoming a focus of investor interest as the goals cover both existing ESG issues and introduce new ones, such as food security and education. In this way, the goals are broadening and pushing forwards the sustainable investment agenda and helping mobilise investors and financial markets to help close the sustainable investment gap, especially in developing countries (UNCTAD, 2014).

Despite the relative newness of SDG-related strategies, six frontrunner funds reported the consideration of the SDGs in their asset allocation in 2019. APG and PGGM in the Netherlands have jointly developed a taxonomy for investment that contributes to the SDGs, called Sustainable Development Investment. The taxonomy brings more clarity as to which investments contribute to an SDG, and has been fed into a unified EU taxonomy, mentioned above in section 4. In addition, the two funds have also developed instruments to track their investments in each SDG-related area. According to PGGM's report, at the end of 2017, it had invested €33.8 billion or 15 per cent of its total AUM in SDG-related sectors or projects. ATP (Denmark) reports how their investments correlate with specific SDGs. GPIF (Japan) uses an ESG benchmark index, the FTSE Blossom Japan index, that takes into account SDG-related themes.[18] NZSF (New Zealand) has been using the SDGs as the reference to pursue positive investments that deliver clear social and environmental benefits alongside financial returns.

[17] "Canada Pension Sells $1.2 Billion Green Bond in Global First". Bloomberg, 13 June 2018.

[18] The FTSE Blossom Japan Index is designed to measure the performance of Japanese companies that demonstrate strong ESG practices, while taking the UN SDGs into consideration in its construction.

6. Integrating ESG along the investment value chain

The size of public pension funds and SWFs and their position as 'universal owners' gives them a relatively greater weight and influence in the governance of the assets, funds and investees they invest in. This influence can be exercised through dialogue and engagement with their investees, voting rights at shareholder meetings, instructions to asset managers or, ultimately, divestment from their assets.

Active ownership is the most widely used ESG integration activity employed by the 20 funds, with very few of them not reporting the practice of some form of active ownership (figure 6.1). This reveals not only the importance that these funds accord to active ownership, but also the ability of large institutional investors to affect change on ESG and SDG-related issues along the whole investment value chain.

Figure 6.1 Most commonly reported active ownership policies by the 20 frontrunners (number of funds reporting)

Source: UNCTAD

6.1 Engagement with stakeholders along the investment chain

Active engagement can take many forms, including consultations and dialogue with all stakeholders in the investment value chain. Generally, funds favour engagement with asset managers and investees as a first resort to improve ESG performance, for example, by reducing carbon footprint or acting on gender parity. If engagement fails, the next resort can be to exclude firms from a fund's portfolio. Given the large portfolios of many funds, engagement can be an onerous task. For this reason, engagement is often undertaken by asset managers on behalf of the fund, or outsourced to professional service providers.

In response to the large number of companies in fund portfolios, some funds take a thematic approach, engaging companies on specific issues, such as child labour, the preservation of marine life, management diversity, or the circular economy (GPFG, Norway; OTPP, Canada; ATP, Denmark), or developing engagement programmes that focus on specific components, such as climate change and emissions (PFZW, Netherlands). Engagement can also be focussed on corporate governance practices within companies (PSP, Canada).

Prioritization is the key for successful engagement. In the case of ATP (Denmark), the fund may choose a topic based on the results of a screening process that reveals that several companies are exposed to the same ESG risks, which helps focus engagement efforts and provides greater insights. PFZW (Netherlands) considers the relevance of engagement, whether the fund has the expertise and knowledge in the area concerned, and whether the company is open to discussion.

Another good practice is to undertake engagement in a structured way, in particular by putting necessary monitoring and evaluation processes in place. CPP (Canada), for example, engages directly with companies that present material ESG risks and opportunities, monitors their progress, and follows up to encourage continued improvement. As another good practice example, NZSF (New Zealand) has developed a well-structured way to carry out its engagement programme (see box 6.1), which can be replicated by other funds.

Box 6.1 Structuring an engagement programme - the case of New Zealand's Superannuation Fund

New Zealand Superannuation Fund believes that engaging with companies is a tool that it can employ, as a shareholder, to influence a company's management if it thinks that it is not adequately mitigating risks or adapting to opportunities. Its engagement objectives are to monitor, identify and engage with companies that breach international standards of good practice, in particular the UN Global Compact, with an aim to encourage companies to address poor ESG practices and improve ESG disclosure.

Its engagement efforts, undertaken by the Responsible Investment Team members, focus on four priority areas: (i) human rights and safety (child labour, work safety, operations in weak states); (ii) business ethics (bribery and corruption); (iii) Severe environmental damage; and (iv) climate change. In each issue area, its Responsible Investment Team identifies priority companies for engagement in the target industries, specifies the objectives and results to achieve, designs the leverages and carry out engagement.

The team records and measures engagement success for companies on its focus list. For internally managed, direct engagements, it notes success when:

- Its ESG research provider upgrades the ESG rating;
- The company meets its pre-defined performance measures; and
- There is public evidence that the company is managing the issue appropriately

Once the team is of the view that there has been sufficient progress made on an issue, the company is moved to the 'monitoring list' to ensure there is no recurrence. Once satisfied of this (in a 2-year period), the engagement can be closed and noted as 'resolved'.

Source: 2019 Annual Report of New Zealand Superannuation Fund.
www.nzsuperfund.nz/publications/annual-reports/

Collective engagement through international initiatives and collaboration with other investors are gaining popularity. For example, 10 of the 16 frontrunner pension funds have participated in the Climate 100+, an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. Group lobbying like this tends to be more effective and timesaving for investors.

6.2 Exercising voting rights

The most common way in which funds practise active ownership is through voting, either directly or, more likely, through a proxy. Most frontrunners in this study regard voting in shareholder meetings as one of the most important tools for exercising ownership rights and a natural feature of ownership. They are increasingly supporting ESG and sustainability-related resolutions. Norway's Government Pension Fund, for example, voted in favour of over 43 per cent of sustainability-related resolutions in 2018, up from over 25 per cent in 2017.

Washington State Investment Board voted in favour of over 90 per cent of climate change-related shareholder proposals for U.S. companies in 2019.

Several funds have voting policies, which can serve as custom voting instructions for proxy voting providers and enable the fund to actively vote in a large number of company meetings across different markets and sectors (ABP, Netherlands; USS, UK; Bpf Bouw, Netherlands). The majority of funds use specialist proxy voting services to both advise and vote on behalf of the fund. And, some funds have a “voting focus” list, which allows them to focus on a selection of the largest or most strategically important companies in their portfolio (PFZW, Netherlands).

In terms of corporate governance, funds have been active in promoting gender balance on company boards. For example, CPP (Canada) systematically votes against nominating committee chairs at companies with no female directors and following this up by voting against the entire nominating committee if there has been no progress a year later. ABP (Netherlands) underlined its support for the principle of one share, one vote to align capital stakes and controlling rights. If companies adopt controlling structures, the fund asks the board to critically assess these structures and to phase them out over time. In these ways and more, the voting power of large share owners, like pension funds, is plainly visible and their influence on company policy and action is potentially decisive and immediate.

6.3 ESG guidance along the investment value chain

As part of their active ownership activities with portfolio companies and asset managers, the majority of the 20 frontrunner funds have developed policies, guidelines or targets on ESG requirements and performance (see section 4.4). Some funds supplement general policy guidelines with client specific guidelines, for example in the areas of private equity, real estate, microfinance, government bonds and structured credit (PFZW, Netherlands).

Funds can actively suggest ESG benchmarking and other actions to portfolio companies, such as the use of TFCD guidelines, CDP, or the Paris Agreement on Climate Change. For example, PSP (Canada) shares its ESG resources and best practices with partners and external asset managers, and follows up on their progress. The results of the follow up revealed progress in the adoption of more robust ESG procedures and processes among external managers and partners. For the USS (UK), its in-house sustainable investment team continuously assess its external asset managers’ ESG policies and processes. Other funds request reports from their asset managers on stewardship activities (PAL, Japan). Requirements can also take the form of monitoring and evaluating asset managers’ ESG strategies and selecting them on the basis of their alignment with the fund’s expectations (CalSTRS, US; GPIF, Japan).

7. Measuring and reporting on sustainability

Annual responsible or sustainable investment reporting is becoming more widespread among listed companies. However, this study finds that less than one-third of the world's 50 largest public pension funds and 13 per cent of the world's 30 largest SWFs reported on ESG issues in 2019; and they did so in different ways and with different levels of detail. Progress in the last 10 years has been slow: an UNCTAD study, published in 2010, found that 13 per cent of the top 100 pension funds (public and private) reported on ESG issues (UNCTAD, 2010). This shows that sustainability reporting among pension funds has increased only very little in 10 years. Notably, it has been 15 years since the PRI was founded, one of whose principles is reporting on ESG issues. Meanwhile, it should be noted that most funds only report on their portfolio sustainability, and only three of them report on the sustainability performance of their own operations as a company (see section 7.2).

7.1. Structure and substance of sustainability reporting

There is no commonly agreed template for sustainability reporting for pension funds. This study finds that those funds that do report publish meaningful information about their ESG integration practices. However, there is a huge discrepancy regarding the structure of their reports, the weight devoted to each of the environmental, social or governance components, and the level of detail of the information provided. For example, a few funds use the TCFD, GRI or PRI as their reference reporting framework (see section 7.3), but most funds use their own structure based on their understanding of the importance of issues they choose to report. While environmental issues are usually reported in more detail, social and governance issues tend to be insufficiently covered.

This lack of consistency among funds makes comparisons of their ESG integration performance difficult. In general, thoroughness, balance and clarity, which are critical for the quality of a sustainability report, need to be significantly enhanced even for the best practice funds. Like financial reporting, a commonly accepted, basic framework is needed for sustainability reporting to enhance consistency and comparability. More efforts need to be made by international organizations, government regulatory agencies and industry associations in this regard.

7.2 Key performance indicators (KPIs)

Although the environmental elements of sustainability reporting (carbon emissions, raw material consumption) are usually quantitative, the social and governance elements of sustainability reporting remain largely qualitative. However, comparability is easier if quantitative KPIs are used for sustainability reporting, and some progress has been made in this direction (figures 7.1, 7.2).

Among the 16 pension funds in this study, nine funds report on their climate-related sustainability performance at portfolio level in 2019. The most commonly used KPIs were carbon footprint, carbon density and other GHG emission indicators. Other funds used industry benchmarks (such as green indices of FTSE and MSCI or industry standards such as GRESB) to evaluate their performance.

Some funds (ABP, Netherlands; Alecta, Sweden; Bpf Bouw, Netherlands and the NYS Common Retirement Fund, US) took a step further to set carbon emission targets or ceilings for themselves or their portfolio companies, usually with a plan to reduce them over time.

Several funds (Alecta, Sweden; ATP, Denmark; GPIF, Japan and PFZW, Netherlands) are conducting scenario analysis or stress tests to examine their exposure to climate-related risks under different development scenarios to inform their investment decisions.

Figure 7.1 Carbon footprint at portfolio level, ATP (Denmark), 2018

(2018)	Carbon Footprint (tonnes CO_2e/DKKm)	Carbon Intensity (tonnes CO_2e/DKKm)	WACI (tonnes CO_2e/DKKm)
Nordic equities	**26.60**	**44.86**	**56.42**
Scope 1	24.88	41.96	25.94
Scope 2	1.72	2.90	3.13
Scope 3			27.35
International equities	**37.42**	**38.60**	**57.39**
Scope 1	33.34	34.39	30.89
Scope 2	4.08	4.21	5.60
Scope 3			20.90

Source: ATP 2018 Responsibility Report. www.atp.dk/en/results-and-reports/responsibility-reports-and-publications

Figure 7.2 Carbon Footprint at portfolio level, CPPIB (Canada)[1]

METRIC[2]	CPPIB PUBLIC EQUITIES PORTFOLIO[3]	DESCRIPTION
TOTAL CARBON EMISSIONS	15.6 million tonnes of CO_2e	The absolute GHG emissions associated with a portfolio, expressed in tonnes CO_2e. This figure would typically rise as assets under management grow.
CARBON FOOTPRINT	125 tonnes of CO_2e/$million invested	Total carbon emissions for a portfolio normalized by the market value of the portfolio, expressed in tonnes CO_2e / $million invested.
CARBON INTENSITY	220 tonnes of CO_2e/$million revenue	Volume of carbon emissions per million dollars of revenue (carbon efficiency of a portfolio), expressed in tonnes CO_2e / $million revenue.

Source: CPPIB 2018) *Report on Sustainable Investing: Investing Responsibly for CPP Contributors and Beneficiaries*. https://cdn4.cppinvestments.com/wp-content/uploads/2019/12/CPPIB_SIR_English.pdf
Note: [1] The numbers reflect carbon metrics as of June 30, 2018 and show metric tons of carbon dioxide equivalent (CO2e). [2] Issuers' Scope 1 and 2 GHG emissions are allocated to CPPIB's portfolio based on an equity ownership approach, and the data is normalized based on the total in-scope portfolio value. Under the equity ownership approach, if an investor for example owns five per cent of a company's total market capitalization, they own the same percentage of the company's emissions.

It should be noted that the efforts of these funds to measure and report on climate sustainability varies in scope. While some funds (such as ABP, Netherlands; ATP, Denmark; Alecta, Sweden and PFZW, Netherlands) cover their entire portfolio and all asset classes, other funds only apply this to selected asset classes or market segments (such as commercial properties owned directly by them).

Although more than half of the 16 pension funds in this study report on the climate-related sustainability of their investments, only three of them (ATP, Denmark; AustraliaSuper, Australia and CalSTRS, US) measure and report on the sustainability performance of their own operations as a company, such as their electricity use, greenness of their office buildings, and waste generated. As responsible investors, public pension funds should monitor and report on their sustainability performance not only as an investor but also as a company.

The biggest challenge cited by pension funds in applying KPIs is the availability and quality of ESG data. As ATP (Denmark) pointed out in its 2019 ESG report,[19] there are significant challenges associated with data quality, as most data are based on estimates. Meanwhile, several funds mentioned that climate impact evaluation and modelling remain too complicated, although this is not an unsurmountable challenge as funds can outsource these tasks to specialist service providers.

With respect to the social and governance elements of sustainability reporting, quantitative indicators have been proposed by reporting initiatives, such as UNCTAD's Guidance on Core Indicators for Entity Reporting on Contribution towards Implementation of the SDGs (GCI), which includes a set of standardized and comparable SDG contribution reporting metrics and was adopted by the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR). However, these initiatives are not yet widely adopted by the industry.

7.3 Utilization of international sustainability reporting guidelines

Another best practice to bring more objectivity, comparability and coherence to sustainability reporting is to utilize internationally recognized standards and frameworks. As discussed in section 4.3, the frontrunner funds in this study are making progress in this area. Most notably, several international reporting frameworks and benchmarks, in particular the TCFD[20] and GRI, are increasingly adopted by public pension funds.

Five of the 16 pension funds in this study (ABP, Netherlands; CPP, Canada; GPIF, Japan; OTTP, Canada and USS, UK) published TCFD reports in 2019 (as part of their sustainability report or as a separate report), and CalSTRS (US) started to do so.

Meanwhile, three of the 16 pension funds have incorporated GRI reporting indicators in their sustainability reporting where possible (ABP, Netherlands; Alecta, Sweden and PFZW, Netherlands), and two funds (CalSTRS, US and AustraliaSuper) produced GRI reports on the sustainability of their own operations.

It should be noted that GRI is developed mainly as a company sustainability reporting framework, and some indicators are not so relevant for sustainability reporting at portfolio levels. Therefore, the GRI reporting standards need to be adapted for sustainability reporting by institutional investors, in the way that ABP (Netherlands), Alecta (Sweden) and PFZW (Netherlands) did in their annual sustainability reports. For the same reason, a GRI report may not be sufficient to replace a sustainable investment report since the latter goes well beyond company sustainability and is much broader in terms of scope.

[19] ATP 2019 Responsibility Report. www.atp.dk/en/results-and-reports/responsibility-reports-and-publications
[20] TCFD targets financial sectors and its implementation has been increasing steadily among financial institutions.

Funds may also use multiple international guidelines in sustainability reporting. For example, ABP (Netherlands) uses both the TCFD and the GRI guidelines in their annual sustainability report, depending on the nature of the subjects. PFZW (Netherlands) also applies the TCFD, the GRI and the PRI as guidelines where appropriate in their sustainable investment report to address different issues. A universally accepted sustainability reporting framework for institutional investors would help to avoid the complexity associated with using multiple frameworks. Any convergence among the leading international reporting guidelines should be welcome in this regard.

7.4 External auditing

This study finds that external auditing of funds' sustainability reporting remains rare. Only six of the 20 frontrunner funds (ABP, Netherlands; Alecta, Sweden; PFZW, Netherlands; Bpf Bouw, Netherlands; NZSF, New Zealand; and Samruk-Kazyna, Kazakhstan) had their sustainability reports audited by external auditors in 2019. As is the case for financial reporting, external auditing should be regarded as essential for sustainability reporting. It can ensure quality and reliability, while helping the reporters to enhance their reporting skills and capacities through best practice sharing.

8. SWFs need to catch up

Both public pension funds and SWFs are long-term investors and should therefore factor sustainability issues and related risks in their investment decisions. However, this study finds that SWFs as a group need to make efforts to catch up with their pension fund counterparts in terms of ESG integration. Of the 30 largest SWFs, only 4 funds - Future Fund (Australia), Samruk-Kazyna (Kazakhstan), New Zealand Superannuation Fund (NZSF, New Zealand) and Temasek (Singapore) - reported meaningfully on ESG integration in 2019. The scope and depth of ESG reporting by SWFs as a group need to be improved.

A couple of elements may be behind this. Due to their state ownership, external screening of the SWFs has so far focused on their governance and whether there are political or strategic considerations behind their investments. In response to these concerns, the SWFs as a group try to brand themselves as pure “financial” investors. This explains to a certain extent why the Santiago Principles, the industry-agreed framework on principles and practices on SWF governance and operations, focus on transparency, good governance, accountability and prudent investment practices. Rather than being treated as an indispensable norm in the Santiago Principles, ESG alignment is handled as something that SWFs are required to disclose if it is applied in their investments, being singled out as an example of an investment decision being “subject to other than economic and financial considerations” (IWG, 2008). Obviously, the Santiago Principles need to be updated to ensure that ESG integration becomes an inherent part of SWF investment decision making, and that the Principles are aligned with member State commitment to the SDGs and the Paris Agreement.

Other possible reasons behind this include: (i) a lack of regulation: external screening of SWF investment mainly happens in the host countries and home country regulations are largely absent; and (ii) SWFs have traditionally been passive shareholders, partly in response to external concerns about their governance and investment motivations. SWFs have rarely aimed for board seats or inputs to the policies of their portfolio companies, which limits their capability to engage their investees on ESG issues (Nili, 2014). To push SWFs to become responsible and sustainable investors requires changes in host and home country measures. The best way to address the ownership concerns and support SWFs to become more responsible investors is through enhanced transparency, in particular in governance, voting policy, and timely disclosure.

The experiences of the four frontrunner SWFs in this study show that, like public pension funds, SWFs should and could become leaders in sustainable investment. Their experiences also show that what’s required for them for ESG integration remains the same – putting in place the right values and vision, governance structure, policies, processes and strategies, and measuring and reporting on their sustainability practices, as discussed in the previous chapters.

9. The way forward: a suggested framework for ESG integration

This study found that 20 out of a sample of 80 public pension and sovereign wealth funds published detailed and meaningful reporting on ESG performance. By looking into the experiences of the frontrunning 16 public pension funds and 4 SWFs, this study has shown how asset owners can mainstream sustainability into their investments and along their investment value chain for the interests of themselves and society.

Given its relatively recent history, ESG integration is still evolving and facing challenges. However, the practices of the frontrunners in this study reveal that the complexity of ESG issues do not impede institutional investors such as pension funds and SWFs to take concrete steps to mainstream ESG into their investment processes.

Tremendous opportunities for sustainable investment for public pension and sovereign investment funds lie in the move towards impact-oriented investments, including those targeting the SDGs. The SDGs provide a useful framework for sustainability integration and broaden the sustainable investment agenda. As indicated by this study and OECD's 2019 annual survey of the world's largest pension funds, pension funds are increasingly going beyond ESG and building investment strategies around broader environmental or developmental objectives such as the SDGs (OECD, 2019b). However, SDG integration remains at an early stage. Most pension funds and SWFs have not yet integrated the SDGs in their investment decision making in a systematic manner.

The biggest barrier for SDG integration, so far, is the lack of necessary standards and benchmarks to link the SDGs to sustainable investment. But this situation is changing rapidly, particularly in the environmental area. The European Union's green taxonomy, which is expected to come into force by the end of 2020, will define what can be counted as a green financial product based on its sustainability contribution and make related disclosure mandatory for institutional investors. A social investment taxonomy is also under development by the EU. Similar impact-based taxonomies are being developed in countries such as Canada, China, and Japan. In parallel, progress has been made in the development of SDG investment taxonomies. For example, UNCTAD's Guidance on Core Indicators (GCI) and the SDG taxonomy developed by APG and PGGM (Netherlands) have proposed a matrix to measure and report on SDG contribution. More than ever before, institutional investors need to integrate development objectives, especially the SDGs, into their investments. This will bring more credibility to their claims to be sustainable investors, while helping them to mitigate relevant regulatory risks.

Based on the best practices of the 20 frontrunning funds, this study proposes a framework that can be used by their peers and their asset managers to act on sustainability in line with their operational model and strategic priorities. The framework covers seven action areas and includes a number of concrete action items in each area (table 8.1). For each action area, best practice examples can be found in the relevant sections of this paper.

Sustainability is not a goal or practice that can be undertaken by asset owners alone. The support and engagement of other stakeholders such as governments, international organizations and academia will be critical. In particular, more efforts will be needed in the development and harmonization of industry standards and benchmarks, building on progress that has been made in relevant areas. Practical tools to assess ESG risks and sustainability

at portfolio levels (not only climate risks but also risks related to natural disasters and pandemics such as COVID-19) are also much needed.

UNCTAD's SDG Investors Partnership will continue working closely with institutional investors, government agencies and other international organizations to address the issues and challenges of sustainable investment faced by institutional investors.

Table 8.1 A suggested framework for sustainability integration for asset owners

Action areas		Concrete action items
I.	Formulate a new generation of company values and mission aligned with sustainability	• affirm commitment to sustainability integration. • adopt long-termism; • treat ESG and SDG integration as an opportunity. • pursue triple bottom lines (financial, social, and environmental)
II.	Put robust governance, policies and processes in place that are aligned with sustainability	• engage all players from the Board to portfolio managers in sustainability mainstreaming, with well-defined roles and responsibility. • formulate company policies on sustainable investment. • set up a dedicated team to coordinate ESG integration efforts. • establish clearly defined internal processes for sustainable investment.
III.	Take a holistic approach to ESG integration	• mainstream sustainability throughout the entire investment process, from due diligence to after investment. • identify key action areas and develop coherent sustainable investment strategies (exclusion, ESG integration, positive screening, thematic investment, SDG investment or a combination of them). • formulate a comprehensive strategy for SDG integration and move from process-based responsible investment to sustainability-dedicated investment to enhance impact on the ground.
IV.	Integrate sustainability along the investment value chain	• exercise voting rights directly or through proxy voting. • engage with asset managers, portfolio companies and the society on sustainability issues. • publish sustainability guidance or requirements for asset managers, portfolio companies, service providers (such as proxy voting companies) and other stakeholders.

V.	Measure sustainability risks, impact, and performance	• assess and forecast material ESG or sustainability risks. • set evidence-based sustainability goals, and cascade down to asset managers. • measure sustainability performance, including SDG performance, with qualitative and quantitative KPIs.
VI.	Publish a high-quality sustainable investment report annually	• ensure thoroughness, balance, and clarity in reporting. • refer to internationally adopted reporting framework(s) with necessary adaptation to enhance consistency and comparability. • use external auditing.
VII.	Partner with peers and international initiatives	• acquire and develop knowledge and expertise. • develop industry norms and standards. • advocate sustainable investing policies or practices (e.g. through collective engagement campaigns targeting companies in priority sectors).

Source: UNCTAD

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Appendix 1. The 20 frontrunner public pension funds and SWFs in the study (ranked by AUM)

#	Funds	AUM ($ bn)	Country	Website
Pension Funds				
1	Government Pension Investment Fund (GPIF)	1,374	Japan	https://www.gpif.go.jp/en/
2	Government Pension Fund of Norway (GPFG) *	982	Norway	https://www.nbim.no/
3	Stichting Pensioenfonds ABP (ABP)	462	Netherlands	https://www.abp.nl/
4	Canada Pension Plan (CPP) *	287	Canada	https://www.cppinvestments.com/
5	Stichting Pensioenfonds Zorg en Welzijn (PFZW) *	248	Netherlands	https://www.pggm.nl/
6	California State Teachers' Retirement System (CalSTRS)	230	United States	https://www.calstrs.com/
7	New York State Common Retirement Fund (NYS Common Retirement Fund)	213	United States	https://www.osc.state.ny.us/pension/
8	Pension Fund Association for Local Government Officials (PAL)	200	Japan	http://www.chikyoren.or.jp/english/pal.html
9	Ontario Teachers' Pension Plan (OTPP)	140	Canada	https://www.otpp.com/
10	Arbejdsmarkedets Tillægspension (ATP)	129	Denmark	https://www.atp.dk/
11	Washington State Investment Board (WSIB)	112	United States	https://www.sib.wa.gov/
12	AustralianSuper	100	Australia	https://www.australiansuper.com/
13	Tjänstepension hos Alecta (Alecta)	93	Sweden	https://www.alecta.se/
14	Public Sector Pension Investments (PSP Investments)	81	Canada	https://www.investpsp.com/en/
15	Universities Superannuation (USS)	81	United Kingdom	https://www.uss.co.uk/
16	Bedrijfstakpensioenfonds voor de bouwnijverheid (Bpf Bouw)	59	Netherlands	https://www.bpfbouw.nl/
Sovereign Wealth Funds				
17	Temasek Holdings (Temasek)	231	Singapore	https://www.temasek.com.sg/en/index.html
18	Future Fund	112	Australia	https://www.futurefund.gov.au/
19	Samruk-Kazyna	67	Kazakhstan	https://www.sk.kz/about-fund/
20	New Zealand Superannuation Fund (NZSP)	28	New Zealand	https://nzsuperfund.nz/

Note: * ESG reports of highlighted pension funds were produced by their asset managers (GPFG report produced by NBIM, CPP report produced by CPPIB, PFZW report produced by PGGM); AUM figures are taken from the Thinking Ahead Institute's *Pensions & Investments World 300* for 2019 and the *Sovereign Wealth Funds 2019* of IE University of Spain.

Appendix 2. Selected national stewardship codes

Stewardship code	Core principles
UK Stewardship Code (2020)	**PRINCIPLES FOR ASSET OWNERS AND ASSET MANAGERS:** **Principle 1:** Signatories' purpose, investment beliefs, strategy, and culture enable stewardship that creates long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society **Principle 2:** Signatories' governance, resources and incentives support stewardship **Principle 3:** Signatories manage conflicts of interest to put the best interests of clients and beneficiaries first **Principle 4:** Signatories identify and respond to market-wide and systemic risks to promote a well-functioning financial system **Principle 5:** Signatories review their policies, assure their processes and assess the effectiveness of their activities **Principle 6:** Signatories take account of client and beneficiary needs and communicate the activities and outcomes of their stewardship and investment to them **Principle 7:** Signatories systematically integrate stewardship and investment, including material environmental, social and governance issues, and climate change, to fulfil their responsibilities **Principle 8:** Signatories monitor and hold to account managers and/or service providers **Principle 9:** Signatories engage with issuers to maintain or enhance the value of assets **Principle 10:** Signatories, where necessary, participate in collaborative engagement to influence issuers **Principle 11:** Signatories, where necessary, escalate stewardship activities to influence issuers **Principle 12:** Signatories actively exercise their rights and responsibilities **PRINCIPLES FOR SERVICE PROVIDERS:** **Principle 1:** Signatories' purpose, strategy and culture enable them to promote effective stewardship **Principle 2:** Signatories' governance, workforce, resources and incentives enable them to promote effective stewardship **Principle 3:** Signatories identify and manage conflicts of interest and put the best interests of clients first **Principle 4:** Signatories identify and respond to market-wide and systemic risks to promote a well-functioning financial system. **Principle 5:** Signatories support clients' integration of stewardship and investment, taking into account, material environmental, social and governance issues, and communicating what activities they have undertaken **Principle 6:** Signatories review their policies and assure their processes
Japan Stewardship Code	**Principle 1:** Institutional investors should have a clear policy on how they fulfill their stewardship responsibilities, and publicly disclose it **Principle 2:** Institutional investors should have a clear policy on how they manage conflicts of interest in fulfilling their stewardship responsibilities and publicly disclose it. **Principle 3:** Institutional investors should monitor investee companies so that they can appropriately fulfill their stewardship responsibilities with an orientation towards the sustainable growth of the companies. **Principle 4:** Institutional investors should seek to arrive at an understanding in common with investee companies and work to solve problems through constructive engagement with investee companies. **Principle 5:** Institutional investors should have a clear policy on voting and disclosure of voting activity. The policy on voting should not be comprised only of a mechanical checklist; it should be designed to contribute to the sustainable growth of investee companies. **Principle 6:** Institutional investors in principle should report periodically on how they fulfill their stewardship responsibilities, including their voting responsibilities, to their clients and beneficiaries. **Principle 7:** To contribute positively to the sustainable growth of investee companies, institutional investors should have in-depth knowledge of the investee companies and their business environment and skills and resources needed to appropriately engage with the companies and make proper judgments in fulfilling their stewardship activities.

The Australian Asset Owner Stewardship Code	**Principle 1**: Asset owners should publicly disclose how they approach their stewardship responsibilities **Principle 2:** Asset owners should publicly disclose their policy for voting at company meetings and voting activity **Principle 3:** Asset owners should engage with companies (either directly, indirectly or both) **Principle 4:** Asset owners should monitor asset managers' stewardship activities **Principle 5:** Asset owners should encourage better alignment of the operation of the financial system and regulatory policy with the interests of long-term investors **Principle 6:** Asset owners should report to beneficiaries about their stewardship activities
The Dutch Stewardship Code	**Principle 1**: Asset owners and asset managers have a stewardship policy that describes how they integrate stewardship towards Dutch listed investee companies in their investment strategy. **Principle 2:** Asset owners and asset managers monitor their Dutch listed investee companies on material issues, including, but not limited to, the company's business model for creating long-term value, the company's strategy, performance and risks and opportunities, the capital structure, social and environmental impact, corporate governance and corporate actions such as mergers and acquisitions. Material issues are those matters that are likely to significantly affect the company's ability to create long-term value. **Principle 3:** Asset owners and asset managers are prepared to enter into dialogue with the executive and/or supervisory directors of their Dutch listed investee companies and are prepared to escalate their stewardship activities in case issues remain unresolved, where appropriate and at their discretion. **Principle 4:** Asset owners and asset managers cooperate with other shareholders in exercising stewardship activities towards Dutch listed investee companies, where appropriate and at their discretion. **Principle 5:** Asset owners and asset managers communicate with relevant stakeholders of Dutch listed investee companies, where appropriate and at their discretion. **Principle 6:** Asset owners and asset managers identify, manage and remedy actual and potential conflicts of interest in relation to their stewardship activities towards Dutch listed investee companies. Asset owners and asset managers publicly disclose their conflicts of interest policy in relation to their stewardship activities. **Principle 7:** Asset owners and asset managers exercise their voting rights and other rights attached to shares in Dutch listed investee companies in an informed manner. **Principle 8:** Asset owners and asset managers publicly disclose their voting policy and at least annually if and how they use proxy research and/or voting services. Asset owners and asset managers that use proxy research and/or voting services ensure that their votes are cast in line with their own voting policy. **Principle 9:** Asset owners and asset managers that consider exercising their right to submit a request for convening an extraordinary general meeting or for tabling a shareholder resolution at a general meeting of a Dutch listed investee company should have consulted the company's board prior to exercising this right. **Principle 10:** If a resolution proposed by an asset owner or asset manager has been put on the agenda of a general meeting of a Dutch listed investee company, the asset owner or asset manager should be present or represented at that meeting in order to explain this resolution and, if necessary, answer questions about it. **Principle 11:** Asset owners and asset managers will abstain from voting if their short position in the Dutch listed investee company in question is larger than their long position. Asset owners and asset managers should recall their lent shares before the voting record date for a general meeting of a Dutch listed investee company, if the agenda for that general meeting contains one or more significant matters.

Appendix 3. Main international benchmarks used by the 16 frontrunner public pension funds

Benchmark	Application area	GPIF	GPIG	ABP	CPP	PFZW	CalSTRS	PAL	NYS C.R.F	OTPP	ATP	WSIB	Australian Super	Alecta	PSP	USS	Bpf Bouw
Framework																	
UN SDGs	UN Sustainable Development Goals	■	■	■		■					■		■				■
Paris Agreement	Climate change	■	■	■		■								■		■	■
Principles																	
PRI	ESG Integration	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■
UN Global Compact	Corporate social responsibility		■	■		■					■			■			■
UN Guiding Principles on Business and Human Rights	Human rights and corporate responsibility		■	■		■											
The G20/OECD Principles of Corporate Governance	Corporate governance		■	■		■											■
OECD Guidelines for Multinational Enterprises	Responsible business conduct		■			■					■						
Standards																	
TCDF	Climate-related financial risk disclosures	■	■		■	■	■		■	■	■		■	■	■	■	■
CDP	Environmental impact disclosure system		■		■				■		■	■	■	■	■		
GRI	Sustainability reporting standards			■		■	■						■				■

ICGN	Corporate governance and investor stewardship				■	■				■	■	■			■			■
SASB	Sustainability reporting standards					■	■			■								
UN International Labor Standard	Labour issues					■			■									
GRESB	Real estate and infrastructure standards		■	■		■				■	■				■	■	■
Initiatives																		
Climate Action 100+	Corporate greenhouse reduction advocacy	■		■		■	■			■		■	■	■		■	■

Source: UNCTAD