The Church Pension Fund
Climate reporting according to the TCFD recommendations

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1. Introduction

The *Task Force on Climate-related Financial Disclosures (TCFD)* was set up in 2015 by the Financial Stability Board to develop a set of recommendations for voluntary and consistent climate-related financial disclosures. The recommendations cover governance, strategy, risk management, as well as metrics and targets. The Church Pension Fund's reporting and guidelines have already included some TCFD recommendations. However, 2019 is the first year the Pension Fund has published a full report, where climate-related reporting has been collected in order to provide transparency on our approach to climate change. This report has been translated from the Finnish version, which was originally published as part of the annual responsibility action report.

Environment-related issues have been central to the Pension Fund's approach since its inception. The climate change strategy, published in 2016, further describes the processes, tools and targets regarding climate change. In addition to publishing climate reporting according to the TCFD recommendations, the Church Pension Fund aims to further develop its approach around climate change by updating its climate change strategy in 2020.

2. Governance

Climate-related issues are governed according to the same principles as other responsibility issues:

The Board of the Church Pension Fund is responsible for the guidelines for responsible investment, the climate change strategy, investment strategy, risk management plan as well as the action reports. Climate-related subjects, such as screening results, ESG survey results and annual responsibility action reports are regularly discussed in board meetings. In addition, the board covers other climate-related topics, such as engagements, on an ad-hoc basis.

The Responsible Investment Work Group gives advice to the Board of the Church Pension Fund regarding responsible investing. The Work Group prepares the guidelines for responsible investment and climate change strategy, and makes recommendations to the board concerning responsible investing. In addition, the Work Group has the possibility to cover other current or trending topics related to climate change during their meetings.

The Director of the Pension Fund takes decisions on investor initiative involvement. These decisions are subsequently brought to the attention of the Board.

The Investment Unit is responsible for all investment activities and reporting across asset classes. The Investment Unit follows and monitors the climate-related risks and opportunities based on data from multiple sources. The results are followed annually according to the KPIs described in the climate change strategy.

3. Strategy

3.1. Risks and opportunities

Climate change due to human action is a major threat to mankind and creates risks and opportunities across asset classes. Climate-related issues are incorporated in the Church Pension Fund's investment strategy, as they will shape the investment landscape going forward. In addition, the Carbon Neutral Church 2030 strategy governs the Pension Fund's operations. The Pension Fund's objective is to consistently reduce the carbon footprint of its investments over time, for which the Pension Fund has identified a range of tools, which vary across asset classes. Due to the long investment horizon of the Fund, it is crucial that climate-related risks and opportunities are considered when making investment decisions.

The Church Pension Fund's risks due to climate change can be split into physical risks and transition risks.

Physical risks arise from direct impacts of climate change, such as drought or extreme weather events. Physical risks can be chronic, such as drought or rising sea levels, or acute, such as storms. The relevant short- and medium-term physical risks for the Pension Fund include extreme weather events that directly impact the valuation of companies' assets or real estate. In addition, as extreme weather events become more frequent, insurance companies' risks are elevated. From a long-term perspective, the risks can be related to companies' industry, location or production in an area that is exposed to chronic physical risks. As an example, a company's business model can be challenged due to a drought in the region it operates in. On the other hand, rising sea levels can have massive implications on the valuation of real estate located on the coastline.

The portfolio of the Church Pension Fund[1] was analysed in terms of physical risks based on the industries and geographical regions of the investments. Based on the analysis, the Pension Fund does not have a major risk concentration in terms of physical risks. The companies most exposed to acute physical risks are from the Consumer Staples and Energy sectors. These sectors were deemed to have medium acute physical risk. In terms of chronic physical risks, our investments in information technology, materials, real estate, utilities, energy and communication services carry medium risk. From a geographical perspective, the investments most exposed to physical risks are incorporated in Canada and Europe. Going forward, the Pension Fund needs to focus its engagement activities on sectors most exposed to physical risks. In addition, communication with investment managers must include discussions on how physical risks are managed in the investment process.

Transition risks arise from the process of adjusting towards a low carbon economy, and are often most relevant for high-emitting industries, such as oil & gas, power generation, automotive, shipping, cement and steel. Changes in the political debate around climate change as well as legislative changes can particularly challenge old business models. As PRI stated as part of its Inevitable Policy Response Project, the later the political changes are made, the bigger the impact will be for financial markets, for example. New technology innovation can be seen to create lucrative opportunities, but also pose a significant risk for companies unable to reform their business models. Transition risks also include market and reputational risks due to changing consumer behaviour and habits. A common feature for transition risks is the fact that they are very complicated to predict.

The analysis of the Pension Fund's portfolio also considered transition risks. The most critical transition risks can be seen to come from investments in power generation, as well as companies with fossil fuel operations. From a power generation perspective, it is meaningful to assess whether the source of the future power stems from renewable (green) or fossil (brown) sources. For fossil-fuel–owning companies, potential future greenhouse gas emissions might indicate a stranded asset risk. Table 1 compares the Pension Fund's portfolio to the benchmark from both perspectives.[2] The power generation column shows the green and brown

[1] The analysis throughout the reporting was done in co-operation with ISS ESG. It considers direct equity holdings, as well as equity and credit funds. The analysis was conducted as of 31 October 2019.
[2] The Church Pension Fund uses a custom benchmark based on eight fixed-income indices and six equity indices. The respective weights are defined in the annual investment plan. The climate analysis does not include indices that include government bonds, while one rate-based benchmark is converted into a short investment grade bond index. Index funds have been used to estimate index holdings for some of the benchmarks.

installed capacity at a portfolio level, while the reserves column shows the allocation to companies with fossil fuel reserves.

Table 1

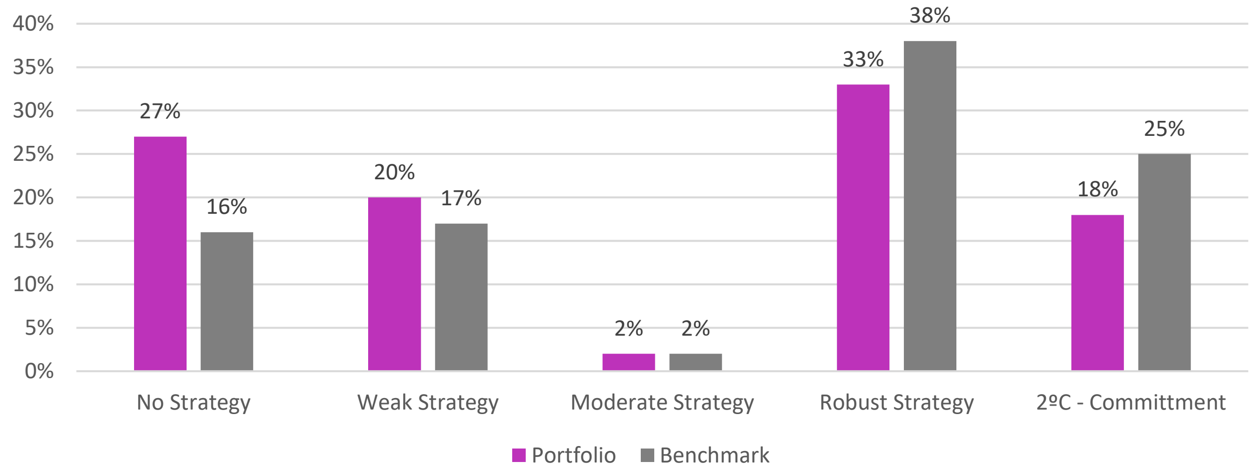
	Power generation		Reserves
	% Installed Capacity Green Share	% Installed Capacity Brown Share	% Investment Exposed to Fossil Fuels
Portfolio	27.1%	31.7%	0.91%
Benchmark	24.0%	46.8%	6.15%

The Church Pension Fund portfolio owns significantly fewer power generators compared to the benchmark on an absolute basis. In addition, the installed capacity of these companies leans more towards green energy compared to the benchmark. Furthermore, the Church Pension Fund owns fewer companies with fossil fuel reserves. Based on these figures, the risks are smaller compared to the benchmark. However, the Church Pension Fund needs to ensure that future investments in power generation are increasingly focused on green energy. In addition, companies that own high-emitting fossil fuels should be avoided. These objectives have been recognised in the climate change strategy, and exclusions and green investments are used as tools to achieve them.

The Church Pension Fund also screens its portfolio biannually from a sector- and a norm-based perspective. The sector-based screening includes coal mining and other fossil fuel operations. In the latest screening, coal mining exposure was found to be limited. As a result of the screening, the Pension Fund decided to redeem from one fund, which has continued to invest in coal mining companies. In addition, the Fund engaged with all asset managers that had holdings involved in coal mining. The portfolio also included two companies with violations of international norms for environmental protection. These cases were also discussed with the respective asset managers.

A more pragmatic approach to identify climate-related risks is to assess the climate strategies of the portfolio companies. This assessment measures how well the companies' strategies are aligned to international climate objectives, and how well they are prepared to react to climate change. A weak climate strategy can be seen to increase the long-term risks of a company in particular. Picture 1 compares the Church Pension Fund portfolio to the benchmark in terms of climate strategy.

Picture 1



The Church Pension Fund owns a considerable amount of companies and issuers that have a weak or no climate strategy. In addition, only 18% of the companies have made a 2-degree commitment (i.e. set a science-based target). Asset managers need to be encouraged to increase resources when it comes to assessing the climate strategies of their investments.

In addition to assessing the climate strategies of companies, ISS ESG has developed Carbon Risk Rating (CRR), which aims to holistically assess companies' readiness to do business in a low-carbon environment. CRR includes a forward-looking element, which is why it complements more traditional backward-looking metrics such as carbon footprint. The Church Pension Fund's portfolio has a slightly lower CRR compared to the benchmark, indicating a higher risk. The Church Pension Fund needs to continue to follow the largest emitters and their CRRs in particular, and if needed, engage with the asset managers.

When assessing the climate-related risks and opportunities, it is important to also note that the Pension Fund invests mainly through third-party managers. Therefore, the Church Pension Fund does not analyse single companies, but rather investment strategies. The relevant risks and opportunities can be seen to arise not only from the asset managers' ability to assess climate change, but also the Pension Fund's skill to assess that ability. The Pension Fund needs to continuously evaluate asset managers' abilities and resources to assess climate-related risks and opportunities.

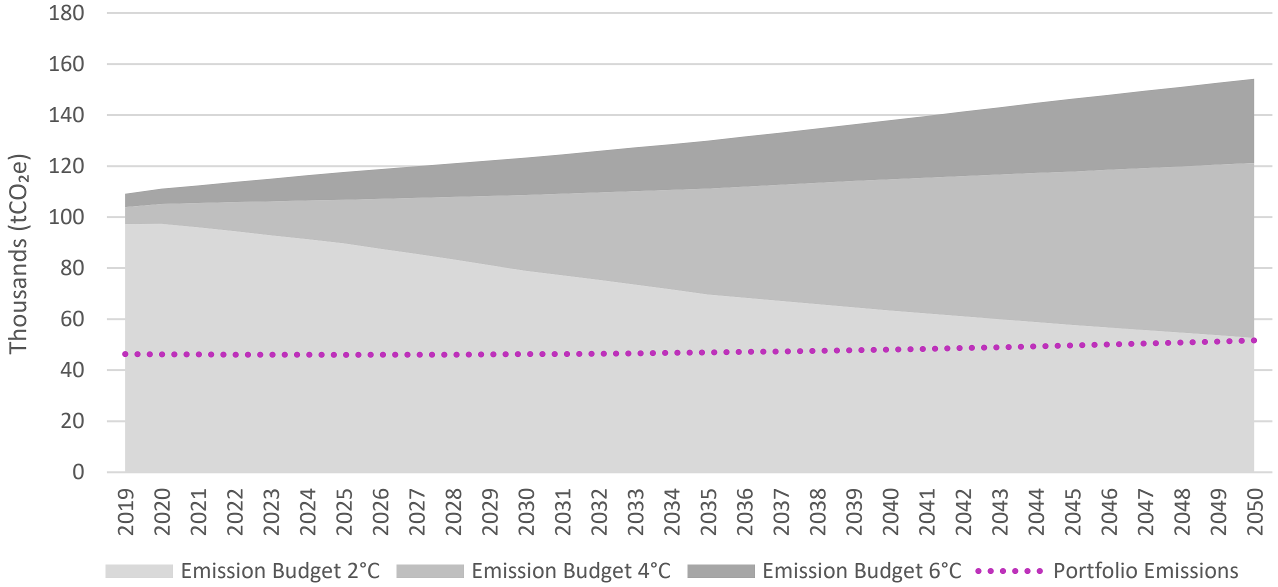
Climate-related aspects are a central part of the Pension Fund's annual ESG survey. Based on the latest ESG survey, 94% of equity and fixed-income managers factor in climate-related risk and opportunities when making investment decisions. In addition, asset managers are increasingly active in engaging with companies on climate change, as well as setting climate-related targets. Climate-related analysis has developed and there is a clear willingness to continue this development. It is important to note, however, that the standards and methodologies are still in their early stages and therefore pose a risk for the Pension Fund's investment operations.

As discussed earlier, climate change also brings about opportunities. The Church Pension Fund aims to capture these opportunities with green investments, which help to finance the transition to a low carbon economy and have a direct effect on current emissions. Opportunities can be found across asset classes, for example through sustainable development theme funds, renewable energy projects, green bonds and timber investments.

3.2. Scenario analysis

The purpose of the scenario analysis is to analyse the current and future emissions of the Church Pension Fund's equity and credit portfolio and compare them to the International Energy Agency's (IEA) three climate scenarios until 2050. Future emissions are estimated using information about companies' market shares, as well as the expected emissions trajectory associated with that sector. It also factors in companies' emission reduction targets. Each scenario is tied to a carbon budget, which specifies the amount of fossil carbon that can be combusted worldwide to remain within a certain temperature band. Scenario Analysis is done in co-operation with ISS ESG and the results are displayed in Picture 2.

Picture 2



Based on the results, the portfolio of the Pension Fund in its current state is aligned with a 2-degree scenario for the full analysed period. However, on a sector basis, the emissions from the conventional electricity sector in particular are higher than the sector's emission budget.

In terms of scenario analysis, it is important to note that the analysis is very sensitive to assumptions in terms of both the climate scenario and future emissions from the portfolio. As the approaches develop and more exact estimates can be achieved, results from the scenario analysis can also be used in the investment process.

4. Risk management

ESG issues, which also include climate-related issues, are part of the Church Pension Fund's risk management plan. According to the risk management plan, ESG risks are followed on two levels: those of asset managers and investments. The climate-related risks are identified, assessed and managed with the following tools:

- Semi-annual **portfolio screening**, where all equity and fixed-income holdings are screened from two perspectives. *Norm-based screening* is used to identify possible environment-related violations of international norms. In addition, the sector-based screening screens holdings that derive their revenue from coal mining or other fossil fuel operations. If necessary, we engage with our asset managers based on the results. In addition, we participate in pooled engagement with ISS ESG, which covers violations of international norms for environmental protection. The screening helps the Pension Fund to identify and manage climate-related risks.

- Participation in **theme-based engagement** with Sustainalytics. The Church Pension Fund is currently involved in engagement concerning climate transition in the cement and steel sectors, which aims to encourage companies to develop their climate strategies and reporting. These developments are crucial for investors to be able to assess the climate-related risks of their investments.

- Proactive **dialogue with asset managers**. The Pension Fund regularly communicates its expectations in terms of climate-related aspects to encourage asset managers to develop their approaches. As a result of these dialogues, asset managers have changed their exclusion criteria to include coal mining and other fossil fuel operations, among other things. Asset managers also produce and provide their own ESG analysis, which is used as part of the risk management process. In addition, carbon footprint and climate aspects are regular topics for discussion in portfolio manager meetings.

- The annual **ESG Survey**, which aims to assess asset managers' capabilities when it comes to climate-related topics. When giving feedback to managers, the Church Pension Fund aims to communicate its expectations on climate reporting and climate-related engagement work, for example.

- **Direct meetings with companies**, where companies are encouraged to enhance the transparency of climate reporting and to consider the effects of climate change on their business strategy. Enhanced reporting will help investors to more efficiently assess the climate risks of their investments.

- **Participation in investor initiatives and collaborative engagement**, which aim to influence companies by pooling investors together, for example. This participation helps to assess and manage climate-related risks. As of today, the Church Pension Fund participates in CDP, Montréal Carbon Pledge and Climate Action 100+.

- Ensuring that the investment team has **the necessary knowledge and competence** when it comes to climate change. This will be achieved by participating in seminars, reading research and training/education.

- Monitoring carbon footprint and environment-related ESG scores directly from the **portfolio management system**. With the data directly in the portfolio management system, the Pension Fund can react to large changes in the portfolio scores.

- Annual **Climate Impact Reporting** with ISS ESG, which provides comprehensive tools to identify climate-related risk concentration and, if needed, make changes in the investment strategy.

5. Metrics & targets

The Church Pension Fund uses multiple metrics when assessing climate-related risks and opportunities. These are summarised in Table 2.

Table 2

Metric	Source	Scope	Frequency
Carbon footprint (incl. attribution and sector level split)	ISS ESG	Full Portfolio (listed equity & credit strategies)	Annual
Power generation green/brown capacity	ISS ESG	Full Portfolio (listed equity & credit strategies)	Annual
% of investment exposed to fossil fuels	ISS ESG	Full Portfolio (listed equity & credit strategies)	Annual
Company Climate Strategy Assessment	ISS ESG	Full Portfolio (listed equity & credit strategies)	Annual
Carbon Risk Rating, which assesses how issuers are prepared for a transition to a low carbon economy.	ISS ESG	Full Portfolio (listed equity & credit strategies)	Annual
Industry & geographical information (which can be used to assess physical risks)	ISS ESG	Full Portfolio (listed equity & credit strategies)	Annual
Global norm violations regarding the environment	ISS ESG	Full Portfolio (listed equity & fixed income strategies)	Semi-annual
Screening of coal mining and other fossil fuel operations	ISS ESG	Full Portfolio (Listed equity & fixed income strategies)	Semi-annual
Carbon footprint	MSCI	Fund/mandate	Ongoing
Environment-related ESG score	MSCI	Fund/mandate	Ongoing
Impact metrics* and ESG analysis	Investment Managers	Fund/mandate	Ongoing
Engagement results	ISS, Sustainalytics, KER	Company	Ongoing
ESG Survey	KER	Fund/mandate	Annual

*The methodologies of the impact metrics used by asset managers vary, which means they cannot be aggregated at a portfolio level. The objective of the Pension Fund is to add portfolio-level impact metrics as part of the risk management process.

The objective of the Church Pension Fund is to consistently reduce the carbon footprint of its investments over time. The tools and methods used to achieve this are listed in the climate change strategy, which can be viewed on our website: https://evl.fi/churchpensionfund/

5.1. Carbon footprint

In 2019 the Church Pension Fund calculated the carbon footprint in co-operation with ISS ESG. The carbon footprint was calculated separately for the equity and credit portfolios. Table 3 shows the results for the equity portfolio, while Table 4 includes the results for the credit portfolio.

Table 3

	Disclosure	Emissions tCO_2e		Relative emissions tCO_2e/M EUR revenue	
	Share of disclosing holdings %	Scope 1&2	Scope 1,2 & 3	Carbon Intensity	Weighted avg Carbon Intensity
Equity Portfolio	73.2%	31,447	98,203	135	139
Benchmark	84.2%	74,619	303,274	271	283

Table 4

	Disclosure	Emissions tCO_2e		Relative emissions tCO_2e/M EUR revenue	
	Share of disclosing holdings %	Scope 1&2	Scope 1,2 & 3	Carbon Intensity	Weighted avg Carbon Intensity
Credit Portfolio	73.7%	30,612	120,398	261	160
Benchmark	81.9%	33,257	127,408	282	205

Scope 1 emissions consider all direct emissions from the activities of an organisation. Scope 2 emissions on the other hand are indirect emissions from electricity purchased and used by the organisation. Scope 3 emissions include all other indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions. Estimating scope 3 emissions is very complicated, which is why the figure can only be considered as a rough approximation.

Carbon footprint is mainly monitored in terms of weighted average carbon intensity, which is also the metric recommended by TCFD. The metric indicates the carbon footprint in tonnes per million euros of revenue. The metric considers the portfolio weights and is comparable across equity and credit portfolios. Carbon intensity on the other hand considers the ownership stake in the company, but not its weight in the portfolio.

In addition, the Church Pension Fund follows the share of disclosing holdings in the portfolio. The higher the percentage, the more exact the carbon footprint calculation. If a company has not disclosed its emissions, they are estimated according to the ISS ESG model, which incorporates hundreds of different factors.

The emissions of the Church Pension Fund portfolio are clearly lower than the benchmark, especially within the equity portfolio. The difference in both equity and credit portfolio can mainly be attributed to underweights in the energy and utilities sectors. In addition, the security selection within the materials sector has a lowering effect on carbon footprint. The share of disclosing holdings is slightly lower compared to the benchmark, which is most likely explained by the higher exposure to small cap companies.

Absolute emissions vary by sector. Usually only a few sectors account for most of the emissions. High-emitting sectors are usually utilities, materials and energy. Low emitting sectors on the other hand are IT, communication services and financials. Picture 3 demonstrates the emission contribution by sector for the equity portfolio of the Church Pension Fund.

Picture 3