
The sustainability performance of FDC's equity and corporate bond portfolio

ANALYSIS – RESULTS – IMPLICATIONS

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Management Summary

Insufficient sustainability performances by companies can put environment and society at risk and can lead to business disruptions across the value chain, legal risks, and reputational damages. Thus, transparency about (potential) sustainability risks is key for investors to build resilience and to mitigate and prevent financial losses of their investments.

Due to the pressing sustainability challenges and steadily increasing pressure on financial actors, the analysis aims to make transparent to what extent the Fonds de compensation commun au régime général de pension (FDC) - which is a pension fund for private sector employees in Luxembourg - integrates sustainability risks into its investment strategy as well as decision-making processes. The conducted analysis is based on data from one of the most relevant sustainability rating agencies - ISS ESG.

Key findings on FDC's sustainability investment strategy make failures to an ambitious implementation of its own exclusion list apparent. Despite an investment ban on companies with violations against the principles of the United Nations Global Compact, companies such as Posco International or Rosneft Oil that are reported associated with failures to comply with these principles can be found in FDC's

investment portfolio. Further, systematic human rights violations by the FDC investee company BHP in a sustainably labelled portfolio become visible. Overall, the FDC lacks ambitious and consistent exclusion criteria to support political or societal goals and to rule out its sustainability risks. This applies to its actively and passively managed funds equally.

Key findings on the FDC's climate-related sustainability performance reveal shortcomings in systematically integrating climate criteria in its investment strategy and decision-making processes that may materialize in financial risks in the future. The analysis of the carbon footprint shows that the aggregated actively managed portfolio shows a 35% higher relative carbon footprint, and the aggregated passive managed portfolio a 40% higher relative carbon footprint than the MSCI World Index benchmark.¹ Although every degree Celsius is important in combating climate change, the FDC's aggregated equity and corporate bond portfolio is on an emissions trajectory of 2.7°C that exceeds its carbon budget over the next six years already. The majority (60%) of the FDC's sub-funds are on a carbon emissions pathway of >2°C with even two sub-funds heading for a global warming of 6°C instead of 1.5°C. Already a limit of global warming to 2°C means that the Arctic

¹ Of particular interest for the evaluation of individual funds is the comparison with relevant benchmark indices. Therein, the MSCI World Index is a well-

respected benchmark showing performances across many industry groups and international regions.

Ocean could become ice-free in the summer once every 10 years. The FDC is far away from Paris compatibility. Despite increasing regulatory pressure towards a low-carbon economy globally, 60% of FDC's actively managed investment value is covered by companies without sufficient and varied efforts to align their business models with a low-carbon economy. This indicates high potential financial transformation risks across investee companies and FDC's investment value.

In order to manage these risks, firstly the FDC needs to systematically anchor a forward-looking climate approach in its investment strategy explicitly requiring its asset managers to systematically integrate ambitious climate criteria into risk management and decision-making processes. Secondly, the FDC needs to develop and implement climate-related exclusion criteria, e.g. for controversial energy extraction or non-transformable business models. Thirdly, a clear engagement approach for those investee companies highly exposed to future transition risks, e.g. due to high carbon footprint and the lack of a climate target which could prove efforts to align current business models with a low-carbon economy is needed. All these adjustments can contribute to decreasing financial transition risks and to securing the FDC's sustainability as well as financial performance.

With regard to its human rights-related sustainability performance, the FDC's efforts look even weaker.

Key finding on the FDC's human-rights performance show a striking lack of concrete actions and strategies to end misaligned investments which contribute to human rights abuses and negative impact on society. The FDC is significantly exposed to high-risk industries from a human rights perspective such as information and technology or oil, gas and consumable fuels. In addition, there are proven cases of human rights violations by its investee companies, e.g. by the multinational mining, metals and petroleum company BHP. Also, particularly problematic is the portfolio's negative impact on the internationally recognized Sustainable Development Goals (SDGs) such as SDG 8 "Decent Work & Economic Growth" as well as SDG 12 "Responsible Consumption & Production".

In order to manage these human rights risks in a targeted manner, the FDC needs a clear understanding and transparency of its exposure to human rights risks. Human rights due diligence is a strong tool for investee companies as well as investors to take these risks into account for their decision-making processes. Another tool of importance - not only from a climate perspective - is a clear engagement strategy especially towards high-risk sectors and companies. So far, the FDC has not shown any recognition that avoiding and mitigating human rights risks helps align investment activities with the growing demands of beneficiaries and regulators ensuring better financial risk management.

1 Introduction

Sustainability risks are a threat to environment and society and at the same time potential driver of negative financial impacts on the value of an investment and/or the return on that investment. Thus, a systematic integration of sustainability criteria into the investment strategy and the portfolio composition is crucial. Therein, sustainability encompasses climate and human rights topics equally.

With the ratification of the Paris Agreement, the global community has set itself the goal of limiting global warming to well-below 2°C and pursuing efforts to limit it to 1.5°C. As the threat of climate change continues to grow, its adverse impacts on biodiversity and society due to the increase in the intensity and frequency of fires, storms or periods of drought become more and more visible. The urgency for structural change in the current global economic system towards climate neutrality has been rising worldwide. This will involve a profound transformation of almost all sectors of the real economy - from agriculture and transportation to industry and buildings. For example, achieving the European Union's (EU) climate target of greenhouse gas neutrality by 2050 would require additional investments in the EU's energy system and infrastructure of €260 billion per year.² Therein, the public and private finance sectors have a central

leverage function as an enabler of the required well-below 2°C compatible transformation of the real economy.

At the same time, regulatory measures to combat climate change are becoming stricter, research into low-emission technologies is growing and consumers are increasingly demanding sustainable products. The changing landscape holds opportunities but also financial risks, especially for emission-intensive companies and their investors. For institutional investors, this means that climate change risks and risks evolving from the economy's transformation towards carbon neutrality (transition risks) can only be reduced and transformation opportunities can only be exploited if climate criteria are systematically integrated into investment decision-making processes. This also applies to the Fonds de compensation commun au régime général de pension (FDC), a pension fund for private sector employees in Luxembourg. The FDC claims in its Sustainability Investor Report published end of 2020 that its funds perform well from a climate perspective.³ This is critically examined with an analysis of the FDC investments.

Like all businesses, investors have the responsibility to respect human rights. Human rights include civil and political rights, e.g. the rights to life, freedom from

² See *EUROPEAN COMMISSION* (2020).

³ See *FONDS DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION* (2020a).

harassment and discrimination, privacy, and freedom of expression; and economic, social, and cultural rights, e.g. the rights to work, social security, and education; and labour rights, e.g. the rights to freedom of association, collective bargaining, and freedom from forced labour and child labour.⁴ Many issues that are often categorized as environmental or governance topics, e.g. access to water, tax justice, and climate justice - also have a clear human rights basis. While for businesses respecting human rights is closely linked to the resilience of their value chain, investors are

increasingly concerned about operational, financial, legal, and reputational risks of their investee companies if they fail to manage human rights risks.⁵ Yet, the FDC takes a rather one-sided view of sustainability and puts a very strong focus on climate topics and the United Nations Sustainable Development Goals (hereafter SDGs) in its Sustainable Investor Report. The FDC's blind spot regarding human rights becomes clearly visible. Thus, this analysis aims at creating transparency on FDC's human rights strategy and performance

2 Analysis of FDC's sustainability performance

To critically assess the FDC's sustainability performance, an understanding and according review of the FDC overall investment strategy as presented in the FDC Sustainable Investor Report 2020 builds the foundation for further sustainability analyses (see section 2.1). The analysis will then evaluate climate change risks and risks resulting from the companies' transformation towards carbon neutrality (transition risks) (section 2.2). In addition, a critical assessment of the human rights performance of companies in the FDC portfolio is included within the FDC investment strategy and the FDC Sustainable Investor Report 2020 (section 2.3).

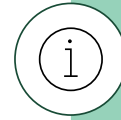
The underlying database for the climate as well as human rights-related sustainability

assessment includes the FDC equity and corporate bond portfolio meaning equity and fixed income from companies and excludes fixed income from governments. The sub-funds of the FDC (as of Q4/2020) were replicated and evaluated using the ISS ESG sustainability rating agency's database (see Annex for a more detailed description). The final database on which the analysis results are based on covers approx. 92% of the FDC's total equity and corporate bond investment value.

⁴ See *INTERFAITH CENTER ON CORPORATE RESPONSIBILITY* (2020).

⁵ See *IBID.*

ISS ESG is the responsible investment arm of Institutional Shareholder Services Inc. ("ISS"), a global provider of environmental, social, and governance solutions for asset owners, asset managers, hedge funds, and asset servicing providers. From integration into investment decisions to informing company engagements and execution through proxy voting, ISS ESG brings expertise across a range of sustainable and responsible investment issues, including climate change, sustainable impact, human rights, labor standards, corruption, controversial weapons, and many more. ISS ESG partners with clients to understand their unique investment and business objectives to deliver the relevant insights and data solutions needed throughout the investment process (*ISS ESG*, 2021).



2.1 Shortcomings of the FDC's responsible investor policy

No consistent sustainable investment strategy

The FDC has developed a guideline for responsible investing which addresses the consideration of sustainability criteria when selecting asset managers for its various sub-funds. However, the asset manager selection questionnaire only asks whether there is any kind of sustainability approach and what it looks like. The FDC does not formulate any detailed requirements for the type, scope and impact of such an approach.⁶ Thus, the FDC does not impose any requirements on its asset managers to follow a systematic investment strategy in line with the SDGs, the Paris Agreement or any other international human rights and climate legislation. While many of the mandated asset managers have joined the Net Zero Asset Manager Alliance that aims at supporting investing aligned with net zero emissions by 2050 or sooner, other mandated asset managers only follow a broader climate-related sustainability approach such as the

mandated Dimensional Fund Advisors Limited.⁷

At the same time, the asset managers contracted by the FDC lack to systematically consider human rights in their understanding of sustainability. While all of them mention that environmental, social, and governance (ESG) factors are integrated in the construction of their respective portfolios, they mainly focus on the environmental or climate aspects while neglecting social or human rights-related considerations. Out of 12 asset managers, only five mention human rights at all, and out of these only two (Allianz, Axa) give some details on their human rights policy within their sustainability approaches. Of the remaining asset managers, four do not refer to human rights directly but briefly mention that they consider the principles of the United Nations Global Compact or the International Labour Organization's conventions in their investment decisions. Three asset managers (CBRE, LaSalle,

⁶ See *FONDS DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION* (2020a).

⁷ See *FONDS DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION* (2020a), *FONDS DE COMPENSATION*

COMMUN AU RÉGIME GÉNÉRAL DE PENSION (2020b), *NET ZERO ASSET MANAGERS INITIATIVE* (2022), *DIMENSIONAL FUND ADVISORS* (2022) und *NATIXIS DISTRIBUTION, LLC* (2022).

Wellington) do not mention human rights at all.

The FDC solely transfers responsibilities for ambitious sustainable investment strategies to its mandated asset managers. It needs to be noted that 50% of its investment value follow a passive investment approach. On the one hand, this means that the investment strategy is limited, most commonly to the choice of index fund bought. For example, the FDC could choose to passively invest in an ESG index that follows an ambitious ESG strategy. On the other hand, passive managers can also replicate a broad market index but exclude the stocks that are most problematic from a sustainability perspective.⁸ Common examples of industries excluded are tobacco, weapons, gambling, and alcohol. In recent years, other industries such as coal have emerged as popular targets for exclusion.⁹ While, the exclusion of certain companies is an active decision, this approach would allow the FDC to apply a minimum sustainability standard to its passively managed sub-funds.

The Sustainable Investor Report has been a first step to create some transparency on the FDC investment strategy, yet it still lacks concrete targets and measures defined in line with political and societal targets.

Non-comprehensive exclusion list

The FDC emphasizes that its investment universe complies with international conventions by excluding companies that violate international standards as set out in the ten principles of the United Nations Global Compact.¹⁰ This affects very few companies compared to the total investment universe. Only 126 companies (as of Q4/2020) are excluded from the FDC investment universe while its aggregated equity and corporate bond portfolio covers holdings from approx. 5,700 companies.¹¹ Despite the implementation of the exclusion list, the analysis showed that there are still several companies with verified violations against the principles of the United Nations Global Compact in FDC's actively managed equity and corporate bond portfolio on which the FDC exclusion criteria applies.¹²

For example, a case against the environmental principles of the United Nations Global Compact has been linked to the subsidiaries of its investee company Rosneft Oil which have been reported to contribute to extensive oil spills in Russia. The environmental degradation caused by these constant oil spills has resulted in severely polluted waters, soils, and forests. The company's subsidiaries alone are responsible for 78% of the soil contaminated by oil spills in one of the federal regions of

⁸ See *THE US SIF FOUNDATION* (2020).

⁹ See *IBID.*

¹⁰ See *FONDS DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION* (2020a).

¹¹ See *FONDS DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION* (2020a).

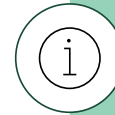
¹² A total of about 2,200 companies could be assigned to this portfolio and covered with data by ISS ESG.

Russia. The company's subsidiaries have already faced financial claims from the authorities for ongoing and historical spills that negatively impact the environment.¹³

The steel-making investee company Posco International, has also been reported to violate the United Nations Global Compact principles. The company was negligent in occupational health and safety management and failed to meet its responsibility to prevent workplace accidents. Since 2018, there had been 18 death cases at the company's steel plants in South Korea according to the Korean Metal Workers' Union.¹⁴ In addition, the company reportedly denies union representatives access to accident sites or participation in investigations and does not disclose the cause of accidents after investigations are completed, leaving workers exposed to similar risks in the future.¹⁵

Besides a lack of ambitious and consistent exclusion criteria supporting political or societal goals, the FDC fails to implement its yet existing weak exclusion as exemplarily shown by these two companies reported violating the principles of the United Nations Global Compact posing a threat to society and environment.

Based on ten universal principles – covering human rights, the environment, international labor standards and the fight against corruption – and the Sustainable Development Goals, the **United Nations Global Compact** pursues a vision of a more inclusive and sustainable economy for the benefit of all people, communities, and markets, today and in the future (*UN GLOBAL COMPACT*, 2022).



Limited engagement activities

The FDC states that it supports engagement processes to change the policy and governance mode of some companies in question.¹⁶ This applies to companies that are not yet on its exclusion list but are granted the status "under observation". This means that those companies are linked to ongoing investigations or for which engagement is still ongoing.¹⁷ However, the FDC lacks to provide transparency on its concrete engagement policy or engagement requirements for its mandated asset managers. Also, there is no transparency on companies which had been granted the status "under observation" and how successful engagement processes with these companies have been. Again, the FDC relies primarily on investment and engagement strategies and policies of its asset managers. This also applies to engagement strategies and activities aiming at supporting emission-intensive companies in their transition towards a low-carbon economy. Investor action in

¹³ See *PROYECTO ENVIRONMENTAL JUSTICE ATLAS* (2020).

¹⁴ See *INDUSTRIALL* (2021).

¹⁵ *IBID.*

¹⁶ See *FONDS DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION* (2020a).

¹⁷ *IBID.*

terms of engagement can be a tool to advance companies' transition towards a low-carbon-economy and to prevent human rights violations.

Depending on the size of the investment, individual discussions, written correspondence, or the Annual General Meeting can be used as a platform for engagement. This is not sufficiently exploited by the FDC as can be seen by its current responsible investor strategy. A clear engagement approach also includes strategies for engagement activities that do not lead to intended results. As a last step, this might mean to divest from the investee company. For this, clear guidelines that are publicly available and whose implementation can be monitored are needed, e.g. how company's efforts to avoid divestment are assessed or which timeline is followed until divestment is implemented. The sustainable investing approaches of the FDC's mandated asset managers do not consistently make clear statements in this regard.

Too strong focus on LuxFLAG labels

Sustainability labels for investments can provide guidance to consumers and investors to make sustainability-related decisions without many efforts. The growing number of labels makes it difficult to distinguish the criteria behind the systems which might lead to confusion and misunderstanding about the meaning of the

label. The task of a national labelling agency such as LuxFLAG is therefore to avoid greenwashing and promote sustainable stringency. 75% of the FDC's actively managed transferable securities hold a LuxFLAG label highlighting the sustainability of their investments. For example, the LuxFLAG ESG label requires to describe the applied ESG strategy and ESG criteria and to explain how they are used in the investment process. There is no further requirement for the methodological approach of the ESG strategy. It is also required to comply with the exclusionary guidelines of LuxFLAG (e.g. nuclear energy, harmful environmental practices).¹⁸ The LuxFLAG ESG label defines rather minimum standards in its eligibility criteria and is therefore to be evaluated as a very weak indicator for sustainable performances of investments. However, the FDC's communication about the labels suggest a sustainable investment approach for the majority of FDC's actively managed transferable securities. Even though requirements for sustainability labels in the EU are increasing, labelled investments cannot rule out the possibility that investment activities may result in negative impacts on the environment and society.¹⁹ For instance, the FDC investee company BHP within the LuxFlag ESG labelled portfolio SICAV Actions Monde – Actif 2 is systematically linked to human

¹⁸ See *LUXFLAG* (2021).

¹⁹ For further examples of adverse impacts on environment and society, please see case examples.

rights violations (see case example of section 2.3).

Interim conclusion

The need for action for a comprehensive and ambitious sustainable investment strategy becomes visible, even if the FDC has taken first steps. The FDC's most direct approach towards integrating sustainability in its portfolio is the implementation of weak exclusion criteria. There are no

further measurable sustainability targets anchored in its investment strategy that the FDC wants to achieve, e.g. achieving a carbon neutral portfolio until 2050 or reducing its negative impacts on SDGs. This unambitious approach cannot be concealed by highlighting the share of ESG labelled funds, which is proven to not rule out negative impacts by the FDC's investment activities.

2.2 Climate change: the investment risk

The Intergovernmental Panel on Climate Change (IPCC) predicts that the effects of climate change already being felt today will intensify even if global warming is limited to 1.5°C. The latest Global Risk Report by the World Economic Forum published in January 2022, confirms the critical importance of this issue and highlights the fear of a disorderly and disruptive transition with late and rapid policy shift towards a low-carbon economy destabilizing the financial system.²⁰ Such a disorderly transition will likely affect carbon emission-intensive sectors and their supply chains the most. Thus, the analysis of the FDC's investments does not only assess the investment funds' impact on climate but also the potential financial impact of climate risks associated with emission-intensive companies in its portfolio. Derived recommendations for action relate primarily to adjustments to the

investment strategy for actively managed funds and investee companies on which the FDC has the potential to directly exert its stewardship.

Poor carbon footprint performance driven by some very emission-intensive funds

Assessing climate impacts and risks starts with evaluating and understanding the direct financed emissions associated with the FDC's investing activities. The FDC finances 1,001,741 tons of direct carbon emissions through its aggregated equity and corporate bond portfolio.²¹ A better indicator in order to compare the carbon emission performances of different portfolios, sub-funds or benchmarks is the relative carbon footprint that expresses the

²⁰ See *WORLD ECONOMIC FORUM* (2022).

²¹ For further description on the methodology and database from which analysis results are derived, please see Annex.

carbon emissions footprint per investment sum (tCO₂e/Total Investment Value).²²

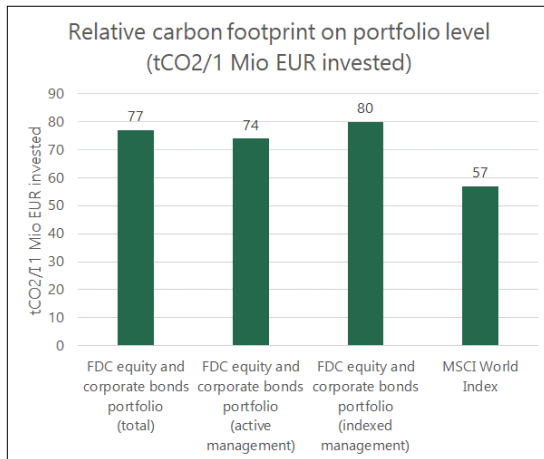


Figure 1: Comparison of relative carbon footprints on portfolio level (tCO₂/ 1 Mio EUR invested).

While carbon footprints do not measure climate risk directly, they are a valuable indicator allowing to identify assets that are likely to be exposed to future climate risks.

The analysis shows that the relative carbon footprint performance of the FDC's analysed aggregated equity and corporate bond portfolio is 35% higher than the MSCI World Index, for the indexed managed portfolio even 40% higher (see Figure 1). The sub-funds driving the FDC's emissions exposure are mainly the FDC SICAV Actions EMMA Indexé and the FDC SICAV Actions EMMA Actif 1 as these funds especially invest in companies from emission-intensive sectors, such as

materials as well as fossil fuel-based utilities and energy.

The analysis also shows that carbon footprints do not significantly differ across investment management strategy types (see Figure 1).²³ But the comparison with the benchmark reveals a stronger exposure to emission-intensive companies than the MSCI World Index. This indicates an exposure to potential high financial transition risks. Therein, it is remarkable that only 58 companies (with an investment value of approx. €180 million), are responsible for 60% of analysed total emissions.²⁴ These are mainly investee companies from the steel and cement industry that are some of the largest sources of "hard to abate" emissions. The decarbonization of these industries needs strong transformation efforts. This shows that targeted engagement activities with just a few companies would have a significant impact on financed emissions and supporting transformation activities towards a low-carbon economy. Divestment as last resort should be examined, if a company does not show any efforts in decarbonizing its business activities.

²² Due to data availability and quality, subsequent results are derived based on direct emissions' (scope 1 and scope 2) corporate data. Even though indirect emissions (scope 3) can have major influence on financed emissions, e.g. for the automotive sector, meaningful statements on scope 3 carbon footprints are not possible due to the current insufficient data basis.

²³ An actively managed investment fund has a management team making the decisions for the fund. A passively or indexed managed fund does not have a proactive management team but a portfolio manager that tracks a specific index.

²⁴ Please see Annex for a brief description on the methodological approach.

Only few issuers show efforts to align with a low-carbon economy

Companies - from the real economy as well as the financial sector - that are willing to transform and to align their business models with a low-carbon economy allow for better risk control of future climate risks in investment portfolios. Therefore, ahead of the latest global climate conference that was held in Glasgow in November 2021, 220 global financial institutions that hold \$29.3 trillion in assets asked 1,600 emission-intensive companies to urgently set a science-based emissions reduction target to limit global temperature increase to 1.5°C.²⁵ The FDC did not join the call for action, despite the FDC's low share of investment value covered by companies that set a science-based emissions reduction target.

The MSCI World Index that serves as benchmark shows that 28% of its investment value is covered by companies with verified Science Based Targets²⁶ and further 14% is covered by companies with the commitment to set a Science Based Target. The FDC shows a slightly worse performance for its active managed funds: only 23% of the FDC's actively managed equity and corporate bond portfolio value is covered by issuers with a validated Science Based Target. Further 16% of the investment value is covered by issuers with commitments to set a Science Based

Targets. For the sub-funds FDC SICAV Actions Monde Small Cap Actif 1 and the FDC SICAV Actions EMMA Actif 1 the share of investment value covered by issuers with approved Science Based Targets is as low as 2%. Analysing the indexed managed funds reveals a similar picture with 21% of the corresponding investment value covered by companies with verified Science Based Targets and further 12% of the investment value covered by companies committed to set Science Based Targets. In this case, the worst performing sub-fund is the FDC SICAV Actions EMMA Indexé with only 1% of the corresponding investment value covered by companies with verified Science Based Targets and only 5% with a commitment to Science Based Targets.²⁷

The FDC's investment value that is not covered by issuers with validated Science Based Targets or any commitments to set one should receive special attention by the FDC as this is a big share of the portfolio that is unlikely to be aligned with a low-carbon economy and thus inducing potential financial climate risks. Increased forward-looking risk management and a clear engagement approach are needed here.

²⁵ See *CARBON DISCLOSURE PROJECT* (2021).

²⁶ The Science Based Targets Initiative guides companies in setting science-based targets and validates that their set Science Based Target is in line with the

latest climate science to meet the goals of the Paris Agreement.

²⁷ The sub fund SICAV Actions EMMA Indexé is one of the ten largest sub funds of the FDC.

Comparison with climate change scenarios reveals potential exposure to transition risks

With such a great share of investment value covered by companies that indicate no or only limited efforts to align their business activities with a low-carbon economy, special emphasis of the analysis lies on the assessment of the FDC portfolio's temperature performance. The evaluation of temperature alignment is of major importance for investors and asset managers to manage and communicate their investment(s)' climate performance and compliance with the Paris Agreement.

The analysis results show that the aggregated equity and corporate bond portfolio is associated with a potential temperature increase of 2.7°C by 2050. In addition, the portfolio's carbon budget (see below) exceeds the carbon budget in the year 2028 already. This means that over the next six years, the companies in the FDC portfolio will emit as many carbon emissions as they would be allowed to under a Paris-compatible scenario until 2050.

12 out of 20 analysed funds (60%) (see Annex) are on a carbon emissions pathway of above 2°C by 2050 with even two sub-funds heading for a 6°C emissions pathway: the FDC SICAV Actions EMMA Indexé and SICAV Actions EMMA Actif 1. Four funds are in line with a 1.5°C emissions pathway and in line with the goals of the Paris Agreement. It must be emphasized

that these funds are actively managed. Thus, the FDC's actively managed portfolio temperature performance is slightly better with an associated temperature increase of 2.3°C by 2050. The portfolio's carbon budget exceeds the carbon budget of a <2°C emissions pathway in the year 2033. In contrast, the passively managed funds are associated with a potential temperature increase of 3.2°C by 2050 and the portfolio already exceeded its carbon budget in 2021. Three sub-funds heading towards a carbon emissions pathway of above 2°C obtained a LuxFLAG label which highlights that sustainably labelled funds cannot prevent negative impacts by default (see also section 2.1).

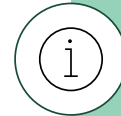
The results are based on climate scenario analysis that has already become a well-established tool for measuring portfolios' emission pathway alignment. Commonly used are climate scenarios provided by the International Energy Agency. It needs to be noted that the FDC results are based on ISS ESG data that analyses the current and future emission intensity of an issuer based on the International Energy Agency's Sustainable Development Scenario. This scenario is only aligned with limiting the global temperature rise to 1.65°C and not to 1.5°C.²⁸ If the 1.5°C emission scenario was the underlying scenario instead, the carbon budgets would have been exceeded earlier and temperature performances would have been even worse. This makes clear that the FDC's

²⁸ See *INTERNATIONAL ENERGY AGENCY* (2021a).

equity and corporate bond portfolio in general and its passively managed sub-

funds in particular are threatened by future transition risks.

Climate scenario analysis plays a crucial role to assess climate risks to investments, the financial system, the real economy and the financial system. Therein, climate scenarios explore different climate change futures and emissions pathways to a carbon budget. The **carbon budget** is the amount of CO₂ that can be emitted worldwide to maintain a high probability of limiting climate change to a certain level. The Intergovernmental Panel on Climate Change's stated in summer 2021 no more than 400 gigatons of CO₂ must be emitted to limit global warming to a maximum of 1.5°C (Intergovernmental Panel on Climate Change 2021). With current annual emissions of approx. 42.2 gigatons of CO₂, the budget for the 1.5°C threshold would already be used up in less than 8 years (MERCATOR RESEARCH INSTITUTE ON GLOBAL COMMONS AND CLIMATE CHANGE 2022).



Fossil fuel exposure, an indicator for transition risks in the portfolio

For a successful transition towards a low-carbon economy, it is critical to shift energy production from fossil fuels to renewable sources. Utilities that solely rely on fossil fuels without an orderly plan to phase out or to replace their energy resources are likely to have higher transition risks. The energy mix of the FDC's equity and corporate bond portfolio is slightly better than the benchmark performance of the MSCI World Index in regard to renewables. The FDC's aggregated equity and corporate bond portfolio displays an energy mix of 20% renewables, 34% nuclear, and 45% fossil fuels. Results do not differ significantly across the aggregated actively and passively managed portfolios. In comparison, the MSCI World Index's

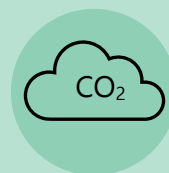
energy mix displays 17% renewables, 24% nuclear, and 59% fossil fuels. In line with analysis findings on the temperature performance, two funds have a significant higher fossil fuel exposure: again the funds FDC SICAV Actions EMMA Indexé and SICAV Actions EMMA Actif 1 show the worst performances with 70% fossil fuel exposure. Even though the FDC does not perform worse than the benchmark here, the 45% fossil fuel share in its energy mix combined with the findings on the high share of investee companies showing no efforts to align their future business models with a low-carbon economy as well as the problematic temperature performance, display risks that may materialize in the future if appropriate action to systematically integrate climate criteria into investment strategy is not taken.

CASE EXAMPLE

Investments supporting coal projects threaten ecosystems and livelihoods

Carbon emissions from existing coal-fired power plants alone exceed the carbon budget for a 1.5°C or 2°C emissions pathway.²⁹ With its 23 coal power plants, the National Thermal Power Corporation is India's largest thermal power generating company. The company has been involved in mercury poisonings, illegal wastewater effluents, improper disposal of coal ash, and allegations of corruption in India and abroad.³⁰ This is a FDC investee company, found in one actively and one passively managed fund.³¹ The company has long been associated with the construction and operation of the highly critical Rampal coal

power plant in Bangladesh that is located just outside the largest mangrove forest in the world which at the same time is a UNESCO world heritage site and an important CO₂ reservoir.³² Now, the ecosystem - but also the livelihood of more than two million people that depend on the forest's resources - are threatened.



120 million
additional tons of carbon emissions every year due to destruction of ecosystem

²⁹ See *CARBON BRIEF* (2020).

³⁰ See *RAINFOREST ACTION NETWORK* (2016).

³¹ See *NTPC LTD.* (2015).

³² See *BANKTRACK* (2016c).

As a result of the destruction of the ecosystem, up to 120 million additional tons of carbon emissions are expected to end up in the atmosphere every year. This corresponds to around ten percent of global carbon emissions from deforestation.³³



Energy Agency that for reaching the 1.5°C climate target no new un-abated coal plants should be approved for development and no new coal mines or mine extensions by 2021. In addition, a phase-out of all unabated coal- and oil-fired power plants would be needed by 2040. Any investment in coal-based businesses such as the National Thermal Power Company bears not only transformation and reputational risks in the corresponding FDC funds, but also a massive threat to combat global warming.



Operations being started over the course of 2022, the coal-fired power plant is assumed to emit around eight million tons of carbon emissions each year.³⁴ This alone equals to Luxembourg's annual carbon emissions in 2020.³⁵ This contrasts sharply to the assumptions of the International



8 million

tons of carbon emissions per year from new coal-fired power plant

³³ See *ENERGIEZUKUNFT* (2018).

³⁴ See *BANKTRACK* (2016c).

³⁵ See *HANNAH RITCHIE AND MAX ROSER* (2020).

Exposure to controversial energy extraction business practices bears transition and reputation risks

The FDC is invested in companies linked to controversial and unconventional energy extraction business practices, such as arctic drilling, hydraulic fracturing (also known as fracking) and the exploration of oil sands as well as shale oil and gas. Often, these business practices are linked to harming ecosystems and human health by threats including drinking water contamination or habitat destruction and natural resources impacts.³⁶ Investors and environmentalists have already put pressure on major oil companies to stop oil production based on oil sands, e.g. the Canadian oil sands, the world's fourth largest oil deposit and by some standards one of the most polluting.³⁷ As a result, financial institutions have put companies involved in controversial energy extraction or oil and gas projects on their exclusion list.³⁸ Even holding small shares of companies involved in these business practices, such as the FDC's exposure to China Petrochemical Corporation bears the risk of potential financial impact due to transition, legal, and reputational risks and shows the need to adjust the FDC's exclusion criteria.

Companies negatively contribute to SDG on climate action

Financial actors and companies increasingly aim to align their business activities with the SDGs. This is also what the FDC tries to communicate with its Sustainable Investor Report 2020 by highlighting the positive impacts of its investment activities on the SDGs. Negative impact is not analysed and / or mentioned.³⁹ While 29% of the companies in the FDC's actively managed funds make indeed (limited) positive contributions to the SDG on climate action, the analysis also shows that there is a negative impact from 47% of the companies that the FDC could address directly as they are covered by an active management approach (see Figure 2).



³⁶ See *UMWELTBUNDESAMT* (2012).

³⁷ See *THE WALL STREET JOURNAL* (2022).

³⁸ See *BANKTRACK* (2016a).

³⁹ For a more detailed description on what a risk-based framework associated with the Sustainable Development Goals might look like and the FDC's overall SDG performance, please see section 2.3.

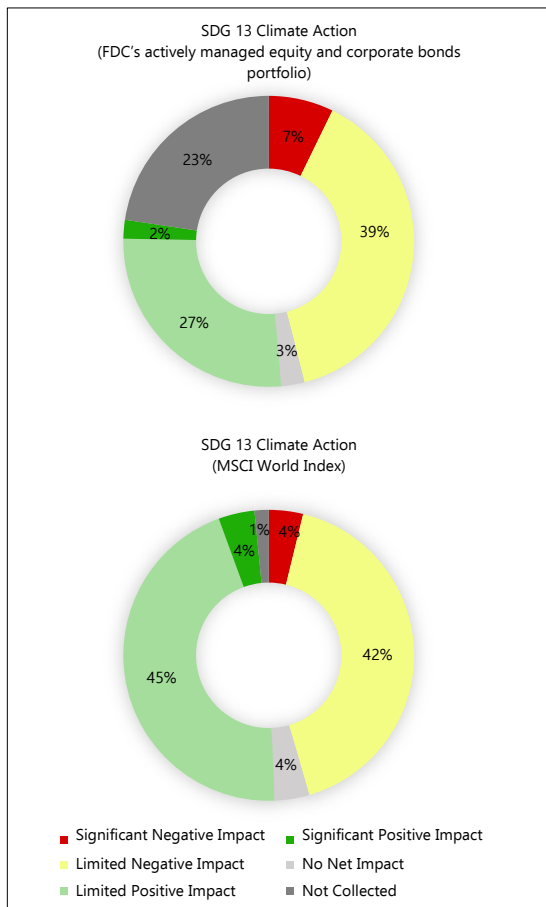


Figure 2: Impact of FDC's actively managed funds on Sustainable Development Goal on climate action (by share of companies).

Interim conclusion on the FDC's climate performance

The analysis of the FDC's climate-related sustainability performance revealed that significantly more efforts need to be made to systematically integrate climate criteria into the FDC's investment strategy and decision-making processes. Otherwise, the FDC risks financial repercussions due to transition risks associated with investee companies lacking efforts regarding a transformation towards a low-carbon

economy on the one hand and advancing climate change on the other hand. Without a countermeasure, the companies in the FDC's investment portfolios will already emit the amount of carbon emissions in the next six years that they would have been entitled to by 2050 in a world in line with the Paris climate target. After all, the majority (60%) of investee companies do not have climate targets backed by science and show no strong efforts to align their business models with a low-carbon economy. This indicates high transition risks and potential financial losses associated with these assets.

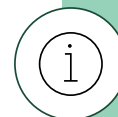
In addition to integrating forward-looking climate criteria in risk management and to prominently anchor such an approach in its investment strategy, further adjustments to the FDC's investment strategy need to be done. This includes the development and implementation of stronger exclusion criteria, e.g. for controversial energy extraction. Further, a clear engagement approach with those investee companies highly exposed to future transition risks, e.g. due to high carbon footprint and the lack of a climate target which could prove successful in aligning current business models with a low-carbon economy is needed. This includes divestment as last resort. All these adjustments can contribute to decreasing financial transition risks and to secure the FDC's sustainability as well as financial performance.

2.3 Human rights: the investment blind spot

Human rights due diligence is a way for companies to proactively manage potential and actual adverse human rights impacts. It includes four core elements:

- Identifying and assessing actual or potential adverse human rights impacts that the company causes or contributes to through its own activities, or which may be directly linked to its operations, products or services by its business relationships;
- Incorporating the findings of impact assessments into all relevant business processes and taking appropriate action;
- Tracking the effectiveness of policies and procedures to address adverse human rights impacts; and
- Communicating how impacts are being managed.

Source: OHCHR 1996 – 2021.



The FDC's investing strategy has blind spots regarding human rights

The responsibility to respect and protect human rights applies to all businesses equally, including the financial sector.⁴⁰ Investors have the potential to impact human rights - positively and negatively. They might contribute to or be associated with human rights abuses if they provide loans or other financial support to companies violating human rights principles.⁴¹ Therefore, for investors to meet their human rights responsibility requires human rights criteria to be integrated into risk management and decision-making processes.

Especially companies with business activities linked to agricultural products, apparel, automotive manufacturing, extractives and information and communication

technology manufacturing are at high-risk to contribute to human rights abuses such as the failure to respect the right to an adequate standard of living, the right to just and favourable conditions of work, or indigenous rights.⁴² The analysis of the FDC's actively managed equity and corporate bond portfolio reveals that 413 companies can be mapped to human rights high-risk industries. Therein, the majority belongs to companies with business activities linked to information, technology, and communications equipment (see Figure 3).⁴³ Human rights due diligence is of particular importance for these 413 companies from high-risk industries. However, 94 cases with past and on-going failures to conduct human rights due diligence are reported among these companies. This number even increases to 282 reported cases by 196 companies with reported

⁴⁰ See *UNITED NATIONS* (2011).

⁴¹ See *BANKTRACK* (2016b).

⁴² See *WORLD BENCHMARKING ALLIANCE* (2022).

⁴³ This equals 20% of all issuers that we could map using the ISS DataDesk. Since this does not cover all issuers in FDC's portfolio, the share is likely to be higher.

past and on-going failures to conduct human rights due diligence for the entire actively managed equity and corporate bond portfolio. That amounts to 20% of all analysed companies within the portfolio. Out of these 196 companies with reported human rights due diligence failures, 30 companies are banks which represent the largest industry group among the companies with human rights due diligence failures (see Figure 4). But also investee companies with business activities in oil, gas, and consumable fuels (15 cases), automobiles (11 cases), and technology hardware, storage & peripherals industry groups (11 cases) fail to conduct human rights due diligence.

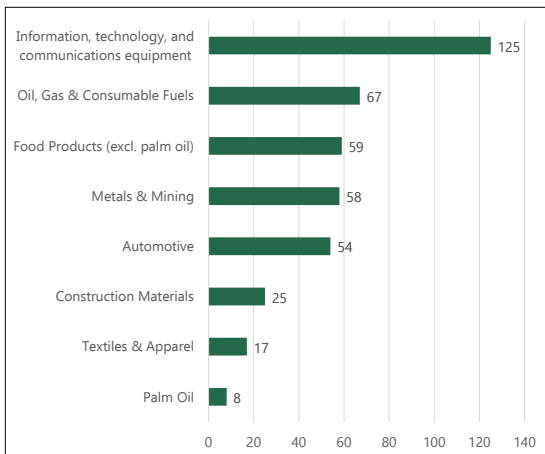


Figure 3: Number of companies in the FDC's actively managed portfolio from human rights high-risk industries.

Even though these investee companies could be addressed directly as they are covered by an active investment approach, the FDC fails to systematically address and integrate human rights risk in its

sustainable and responsible investment strategy, thus hindering the elimination of human rights abuses in its portfolio.

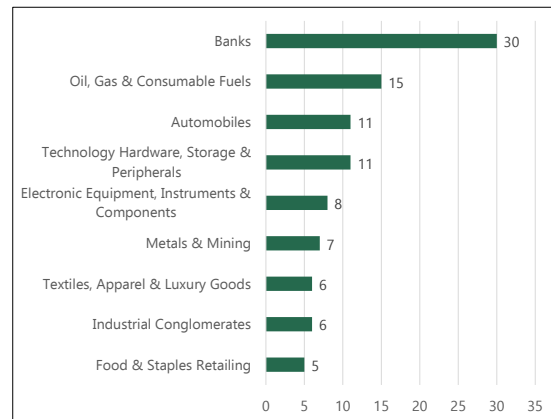


Figure 4: Top 10 industry groups in the FDC's actively managed portfolio with past and ongoing human rights due diligence instances.

Future investment risk due to negative impact on Sustainable Development Goals

The FDC states that it encourages its mandated asset managers to contribute a positive impact to the SDGs (for a definition see information box at section 2.2).⁴⁴ While the FDC emphasizes in its Sustainable Investor Report published end of 2020 that its investment activities contribute a positive impact to 17 goals, (possible) negative impacts are not discussed.⁴⁵ The ISS ESG data-driven analysis of the FDC's actively managed portfolio comes to less positive conclusions and shows that the FDC does not exhaust its potential for developing an ambitious and sustainability-driven investment strategy. The majority of investee companies in the FDC's actively

⁴⁴ See FONDs DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION (2020a).

⁴⁵ See FONDs DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION (2020a).

managed portfolio negatively impact the SDGs (see Figure 5). Strong negative impact can particularly be seen on the SDG 8 "Decent Work & Economic Growth" as well as on SDG 12 "Responsible Consumption & Production".⁴⁶ The analysis shows that action is needed for the FDC to reduce its negative impacts on SDGs that might lead to human rights violations as well as future

investment risk increasing capital and operational expenditures, reputational risks and regulatory risks.⁴⁷ Again, an ambitious investment strategy also incorporating human rights related risks and engaging with companies aiming at reducing their negative impacts on the SDGs is not anchored in the FDC's current sustainable and responsible investing strategy.

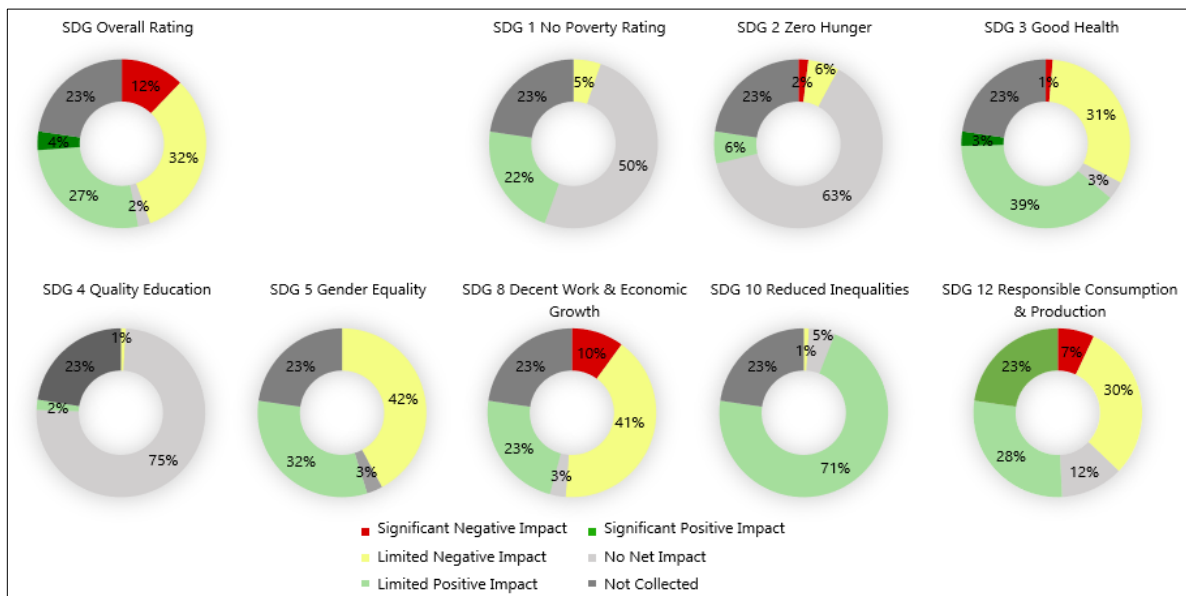


Figure 5: Impact of the FDC's actively managed funds on Sustainable Development Goals (by share of companies).

⁴⁶ The large share of net impact, e.g. on SDG 1 or SDG 2 show that the methodological approach towards

measuring companies' impact on SDGs can be challenging, also due to varying data coverages.
⁴⁷ See PRI ASSOCIATION (2020a).

If the SDG performance is analysed at sector level, a more differentiated situation emerges, e.g. for the food and beverage companies in the actively managed portfolio of the FDC. This includes companies such as Nestlé, Unilever, Mondelez, Danone or the Coca-Cola Company that mainly negatively impact SDG 2 "Zero Hunger" and SDG 3 "Good Health" (see Figure 6). In comparison, the overall share of companies in the actively managed funds with negative impact on SDG 2 or SDG 3 is much lower (see Figure 5).

Lacking a systematic investment approach that considers adverse impacts on global nutrition and health by food companies is

particularly problematic as demand for food is predicted to increase by 25% to 70% over the next 30 years challenging food companies' production and supply chains can cause a threat to human rights but also biodiversity and climate change.⁴⁸ Against this backdrop, the food companies' financial performance and thus the FDC portfolio's investment performance can be negatively influenced. The example shows that long-term sustainability risks need to be systematically integrated in existing risk management and investing approaches to mitigate and prevent those risk and thus to strengthen financial performances in the medium- and long-term.

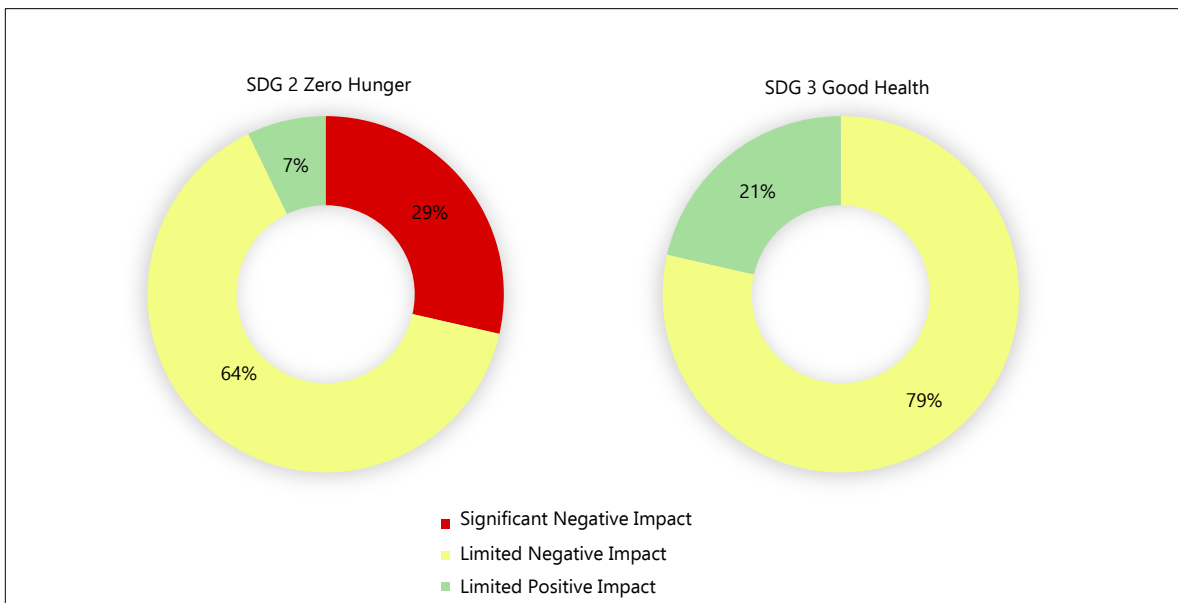


Figure 6: Impact of biggest food companies in the FDC's actively managed funds on Sustainable Development Goals 2 and 3 (by share of companies).

⁴⁸ See THE PENNSYLVANIA STATE UNIVERSITY (2022).

CASE EXAMPLE

Sustainably labelled investments are systematically linked to human rights violations

Over the past ten years, the Colombian mining industry has experienced significant growth. The mining sector only represents 2% of the national gross domestic product but accounts for 20% of the country's exports and foreign direct investments.⁴⁹ 350,000 direct jobs and one million indirect jobs depend on the mining industry.⁵⁰ The Cerrejón mine in Colombia is one of the largest open pit coal mines with around 10,000 employees.⁵¹ The project has been accused of poor stakeholder consultations and human rights violations against indigenous groups and the right to health and well-being. Already in 2001, the

instance of five indigenous communities being displaced from their traditional territories caught media attention.⁵² Later, the Colombian Constitutional Court has confirmed the mine's negative impact on human rights several times and ordered the consortium to adopt stricter preventive measures. This included a ruling in December 2019, where the Court found that the Cerrejón company had damaged the health of residents in the region by contaminating the air, water, and vegetation, and through noise and vibration from mining as operations are carried out 24 hours a day, seven days a week, using heavy machinery and explosives. Further

⁴⁹ See *AUSTRALIAN TRADE AND INVESTMENT COMMISSION N.A.*

⁵⁰ See *AUSTRALIAN GOVERNMENT AUSTRADE* (2019).

⁵¹ See *GLENCORE SCHWEIZ* (2021).

⁵² See *THE GUARDIAN* (2013).

controversial areas are the health and safety of workers and the rights of trade unions. According to the mine workers' union, 700 workers suffer from severe health problems that are a direct result of the inadequate working conditions at the mine. The workers are forced to work 12-hour shifts and do not receive adequate medical care. Pro-union workers have reportedly been intimidated or fired and replaced by casual workers who are paid less than their permanent colleagues.⁵³

Until end of 2021, the mining company had been a consortium equally owned by BHP, Anglo American and Glencore. BHP had been on FDC's exclusion list in 2018 but the FDC has restarted its investments in BHP in 2019.⁵⁴ The analysis of FDC's equity and corporate bond portfolio revealed, that investments in BHP also continued in 2020- despite the proven human rights violations and Court rulings linked to BHP's Cerrejón mine. In addition, part of FDC's investment in BHP is within the portfolio SICAV Actions Monde – Actif 2, which is considered as "sustainable" as it has obtained the LuxFlag ESG label.

Overall, BHP is systematically linked to human rights violations caused by its



33 million m³

of mine tailings released into environment, taking the lives of 19 people

activities, particularly in the mining sector in Latin America. In Brazil, the collapse of the Samarco dam in 2015 released more than 33 million cubic meters of mine tailings into the environment, taking the lives of 19 people.⁵⁵ In Ecuador, the activities of the Warintza mining project on the territory of the indigenous Shuar Arutam people has led to threats against the communities and defenders.⁵⁶ In Peru, the Anatamina copper and zinc mine has reportedly polluted the water in the Ancash region, threatening the water supply and the health of the local population.⁵⁷ In 2018, the global union federation IndustriALL launched a campaign against BHP stating that "the same practices exist in all of BHP's operations: a policy of outsourcing to cut labour costs and a disrespect for the fundamental rights of its workers and communities."⁵⁸ Nevertheless, BHP remains absent from the FDC's exclusion list.

⁵³ See *BANKTRACK* (2021).

⁵⁴ Please note that the analysis covers FDC's investment universe as of end of 2020 where BHP still hold 33.3% interest in the Cerrejón company and thus in 2020, FDC's investee company BHP reportedly violated human rights. In June 2021 BHP announced the sale of its interest in the Cerrejón company.

⁵⁵ See *UNEP* (2017).

⁵⁶ See *ALIANZA POR LOS DERECHOS HUMANOS ECUADOR* (2021).

⁵⁷ See *BUSINESS & HUMAN RIGHTS RESOURCE CENTRE* (2019).

⁵⁸ See *INDUSTRIALL* (2018).

Interim conclusion on the FDC's human rights performance

The FDC's investment policy lacks concrete actions and strategies to end misaligned investments, which contribute to human rights abuses and negative impacts on society. While integrating climate-related financial risks in investment approaches and risk management has become increasingly mainstream, asset owners and managers struggle in the area of human rights-related risks. The fact that preventing and mitigating human rights risk helps to align investment activities with the growing demands by clients and regulators and to reduce reputational risks that can materialize needs to be more widely considered.⁵⁹

3 Conclusions

Integrating sustainability criteria into investment strategies and decision-making has become mainstream and key for forward-looking risk management. Therein, considering climate and human rights criteria is of importance to ensure a sustainable financial performance.

Financial market participants recognise increasing regulatory pressure and structural changes in many sectors towards a low-carbon economy making it necessary to manage their financial transformation risks accordingly. This also means systematically integrating climate criteria into the

The FDC is significantly exposed to high-risk sectors from a human rights perspective and has some proven cases in its portfolio. Particularly problematic are its negative contributions to the SDG 8 "Decent Work & Economic Growth" as well as SDG 12 "Responsible Consumption & Production". In order to manage these risks in a targeted manner, the FDC should firstly increase transparency on its exposure to human rights risks, secondly oblige asset managers to take them into account (e.g. by systematic human rights due diligence), and thirdly develop a clear engagement strategy with divestment as last resort especially towards high-risk sectors and companies respectively.

core business. The FDC Sustainable Investor Report published end of 2020 suggests that its current investment approach and strategy already incorporates sustainability in general and climate in particular, successfully. However, the analysis of the current climate performance of the FDC funds analysed shows that the FDC has shortcomings in systematically integrating climate criteria in its overall investment strategy and decision-making processes. In general, the FDC does not use the potential of ambitious and consistent exclusion criteria for the actively and passively

⁵⁹ See *PRI ASSOCIATION* (2020b).

managed funds in order to support political or societal goals and to rule out sustainability risks.

This also results in an emission-reduction pathway of its aggregated equity and corporate bond portfolio that is in line with a 2.7°C climate change scenario. On this path, the FDC's investee companies will already emit as many emissions in the next six years as they would have been allowed to in a Paris-compatible world by 2050. The FDC's equity and corporate bond portfolio is far away from Paris compatibility.⁶⁰ Investors increasingly engage with their investee companies to support their transformation towards low-carbon business models and demand their investee companies to set science-based and verified climate targets. A clear engagement approach with transparent guidelines and divestment as last resort can reduce potential financial transformation risks. So far, the FDC does not put strong emphasis on such action. Financial risk in the portfolio is not only driven by a not Paris-aligned portfolio or the unambitious efforts of investee companies towards aligning business models with a low-carbon economy. At high risk are also investments associated with unconventional energy extraction business practices to which the FDC investment value is exposed to, again increasing financial and reputational risks.

Climate risks are often a focal point when examining the sustainability performances

of investments. But investments can also contribute to human rights abuses negatively impacting society. The FDC's investments are exposed to human rights-related high-risk companies and sectors. Investee companies show insufficient measures to prevent human rights abuses, e.g. due to failures to conduct human rights due diligences. This bears risk for potential and actual adverse human rights impacts by these companies. This challenges not only investee companies' future financial performances, including capital and operational expenditures, reputational risks and regulatory risks, but also the FDC's financial risks of these assets. Yet, the FDC has not recognised that avoiding and mitigating human rights risks helps to align investment activities with the growing demands of its beneficiaries and regulators and ensures better financial risk management. Again, the FDC only focuses on its positive impacts on human rights and especially on its positive contributions to the SDGs, which it communicates in its Sustainable Investor Report published end of 2020. The case of systematic human rights violations by its investee company BHP on the other hand is an example that proves that the FDC does not rule out its negative impact on environment and society neither by its sustainable investment strategy and exclusion criteria nor its sustainably LuxFLAG labelled sub-funds.

⁶⁰ See *YALE CLIMATE CONNECTIONS* (2022).

Annex

Funds analysed

No.	Portfolio	Type of management
1	FDC SICAV Actions Monde Actif 1	Active
2	FDC SICAV Actions Monde Actif 2	Active
3	FDC SICAV Actions Monde Actif 3	Active
4	FDC SICAV Actions Monde Indexé	Indexed
5	AFDC SICAV Actions Monde Indexé 2	Indexed
6	FDC SICAV Actions Monde Sustainable Impact Actif 1	Active
7	FDC SICAV Actions Monde Small Cap Actif 1	Active
8	FDC SICAV Actions Monde Small Cap Indexé	Indexed
9	FDC SICAV Actions EMMA Actif 1	Active
10	FDC SICAV Actions EMMA Indexé	Indexed
11	FDC SICAV Obligations EUR Actif 1	Active
12	FDC SICAV Obligations EUR Actif 2	Active
13	FDC SICAV Obligations EUR Actif 3	Active
14	FDC SICAV Obligations EUR Indexé	Indexed
15	FDC SICAV Obligations EUR Green Bonds Actif 1	Active
16	FDC SICAV Obligations Monde Actif 1	Active
17	FDC SICAV Obligations Monde Actif 2	Active
18	FDC SICAV Obligations Monde Actif 3	Active
19	FDC SICAV Obligations Monde Indexé	Indexed
20	FDC SICAV Monetaire EUR Actif	Active

The FDC's sub-funds were replicated as of Q4/2020.⁶¹ Approx. 92% of the FDC's equity and corporate bond portfolio could be replicated and analysed. Due to the analysis' scope, the

⁶¹ See *FONDS DE COMPENSATION COMMUN AU RÉGIME GÉNÉRAL DE PENSION* (2020b).

portfolios „FDC SICAV Obligations EMMA Actif 1“ and “FDC SICAV Obligations” were excluded from replication as they only include fixed income from governments. Due to missing data, “FDC SICAV Immobilier Monde - Actif 1” and “FDC SICAV Immobilier Monde – Actif 2” could not be replicated and included in the analysis.

Brief description ISS ESG and work with ISS DataDesk

ISS ESG is the responsible investment arm of Institutional Shareholder Services Inc. (“ISS”), a global provider of environmental, social, and governance solutions for asset owners, asset managers, hedge funds, and asset servicing providers. From integration into investment decisions to informing company engagements and execution through proxy voting, ISS ESG brings expertise across a range of sustainable and responsible investment issues, including climate change, sustainable impact, human rights, labour standards, corruption, controversial weapons, and many more. In regard to biodiversity-related analyses the data coverage was less meaningful. However, due to the extensive overall data coverage, the FDC's sustainability performance was analysed using ISS ESG's database and the ISS DataDesk. In addition to the fund selection and replication process as described above, the sub-subsequent section briefly describes the work with the ISS. Each of the analysed funds described above was imported to the ISS DataDesk to map holdings to entities in the ISS ESG database and to generate important key performance indicators on sub-fund level. In addition, three aggregated portfolios were created: an aggregated portfolio of total equity and corporate bond investment value, an aggregated portfolio of total actively managed equity and corporate bond investment value, and an aggregated portfolio of total passively managed equity and corporate bond investment value. To be able to make comparisons to the FDC performance, the MSCI World Index was replicated, and an aggregated portfolio created accordingly.

The data coverage for approx. 90% of analysed investment value is above 90%. 14% of total investment value show a data coverage between 70% and 80%. The analysis' coverage is driven by two elements: 1.) the final database which was imported to the ISS DataDesk covers approx. 92% of the FDC's equity and corporate bond portfolio investment value, and 2.) differing data coverage across the FDC's sub-funds. Some holdings cannot be mapped with the ISS ESG company universe, or emission or financial data is missing leading to a reduced coverage.

The climate analyses were run adopting a fixed income/mixed portfolios and equity portfolio approach determining how an investor's carbon emissions are allocated to the portfolio.

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