°CICERO Shades of Green

IISD International Institute for Sustainable Development

CPP Investments
Green Bond Second Opinion

October 14, 2021

CPP Investments manages the Canada Pension Plan (CPP) Fund on behalf of the CPP's 20 million Canadian contributors and beneficiaries. CPP Investments remains independent of the CPP, operates at arm's length from federal and provincial governments and is guided by an independent Board of Directors. As of March 31, 2021, CPP Investments manages almost CAD497 billion in investment assets.

Under this framework, the proceeds of CPP Investments' green bonds are expected to be predominantly used to make equity and debt investments to finance and/or refinance green builings and renewable (solar and wind) energy projects. While the framework indicated that energy efficiency and low carbon/clean transportation projects will be eligible, previous green bond issuances for CPP Investments have been wholly allocated to green buildings and renewable energy investments.

CPP Investments has excluded any direct investments in fossil fuels or power generated by fossil fuels. Moreover, investees must have all their revenues derived from eligible green assets in order to be eligible for investments. Still, even with a policy of active ownership, it can be difficult to control the end-use of equity investments. Currently, CPP Investments may indirectly support supply chains that are fossil-fuel intensive or may support the use of fossil-fuel powered equipment. By not undertaking life cycle analyses of investments, their investments could be exposed to lock-in and/or rebound effects.

CPP Investments has a robust selection process, governance system and reporting stucture, and has fully implemented TCFD. Its Sustainable Investment Committee, led by Head of Sustainable Investing, reviews all potential investments against the framework to assess whether an investment qualifies for addition to the register. In its annual sustainable investing report, CPP Investments discloses the details of investments made with Green Bond proceeds during the preceding 12 months. This disclosure includes a description of each green project, the share of new financing versus refinancing and, where available, metrics about the projects' environmental impact.

Based on the overall assessment of the eligible green assets under this framework, governance and transparency considerations, CPP Investments' green bond framework receives a **CICERO Medium Green** shading and a governance score of **Good**. The framework would be strengthened if CPP Investments used third-party reviews for the its impact reporting, provided more details on eligible energy efficiency investments and if CPP Investments set specific goals or targets for reducing absolute GHG emission, its carbon footprint, or the carbon intensity of its portfolio.

SHADES OF GREEN

Based on our review, we rate the CPP Investments' green bond framework **CICERO Medium Green.**

Included in the overall shading is an assessment of the governance structure of the green bond framework. CICERO Shades of Green finds the governance procedures in CPP Investments' framework to be **Good**.

GREEN BOND PRINCIPLES

Based on this review, this Framework is found in alignment with the principles.

°CICERO Medium Green

Contents

1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's updated framework dated October 14 2021**.** This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

Expressing concerns with 'Shades of Green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

CICERO Shades of Green	Examples
Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.	Wind energy projects with a strong governance structure that integrates environmental concerns
Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.	Bridging technologies such as plug-in hybrid buses
Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.	Efficiency investments for fossil fuel technologies where clean alternatives are not available

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

2 Brief description of CPP Investments' green bond framework and related policies

CPP Investments, formerly Canada Pension Plan Investment Board, is a professional investment management organization that invests the funds of the Canada Pension Plan (CPP) not currently needed to pay pension, disability and survivor benefits. CPP Investments manages the CPP Fund on behalf of the CPP's 20 million Canadian contributors and beneficiaries. CPP Investments remains independent of the CPP, operates at arm's length from federal and provincial governments and is guided by an independent Board of Directors. As of March 31, 2021, CPP Investments manages almost CAD4970 billion in investment assets while investments outside of Canada amount to 84.3% of its total assets under management.

As a pension fund investment manager, CPP Investments has a legislative objective to invest its assets with a view to maximizing returns without undue risk of loss and managing the CPP Fund in the best interests of CPP contributors and beneficiaries. This mandate implies a long-term investment horizon and facilitates CPP Investments' increasing focus on investment opportunities in sustainable infrastructure projects and companies. CPP Investments has supported this ambition by issuing six green bonds to this point. According to its Report on Sustainable Investing 2020, CPP Investments used the proceeds of these bonds to invest in renewable energy companies and green buildings. As of 2020, CPP Investments' renewable energy portfolio represented 1.5% of total investments. As of March 31, 2021, in total, almost 79% of CPP Investments' portfolio is allocated to developed markets with the other 21% in emerging markets. While 79.0% of CPP Investments' assets are in its equity and credit investing programs[1], 8.6% is invested in real estate, 8.2% in infrastructure, 2.1% in power and renewables, and 2.0% in energy and resources.

Environmental Strategies and Policies

CPP Investments' climate change disclosure has evolved over the past four years. In 2018 CPP Investments developed an in-house methodology to estimate the metrics and published the first carbon footprint of its public equities portfolio which included metrics on total carbon emissions and carbon intensity. In 2019, it provided a more comprehensive metric that included both their public and private investments. For 2020, it further enhanced the metrics by estimating government issued securities, cash and all derivatives. The carbon footprint metrics now cover all CPP Investments' holdings, but do not account for its own Scope 1 and 2 emissions[2]. CPP Investments reported that, in 2020, its public and private assets, excluding cash and non-equity derivatives, portfolio weighted average carbon intensity reduced by approximately 23%. The reduction was primarily attributed to reduced carbon emissions and/or improved carbon efficiencies in the portfolio companies they invest. While providing year-on-year data, CPP Investments does not set specific goals or targets for reducing absolute GHG emission, its carbon footprint, or the carbon intensity of its portfolio. In fact, it notes that the absolute GHG emissions associated with its portfolio will typically rise as assets under management grow.

CPP Investments has an established Policy on Sustainable Investing that serves as the overarching policy on how CPP Investments approaches environmental, social, and governance (ESG) factors. CPP Investments evaluates and incorporates risks and opportunities associated with potentially material ESG factors into its investment

[1] This 76% includes investments through its Balancing Programs and Financing, Active Public Programs, Private Credit, and Private Equity programs. Note that these programs are diversified across sectors.
[2] From 2019 to 2020, CPP Investments' carbon footprint of its public and private assets declined from 107 tCO_2e/$ million invested to 104 tCO_2e/$ million invested.

decision-making process and its asset management activities. The Sustainable Investment team at CPP Investments works with investment and asset management teams on all major transactions across investment departments to ensure CPP Investments has an integrated approach to incorporating ESG considerations into its decision-making processes.

Since 2008, CPP Investments annually issues a Sustainable Investing Report in which it also publishes the estimated impacts of the investments made using previous green bond proceeds. CPP Investments names "climate change" and "water" as two of their five areas of engagement with companies in which they have made investments. CPP Investments does not follow a divestment approach, neither do they use ESG criteria to exclude entire investment categories. CPP Investments confirmed that specific investments are excluded from consideration if the ESG criteria warrant such a stance. In addition, the Head of Sustainable Investing is a member of CPP Investments' Active Equities investment committee. CPP Investments states that it would prefer to actively engage with and attempt to influence companies when it disagrees with a position taken by management or a board of directors of its active holdings. According to CPP Investments, its only formal exclusion criterion is of companies which are not in compliance with Canada's Anti-Personnel Mine Convention Implementation Act or Prohibiting Cluster Munitions Act, or that would not comply if they operated in Canada.

CPP Investments has fully adopted the TCFD's recommendations. In its 2020 annual report, CPP Investments outlined how it will implement the governance, strategy, risk management, and metrics and targets pillars in the TCFD recommendations. As well, in its 2020 Sustainable Investing Report, it outlined how it continued to refine a climate-related scenario analysis framework to identify climate-related risks and opportunities and assess the impact and resilience of its investments. Prior to this, in 2019, CPP Investments engaged third-party service providers to explore options to quantify the potential financial impact of different global warming scenarios on CPP Investments' portfolios over different time horizons. The work provided CPP Investments directional estimates that enabled it to identify portfolios or companies that may be relatively more sensitive to climate change transition risk and physical risk under the extreme scenarios. It also gained a better understanding of areas requiring further methodological enhancements.

CPP Investments is involved in several initiatives that increase their knowledge and capacity to integrate climate change and other environmental risks and opportunities into their investment decisions, including:

- Task Force on Climate-related Financial Disclosures
- G7 Investor Leadership Network (encouraging rapid adoption of the recommendations of the Task Force on Climate-related Disclosures)
- Private Equity Advisory Committee of the United Nations-supported Principles for Responsible Investment (focused on ESG-related objectives and projects in private equity funds for PRI signatories)
- Sustainability Accounting Standards Board Investor (SASB) Advisory Group (encourages companies to disclose financially relevant, potentially material industry-specific ESG factors in alignment with SASB's standards)
- Hermes Equity Ownership Services (engages with companies exposed to climate change as well as water-related risks on behalf of CPP Investments and other investors)
- Carbon Disclosure Project (CDP): Climate Change Program, Forests Program, and Water Program

Use of proceeds

The net proceeds from the green debt will be used to invest in projects in the eligible categories and in companies that derive all of their revenue from these categories. These eligible categories include renewable energy, green buildings, low carbon/clean transportation, and energy efficiency. The issuer did not know at this point how proceeds will be split between new finance and re-finance investments, geographic allocations, or between specific projects and company investments, but informed us that the SIC will continue to assess opportunities on an individual basis. In its framework, CPP Investments outlines how these categories are mapped to the European Union taxonomy, but this opinion has not screened this alignment.

CPP Investments expects the net proceeds to finance or re-finance the initial eligible investments, any new eligible investments approved, as well as any future commitments for those investments to the extent approved by the Sustainable Investing Committee (SIC).

Eligible Investments may include existing green investments that have been funded by CPP Investments within the 24 months preceding the date of the Green Bond issuance if approved by the SIC.

The bond framework does not have a specified exclusions list but does indicate that the register will not include any direct investments in fossil fuels or power generated by fossil fuels.

Selection

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Green places on the governance process.

As this framework is a continuation of CPP Investments sustainable investing efforts, it previously had established a Green Bond Committee (GBC) that focused solely on the CPP Investments' Green Bond Program. This responsibility has now shifted to the organization's Sustainable Investing Committee (SIC). The SIC is comprised of senior representatives from teams across the organizations and is chaired by the Managing Director, Head of Sustainable Investing. The SIC has been reconstituted to include the GBC and other legacy climate change-related committees to provide a central forum for the monitoring and guidance of issues related to ESG, including climate change. Several members of the former GBC are members of the SIC.

Individual investment teams take ESG considerations into account when making investment decisions. The SIC becomes aware of potential eligible investments through direct engagement with investment groups that have completed, or are looking to complete, green investments. The SIC reviews these investments against the Green Bond Framework to assess whether an investment qualifies for addition to the Green Bond register and receipt or allocation of Green Bond proceeds.

Management of proceeds

CICERO Green finds the management of proceeds of CPP Investments to be in accordance with the Green Bond Principles.

The net proceeds from CPP Investments' Green Bond issuance will be deposited to CPP Investments' general account and an amount equal to the net proceeds will be earmarked for allocation to eligible investments approved by the GBC.

Eligible investments are added to the Green Bond Register. CPP Investments reports on the Green Bond Register in its annual sustainable investing report alongside the impacts from the green bond investments. Investments made using green bond proceeds are documented in the Green Bond Register and the value of issuance will not exceed the value of eligible investments listed in the Green Bond Register.

Allocation of proceeds will be on a portfolio basis. According to the issuer, there will be no unallocated funds upon completion of a Green Bond offering.

The payment of principal and interest on any Green Bond issued by CPP Investments will be made from its general funds and will not be linked to the performance of any eligible investment.

According to the issuer, CPP Investments does not intend to use external auditing or other third-party reviews for the management of proceeds.

Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

CPP Investments will disclose details of eligible investments made during the preceding 12 months in its annual sustainable investing report. According to the issuer, CPP Investments will include a description of each green project, the share of new financing versus refinancing and, where available, metrics about the projects' environmental impact in the report. These details will be available on the Investor Relations section of the CPP Investments website. Green bonds that have been issued previously reported the metric tonnes of CO_2 avoided, megawatt hours (MWh) of renewable energy generation contributed annually, as well as the energy use intensity and carbon emission intensity of its green buildings. These metrics have been scaled to align with CPP Investments' share of ownership. The issuer informed us that the allocation of proceeds will be on a portfolio basis, meaning they will be notionally allocated across the eligible investments in the Green Bond Register.

The review process will include a Management Attestation report to confirm that eligible investments reside in the portfolio and validate proceeds management as declared in the green bond framework.

3 Assessment of CPP Investments' green bond framework and policies

The framework and procedures for CPP Investments' green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where CPP Investments should be aware of potential macro-level impacts of investment projects.

Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in CPP Investments' green bond framework, we rate the framework **CICERO Medium Green.**

Eligible projects under the CPP Investments' green bond framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed and that the selection process should be "well defined".

Category	Eligible project types	Green Shading and some concerns
Renewable Energy	• Acquisition, operation, maintenance and upgrades of wind and solar energy projects • Acquisition, operation, maintenance and upgrades of renewable energy storage projects • Acquisition, operation, maintenance and upgrades of wind energy projects • Efficiency improvements of wind and solar energy projects	**Dark Green** • Currently, consideration of negative impacts caused by the construction of solar and wind projects on ecologically sensitive areas, biodiversity, and wildlife is left to investees during the permitting process and only taken up by issuer when monitoring investment. Direct integration of these concerns into the investment eligibility criteria would serve to minimize risks of adverse impacts (deforestation, destruction of habitats etc.). • While the issuer indicated that projects will most likely be connected to the grid there is a residual risk that certain assets will

		be deployed to exclusively serve fossil fuel intensive customers. • According to the issuer, the issuer does not typically consider life cycle emissions in investment assessments. • The issuer does not have fixed criteria of emissions intensity above which a potential investment is excluded. As it invests globally, the threshold of what is considered efficient will vary and may not be ambitious. •
Green Buildings	• Direct investments into buildings certified as LEED Platinum and/or their global equivalent	**Medium to Dark Green** • The LEED certification scheme for buildings does not explicitly assess climate risks, or climate change adaptation and resilience measures. These subjects should still be considered when making investment decisions. For example, a LEED certification does not guarantee a level of energy efficiency improvements and issuer confirmed that they do not have a minimum Energy Star certification target. • Although certification schemes may not take into consideration resilience measure, the issuer informed that it screens for resilience during investment process. • Issuer indicated that 'global equivalent' could mean application of DGNB in Germany and/or BREEAM in UK, which in both cases are not exactly equivalent in their certification system as LEED. • Investments could include residential and commercial investments. CPP does not screen out emission intensive customers. • The issuer does not include proximity to clean transportation or clean transportation

		infrastructures as part of its building investment selection.

Low Carbon/Clean Transportation	• Investments in construction, development, operation, acquisition and maintenance of low carbon transportation assets, including:
	  ◦ Electric, fuel cell and non-motorized vehicles and supporting infrastructure such as charging stations
	  ◦ Infrastructure and rolling stock for mass transit
	
	Not applicable to investments in conventional energy or non-renewable power generation.
		Light to Medium Green
		• The production of batteries and sourcing of raw materials can have substantial climate and environmental impact. These issues are linked to support of electrified transportation. According to issuer, only low to zero-emission mass transit vehicles will be eligible for investment. However, the issuer has not specified any additional thresholds for its low-emission vehicles. This bears the risk of including plug-in hybrid vehicles which could potentially feature substantial emissions.
		• There is the possibility of potential lock-in effects through the construction of infrastructure projects (e.g., new railways, and railway stations, technical buildings related to new railways that follow no further requirements beyond regulations.) In addition, railways could potentially be used for fossil fuel transportation.
		• The issuer disclosed that commercial vehicles such as heavy duty construction and mining equipment may be included.

Energy Efficiency	• Investing in technologies / infrastructure that result in increased energy-efficiency. Not applicable to investments in conventional energy or non-renewable power generation.	**Medium to Light Green** • The issuer has not specified any energy thresholds to set baseline for increased efficiency. • Without life cycle analysis of investments, lock-in and rebound effects may not be identified or mitigated. • The issuer has excluded direct investments in fossil fuel assets. However, there could be indirect

	support of fossil fuel based infrastructure such as smart metering which are directed at end-user consumption. Where such financing is involved, efficiency improvements should lead to a significant reduction in fossil fuel consumption and should avoid the risk of lock-in of emissions.

Table 1. Eligible project categories

Background

The asset management sector plays a major role in global climate change, both in terms of absolute emissions and influence. FinanceMap is a newly launched platform, which has mapped the Paris Portfolio Alignment of the underlying real assets in 50,000 listed fund portfolios, based on the IEA-defined Beyond 2 Degrees Scenario, which provides a pathway for a 50% chance of limiting warming to 1.75ºC.[3] The report finds that significant portions of the portfolio holdings of investors globally are within climate-sensitive sectors such as the automotive, electric utilities and fossil fuel production sectors. These sectors are together worth US $8 trillion in market value, which is close to 10% of all global listed equity value. The FinanceMap further highlights that the world's 15 largest asset management groups, which hold a total $37 trillion in assets in all classes, or 20% of the total value of global capital markets[4], are all deviated from the Paris Aligned targets. Subsequently, the report has mapped each sector's level of alignment with the Paris agreement and the 1.75-degree target. Investments in renewable power are misaligned by -21% and electric vehicles by -59%, indicating a need for rapid acceleration in shifting investment strategies toward these technologies.

A 2019 AODP report ranking the world's 100 largest public pension funds based on their approach to climate related risks and opportunities also illustrates the need for greater action on the pension fund level.[5] The assessment further finds a large gap in formal climate-risk assessment of portfolios, with only 10% of funds being subject to a formal investment policy that seeks alignment with the goals of the Paris agreement. Over 60% of pension funds publish little to no information on their climate responses, and more than 80% of funds do not currently undertake and do not plan to undertake TCFD-aligned reporting. Around 50% of pensions funds were found to engage with investee companies on climate issues, although this engagement is often limited to improving disclosure instead of driving action. In this context, CPP Investments was ranked 32 out of 100, placing it in the "Learners" category, which is the third highest level after the "Leaders" and "Challengers" category.

The asset management sector must undergo a rapid acceleration in climate action in order to align the global markets with global trajectories, through prioritizing more robust engagement with a focus on not only accelerating individual corporate transitions to low carbon technologies and activities, but also on getting companies to align their policy lobbying with Paris targets. The finance sector has developed multiple initiatives in order to accelerate the low-carbon transition, including the Principles for Responsible Investment and the Climate Action 100+ initiative. A 2015 survey of investors showed that 36% of respondents had divested assets during the previous year in response to ESG factors, with a further 27% planning to monitor ESG risks more closely[6]. However, currently

[3] https://www.sustainablefinance.ch/upload/rm/financemap-report-nov-2019-final-1.pdf?_=1575638165000
[4] Securities Industry and Financial Markets Association (SIFMA), Capital Markets Fact Book, 2019. https://www.sifma.org/wp-content/uploads/2019/09/2019-Capital-Markets-Fact-Book-SIFMA.pdf
[5] https://aodproject.net/wp-content/uploads/2019/01/AODP-PensionsChangingClimate.pdf
[6] Climate change: The investment perspective (ey.com)

only smaller players and only a portion of the largest asset managers are showing evidence of engaging sufficiently[7]. In order to facilitate the alignment with the Paris agreement, efforts amongst major players will need to be significantly ramped up.

Governance Assessment

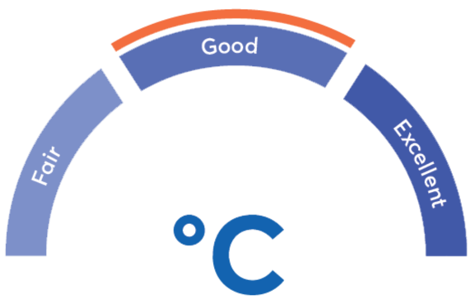
Four aspects are studied when assessing the CPP Investments' governance procedures: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

CPP Investments has fully adopted the TCFD's recommendations, but it does not disclose its own Scope 1 and 2 emissions. Given the size its portfolio holdings, operational emissions are assumed to be less than emissions from its investments on which CPP Investments reports. Since publishing its first carbon footprint metrics of its public equities in 2018, CPP Investments has gradually expanded the coverage of its reporting to other asset classes. While providing year-on-year data, CPP Investments does not set specific goals or targets for reducing absolute GHG emission, its carbon footprint, or the carbon intensity of its portfolio. CPP Investments notes that the absolute GHG emissions associated with its portfolio will typically rise as assets under management grow. CPP Investments will also allocate proceeds to equity investments where all of the respective company's activities comply with the eligibility criteria of the framework. CICERO Green encourages the issuer to furhter strengthen its active ownership policies.

Individual investment teams take ESG considerations into account when making investment decisions. The Sustainable Investing Committee (SIC), which has taken on the responsibility of the former Green Bond Committee, becomes aware of potential eligible investments through direct engagement with investment groups that have completed, or are looking to complete, green investments. Upon review, the SIC decides whether an investment qualifies for addition to the Green Bond register and receipt or allocation of Green Bond proceeds.

Having previously issued six green bonds, all of which fully allocated funds, CPP Investments has developed a clear green bond reporting section in its annual sustainable investing reports. The reporting includes descriptions of specific projects and aggregated impacts of green bond investments. To this point, CPP Investments does not use third-party reviews for its annual impact reporting.

The overall assessment of CPP Investments' governance structure and processes gives it a rating of **Good**.



Strengths

CPP Investments' well-developed sustainable investing program and multi-level support within its organization provides assurance that future green bond issuances will follow a similar path as previous issuances. Its commitment to invest in green buildings that meet the highest current ratings is ambitious. With individual investment teams taking into account ESG considerations when making investment decisions and the evolution of the SIC, CPP Investments is well-placed to expand its sustainable investing program.

[7] https://www.sustainablefinance.ch/upload/rm/financemap-report-nov-2019-final-1.pdf?_=1575638165000

Moreover, through its full adoption the TCFD's recommendations and involvement in several international initiatives CPP Investments continues to increase its knowledge and capacity to integrate climate change and other environmental risks and opportunities into their investment decisions. Though not opined on here, the framework outlines how project categories are mapped to the EU Taxonomy

Weaknesses

CPP Investments will use Green Bond proceeds to invest into private companies that deliver eligible green projects. CPP Investments' screening process for eligible projects and companies is based on investment teams taking into account ESG consideration and the SIC determining if the investment is eligible for Green Bond proceeds. Investments are only eligible for Green Bond proceeds if all its revenue are generated from activities with the eligible investment categories. Nevertheless, without critical eligibility thresholds for investments in energy efficiency and renewable energy, it is unclear whether investments meet an ambitious standard. Moreover, while the issuer highlighted that it works with investees to move toward best practices for reducing investee carbon footprints, it remains unclear what happens if investees do not progress ambitiously. CICERO Green encourages the issuer to clarify this in its active ownership policies.

Pitfalls

CPP Investments report on carbon footprint metrics for all of its holdings, but do not account for its own Scope 1 and 2 emissions and did not indicate an intention to do so. As well, there is a lack of quantitative climate targets in the framework, as well as in CPP Investments' overall environmental strategy and policies. In fact, CPP Investments expects emissions to grow as its portfolio grows.

While CPP Investments indicated that it screens for resilience for its green building investments, screening all projects would mitigate risk. As CPP Investments invests globally and owns investments that face a wide range of physical risks, a systematic screening criterion would demonstrate ambition on this issue.

Although renewable energy projects are considered to have positive climate mitigation impacts, there are emissions associated with the supply chain (e.g., solar panels, turbines etc.), and the construction process. The issuer indicated that life cycle considerations are not integrated into the selection process. Life cycle assessments provide valuable information on the environmental and climate impacts of investments and can highlight areas in which CPP Investments could work with investees to reduce emissions.

The framework includes a clean transportation category which allows for investments in low carbon vehicles, incl. hybrids. While plug-in hybrids can run entirely on electricity, these vehicles nevertheless can still run on fossil fuels. In addition, by including commercial vehicles incl. mining vehicles, CPP could include financing of potentially emission intensive activities, such as mining and other heavy industrial operations.

Despite the framework indicating that there will be no direct investments in fossil fuels or power generated by fossil fuels, as CPP Investments invests in companies, it remains possible that investees will own or purchase fossil-fuel powered inputs (e.g., vehicles). In addition, according to the issuer, renewable energy projects will most likely be connected to the grid, but it is possible that certain assets will be deployed to exclusively serve fossil fuel intensive customers. We encourage CPP Investments to carefully screen for these impacts.

CPP Investments invests globally and could establish more stringent criteria and thresholds. For investments that improve energy efficiency, CPP Investments has not defined what is considered efficient and investments may not be ambitious. CPP Investments' description of eligible energy efficiency projects are vague. As improvements in energy efficiency can lead to rebound effects and can be tied to fossil fuel intensive activities, clear formulation of eligible projects and methods to mitigate potential rebound effects is crucial. CPP Investments should avoid funding of projects where the risk of rebound effects is particularly high.

CPP Investments' policy of active ownership in investee companies allows direct engagement to work with companies toward the low carbon transition. The 2019 AODP report referenced in the Background section classifies CPP Investments as a "Learner" in their engagement with polluting companies. CPP Investments has an opportunity to ramp up its efforts and robustly engage with more, if not all, aspects of investee activities. This engagement includes ensuring that investees are not only disclosing their climate data, but also implementing Paris-aligned policies. A concern remains that active ownership does not lead to the desired results and may not lead to emissions reductions.

Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	CPP Investments Green Bond Framework	Green Bond Framework dated October 14, 2021
2	CPP Investments 2021 Annual Report	CPP Investments: 2021 Annual Report
3	CPP Investments 2020 Annual Report	CPP Investments: 2020 Annual Report
4	Policy on Sustainable Investing	Policy on Sustainable Investing (cppinvestments.com)
5	CPP Investments 2020 Report on Sustainable Investing	Report on Sustainability Investing - 2020 (cppinvestments.com)
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Appendix 2:
About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).

Appendix 3:
About IISD

The International Institute for Sustainable Development (IISD) is an independent policy research organization working to deliver the knowledge to act. From offices in Winnipeg, Geneva, Ottawa, Toronto and New York, IISD´s work impacts lives in nearly 100 countries.

IISD provides practical solutions to the growing challenges and opportunities of integrating environmental and social priorities with economic development. IISD reports on international negotiations and shares knowledge gained through collaborative projects, resulting in more rigorous research, stronger global networks, and better engagement among researchers, citizens, businesses and policy-makers.

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