'Second Opinion' on HSBC's Green Bond framework

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Summary

Overall, HSBC's Green Bond framework and environmental policies provide a progressive framework for climate-friendly investments. The Green Bond framework lists eligible businesses and projects that are mainly supportive of the objective of promoting a transition to low-carbon and climate-resilient growth and is supported by a strong governance structure.

Based on an overall assessment of the activities that will be financed by the green bond, HSBC's Green Bond framework gets a dark green shading. In our assessment we were in some doubt because not all projects will be made available to the public and the framework lack procedures for impact reporting. However the Green Bond framework has a strong governance structure where lifecycle analysis will be applied and rebound effects will be taken into account.

The framework has some broad green bond categories and hence the Green Bond Committee will have an important role in defining which activities and business that will be eligible. It is stated in the framework that the member from the sustainability group will have a veto in this Committee. Businesses and projects in certain sectors (for example sustainable waste management, and transportation sectors) will allow for certain elements of fossil fuel consumption in a lifecycle perspective of the businesses and projects. A particular focus will be on whether a project or business will compete with greener alternatives.

CICERO has some concerns that not all green bond projects will be listed publicly. These concerns are partially accommodated by the strength of the framework that for each Green Bond issuance, HSBC will engage an appropriate external assurance provider to independently assure the Green Bond Progress Report, on an annual basis, and opine on its conformity with the HSBC Green Bond framework. Reports will be made available to the public at HSBC Group webpage.

CICERO encourages HSBC to include in the progress report appropriate environmental impact reporting. Impact reporting is an important tool to enhance transparency in regard to the projects economic risk from climate change and the environmental effectiveness of the projects.

1. Introduction and background

As an independent, not-for-profit, research institute, CICERO (Center for International Climate and Environmental Research - Oslo) provides Second Opinions on institutions' framework and guidance for assessing and selecting eligible projects for green bond investments, and assesses the framework's robustness in meeting the institutions' environmental objectives. The Second Opinion is

based on documentation of rules and frameworks provided by the institutions themselves (the client) and information gathered during meetings, teleconferences and e-mail correspondence with the client.

CICERO has established the global Expert Network on Second Opinions (ENSO), a network of independent non-profit research institutions on climate change and other environmental issues, to broaden the technical expertise and regional experience for Second Opinions. CICERO works confidentially with other members in the network to enhance the links to climate and environmental science, building upon the CICERO model for Second Opinions. In addition to CICERO, ENSO members currently include Basque Center for Climate Change (BC3), International Institute for Sustainable Development (IISD), Stockholm Environment Institute (SEI), and Tsinghua University's Institute of Energy, Environment and Economy.

CICERO encourages the client to make this Second Opinion publically available. If any part of the Second Opinion is quoted, the full report must be made available.

CICERO's Second Opinions are normally restricted to an evaluation of the mechanisms or framework for selecting eligible projects at a general level. CICERO does not validate or certify the climate effects of single projects, and, thus, has no conflict of interest in regard to single projects. CICERO is neither responsible for how the framework or mechanisms are implemented and followed up by the institutions, nor for the outcome of investments in eligible projects.

This note provides a Second Opinion of HSBC's Green Bond Framework and policies for considering the environmental impacts of their projects. The aim is to assess HSBC's Green Bond Framework as to its ability to support HSBC's stated objective of low-carbon and climate resilient growth.

CICERO takes a long-term view on activities that support a low-carbon climate resilient society. In some cases, activities or technologies that reduce near-term emissions result in net emissions or prolonged use of high-emitting infrastructure in the long-run. CICERO strives to avoid locking-in of emissions through careful infrastructure investments, and moving towards low- or zero-emitting infrastructure in the long run. Proceeds from green bonds may be used for financing, including refinancing, new or existing green projects as defined under the mechanisms or framework. CICERO assesses in this Second Opinion the likeliness that the issuer's categories of projects will meet expectations for a low carbon and climate resilient future.

Expressing concerns with 'shades of green'

CICERO Second Opinions are graded dark green, medium green or light green, reflecting the climate and environmental ambitions of the bonds and the robustness of the governance structure of the Green Bond framework. The grading is based on a broad qualitative assessment of each project type, according to what extent it contributes to building a low-carbon and climate resilient society.

This Second Opinion will allocate a 'shade of green' to the green bond framework of HSBC:

- Dark green for projects and solutions that are realizations today of the long-term vision of a low carbon and climate resilient future. Typically this will entail zero emission solutions and governance structures that integrate environmental concerns into all activities.
- Medium green for projects and solutions that represent steps towards the long-term vision, but are not quite there yet.
- Light green for projects and solutions that are environmentally friendly but do not by themselves represent or is part of the long-term vision (e.g. energy efficiency in fossil based processes).
- Brown for projects that are irrelevant or in opposition to the long-term vision of a low carbon and climate resilient future.

The project types that will be financed by the green bond primarily define the overall grading. However, governance and transparency considerations also factor in, as they can give an indication whether the institution that issues the green bond will be able to fulfil the climate and environmental ambitions of the investment framework.

2. Brief description of HSBC's Green Bond framework and environmental policies

HSBC is a multinational company that provides banking and financial services. HSBC has around 6,600 offices in 80 countries across Africa, Asia, Europe, North America and South America. According to its strategies the bank aims to be the world's leading and most respected international bank by delivering long-term sustainable value to all stakeholders. It is stated in the HSBC sustainability report (2014) that environmental and social changes present opportunities as well as risks for customers and for business. HSBC recognises that an important element of sustainability is to seek the commercial opportunities that arise from the transition to a low-carbon economy. According to

¹ Wikipedia July 2015

the Green Bond framework HSBC has established specialist business teams to identify opportunities and to support its clients by financing climate business that will thrive in and accelerate this transition to a low-carbon future.

HSBC has now developed its own Green Bond framework. According to HSBC their framework is consistent with the ICMA Green Bond Principles (ICMA GBP) and reflects recent investor guidance by the investor group Ceres and others.² HSBC has been an active player in the development and growth of the Green Bond market. The bank was one of the initial banks to support the Green Bond principles.³

The HSBC Green Bond framework is designed as a platform, which can be adopted by all HSBC Group worldwide entities when issuing a Green Bond. The framework is based on four pillars which are (1) defining eligible green business and projects, (2) laying out the process for identification and approval of these business and projects, (3) management and tracking of use of proceeds and (4) regular reporting of use of proceeds to investors via public disclosure.

Each Group entity issuing a green bond will need to put in place adequate internal systems and controls to ensure adherence to the HSBC Green Bond framework. HSBC will review all new proposed and existing use of proceeds to ensure this is in compliance with the HSBC Green Bond framework. The Green Bond Committee will meet periodically (not less than two times a year).

The HSBC Green Bond Issuing entity will provide a Green Progress Report on an annual basis. The HSBC Green Bond Committee will review and approve each Green Progress Report. For each issuance under the Green Bond framework, HSBC will engage an appropriate external assurance provider to independently assure the Green Bond Progress Report, on an annual basis, and opine on its conformity with the HSBC Green Bond framework.

Table 1 Documents received from HSBC.

Ref. nr.	File name	Notes
1.	Table of content	List of HSBC documents, including sector policies, international guidelines and certification systems
2.	HSBC Green Bond framework	The Green Bond framework
3.	HSBC Green Bond framework rationale and	Internal guideline. CICERO has included

² Internal guideline HSBC Green Bond Framework, ref. doc. 3 in Table 1.

³ http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/

implementation	key elements of this internal guideline that relates to eligibility of activities, governance and transparency where appropriate in this Second Opinion.
4. HSBC sustainability report 2013 (selected pages)	
5. OECD Guidelines for multinational enterprises	Non-legally binding recommendations providing principles and standards for responsible business conduct for multinational corporations.
6. UN Global Compact	A voluntary initiative based on commitments to implement universal sustainability principles and to take steps to support UN goals.4
7. Equator Principles	The Equator Principles is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects and is primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making. ⁵
8. Introduction to Sustainability Risk Policies	HSBC has developed polices in sectors which may have a high adverse impact on people or the environment. HSBC closes banking relationships with customers where their activities in these sectors are and remain non-compliant with the bank's risk policies.
9. Energy Sector Policy	Sector guideline from January 2011, mainly covering concerns over Coal- Fired Power Plants, Oil Sands and Nuclear Power Plants.
10. Forestry Policy	Sector guideline from March 2014 that e.g. states that HSBC's Global Businesses must check that their customers are 100% certified if they are logging in or buying from High Risk Countries.
11. Freshwater Infrastructure Policy	Sector guideline from 2005 that outlines the framework for HSBC's involvement in freshwater infrastructure projects.

https://www.unglobalcompact.org/about
 http://www.equator-principles.com/index.php/about-ep/about-ep

12. Haute Qualité Environnementale (HQE)	A french building certification system
13. Forest Stewardship Council (FSC) Principles and Criteria for Forest Stewardship	A global organization dedicated to the promotion of responsible forest management worldwide.
14. Programme for the Endorsement of Forest Certification schemes (PEFC)	PEFC is the world's largest forest certification system.
15. Roundtable on Sustainable Palm Oil (RSPO)	The Roundtable on Sustainable Palm Oil (RSPO) was established in 2004 with the objective of promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders. ⁶
16. RTRS	A civil organization that promotes responsible production, processing and trading of soy on a global level.

3. Assessment of HSBC's Green Bond framework and environmental policies

Eligible projects under the Green Bond framework

The project selection process provides a transparent system by which projects are identified and eventually approved. At the basic level the selection of eligible business and 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 certainty to investors 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".

HSBC limits eligible project types in their Green Bond framework to include businesses and projects that are associated with positive environmental impacts. Businesses and projects that are involved in nuclear operations, weapons, alcohol, gambling/adult entertainment are excluded from the green bond financing.

⁶ https://en.wikipedia.org/wiki/Roundtable_on_Sustainable_Palm_Oil

Table 2. Likelihood of meeting objectives of a low carbon and climate resilient future.

Eligible project types	Descriptions	Green shading and some concerns
Renewable Energy	 Generation of energy from renewable sources Examples include wind, solar, tidal, and biomass energy Manufacture of components of renewable energy technology Examples include wind turbines, solar 	Dark Green ✓ Consider negative impacts on wildlife, nature and lifecycle pollution. ✓ Care should be taken with large hydro project due to scale of environmental impacts. Consider emissions from construction phase and landscape issues and mass deposits ✓ Observe complex impacts of some biofuels. ✓ Peat is not considered as biomass energy. ✓ Potential for heavy metal pollution from geothermal energy.
Energy Efficiency	Development of products or technology and their implementation that reduces energy consumption of underlying asset, technology, product or system(s) Examples include improved chillers, improved lighting technology, and reduced power usage in manufacturing operations Improved efficiency in the delivery of bulk	Dark Green ✓ Be aware of rebound effects, prolonging life of obsolete technologies.
	energy services Examples include district heating/ cooling systems, smart grids, energy recovery technology, and the storage, transmission and distribution of energy that results in reduced energy losses 	
	 Manufacture of components to enable energy efficiency described above Examples include LED lights, fuel cells, smart grid meters 	
Efficient Buildings	 New construction building developments or renovation of existing buildings (including public service, commercial, residential and recreational) which meet recognised environmental standards such as LEED – gold, BREEAM – good/very good, HQE – very good/excellent, CASBEE – A (very 	Medium Green ✓ LEED and other certifications include aspects important to long-term sustainable development, e.g. site selection and consideration

		 Buildings which have reduced life cycle consumption of energy levels of at least 20% less that statute/city baseline consumption levels, where this can be easily and transparently demonstrated 	of brownfields, urban density and planning, and access to public transportation. The additional requirement of at least 20 % less than statute/city baseline consumption ensures GHG reductions, but is vague in its formulation and may not represent a standard reflecting best available technologies.
•	Sustainable Waste Management	 Waste minimisation, collection, management, recycling, re-use, processing, disposal (such as methane capture) products, technologies and solutions 	Medium Green ✓ Consider life cycle emissions, including reducing incineration of fossil fuel derived waste streams, and avoid negative impacts on biodiversity. Consider recycling into material of fossil fuel waste instead of incineration.
٠	Sustainable Land Use	 Forestry with FSC or PEFC certification and agriculture with RSPO, RTRS certification or equivalent, or palm oil with RSPO certification, in line with HSBC's Forestry and Agricultural Commodities policy Other land use loans must, where applicable, meet HSBC's Agricultural Commodities Policy Schemes for allocation and protection of environment, local community, biodiversity or equivalent 	Dark Green
•	Clean Transport	 Low energy or emission transportation assets, systems, infrastructure, components and services Examples include Rail Tram, Metro, Bus Rapid Transit systems, Electric Vehicles 	Medium Green ✓ Consider the fuel type and comparison to current practice of all elements of each project.
•	Sustainable Water Management	 Water collection, treatment, recycling, re-use, technologies and related infrastructure Examples include water pipes and collection facilities to collect water/rainwater, dams, treatment plant facilities 	Dark Green ✓ Consider waste recycling rates.
•	Climate Change Adaptation	• Flood defences systems and related infrastructure	Dark Green

Strengths

HSBC policies

Beyond the process for developing green bonds, HSBC has in place strategies that focuses on sustainability. In its operations HSBC follows the OECD guidelines for multinational enterprises, the UN Global Compact (a voluntary initiative based on commitments to implement universal sustainability principles and to take steps to support UN goals) and the Equator Principles.

The Equator Principles state that environmental and social due diligence is commensurate with the nature, scale and stage of the project, and the level of environmental and social risk impacts. Under these principles large projects with possible significant environmental or social risks require a formal Environmental and Social Impact Assessment to be completed. All projects will have to demonstrate compliance with local standards and regulations and for non-designated countries (low-income countries as well as non-OECD countries), applicable IFC Performance Standards and World Bank Group Environmental, Health and Safety Guidelines as well.

HSBC has developed polices in sectors which may have a high adverse impact on people or the environment. The sector policies established by HSBC places additional restrictions on products and services that the group will offer. HSBC closes banking relationships with customers where their activities in these sectors are and remain non-compliant with the bank's risk policies. For example one such restriction is that HSBC's Global Businesses must check that their customers operating in the forestry sector are 100% certified if they are logging in or buying from High Risk Countries.

Governance

The governance structure of the HSBC green bond framework creates a solid base to ensure that only green business and projects are financed by the proceeds of the green bonds.

Under the framework a Green Bond Committee (GBC) will be established to approve disbursement to green business and projects. Lending businesses from HSBC may propose to the GBC Business and Projects to be considered for funding. Approved disbursements to eligible business and projects will be recorded in the minutes of the GBC meeting.

The GBC has been established made up of sustainability experts, senior directors and managers with responsibility for governing the HSBC Green Bond framework. Business teams will identify potential green lending for HSBC Green Bond Use of Proceeds.

In all cases, Group Sustainability will have a final veto on eligibility decisions. HSBC has internal knowledge and expertise on climate change, which will be employed in decisions made with regards to HSBC's Green Bond. HSBC has told us that in specific cases The Climate Change Centre of Excellence (CCCoE) could be asked for help in assessing a proposed green bond asset/loan. In our assessment of the environmental integrity of HSBC Green Bond framework CICERO puts weight on the strength that the Group Sustainability in all cases have a veto on eligibility and the possibility of asking The Climate Change Centre of Excellence (CCCoE) for help in specific cases.

Beyond the consideration of specific project types, it is important to evaluate the potential for macro-level impacts of climate activities. Due to the complexity of how socio-economic activities impact the climate; a specific project is likely to have interactions with the broader community beyond the project borders. These interactions may or may not be climate-friendly, and thus need to be considered with regards to the net impact of climate-related investments. This can occur when emission reductions result in a net increase in emitting activities. For example, energy efficiency improvements that lower energy costs, inducing more energy use and partially offsetting energy savings. This can have the end result of lower reduction in emissions than anticipated. While these effects can never be entirely avoided, it is recommended to be aware of possible rebound effects and avoid investing in projects where the risk of such effects is particularly high. CICERO is therefore encouraged to see that HSBC will apply lifecycle analysis and rebound review wherever appropriate and consider the longer-term net impact of the Business and Project under review. Lifecycle analysis are important in e.g. waste management projects where waste could be transported long distances. It is a clear strength that according to the internal guideline of the Green Bond framework a particular focus will be on comparing a project or business to feasible alternatives. This will be reinforced by the Group Sustainability representation in the Green Bond Committee.

It is further a clear strength that for each green bond issuance under the HSBC Green Bond framework HSBC will engage an appropriate external assurance provider to independently assure the Green Bond Progress report on an annual basis, and opine on its conformity with HSBC Green Bond framework. The annual Green Progress Report and related assurance report will be made available to the public at the HSBC webpage.

CICERO is also encouraged to see that HSBC in their Green Bond framework welcomes constructive feedback and input with the view to better meeting the objectives of investors and ultimately supporting a greater beneficial sustainability impact from the Use of Proceeds of green bonds in a manner consistent with HSBC's commitment to its wider stakeholders.

Earmarking and allocating proceeds

The Green Bond Principles state that management process for tracking proceeds should be clearly and publicly disclosed. HSBC will track the Use of Proceeds of a green bond via its internal information systems.

The proceeds of each HSBC Green Bond will be booked under an earmarked position which is set up for each Green Bond specifically in the appropriate internal system.

Weaknesses

There are no substantial weaknesses in HSBCs green bond framework.

Pitfalls

Not only green projects but also green businesses will be eligible under the HSBC green bond framework. Where a business derives 90% or more of revenues from activities in Eligible Sectors (i.e. essentially green business) it is considered as eligible for financing from HSBC Green Bond proceeds. In these instances, Use of Proceeds can be used by the business for general purposes, so long as this financing does not fund expansion into activities falling outside the Eligible Sectors.

According to the framework businesses that have a diverse range of activities, require the underlying entities to demonstrate highly sustainable values and practices to the core of their operations. This can be evidenced in a variety of formats including but not exclusively: robust sustainability reporting and practices, appropriate corporate marketing, external ESG research etc.

The eligible project categories are a good tool to ensure that investments are only made in "green" projects and business. However, there is a potential risk that some of the categories including the transport and waste management product categories could theoretically include projects that may not represent significant improvements over the status quo. HSBC recognise that the transition to a low carbon economy may, in some instances, require small amounts of fossil fuel to be used in enabling transition activities. As such, Businesses and Projects in certain sectors (for example sustainable waste management and transportation sectors) will allow for certain elements of fossil fuel consumption in the lifecycle of the Businesses / Project. HSBC will in these sectors, exercise specific caution when assessing the eligibility for green bond financing to ensure that the net impact is significantly positive.

Transparency and monitoring, reporting and verification

Transparency, reporting and monitoring are key in order to enable investors to follow the implementation of the HSBC Green Bond Program, and to provide information of the positive social

and environmental returns to investors. The Green Bond Principles state that issues should, "where feasible, report on the positive environmental impact of the investments funded by Green Bond proceeds." This could take the form of a periodic, independent evaluation against predefined key performance indicators.

Transparency is essential to ensure that investors are able to understand the green bond process and issuers are able to demonstrate both that they have a reasonable process in place and that the process is being implemented. Issuers have the option to use internal or external evaluations to provide transparent analysis of the process.

The HSBC green bond issuing entity will provide a Green Progress Report on an annual basis including aggregate amounts of funds allocated to the various green bond sectors and examples of eligible green Business and Projects.

In all cases information with respect to borrowers and their Business and Projects, full reporting will be subject to the availability of information and permitted disclosure in accordance with existing confidentiality agreements and competition issues. CICERO has some concerns that not all green bond projects that are funded are listed and made available to the public. These concerns are partially accommodated by the strength of the framework that for each Green Bond issuance, HSBC will engage an appropriate external assurance provider to independently assure the Green Bond Progress Report, on an annual basis, and opine on its conformity with the HSBC Green Bond framework. Reports will be made available to the public at HSBC Group webpage.

CICERO encourages HSBC to include in the progress report appropriate environmental impact reporting. Impact reporting is an important tool to enhance transparency in regard to the projects economic risk from climate change and the environmental effectiveness of the projects.