

SECOND PARTY OPINION (SPO)

Sustainability Quality of the Issuer and Green Bond Programme

Deutsche Hypothekenbank (Actien-Gesellschaft)
15 October 2019

CONTENTS

Overall Evaluation of the Green Bond	3
ISS-oekom ASSESSMENT SUMMARY.....	3
Contribution of the Green Bond to the UN SDGs	4
ISS-oekom SPO ASSESSMENT.....	5
PART I: GREEN BOND PRINCIPLES.....	5
PART II: SUSTAINABILITY QUALITY OF THE GREEN BOND ASSET POOL.....	8
Commercial Real Estate	8
PART III: ASSESSMENT OF DEUTSCHE HYPO'S ESG PERFORMANCE.....	11
DISCLAIMER.....	12
ANNEX 1: ISS-oekom Corporate Rating	13
ANNEX 2: Projects included in the asset pool.....	17
ANNEX 3: Methodology	23
About ISS-oekom SPO	24

Overall Evaluation of the Green Bond

Deutsche Hypothekenbank (Deutsche Hypo) commissioned ISS-oekom to assist with its Green Bond Programme by assessing three core elements to determine the sustainability quality of the Bond:

1. Deutsche Hypo's Green Bond framework – benchmarked against the International Capital Market Association's (ICMA) Green Bond Principles (GBPs).
2. The asset pool – whether the projects aligned with ISS-oekom's issue-specific key performance indicators (KPIs) (See Annex 3).
3. Deutsche Hypo's sustainability performance, according to the ISS-oekom Corporate Rating.

ISS-oekom ASSESSMENT SUMMARY

SPO SECTION	SUMMARY	EVALUATION ¹
Part 1: Performance against the GBPs	Deutsche Hypo has defined a formal concept for its Green Bonds regarding use of proceeds, processes for project evaluation and selection, management of proceeds and reporting. This concept is in line with the ICMA GBPs.	Positive
Part 2: Sustainability quality of the asset pool	The overall sustainability quality of the asset pool in terms of sustainability benefits, risk avoidance and minimisation is good based upon the ISS-oekom Green Bond KPIs. The Green Bond KPIs contain a clear description of eligible asset categories which include new and existing commercial green buildings. All assets of the asset pool are located in highly regulated and developed countries. Legislative frameworks in those countries set minimum standards, which reduce environmental and social risks.	Positive
Part 3: Issuer sustainability performance	Deutsche Hypo shows a moderate sustainability performance and has been classified as 'Prime' within the methodology of the ISS-oekom Corporate Rating. It is rated 9 th out of 79 companies within its sector as of 15.10.2019.	Status: <i>Prime</i> Rating: <i>C+</i> Prime threshold: <i>C</i>

¹ The ISS-oekom's present evaluation will remain valid until any modification of the Green Bond Framework or addition of new assets into the asset pool by the issuer and as long as the issuer's Corporate Rating does not change (last modification on the 26.07.2018). The controversy check of the underlying assets has been conducted on the 11.10.2019.


Contribution of the Green Bond to the UN SDGs

Based on the assessment of the sustainability quality of the green bond asset pool and using a proprietary methodology, ISS-oekom assessed the contribution of the Deutsche Hypo's green bond programme to the Sustainable Development Goals defined by the United Nations (UN SDGs).

This assessment is displayed on 5-point scale (see Annex 3 for methodology):



Each of the green bond's Use of Proceeds categories has been assessed for its contribution to, or obstruction of, the SDGs:

USE OF PROCEEDS CATEGORY	CONTRIBUTION OR OBSTRUCTION	SUSTAINABLE DEVELOPMENT GOALS
Green Buildings (commercial real estate)	Significant contribution	

The issuer's green bond programme significantly contributes to the SDGs 11 thanks to its Use of Proceeds categories promoting sustainable buildings.

ISS-oekom SPO ASSESSMENT

PART I: GREEN BOND PRINCIPLES

1. Use of Proceeds

The proceeds of the Green Bonds (Green Pfandbriefe as well as Green Seniors) to be issued by Deutsche Hypo will be exclusively used to finance the construction, acquisition or energy efficiency renovation of energy efficient buildings. These Green Buildings serve as collateral for loans granted by or to be granted by Deutsche Hypo.

The total asset pool comprises EUR 1.992.171.100. Details regarding the projects included in the asset pool, per 30.07.2019, are listed in a table in Annex 2.

Opinion: ISS-oekom considers the Use of Proceeds description provided by Deutsche Hypo Green Bond Framework as aligned with the Green Bond Principles. The sustainability objectives of the issuance are in line with the sustainability strategy of the issuer.

2. Process for Project Evaluation and Selection

Deutsche Hypo has established a Green Building Commission to define minimum requirements for inclusion of an asset in the green bond asset pool. The Green Building Commission consists of members of the sustainability team who support the sustainability management. The eligibility criteria for inclusion of an asset in the green bond asset pool are regularly reassessed to ensure that they meet the minimum standards expected in the target markets. A financed building qualifies as a Green Building – as defined by Deutsche Hypo – if the eligibility criteria valid at the time of financing are met.

Currently, Deutsche Hypo's Green Building Commission has set the following minimum requirements for an asset to qualify as a Green Building:

Energy certificate with a maximum end energy demand or consumption in kWh/m²a by building type:

- 60 kWh/m²a for residential properties
- 30 kWh/m²a for logistics buildings
- 70 kWh/m²a for retail buildings (shopping malls, department stores)
- 95 kWh/m²a for other retail buildings
- 95 kWh/m²a for hotel buildings (up to 3 star hotels)
- 105 kWh/m²a for hotel buildings (4 to 5 star hotels)
- 110 kWh/m²a for production and storage buildings (with heating)
- 110 kWh/m²a for office buildings without air conditioning
- 135 kWh/m²a for office buildings with air conditioning

or

Green building certification:

- LEED Gold or above
- BREEAM Very good or above
- DGNB Gold or above
- HQE Performant or above
- In addition, in the Netherlands it is also possible to use an energy performance certificate of energy efficiency class "A".

If the use of renewable energies reduces the primary energy demand or consumption and it is thus below the end energy value, the primary energy demand or consumption is used for the assessment.

It is possible to classify financed real estate as Green Buildings without an energy certificate or building sustainability certificate. This is conceivable in the following cases:

- Project developments in which the customer aims to achieve an energy consumption or building sustainability certificate status that is compatible with the current Green Bond minimum standards.
- Financed properties for which the energy consumption of a property with a high structural analogy is demonstrably available, which was also financed by Deutsche Hypo and is part of the Green Asset Pool. This requires an internal or external expert's opinion with the determination of an estimated energy consumption.

Further, properties of clients active in controversial business areas cannot be financed. If a property is leased by a controversial entity, it cannot be financed either. Controversial business segments are defined at Deutsche Hypo in the "Financing guidelines for controversial business segments". A current summary of the currently excluded business segments is provided in the Sustainability Report in the chapter entitled "Sustainability at Deutsche Hypo".

If it turns out that a Green Building is rent out to a main tenant (defined as >10% of revenue) active in controversial business areas, the property will be removed from the green bond asset pool.

In addition to issuing green bonds, the granting of green loans is intended to ensure the necessary sustainability aspects of Deutsche Hypo's business activities on the assets side as well. The green loan criteria are based on green bond criteria but stricter.

Opinion: *ISS-oekom finds that the process for evaluation and selection of potential eligible assets is aligned with the Green Bond Principles. The process to determine that projects fit within the defined categories is well structured, responsibilities are defined, and Deutsche Hypo has a documented process to identify and manage potential ESG risks associated with the project.*

3. Management of Proceeds

The treasury department regularly verifies, whether buildings already earmarked as suitable for a Green Bond emission still meet the eligibility criteria. If an asset no longer meets the eligibility criteria, it is replaced by another asset. An asset no longer meets the eligibility criteria if the green building or energy efficiency certificate expired or if a tenant active in controversial business areas occupies the building.

Deutsche Hypo seeks to ensure that eligible assets within the green bond asset pool exceed the total proceeds of outstanding and to be issued bonds. In the case of unallocated proceeds, Deutsche Hypo will invest these in deposits of financial institutions which show a moderate sustainability performance validated by a recognised sustainability rating agency (i.e. financial institutions rated 'Prime' by ISSoekom).

Opinion: *ISS-oekom finds that Deutsche Hypo's earmarking of the green bond proceeds is good and that intended types of temporary investment instruments for unallocated proceeds are disclosed and back-up options are subject to sustainable criteria.*

4. Reporting

Deutsche Hypo will publish a Green Bond Reporting on its website² on an annual basis. The Green Bond Reporting will contain the following aggregated information:

- Volume of eligible assets in the green bond asset pool
- Carbon avoidance of all eligible assets in comparison to a relevant average
- Information on Green Buildings (e.g. green building certificates, location, sustainability criteria)

Moreover, Deutsche Hypo will publish information on outstanding bonds on a regular basis.

Opinion: *ISS-oekom finds that the reporting indicators are already well defined and aligned with the Green Bond Principles. However, the roles and responsibilities within the monitoring and reporting process are not defined. Also, there is no indication given concerning the duration of the reporting.*

External review

Deutsche Hypo has commissioned ISS-oekom to review the implementation of the Green Bond Principles and the sustainability quality of the Green Bond Programme. This Second Party Opinion will be published on Deutsche Hypo's website³.

² www.deutsche-hypo.de

³ www.deutsche-hypo.de

PART II: SUSTAINABILITY QUALITY OF THE GREEN BOND ASSET POOL

Evaluation of the assets

Commercial Real Estate




Green buildings are beneficial from an environmental point of view as they contribute to climate protection through optimised energy efficiency and air quality. Further, green buildings help to conserve natural resources and reduce environmental impact through the reduction of waste and wastewater. From a social point of view, green buildings can improve occupant health and comfort.

At the same time, there are possible sustainability risks that need to be taken into account. Possible social risks stem from working conditions at construction sites, the integration of new buildings into the social context and the safety of building users. Environmental risks stem from impacts on biodiversity at the planning stage, as well as from poor resource efficiency during construction phase and at the use stage.

All projects selected for the Green Bond are located in highly-regulated and developed countries.

Association of the Asset Category with the SDGs

As a Use of Proceeds category, commercial real estate has a significant contribution to the SDG 11 “Sustainable cities and communities” when achieving high standards regarding energy efficiency. Additionally, when considering the deeper ESG management, they can be associated to other SDGs. The table below presents the findings of an ISS-oekom assessment of the assets (re-) financed against KPIs and the association with SDGs based on a mapping methodology.

ASSESSMENT AGAINST ISS-OEKOM ESG KPI	ASSOCIATION WITH THE SDGS
<p>Energy Efficiency prerequisites</p> <p>✓ All the assets underwent an appropriate and detailed selection process that ensures good standards regarding energy efficiency.</p>	 
<p>Involvement of local residents at the planning stage - applicable for new buildings only</p> <p>○ For all newly constructed or renovated buildings⁴ in the asset pool, no information is available on the involvement of local residents at the planning stage.</p>	

⁴ Year of construction or renovation as of 2018.

Environmental standards for site selection - applicable for new buildings only

✓ 5 out of the 7 newly constructed or renovated buildings with a floor space of above 5,000 m², accounting for 99% of the respective asset pool's volume, are inside metropolitan areas. For the 2 out of 7 newly constructed buildings outside metropolitan areas, accounting for 1% of the respective asset pool's volume, an environmental impact assessment is not available. For the remaining new buildings, no information on floor space is available.



✓ 7 out of the 13 newly constructed or renovated buildings, accounting for 86% of the respective asset pool's volume, were developed on brownfield sites. The remaining projects, accounting for 14% of the asset pool, were developed on a greenfield site.



Access to public transport

✓ 134 out of 143 building projects, accounting for 97% of the asset pool, are located within a maximum of 1 km from one or more modalities of public transport. The remaining projects, accounting for 3% of the asset pool, are within a maximum of 10 km from a modality of public transport.



Social standards for construction

✓ All newly constructed or renovated building projects are located in countries where high labour standards are in place for construction work conducted by own employees and contractors (e.g. ILO core conventions).



✓ For all newly constructed or renovated building projects, high standards regarding health and safety for both own employees and contractors are in place (provided for by national legislation).



Environmental standards for construction

○ For all newly constructed or renovated building projects in the asset pool, no information is available on environmental standards during construction/renovation (e.g. waste and energy consumption and adequate management of waste streams at construction site)



Sustainable building materials

○ For all newly constructed or renovated building projects in the asset pool, no information is available on sustainable procurement measures regarding building materials (e.g. recycled materials, third-party certification of wood bases materials)



Water use minimization in buildings

- For 15 out of 143 building projects, accounting for 19% of the asset pool, adequate measures to reduce water use are in place (e.g. greywater recycling, efficient applications). For the remaining projects, no information is available on adequate measures.



Safety of buildings users

- ✓ For 63 out of 143 building projects located in Germany, accounting for 61% of the asset pool, operational safety is ensured by constructional measures (e.g. fire safety, exit routes) (based on national legislation). For the remaining projects, accounting for 39% of the asset pool, no detailed information on safety is available.



Sustainability labels / Certificates

- 32 out of 143 building projects, accounting for 45% of the asset pool, achieved good scores in green building certificates, i.e. minimum BREEAM "Very Good", LEED "Gold", DGNB "Gold", or HQE "Performant". For the remaining projects, building certificates are not available or no certificates were issued.



Sustainable use / purpose of buildings

- ✓ For all building projects, production facilities of armaments, pesticides, tobacco and generation facilities for environmentally controversial energy forms such as nuclear power or fossil fueled power are excluded by Deutsche Hypo.



Controversy assessment

- ✓ A controversy assessment on the included projects did not reveal any controversial activities or practices that could be attributed to the building projects.

The methodology for the asset evaluation can be found in Annex 3.

PART III: ASSESSMENT OF DEUTSCHE HYPO'S ESG PERFORMANCE

The ISS-oekom Corporate Rating comprises a rating scale from A+ (excellent) to D- (poor).

COMPANY	RATING	STATUS
Deutsche Hypothekbank	C+	PRIME

This means that the company performed well in terms of sustainability, both compared against others in the industry and in terms of the industry-specific requirements defined by ISS-oekom. In ISS-oekom's view, the securities issued by the company therefore all meet the basic requirements for sustainable investments.

As of 15.10.2019, this rating places Deutsche Hypothekbank 9th out of 79 companies rated by ISS-oekom in the Financials/Mortgage & Public sector.

In this Sector, ISS-oekom has identified the following issues as the key Challenges facing companies in term of sustainability management:

- Sustainability impacts of lending and other financial services/products
- Statutory ESG-standards linked to the geographical allocation of the lending portfolio
- Customer and product responsibility
- Employee relations and work environment

In all four of the key issues, Deutsche Hypo achieved a rating that was above the average for the sector. A significant outperformance was achieved in "Customer and product responsibility" and "Employee relations and work environment".

The company does not face any controversy, which is in line with its sector's minor controversy risk.

Details on the rating of the issuer can be found in Annex 1.



Robert Hassler, Head of ISS-oekom
London/Munich/Rockville/Zurich

DISCLAIMER

1. Validity of the SPO: For Deutsche Hypo's potential Green Bond issuances occurring between 10/2019 and 10/2020.
2. ISS-oekom uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to the highest quality standards which are customary in responsibility research worldwide. In addition, we create a Second Party Opinion (SPO) on bonds based on data from the issuer.
3. We would, however, point out that we do not warrant that the information presented in this SPO is complete, accurate or up to date. Any liability on the part of ISS-oekom in connection with the use of these SPO, the information provided in them and the use thereof shall be excluded. In particular, we point out that the verification of the compliance with the selection criteria is based solely on random samples and documents submitted by the issuer.
4. All statements of opinion and value judgements given by us do not in any way constitute purchase or investment recommendations. In particular, the SPO is no assessment of the economic profitability and credit worthiness of a bond but refers exclusively to the social and environmental criteria mentioned above.
5. We would point out that this SPO, in particular the images, text and graphics contained therein, and the layout and company logo of ISS-oekom and ISS-ESG are protected under copyright and trademark law. Any use thereof shall require the express prior written consent of ISS. Use shall be deemed to refer in particular to the copying or duplication of the SPO wholly or in part, the distribution of the SPO, either free of charge or against payment, or the exploitation of this SPO in any other conceivable manner.

The issuer that is the subject of this report may have purchased self-assessment tools and publications from ISS Corporate Solutions, Inc. ("ICS"), a wholly-owned subsidiary of ISS, or ICS may have provided advisory or analytical services to the issuer. No employee of ICS played a role in the preparation of this report. If you are an ISS institutional client, you may inquire about any issuer's use of products and services from ICS by emailing disclosure@issgovernance.com.

This report has not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. While ISS exercised due care in compiling this report, it makes no warranty, express or implied, regarding the accuracy, completeness or usefulness of this information and assumes no liability with respect to the consequences of relying on this information for investment or other purposes. In particular, the research and scores provided are not intended to constitute an offer, solicitation or advice to buy or sell securities nor are they intended to solicit votes or proxies.

ISS is an independent company owned by entities affiliated Genstar Capital ("Genstar"). ISS and Genstar have established policies and procedures to restrict the involvement of Genstar and any of Genstar's employees in the content of ISS' reports. Neither Genstar nor their employees are informed of the contents of any of ISS' analyses or reports prior to their publication or dissemination. The issuer that is the subject of this report may be a client of ISS or ICS, or the parent of, or affiliated with, a client of ISS or ICS.

© 2019 | Institutional Shareholder Services and/or its affiliates

ISS-oekom Corporate Rating

Deutsche Hypothekenbank AG

Industry	Financials/Mortgage & Public Sector Finance	Status	Prime
Country	Germany	Rating	C+
ISIN	DE000DHY4614	Prime Threshold	C



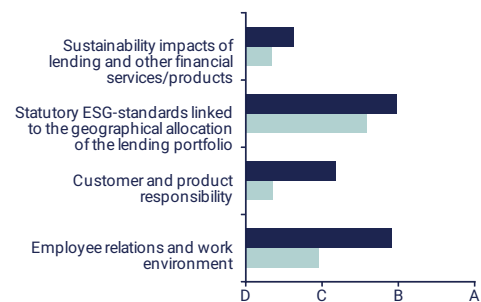
The assessment of a company's sustainability performance is based on approximately 100 criteria, selected specifically for each industry. A company's failure to disclose, or lack of transparency, regarding these matters will impact a company's rating negatively.

Industry Leaders

Company name (in alphabetical order)	Country	Grade
Berlin Hyp AG	DE	B-
Münchener Hypothekenbank eG	DE	B-
de Volksbank N.V.	NL	B

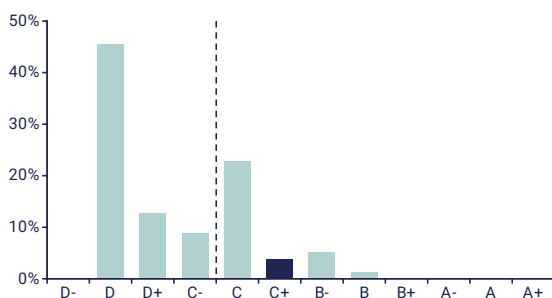
Legend: ■ Industry ■ Company --- Prime

Key Issue Performance

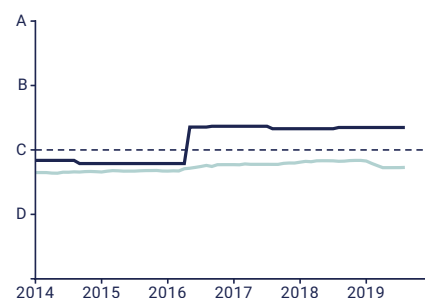


Distribution of Ratings

79 companies in the industry

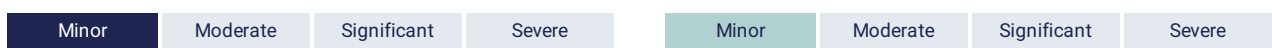


Rating History



Controversy Monitor

Company		Industry	
Controversy Score	0	Maximum Controversy Score	0
Controversy Level	Minor	Controversy Risk	Minor



Deutsche Hypothekenbank AG

Analyst Opinion

Amery Guelker
Sector specialist



Sustainability Opportunities

Deutsche Hypothekenbank finances large-scale commercial real estate projects and invests in government debt. Apart from some green buildings, certified to LEED, BREEAM and DNGB standard, the company's product portfolio does not encompass solutions to global sustainability challenges.

Sustainability Risks

Deutsche Hypothekenbank's (Deutsche Hypo) covered pool claims are primarily located in countries with fairly good environmental and social minimum standards, primarily in Germany, the Netherlands, the United Kingdom and France. Although the environmental and social risk profile from its lending portfolio appears to be rather uncritical, Deutsche Hypo appears to have made only basic efforts to minimise the impact of loan origination. The institute applies some general regulations concerning human and labour rights, and excludes financing of banned and controversial weapons. Though not strict, the company has implemented some guidelines concerning typical sustainability issues of the real estate sector, such as energy efficiency, emissions-intensity, construction materials and access to public transport. However, measures for ensuring the application of these standards appear to be underdeveloped. Customer and product responsibility is addressed through a comprehensive strategy on marketing as well as through some suitable procedures for treating clients with debt repayment problems fairly.

Deutsche Hypo's employees enjoy well-developed work-life balance and adequate health and safety structures. Ethics risks are managed via a code of conduct, which covers most important topics, such as corruption, conflict of interests, insider dealings, and money laundering in detail, and is underpinned by suitable measures, such as compliance training and a reasonable whistleblower mechanism.

Governance Opinion

Deutsche Hypothekenbank (Deutsche Hypo) is a wholly-owned subsidiary of Norddeutsche Landesbank, ultimately owned by the State of Lower Saxony, Germany. The chair of the supervisory board (Thomas Bürkle) is not independent as he is also the chief executive of Deutsche Hypo's parent company (as at July 2018). Likewise, the majority of the remaining board members are not independent. Board committees in charge of audit, remuneration and nomination are in place but primarily consist of non-independent board members. The bank discloses figures for remuneration split-up according to fixed amounts and variable short and long-term performance components, but only for the executive team as a whole.

A respective board committee dedicated to sustainability appears to be missing. There is no information whether and how ESG targets form part of the remuneration scheme of Deutsche Hypo's executive management.

The bank's code of conduct, applied throughout the entire Norddeutsche Landesbank group, comprises most of the relevant compliance topics in detail. This includes stipulations on corruption, insider dealing, conflict of interests, gifts and favours, as well as money laundering. Employee are required to give formal acknowledgment to the code and regular training as well as reporting channels, anonymous and confidential, if needed, are designed to additionally ensure compliance.

Deutsche Hypothekbank AG

Methodology - Overview

ISS-oekom Corporate Rating - The ISS-oekom Universe comprises more than 3,900 companies (mostly companies in important national and international indices, but also small and mid caps drawn from sectors with direct links to sustainability as well as significant non-listed bond issuers).

The assessment of a company's social & governance and environmental performance is based on approximately 100 environmental, social and governance criteria, selected specifically for each industry. All criteria are individually weighted and evaluated and the results are aggregated to yield an overall score (rating), in which the key issues account for at least 50 per cent of the total weight. In case there is no relevant or up-to-date company information available on a certain criterion and no assumptions can be made based on predefined standards and expertise, e.g. known and already classified country standards, the criterion is graded with a D-.

In order to obtain a comprehensive and balanced picture of each company, our analysts assess relevant information reported or directly provided by the company itself as well as information from independent sources. In addition, our analysts actively seek a dialogue with the assessed companies during the rating process and companies are regularly given the opportunity to comment on the results and provide additional information.

An external rating committee assists the analysts at ISS-oekom with the content-related design of industry-specific criteria and carries out a final plausibility check of the rating results at the end of the rating process.

Analyst Opinion - Qualitative summary and explanation of the central rating results in three dimensions:

- (1) Opportunities - assessment of the quality and the current and future share of sales of a company's products and services, which positively or negatively contribute to the management of principal sustainability challenges.
- (2) Risks - summary assessment of how proactively and successfully the company addresses specific sustainability challenges found in its business activity and value chain, thus reducing its individual risks, in particular regarding its sector's key issues.
- (3) Governance - overview of the company's governance structures and measures as well as of the quality and efficacy of policies regarding its ethical business conduct.

Controversial Business Practices and Areas - In addition to the rating, ISS-oekom undertakes a comprehensive analysis of relevant controversies with respect to numerous business practices and areas for each company. Thereby, our clients have the possibility to consider, either separately or in addition to the rating, the behaviour and the activities of a company in areas they view as especially critical.

With regard to business practices, each controversial case is examined and categorised based on whether it can be clearly attributed to the company. Additionally, the extent of the company's responsibility and the severity of the case are assessed. For the classification of the severity of the misconduct, the concrete negative effects are systematically evaluated. In addition, it is considered whether, to what extent and with what success the company has taken steps to mitigate the impact, to compensate it and to prevent similar incidents from occurring in the future.

To account for the varying levels of severity of the controversies, these are classified into the following three categories: moderate controversies, severe controversies and very severe controversies. Additionally, potential controversies are presented. These constitute issues which could be reclassified into one of the three controversy categories in case new information is reported. The classification follows a clear and uniform methodology for which ISS-oekom has defined specific evaluation parameters and their possible manifestations along a scale, based on international norms and standards and its own understanding of sustainability.

In the Business Practices section, the number of relevant and active cases is displayed in the respective cells. For each criterion, the sum of all corresponding cases for each sub-category is shown in the first line. In the Business Areas section, the activity is marked "x" and summarised as "yes" or "no". The percentage thresholds in the column headers generally refer to the Net Sales of the assessed company. As Net Sales are not an adequate reference value for all companies, these thresholds can refer to other values in individual cases (e.g. for different financial service providers).

Current cases are summarised in the "Comments" field. Irrespective of active cases, criteria marked as "Risk Exposure" indicate the company's risk exposure to controversies based on its business activities.

For the assessment of cases only those sources that have been classified by ISS-oekom as reliable are used. In addition to proven misconduct or activities of companies, alleged misconduct or activities are also assessed when the facts and circumstantial evidence provided by those sources, taking into account the experience of specialised analysts for each topic, is estimated to be sufficiently reliable. This applies not only to alleged practices, but also to the alleged serious negative effects of such practices.

Deutsche Hypothekenbank AG

Methodology - Overview

Controversy Monitor - The Controversy Monitor is a tool for assessing and managing reputational and financial risks associated with companies' negative environmental and social impacts.

The controversy score is a unit of measurement for the number and severity of a company's current controversies. All controversial business areas and business practices receive a negative score, which can vary depending on the significance, number and severity of the controversies. Both the company's score and the maximum score obtained in the industry are displayed.

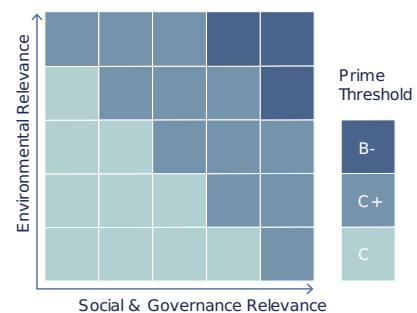
For better classification, the scores are assigned different levels: minor, moderate, significant and severe. The industry level relates to the average controversy score.

Only controversies for which reliable information from trustworthy sources is available are recorded. In addition to proven misconduct and activities of companies, alleged misconduct and activities are also assessed when the facts and circumstantial evidence provided by those sources, taking into account the experience of specialised analysts for each topic, is estimated to be sufficiently reliable. It should be noted that large international companies are more often the focus of public and media attention. Thus, the information available on those companies is often more comprehensive than for less prominent companies.

Distribution of Ratings - Overview of the distribution of the ratings of all companies from the respective industry that are included in the ISS-oekom Universe (company portrayed in this report: dark blue).

Industry Classification - The social and environmental impacts of industries differ. Therefore, based on its relevance, each industry analysed is classified in a Sustainability Matrix.

Depending on this classification, the two dimensions of the ISS-oekom Corporate Rating, the Social Rating and the Environmental Rating, are weighted and the sector-specific minimum requirements for the ISS-oekom Prime Status (Prime threshold) are defined (absolute best-in-class approach).



Industry Leaders - List (in alphabetical order) of the top three companies in an industry from the ISS-oekom Universe at the time of generation of this report.

Key Issue Performance - Overview of the company's performance with regard to the key social and environmental issues in the industry, compared to the industry average.

Major Shareholders & Ownership Summary - Overview of the company's major shareholders at the time of generation of this report. All data as well as the categorisation system for the investor types is based on information from S&P Capital IQ.

Rating History - Development of the company's rating over time and comparison to the average rating in the industry.

Rating Scale - Companies are rated on a twelve-point scale from A+ to D-:

A+: the company shows excellent performance.

D-: the company shows poor performance (or fails to demonstrate any commitment to appropriately address the topic).

Overview of the range of scores achieved in the industry (light blue) and indication of the grade of the company evaluated in this report (dark blue).

Sources of Information - A selection of sources used for this report is illustrated in the annex.

Status & Prime Threshold - Companies are categorised as Prime if they achieve/exceed the minimum sustainability performance requirements (Prime threshold) defined by ISS-oekom for a specific industry (absolute best-in-class approach) in the ISS-oekom Corporate Rating. Prime companies rank among the sustainability leaders in that industry.

ANNEX 2: Projects included in the asset pool

NO.	COUNTRY	TYPE OF BUILDING / PROJECT	GREEN BUILDING CERTIFICATION	LEVEL OF CERTIFICATE	ENERGY CERTIFICATE AVAILABLE	CONSTRUCTION YEAR	YEAR OF RENOVATION	SHARE OF TOTAL
1	DE	Retail building (shopping center)	DGNB	Platin		2008		1.7%
2	DE	Office building with A.C.	DGNB	Platin	Yes	2010		1.5%
3	DE	Production and storage building			Yes	2010		1.3%
4	DE	Retail building (shopping center)	DGNB	Gold			2011	3.3%
5	DE	Office building with A.C.	LEED	Gold		2006		0.5%
6	NL	Office building with A.C.			Yes	2010		0.9%
7	DE	Office building with A.C.	DGNB	Platin	Yes	2009		0.6%
8	DE	Retail building			Yes	1958	2011	1.8%
9	DE	Retail building (shopping center)	DGNB	Platin		1969	1996	1.8%
10	DE	Retail building (shopping center)			Yes	2012		0.3%
11	DE	Production and storage building			Yes	2015		0.6%
12	DE	Office building with A.C.			Yes	1962	2009	0.1%
13	DE	Office building without A.C.			Yes	1924	2009	1.1%
14	DE	Hotel building (4 or 5 star hotels)			Yes	1986	2013	2.2%
15	DE	Retail building (shopping center)	DGNB	Gold		1998	2006	1.4%
16	DE	Office building with A.C.	DGNB	Gold	Yes	2014		1.1%
17	DE	Hotel building (up to 3 star hotels)			Yes	2016		0.7%
18	DE	Office building with A.C.	DGNB	Silber		2011		1.6%
19	DE	Office building without A.C.	DGNB	Gold	Yes	2013		0.5%

20	DE	Office building with A.C.	DGNB	Gold	Yes	2013		1.0%
21	DE	Office building with A.C.			Yes	2011	2013	0.9%
22	DE	Office building with A.C.			Yes	2015		2.7%
23	NL	Office building with A.C.			Yes	1958	2009	2.8%
24	NL	Residential building (new)			Yes	2017		1.6%
25	NL	Retail building			Yes	2011		0.5%
26	NL	Residential building (new)			Yes	2006		0.0%
27	PL	Retail building (shopping center)			Yes	2016		1.0%
28	DE	Retail building (shopping center)			Yes	2005		2.4%
29	DE	Office building with A.C.	DGNB	Gold	Yes	2016		1.0%
30	NL	Residential building (new)			Yes	2006		0.2%
31	DE	Office building with A.C.			Yes	2010		3.8%
32	DE	Retail building (shopping center)			Yes	2016		1.2%
33	PL	Office building with A.C.	BREEAM	Very Good		2016		2.0%
34	DE	Office building with A.C.			Yes	1964	2006	0.9%
35	DE	Office building with A.C.	LEED	Gold		2021		1.3%
36	DE	Retail building			Yes	2013		0.5%
37	DE	Production and storage building			Yes	2016		0.6%
38	DE	Office building with A.C.			Yes	2007		1.9%
39	NL	Residential building (new)			Yes	2003		0.3%
40	NL	Residential building (old)			Yes	2007		0.2%
41	NL	Residential building (new)			Yes	2005		0.1%
42	NL	Residential building (new)			Yes	2010		0.4%
43	NL	Residential building (new)			Yes	2000		0.1%
44	NL	Residential building (new)			Yes	2008		0.1%
45	NL	Residential building (new)			Yes	2007		0.2%
46	NL	Residential building (new)			Yes	2004		0.1%
47	NL	Residential building (new)			Yes	2010		0.3%

48	NL	Residential building (new)			Yes	2006	0.2%
49	NL	Residential building (new)			Yes	2004	0.0%
50	NL	Residential building (new)			Yes	2007	0.2%
51	NL	Residential building (new)			Yes	2007	0.1%
52	NL	Residential building (new)			Yes	2005	0.0%
53	NL	Residential building (new)			Yes	2005	0.1%
54	NL	Residential building (new)			Yes	2007	0.2%
55	NL	Residential building (new)			Yes	2006	0.1%
56	NL	Residential building (new)			Yes	2006	0.3%
57	NL	Residential building (new)			Yes	2007	0.1%
58	NL	Residential building (new)			Yes	2008	0.2%
59	NL	Residential building (new)			Yes	2009	0.2%
60	NL	Residential building (new)			Yes	2010	0.0%
61	NL	Residential building (new)			Yes	2010	0.1%
62	NL	Residential building (new)			Yes	2011	0.2%
63	NL	Residential building (new)			Yes	2008	0.1%
64	NL	Residential building (new)			Yes	2013	0.1%
65	NL	Residential building (new)			Yes	2012	0.1%
66	NL	Residential building (new)			Yes	2010	0.1%
67	NL	Residential building (new)			Yes	2010	0.1%
68	NL	Residential building (new)			Yes	2010	0.0%
69	NL	Residential building (new)			Yes	2013	0.1%
70	NL	Residential building (new)			Yes	2013	0.0%
71	NL	Residential building (new)			Yes	2007	0.0%
72	NL	Residential building (new)			Yes	2003	0.0%
73	NL	Residential building (new)			Yes	2002	0.0%
74	NL	Residential building (new)			Yes	2010	0.1%
75	NL	Residential building (new)			Yes	2012	0.0%
76	NL	Residential building (new)			Yes	2011	0.1%
77	NL	Residential building (new)			Yes	2013	0.2%

78	NL	Residential building (new)			Yes	2015		0.1%
79	NL	Residential building (new)			Yes	2015		0.1%
80	NL	Residential building (new)			Yes	2015		0.1%
81	NL	Residential building (new)			Yes	2005		0.1%
82	NL	Residential building (new)			Yes	2010		0.1%
83	NL	Residential building (new)			Yes	2010		0.2%
84	NL	Residential building (new)			Yes	2008		0.0%
85	NL	Residential building (new)			Yes	2016		0.2%
86	NL	Residential building (new)			Yes	2017		0.2%
87	NL	Residential building (new)			Yes	2016		0.1%
88	NL	Residential building (new)			Yes	2015		0.0%
89	NL	Residential building (new)			Yes	2016		0.1%
90	PL	Retail building	DGNB	Gold		2007		2.0%
91	DE	Office building with A.C.	LEED	Platin	Yes	2019		3.8%
92	FR	Office building with A.C.	BREEAM	Excellent		1880	2016	1.0%
93	DE	Production and storage building			Yes	2016		0.1%
94	DE	Production and storage building			Yes	2016		0.2%
95	DE	Residential building (new)			Yes	2016		0.7%
96	DE	Retail building (shopping center)			Yes	2017		1.2%
97	DE	Hotel building (4 or 5 star hotels)			Yes	1900	2010	0.6%
98	DE	Production and storage building			Yes	2016		0.4%
99	DE	Production and storage building			Yes	2017		0.6%
100	DE	Production and storage building			Yes	2016		0.1%
101	DE	Production and storage building			Yes	2016		0.1%
102	DE	Production and storage building			Yes	2016		0.1%
103	DE	Production and storage building			Yes	2016		0.1%
104	DE	Production and storage building			Yes	2015		0.1%
105	DE	Production and storage building			Yes	2014		0.0%

106	DE	Production and storage building			Yes	2016		0.2%
107	DE	Production and storage building			Yes	2018		0.9%
108	DE	Production and storage building			Yes	2014		0.2%
109	DE	Production and storage building			Yes	2014		0.1%
110	DE	Production and storage building			Yes	2017		0.1%
111	DE	Production and storage building			Yes	2017		0.1%
112	DE	Production and storage building			Yes	2017		0.0%
113	DE	Production and storage building			Yes	2016		0.2%
114	DE	Retail building (shopping center)			Yes	2012		0.4%
115	DE	Office building with A.C.			Yes	2020		0.0%
116	DE	Production and storage building			Yes	2017		0.3%
117	DE	Production and storage building			Yes	2018		0.1%
118	NL	Office building with A.C.			Yes	1998		0.9%
119	NL	Residential building (new)	BREEAM	Very Good	Yes	2017		0.9%
120	FR	Office building with A.C.	HQE	Tres Performant		1974		3.7%
121	PL	Office building with A.C.	BREEAM	Excellent	Yes	2016		1.5%
122	DE	Retail building (shopping center)	DGNB	Gold		1971	2016	3.3%
123	DE	Office building with A.C.			Yes	1950	2015	1.4%
124	PL	Office building with A.C.	LEED	Platin	Yes	2012		1.0%
125	PL	Office building with A.C.	LEED	Platin	Yes	2012		1.2%
126	DE	Office building with A.C.			Yes	2003	2018	3.2%
127	FR	Office building with A.C.	HQE	Tres Performant		2020		0.4%
128	DE	Residential building (new)			Yes	1960	2013	0.7%
129	DE	Production and storage building	DGNB	Gold		2017		0.3%
130	FR	Office building with A.C.	HQE	Performant	Yes	1967	2014	1.7%
131	DE	Office building with A.C.			Yes	2004		0.6%
132	DE	Production and storage building	LEED	Gold	Yes	2019		0.0%
133	NL	Office building with A.C.			Yes	1870	2013	0.3%
134	NL	Residential building (new)			Yes	2003	2018	0.2%

SECOND PARTY OPINION

Sustainability Quality of the
Green Bond Asset Pool

135	PL	Office building without A.C.	BREEAM	Excellent		2016		1.7%
136	NL	Residential building (new)			Yes	1993	2018	0.1%
137	NL	Residential building (new)			Yes	2018		0.5%
138	UK	Office building with A.C.			Yes	2009	2009	1.1%
139	UK	Office building with A.C.			Yes	2009	2009	1.4%
140	UK	Office building without A.C.	BREEAM	Excellent		2018		2.4%
141	UK	Office building without A.C.	BREEAM	Excellent	Yes	1975	2012	0.4%
142	IR	Hotel building (up to 3 star hotels)	BREEAM	Very Good		2019		0.4%
143	UK	Office building with A.C.	BREEAM	Excellent		2009		1.0%

ANNEX 3: Methodology

ISS-oekom Green Bond KPIs

The ISS-oekom Green Bond KPIs serves as a structure for evaluating the sustainability quality – i.e. the social and environmental added value – of the use of proceeds of Deutsche Hypo's Green Bond Programme.

It comprises firstly the definition of the use of proceeds category offering added social and/or environmental value, and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the assets can be clearly identified and described.

The sustainability criteria are complemented by specific indicators, which enable quantitative measurement of the sustainability performance of the assets and which can also be used for reporting.

To review the KPIs used in this SPO, please contact Federico Pezzolato (in next page) who will send them directly to you.

Asset evaluation methodology

ISS-oekom evaluates whether the assets included in the asset pool match the eligible project category and criteria listed in the Green Bond KPIs.

All percentages refer to the amount of assets within one category (e.g. wind power). Additionally, the assessment “no or limited information is available” either indicates that no information was made available to ISS-oekom or that the information provided did not fulfil the requirements of the ISS-oekom Green Bond KPIs.

The evaluation was carried out using information and documents provided to ISS-oekom on a confidential basis by Deutsche Hypo (e.g. Due Diligence Reports). Further, national legislation and standards, depending on the asset location, were drawn on to complement the information provided by the issuer.

Assessment of the contribution and association to the SDG

The 17 Sustainable Development Goals (SDGs) were endorsed in September 2015 by the United Nations and provide a benchmark for key opportunities and challenges toward a more sustainable future. Using a proprietary method, ISS-oekom identifies the extent to which Deutsche Hypo's Green Bond contributes to related SDGs and has a positive association with their respective sub-targets.

The contribution assessment is split into two Levels:

1. **Level 1:** Contribution and/or obstruction of the Use of Proceeds categories to be financed through the bond to the UN SDGs
2. **Level 2:** Association of the assets' ESG performance with further SDGs

About ISS-oekom SPO

ISS-oekom is one of the world's leading rating agencies in the field of sustainable investment. The agency analyses companies and countries regarding their environmental and social performance.

As part of our Sustainable (Green & Social) Bond Services, we provide support for companies and institutions issuing sustainable bonds, advise them on the selection of categories of projects to be financed and help them to define ambitious criteria.

We assess alignment with external principles (e.g. the ICMA Green / Social Bond Principles), analyse the sustainability quality of the assets and review the sustainability performance of the issuer themselves. Following these three steps, we draw up an independent SPO so that investors are as well informed as possible about the quality of the bond / loan from a sustainability perspective.

Learn more: <https://www.isscorporatesolutions.com/solutions/esg-solutions/green-bond-services/>

For Information about SPO services, and this Green Bond Programme, contact:

Federico Pezzolato

Federico.Pezzolato@isscorporatesolutions.com

SPO@isscorporatesolutions.com

+44.20.3192.5760