

WHITE PAPER

Navigating the biodiversity landscape

Hunting for decision-useful data



Biodiversity increasingly recognized as material for investors

There is no denying that biodiversity is one of the most important topics for investors today. Almost half our global economy is dependent on nature, but we are depleting it faster than its ability to replenish. Research by the Network for Greening the Financial System (NGFS) and the Dutch National Bank (DNB) suggests that biodiversity loss poses a systemic risk to the financial system and the economy.

Dependencies: How companies rely on biodiversity and the services it provides. Examples include raw materials, water supply, pollination, carbon storage and flood management to name a few.

Impacts: How companies affect biodiversity. Their activities change the quality and quantity of nature through the five drivers of biodiversity loss as defined by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). These are land and sea use change, resource exploitation, invasive species, pollution, and climate change.

Physical risk: The financial risk as a result of the degradation of these ecosystem services.

Transition risk: The financial risk that results from the misalignment of company action with the increased expectations of regulators, consumers, and investors as regards reducing impact on nature and restoring it.

WHITE PAPER MARCH 2024

Marketing material for professional investors, not for onward distribution.

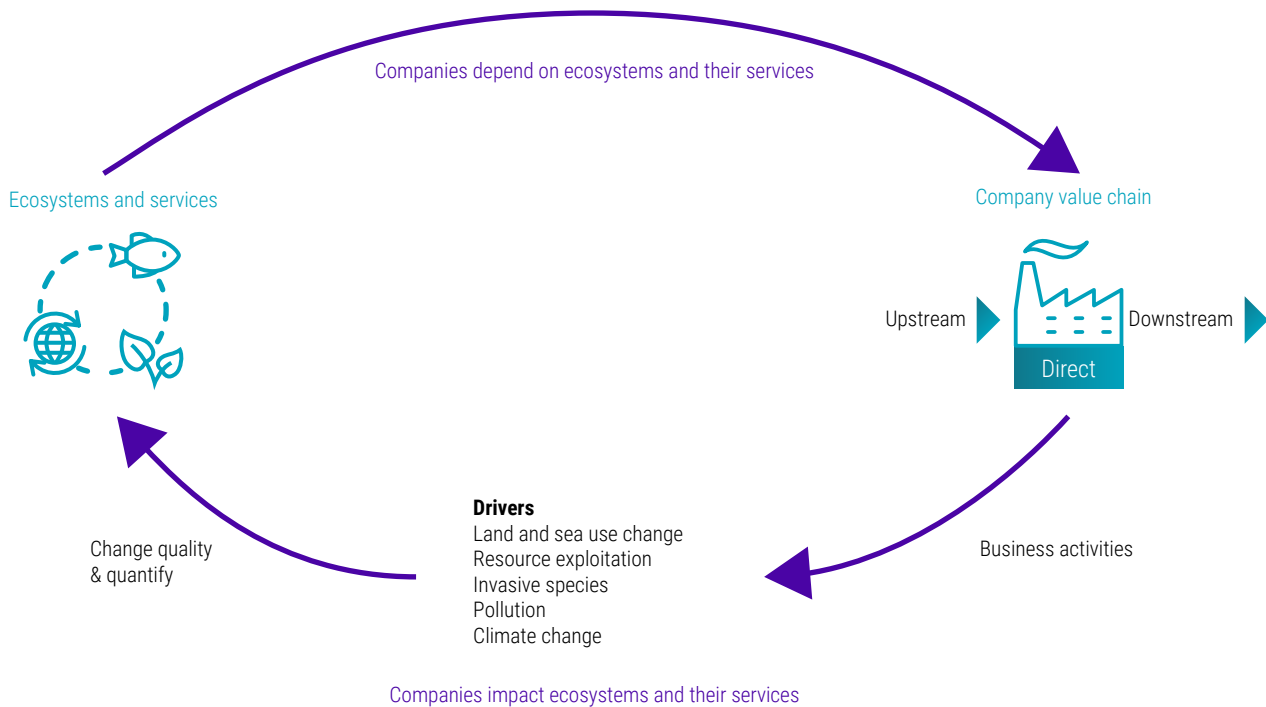


Rashila Kerai
Biodiversity Specialist



Morgan Williams
SI Data Strategist

Figure 1 – Relationship between company impacts and dependency with biodiversity



Source: Robeco

Our clients are increasingly recognizing this systemic risk, and nature has accordingly begun to rise higher on their agendas. The results of our 2023 annual Climate Survey show that while biodiversity is a high priority among clients, they struggle with to a lack of suitable data and in-house subject matter expertise.

Addressing biodiversity-related impacts and dependencies is more complex than many other sustainability topics

Biodiversity loss is a global issue, albeit with highly localized impacts. Nature encompasses species, ecosystems and ecosystem services. Each of these come with different measurements that we cannot easily aggregate into a single number. We have to accept that we will not have a single measure for biodiversity without making trade-offs and, consequently, different tools will continue to develop to support our understanding of the different aspects of nature for the following reasons:

1. Unlike climate change where we have a single metric (greenhouse gas emissions) and a framework with which to calculate it (The Greenhouse Gas Protocol), we will not have a globally accepted methodology to calculate biodiversity loss and impacts.
2. Biodiversity footprint calculations aim to bring together disparate impacts into one number, but they pose their own challenges, which we will discuss further in this paper.
3. Policy and regulations will not rely on a single measure of biodiversity, and consequently, neither will investments.

We warmly welcome the Taskforce for Nature-related Financial Disclosures (TNFD) recommendations introduced in 2023 that outline the future of reporting for corporates, laying out what information we can expect, and how investors should use this information to inform our own strategy and actions. It will, however, take time to realise a level of disclosure that sufficient to steer investment decisions. There has been a recent explosion in biodiversity data, with the TNFD data catalogue currently containing over 100 different tools. It would seem on that basis that there is no shortage of resources.

In reality, the path forward is less clear. These tools all serve a purpose, whether to understand the state of nature at large landscape levels, or to support detailed on-the-ground assessments. How do asset managers choose which tools to use? The answer depends on the question.

We conducted an assessment of the landscape of available data to so that we can take meaningful action while company disclosure catches up. This paper presents our findings and proposes a future direction of travel. This assessment only focuses on corporate exposure. It does not cover sovereign debt, where we use different datasets.

Our data needs are defined by the questions we want to address. What are those questions?

As an investment manager focused on addressing the need for biodiversity solutions, we have three strategic objectives that require more data for us to be able to address. We want to:

- 1) Assess our risk exposure:
 - a. Which high impact and dependency sectors are we exposed to at a portfolio level and as a firm? What are the financial risks?
- 2) Inform our investment decisions:
 - a. How do we differentiate leaders from laggards? Which companies are transitioning towards no net loss of biodiversity?
 - b. What are the material (financial) impacts and dependencies for a company? How are they responding and adapting their business model?
- 3) Set targets to align our investments with the global goal of no nature loss by 2030, and monitor progress.

We want to fulfil these aims with approaches that are grounded in science and connected to the drivers of biodiversity loss. We need tools that cover as much of our investment universe as possible, namely global equity and debt exposure to corporates. On this basis, we filtered out many of the tools and identified about 20 data providers for an initial assessment. From this shorter list, we drilled down to the most promising candidates for in-depth qualitative interrogations of their methodologies, and quantitative assessments of their data.

During our research, we grouped investment-relevant content into two buckets: sector level assessments, and issuer-level metrics. All remain at an early stage relative to other sustainability-related information available today. Nonetheless, used in the right way, they can add value to the investment process. Moreover, we anticipate that the market will grow and mature significantly in the coming years.

Qualitative approaches to sector impacts and dependencies

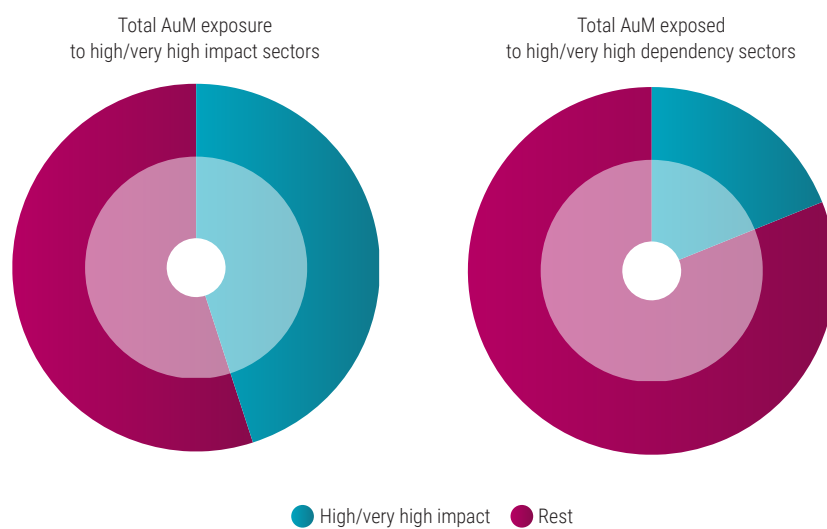
Prior to the recent introduction of quantitative metrics which are discussed in more detail below, investors relied on qualitative approaches to understand the impacts and dependencies on nature. There are two major frameworks that have served to underpin this – ENCORE (Exploring natural capital opportunities, risks and exposure) and the Science-Based Targets for Nature (SBTN)'s sectoral materiality tool. These top-down models provide a qualitative assessment based on sector-specific production processes.

Each model takes different assumptions into account. It is important to be aware, for instance, that ENCORE only includes direct processes, while SBTN provides more nuance by incorporating upstream impacts too. ENCORE and SBTN are useful tools to identify exposure to high impacts and dependencies, highlighting which sectors they occur in, and what the

main impacts and dependencies are. Both organizations are working to further enhance these models. For instance, ENCORE plans to incorporate upstream impacts and dependencies into the next generation of its model.

At Robeco, we conducted an analysis to assess our exposure to sectors with high or very high impacts and dependencies. We found that almost half our assets under management are in sectors with high or very high impacts, and one-fifth are in sectors with high or very dependencies on at least one ecosystem service. The analysis confirmed our hypothesis that we have an exposure to such sectors, and that biodiversity is indeed a material topic for Robeco.

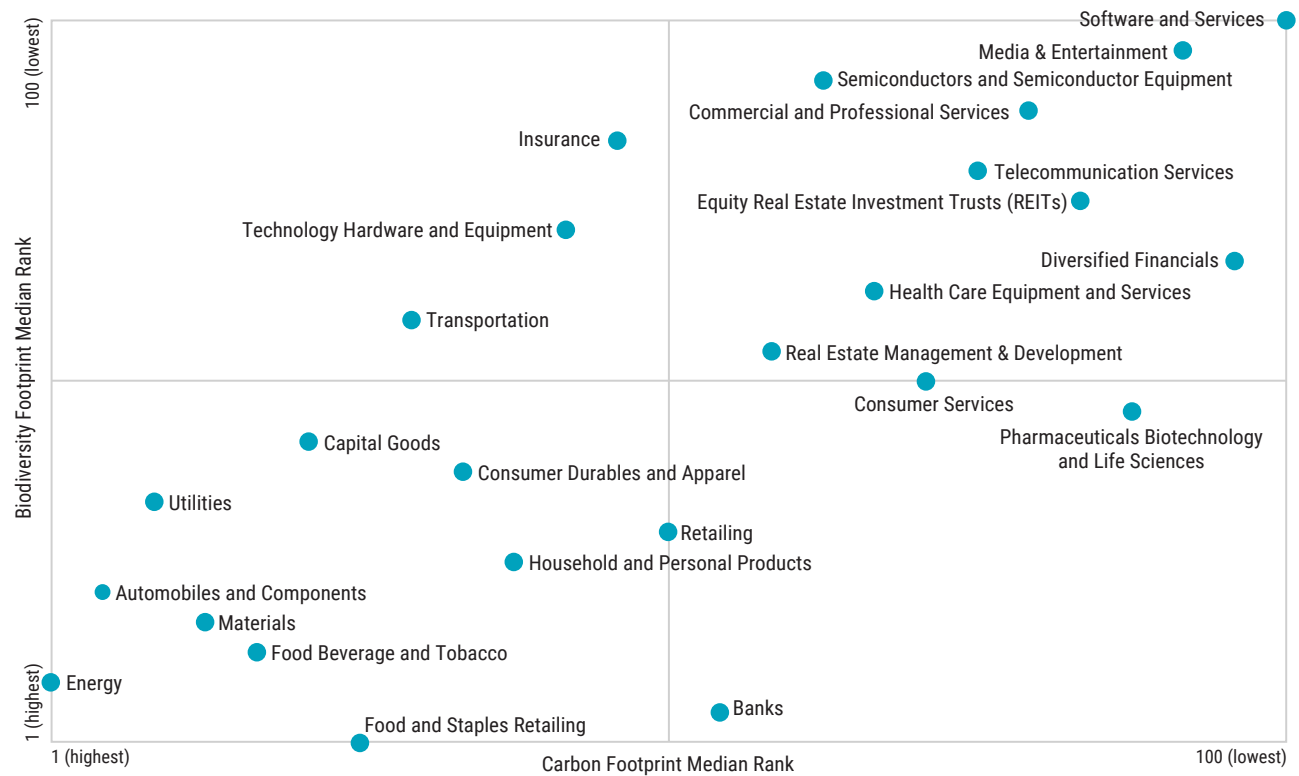
Charts – Robeco’s total AUM exposure to high / very high impact and dependency sectors



AuM on 29.12.2023
 Source: Robeco, Iceberg Data Lab, ENCORE

Furthermore, we compared the biodiversity and carbon footprints to determine whether there was any relationship at a GICS industry group level. As the following chart shows, there is a strong correlation between the rank of the footprints. The industry groups that have a more pronounced negative impact on nature tend to have also have a higher carbon footprint. For example, energy ranks high for both carbon and biodiversity footprints, and conversely, software and services ranks low for both.

Chart – Biodiversity footprint median rank vs carbon footprint median rank



Source: Robeco

Biodiversity footprint: a quantitative approach to sector impact estimation

Several providers have started to offer quantitative biodiversity footprint solutions in recent years. This is an attempt to consolidate the impact of multiple environmental pressures across disparate sectors into a single, comparable metric. The appeal of a single number is that it distils all the complexities of biodiversity, making it possible to compare multiple companies and aggregate to portfolio-level figures.

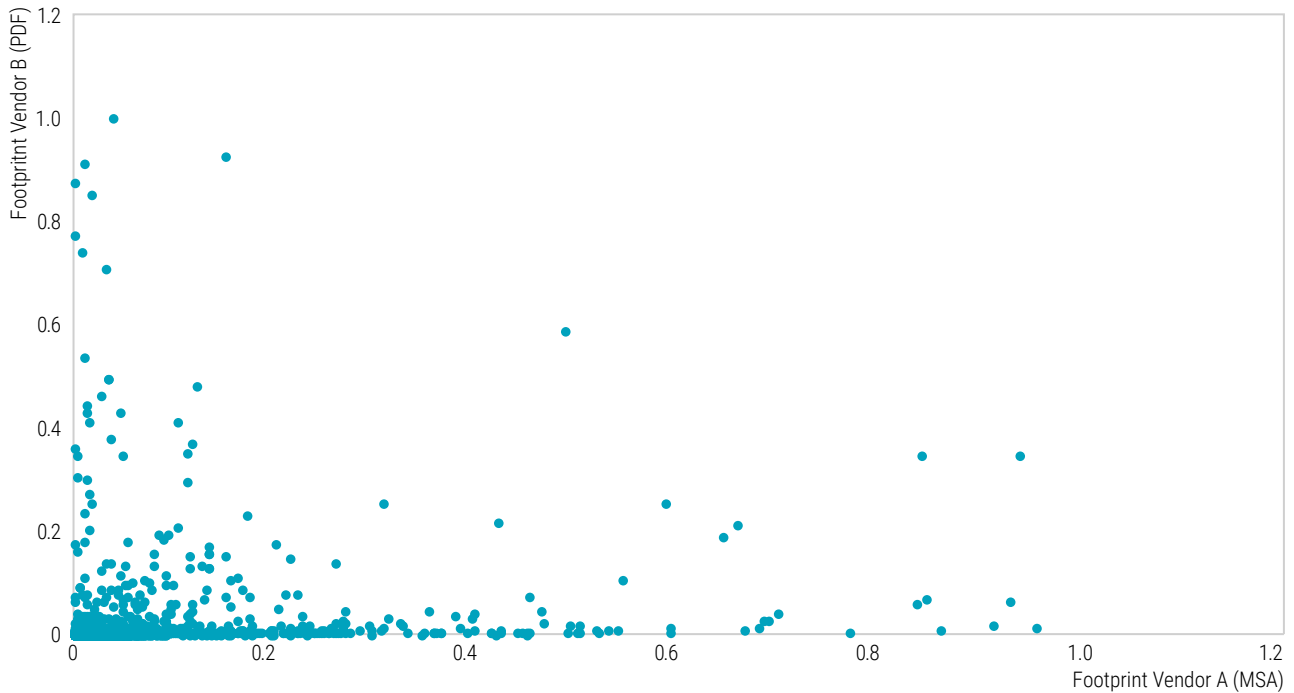
It is important, however, to recognize that such footprints are estimated using generic top-down models. The two most commonly used metrics are potential disappeared fraction (PDF) and mean species abundance (MSA). Both capture the relative magnitude and direction of biodiversity loss. Biodiversity footprints can be estimated using different input/output databases, such as GTAP for bilateral trade patterns, production, consumption and the intermediate use of commodities and services, and EXIOBASE for estimating emissions and resource extractions by industry and country. These are then linked to environmental pressures models such as the Globio to calculate MSA, and ReCiPe to calculate PDF.

The result is a quantified biodiversity footprint per business activity. The impacts are attributed to individual companies based on their share of revenue from different business activities; it does not provide meaningful information as to how companies are managing those business activities, or the extent to which they are mitigating the impact of these business activities on nature. A recent publication from the TNFD and PBAF provides an overview of different footprinting approaches.

We tested various footprint providers to understand the relative pros and cons of the different approaches and implementations. Our findings show that the aggregate sector ranks based on GICS level 2 were highly correlated, but beyond that there is a great deal of

discrepancy among providers, with relatively limited similarity at either issuer or sector-level. For instance, we found a correlation of -2.3% when comparing the MSA and PDF results for the members of the MSCI World from two different providers.

Chart – MSA vs PDF footprint comparison



Source: Robeco

By contrast, the sector median generally shows similar rankings between the two models as shown in the table below. For example, four of the sectors ranked highest by Vendor A are in the top six of Vendor B. Likewise, three of the bottom ranking sectors are the same for both vendors. The notable exception is banks, which moves from fifth most impactful according to Vendor A to least impactful according to Vendor B.

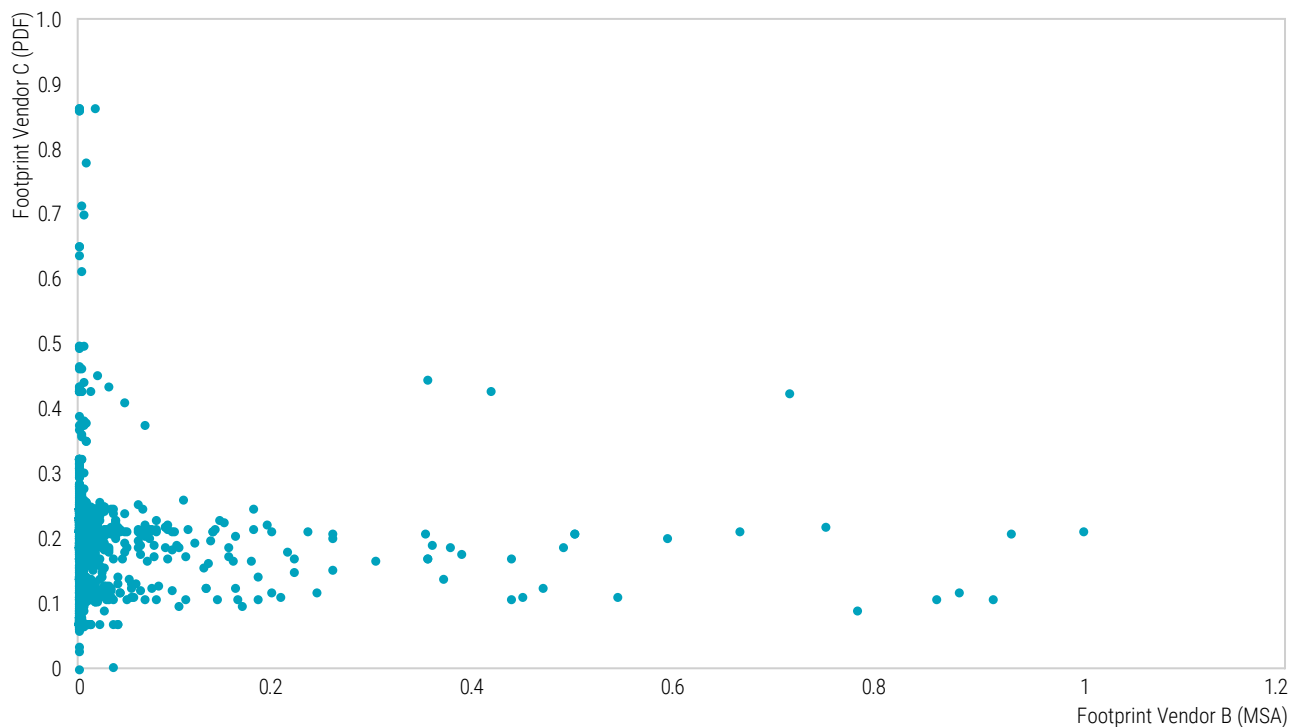
Table – Sector impact ranking comparison between MSA and PDF approaches

Vendor A (MSA)	Vendor B (PDF)
Food and Staples Retailing	Materials
Food, Beverage and Tobacco	Utilities
Energy	Energy
Materials	Food, Beverage and Tobacco
Banks	Transportation
Retailing	Food and Staples Retailing
Household and Personal Products	Automobiles and Components
Capital Goods	Consumer Services
Pharmaceuticals, Biotechnology and Life Sciences	Semiconductors and Semiconductor Equipment
Consumer Durables and Apparel	Capital Goods
Technology Hardware and Equipment	Technology Hardware and Equipment
Automobiles and Components	Real Estate
Consumer Services	Household and Personal Products
Utilities	Retailing
Semiconductors and Semiconductor Equipment	Real Estate Management and Development
Health Care Equipment and Services	Telecommunication Services
Transportation	Commercial and Professional Services
Diversified Financials	Consumer Durables and Apparel
Real Estate Management and Development	Pharmaceuticals, Biotechnology and Life Sciences
Real Estate	Health Care Equipment and Services
Commercial and Professional Services	Media and Entertainment
Telecommunication Services	Software and Services
Media and Entertainment	Insurance
Software and Services	Diversified Financials
Insurance	Banks

- top 5 impact sectors, Vendor A
- bottom 5 impact sectors, Vendor A

Source: Robeco

At first glance, one may conclude that the reason for the lack of correlation is due to different footprint methodologies. However, a comparison of two providers of PDF data across the same universe showed little to no similarity, despite being ostensibly the same metrics using the same underlying model, as shown in the chart below.

Chart – PDF vs PDF footprint comparison

Source: Robeco

Our main impression is that, as a model, the biodiversity footprint is highly dependent on the interpretation and implementation. It relies on the quality and structure of input data as well as a swathe of key assumptions, such as direct impacts versus value chain. It is important to highlight that we have found neither MSA nor PDF as per se being better than one another. Instead, they need to be understood and used as tools to achieve a specific purpose, knowing their underlying strengths and weaknesses. All footprint calculations are models based on different assumptions, which naturally lead to different results.

Our analysis found that below the GICS 2 industry group level, revenue was the main determinant of differentiation between companies. As a result, we believe the biodiversity footprint metric is not yet ready for mainstream use at an issuer level, as carbon is today. Data providers are working to improve the models and incorporate company-specific information where they can, though we are in the very early stages, given the level of corporate disclosures. For now, our approach is to use footprints in aggregate at the GICS 2 level.

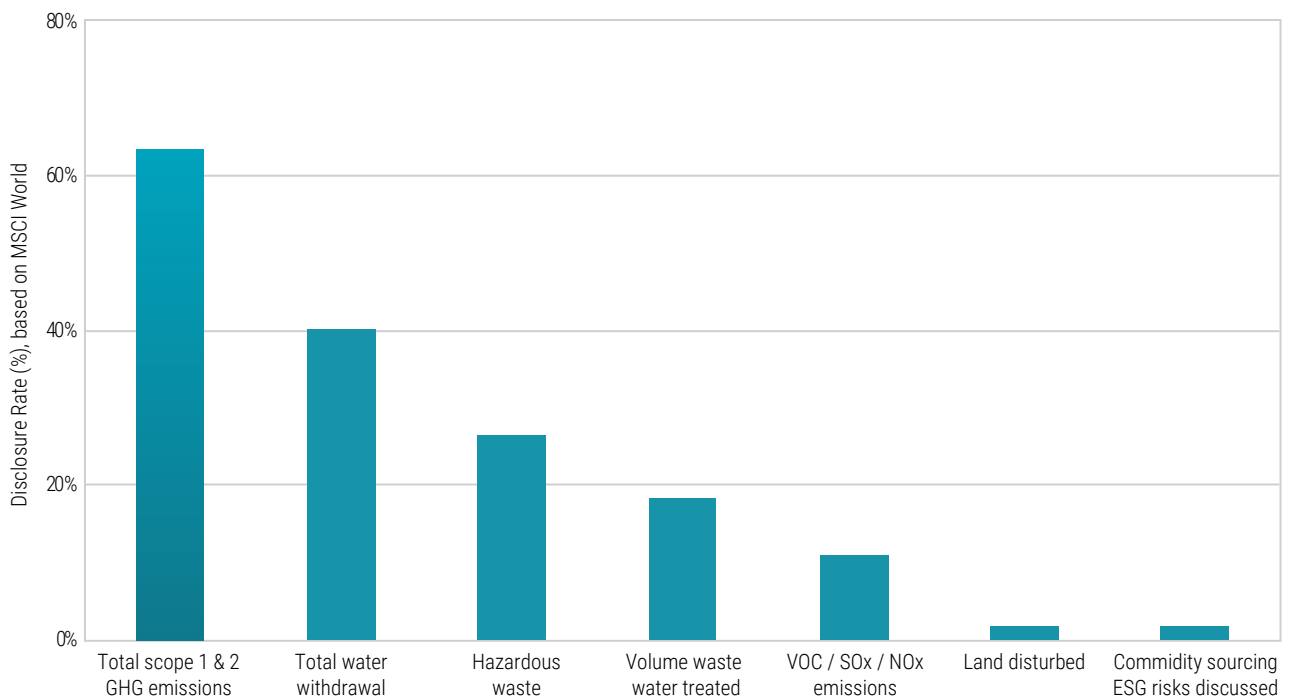
We are encouraged to see the possibility of a connection between biodiversity footprint in specific locations and company assets that will lead to the development of a tool that allows investors to understand the companies' proximity to highly intact ecosystems, as well as the scale of impact on these ecosystems over time.

Core issuer-level metrics

Companies report limited information on biodiversity-related metrics today. The TNFD, as well as other regulatory initiatives focused on corporate disclosure such as the Corporate Sustainability Reporting Directive (CSRD), will lead to more data being available for investor use.

The TNFD guidance recommends 14 core metrics that are generally applicable to all sectors. Our assessment found that overall coverage of the MSCI World is very low, though we do see greater data availability for some metrics based on industry materiality. The table below shows the disclosure rate for metrics where there is a reasonable amount of disclosure. It excludes three things: the extent of change in priority ecosystems; the amount of plastic obtained through mechanical and/or chemical recycling used in the manufacturing process; and the levels of drilling waste and hazardous spills, since the availability of this data is virtually zero.

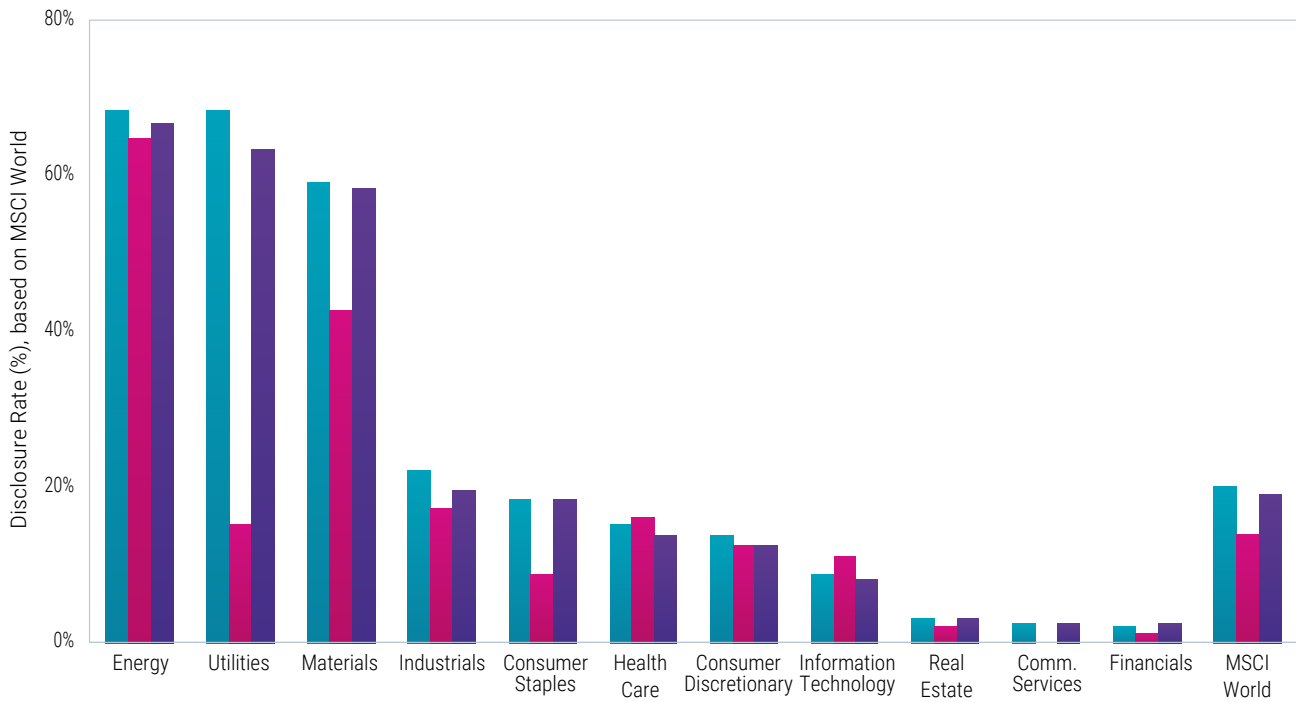
Chart – TNFD core metrics disclosure coverage of the MSCI World



Source: Robeco, Bloomberg

For example, as shown in the chart below, the disclosure rate for air emissions is generally higher for those industries with combustion activities, due to the fact that it is financially material.

Chart – TNFD air emissions core metrics disclosure coverage of the MSCI World



Source: Robeco, Bloomberg

The core metrics give an indication of the potential exposure that companies have. This allows for comparison among peers, but does not provide insight into how well companies are responding and managing their risks. The overall conclusion remains that we have decent data coverage on climate and pollution metrics but not yet on the other drivers of biodiversity loss.

Conclusion

We're not done hunting. The biodiversity data landscape is overwhelming and it requires continued effort to navigate it properly. From our work so far, we have a number of useful insights for this quest:

Careful use of the data to reach correct interpretations

Unlike carbon, biodiversity cannot be easily understood or summarised into a single number. There are useful datasets and models to understand impact and dependencies at the sector level. They help to define priorities, for example in a sector portfolio heatmap, but they are not appropriate for steering investment decisions at issuer-level.

To steer investments, we need to combine biodiversity data sources with other issuer level data

Footprint data is useful to identify priority sectors and, within each sector, which drivers of biodiversity loss are most material. We can then combine these insights with other issuer-level data to assess how companies contribute to the key drivers of biodiversity loss in their industry, and how well they mitigate their contribution. For example, in the pulp and paper sector, land use change is the key driver of biodiversity loss, and we can approximate mitigation by companies by measuring their share of revenues from recycled sources and their share of materials extracted from certified sustainable sources. Likewise, biodiversity loss from the chemicals sector is driven by pollution, water consumption and land use change, which we can approximate by measuring waste reduction, use of recycled materials and share of revenue from substances of high concern. We take this hybrid approach in our biodiversity investment framework to identify leaders from laggards.

Less is more

With a focus on a limited number of sectors, where data coverage is generally better, investors can address a large part of their biodiversity footprint, and also leverage their existing work in the same sectors around climate change. Given the nascent state of the data today, we determined that our best approach to enhancing our processes would be to focus on the most important sectors in terms of nature. We combined the high impact sectors based on the TNFD and Nature Action 100 with those sectors where we have highest risk exposure based on assets under management. This led to us defining chemicals, food, metals and mining and textiles and apparel as the priorities for our ongoing investigation into better data. This includes, for instance, an inquiry into how might we use geospatial data to inform the localised impact of mining companies within our portfolios.

The goal of this paper has been to show that the biodiversity data landscape is a challenging one, though with a promising future. One thing is for sure: the complexity and volume of biodiversity data will only continue to grow. As more investors explore the market, we expect the development of off-the-shelf solutions that allow for steering investments. That is not the case today. Having said that, we firmly believe that there is enough useful data to guide investment decisions, stewardship activities and development of investment policies.

Important information

Robeco Institutional Asset Management B.V. has a license as manager of Undertakings for Collective Investment in Transferable Securities (UCITS) and Alternative Investment Funds (AIFs) ("Fund(s)") from the Netherlands Authority for the Financial Markets in Amsterdam. This marketing document is intended solely for professional investors, defined as investors qualifying as professional clients, who have requested to be treated as professional clients or are authorized to receive such information under any applicable laws. Robeco Institutional Asset Management B.V. and/or its related, affiliated and subsidiary companies, ("Robeco"), will not be liable for any damages arising out of the use of this document. Users of this information who provide investment services in the European Union have their own responsibility to assess whether they are allowed to receive the information in accordance with MiFID II regulations. To the extent this information qualifies as a reasonable and appropriate minor non-monetary benefit under MiFID II, users that provide investment services in the European Union are responsible for complying with applicable recordkeeping and disclosure requirements. The content of this document is based upon sources of information believed to be reliable and comes without warranties of any kind. Without further explanation this document cannot be considered complete. Any opinions, estimates or forecasts may be changed at any time without prior warning. If in doubt, please seek independent advice. This document is intended to provide the professional investor with general information about Robeco's specific capabilities but has not been prepared by Robeco as investment research and does not constitute an investment recommendation or advice to buy or sell certain securities or investment products or to adopt any investment strategy or legal, accounting or tax advice. All rights relating to the information in this document are and will remain the property of Robeco. This material may not be copied or shared with the public. No part of this document may be reproduced or published in any form or by any means without Robeco's prior written permission. Investment involves risks. Before investing, please note the initial capital is not guaranteed. Investors should ensure they fully understand the risk associated with any Robeco product or service offered in their country of domicile. Investors should also consider their own investment objective and risk tolerance level. Historical returns are provided for illustrative purposes only. The price of units may go down as well as up and past performance is no guarantee of future results. If the currency in which the past performance is displayed differs from the currency of the country in which you reside, then you should be aware that due to exchange rate fluctuations the performance shown may increase or decrease if converted into your local currency. The performance data do not take account of the commissions and costs incurred when trading securities in client portfolios or for the issue and redemption of units. Unless otherwise stated, performances are i) net of fees based on transaction prices and ii) with dividends reinvested. Please refer to the prospectus of the Funds for further details. Performance is quoted net of investment management fees. The ongoing charges mentioned in this document are the ones stated in the Fund's latest annual report at closing date of the last calendar year. This document is not directed to or intended for distribution to or for use by any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, document, availability or use would be contrary to law or regulation or which would subject any Fund or Robeco Institutional Asset Management B.V. to any registration or licensing requirement within such jurisdiction. Any decision to subscribe for interests in a Fund offered in a particular jurisdiction must be made solely on the basis of information contained in the prospectus, which information may be different from the information contained in this document. Prospective applicants for shares should inform themselves as to legal requirements which may also apply and any applicable exchange control regulations and taxes in the countries of their respective citizenship, residence or domicile. The Fund information, if any, contained in this document is qualified in its entirety by reference to the prospectus, and this document should, at all times, be read in conjunction with the prospectus. Detailed information on the Fund and associated risks is contained in the prospectus. The prospectus and the Key Information Document (PRIIP) for the Robeco Funds can all be obtained free of charge from Robeco's websites.

Additional information for US investors

Robeco is considered "participating affiliate" and some of their employees are "associated persons" of Robeco Institutional Asset Management US Inc. ("RIAM US") as per relevant SEC no-action guidance. Employees identified as associated persons of RIAM US perform activities directly or indirectly related to the investment advisory services provided by RIAM US. In those situations these individuals are deemed to be acting on behalf of RIAM US, a US SEC registered investment adviser. SEC regulations are applicable only to clients, prospects and investors of RIAM US. RIAM US is a wholly owned subsidiary of ORIX Corporation Europe N.V. and offers investment advisory services to institutional clients in the US.

Additional information for US Offshore investors – Reg S

The Robeco Capital Growth Funds have not been registered under the United States Investment Company Act of 1940, as amended, nor the United States Securities Act of 1933, as amended. None of the shares may be offered or sold, directly or indirectly in the United States or to any US Person. A US Person is defined as (a) any individual who

is a citizen or resident of the United States for federal income tax purposes; (b) a corporation, partnership or other entity created or organized under the laws of or existing in the United States; (c) an estate or trust the income of which is subject to United States federal income tax regardless of whether such income is effectively connected with a United States trade or business. In the United States, this material may be distributed only to a person who is a "distributor", or who is not a "US person", as defined by Regulation S under the U.S. Securities Act of 1933 (as amended).

Additional information for investors with residence or seat in Australia and New Zealand

This document is distributed in Australia by Robeco Hong Kong Limited (ARBN 156 512 659) ("RIAM BV"), which is exempt from the requirement to hold an Australian financial services license under the Corporations Act 2001 (Cth) pursuant to ASIC Class Order 03/1103. Robeco is regulated by the Securities and Futures Commission under the laws of Hong Kong and those laws may differ from Australian laws. This document is distributed only to "wholesale clients" as that term is defined under the Corporations Act 2001 (Cth). This document is not intended for distribution or dissemination, directly or indirectly, to any other class of persons. In New Zealand, this document is only available to wholesale investors within the meaning of clause 3(2) of Schedule 1 of the Financial Markets Conduct Act 2013 (FMCA). This document is not intended for public distribution in Australia and New Zealand.

Additional information for investors with residence or seat in Austria

This information is solely intended for professional investors or eligible counterparties in the meaning of the Austrian Securities Oversight Act.

Additional information for investors with residence or seat in Brazil

The Fund may not be offered or sold to the public in Brazil. Accordingly, the Fund has not been nor will be registered with the Brazilian Securities Commission (CVM), nor has it been submitted to the foregoing agency for approval. Documents relating to the Fund, as well as the information contained therein, may not be supplied to the public in Brazil, as the offering of the Fund is not a public offering of securities in Brazil, nor may they be used in connection with any offer for subscription or sale of securities to the public in Brazil.

Additional information for investors with residence or seat in Brunei

The Prospectus relates to a private collective investment scheme which is not subject to any form of domestic regulations by the Autoriti Monetari Brunei Darussalam ("Authority"). The Prospectus is intended for distribution only to specific classes of investors as specified in section 20 of the Securities Market Order, 2013, and must not, therefore, be delivered to, or relied on by, a retail client. The Authority is not responsible for reviewing or verifying any prospectus or other documents in connection with this collective investment scheme. The Authority has not approved the Prospectus or any other associated documents nor taken any steps to verify the information set out in the Prospectus and has no responsibility for it. The units to which the Prospectus relates may be illiquid or subject to restrictions on their resale. Prospective purchasers of the units offered should conduct their own due diligence on the units.

Additional information for investors with residence or seat in Canada

No securities commission or similar authority in Canada has reviewed or in any way passed upon this document or the merits of the securities described herein, and any representation to the contrary is an offence. Robeco Institutional Asset Management B.V. relies on the international dealer and international adviser exemption in Quebec and has appointed McCarthy Tétrault LLP as its agent for service in Quebec.

Additional information for investors with residence or seat in the Republic of Chile

Neither Robeco nor the Funds have been registered with the Comisión para el Mercado Financiero pursuant to Law no. 18.045, the Ley de Mercado de Valores and regulations thereunder. This document does not constitute an offer of or an invitation to subscribe for or purchase shares of the Funds in the Republic of Chile, other than to the specific person who individually requested this information on their own initiative. This may therefore be treated as a "private offering" within the meaning of Article 4 of the Ley de Mercado de Valores (an offer that is not addressed to the public at large or to a certain sector or specific group of the public).

Additional information for investors with residence or seat in Colombia

This document does not constitute a public offer in the Republic of Colombia. The offer of the fund is addressed to less than one hundred specifically identified investors. The fund may not be promoted or marketed in Colombia or to Colombian residents, unless such promotion and marketing is made in compliance with Decree 2555 of 2010 and other applicable rules and regulations related to the promotion of foreign funds in Colombia. The distribution of this Prospectus and the offering of Shares may be restricted in certain jurisdictions. The information contained in this Prospectus is for general guidance only, and it is the responsibility of any person or persons in possession of this Prospectus and wishing to make application for Shares to inform themselves of, and to observe, all applicable laws and regulations of any relevant

jurisdiction. Prospective applicants for Shares should inform themselves of any applicable legal requirements, exchange control regulations and applicable taxes in the countries of their respective citizenship, residence or domicile.

Additional information for investors with residence or seat in the Dubai International Financial Centre (DIFC), United Arab Emirates

This material is distributed by Robeco Institutional Asset Management B.V. (DIFC Branch) located at Office 209, Level 2, Gate Village Building 7, Dubai International Financial Centre, Dubai, PO Box 482060, UAE. Robeco Institutional Asset Management B.V. (DIFC Branch) is regulated by the Dubai Financial Services Authority ("DFSA") and only deals with Professional Clients or Market Counterparties and does not deal with Retail Clients as defined by the DFSA.

Additional information for investors with residence or seat in France

Robeco Institutional Asset Management B.V. is at liberty to provide services in France. Robeco France is a subsidiary of Robeco whose business is based on the promotion and distribution of the group's funds to professional investors in France.

Additional information for investors with residence or seat in Germany

This information is solely intended for professional investors or eligible counterparties in the meaning of the German Securities Trading Act.

Additional information for investors with residence or seat in Hong Kong

The contents of this document have not been reviewed by the Securities and Futures Commission ("SFC") in Hong Kong. If there is any doubt about any of the contents of this document, independent professional advice should be obtained. This document has been distributed by Robeco Hong Kong Limited ("Robeco"). Robeco is regulated by the SFC in Hong Kong.

Additional information for investors with residence or seat in Indonesia

The Prospectus does not constitute an offer to sell nor a solicitation to buy securities in Indonesia.

Additional information for investors with residence or seat in Italy

This document is considered for use solely by qualified investors and private professional clients (as defined in Article 26 (1) (b) and (d) of Consob Regulation No. 16190 dated 29 October 2007). If made available to Distributors and individuals authorized by Distributors to conduct promotion and marketing activity, it may only be used for the purpose for which it was conceived. The data and information contained in this document may not be used for communications with Supervisory Authorities. This document does not include any information to determine, in concrete terms, the investment inclination and, therefore, this document cannot and should not be the basis for making any investment decisions.

Additional information for investors with residence or seat in Japan

This document is considered for use solely by qualified investors and is distributed by Robeco Japan Company Limited, registered in Japan as a Financial Instruments Business Operator, [registered No. the Director of Kanto Local Financial Bureau (Financial Instruments Business Operator), No.2780, Member of Japan Investment Advisors Association].

Additional information for investors with residence or seat in South Korea

The Management Company is not making any representation with respect to the eligibility of any recipients of the Prospectus to acquire the Shares therein under the laws of South Korea, including but not limited to the Foreign Exchange Transaction Act and Regulations thereunder. The Shares have not been registered under the Financial Investment Services and Capital Markets Act of Korea, and none of the Shares may be offered, sold or delivered, or offered or sold to any person for re-offering or resale, directly or indirectly, in South Korea or to any resident of South Korea except pursuant to applicable laws and regulations of South Korea.

Additional information for investors with residence or seat in Liechtenstein

This document is exclusively distributed to Liechtenstein-based, duly licensed financial intermediaries (such as banks, discretionary portfolio managers, insurance companies, fund of funds) which do not intend to invest on their own account into Fund(s) displayed in the document. This material is distributed by Robeco Switzerland Ltd, postal address: Josefstrasse 218, 8005 Zurich, Switzerland. LGT Bank Ltd., Herrengasse 12, FL-9490 Vaduz, Liechtenstein acts as the representative and paying agent in Liechtenstein. The prospectus, the Key Information Documents (PRIIP) the articles of association, the annual and semi-annual reports of the Fund(s) may be obtained from the representative or via the website.

Additional information for investors with residence or seat in Malaysia

Generally, no offer or sale of the Shares is permitted in Malaysia unless where a Recognition Exemption or the Prospectus Exemption applies: NO ACTION HAS BEEN, OR WILL BE, TAKEN TO COMPLY WITH MALAYSIAN LAWS FOR MAKING AVAILABLE,

OFFERING FOR SUBSCRIPTION OR PURCHASE, OR ISSUING ANY INVITATION TO SUBSCRIBE FOR OR PURCHASE OR SALE OF THE SHARES IN MALAYSIA OR TO PERSONS IN MALAYSIA AS THE SHARES ARE NOT INTENDED BY THE ISSUER TO BE MADE AVAILABLE, OR MADE THE SUBJECT OF ANY OFFER OR INVITATION TO SUBSCRIBE OR PURCHASE, IN MALAYSIA. NEITHER THIS DOCUMENT NOR ANY DOCUMENT OR OTHER MATERIAL IN CONNECTION WITH THE SHARES SHOULD BE DISTRIBUTED, CAUSED TO BE DISTRIBUTED OR CIRCULATED IN MALAYSIA. NO PERSON SHOULD MAKE AVAILABLE OR MAKE ANY INVITATION OR OFFER OR INVITATION TO SELL OR PURCHASE THE SHARES IN MALAYSIA UNLESS SUCH PERSON TAKES THE NECESSARY ACTION TO COMPLY WITH MALAYSIAN LAWS.

Additional information for investors with residence or seat in Mexico

The funds have not been and will not be registered with the National Registry of Securities or maintained by the Mexican National Banking and Securities Commission and, as a result, may not be offered or sold publicly in Mexico. Robeco and any underwriter or purchaser may offer and sell the funds in Mexico on a private placement basis to Institutional and Accredited Investors, pursuant to Article 8 of the Mexican Securities Market Law.

Additional information for investors with residence or seat in Peru

The Superintendencia del Mercado de Valores (SMV) does not exercise any supervision over this Fund and therefore the management of it. The information the Fund provides to its investors and the other services it provides to them are the sole responsibility of the Administrator. This Prospectus is not for public distribution.

Additional information for investors with residence or seat in Singapore

This document has not been registered with the Monetary Authority of Singapore ("MAS"). Accordingly, this document may not be circulated or distributed directly or indirectly to persons in Singapore other than (i) to an institutional investor under Section 304 of the SFA, (ii) to a relevant person pursuant to Section 305(1), or any person pursuant to Section 305(2), and in accordance with the conditions specified in Section 305, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. The contents of this document have not been reviewed by the MAS. Any decision to participate in the Fund should be made only after reviewing the sections regarding investment considerations, conflicts of interest, risk factors and the relevant Singapore selling restrictions (as described in the section entitled "Important information for Singapore Investors") contained in the prospectus. Investors should consult their professional adviser if you are in doubt about the stringent restrictions applicable to the use of this document, regulatory status of the Fund, applicable regulatory protection, associated risks and suitability of the Fund to your objectives. Investors should note that only the Sub-Funds listed in the appendix to the section entitled "Important information for Singapore Investors" of the prospectus ("Sub-Funds") are available to Singapore investors. The Sub-Funds are notified as restricted foreign schemes under the Securities and Futures Act, Chapter 289 of Singapore ("SFA") and invoke the exemptions from compliance with prospectus registration requirements pursuant to the exemptions under Section 304 and Section 305 of the SFA. The Sub-Funds are not authorized or recognized by the MAS and shares in the Sub-Funds are not allowed to be offered to the retail public in Singapore. The prospectus of the Fund is not a prospectus as defined in the SFA. Accordingly, statutory liability under the SFA in relation to the content of prospectuses does not apply. The Sub-Funds may only be promoted exclusively to persons who are sufficiently experienced and sophisticated to understand the risks involved in investing in such schemes, and who satisfy certain other criteria provided under Section 304, Section 305 or any other applicable provision of the SFA and the subsidiary legislation enacted thereunder. You should consider carefully whether the investment is suitable for you. Robeco Singapore Private Limited holds a capital markets services license for fund management issued by the MAS and is subject to certain clientele restrictions under such license.

Additional information for investors with residence or seat in Spain

Robeco Institutional Asset Management B.V., Sucursal en España with identification number W0032687F and having its registered office in Madrid at Calle Serrano 47-14º, is registered with the Spanish Commercial Registry in Madrid, in volume 19.957, page 190, section 8, sheet M-351927 and with the National Securities Market Commission (CNMV) in the Official Register of branches of European investment services companies, under number 24. The investment funds or SICAV mentioned in this document are regulated by the corresponding authorities of their country of origin and are registered in the Special Registry of the CNMV of Foreign Collective Investment Institutions marketed in Spain.

Additional information for investors with residence or seat in South Africa

Robeco Institutional Asset Management B.V. is registered and regulated by the Financial Sector Conduct Authority in South Africa.

Additional information for investors with residence or seat in Switzerland

The Fund(s) are domiciled in Luxembourg. This document is exclusively distributed in Switzerland to qualified investors as defined in the Swiss Collective Investment Schemes Act (CISA). This material is distributed by Robeco Switzerland Ltd, postal address: Josefstrasse 218, 8005 Zurich. ACOLIN Fund Services AG, postal address: Leutschenbachstrasse 50, 8050 Zürich, acts as the Swiss representative of the Fund(s). UBS Switzerland AG, Bahnhofstrasse 45, 8001 Zurich, postal address: Europastrasse 2, P.O. Box, CH-8152 Opfikon, acts as the Swiss paying agent. The prospectus, the Key Information Documents (PRIIP), the articles of association, the annual and semi-annual reports of the Fund(s), as well as the list of the purchases and sales which the Fund(s) has undertaken during the financial year, may be obtained, on simple request and free of charge, at the office of the Swiss representative ACOLIN Fund Services AG. The prospectuses are also available via the website.

Additional information relating to RobecoSAM-branded funds/services

Robeco Switzerland Ltd, postal address Josefstrasse 218, 8005 Zurich, Switzerland has a license as asset manager of collective assets from the Swiss Financial Market Supervisory Authority FINMA. The RobecoSAM brand is a registered trademark of Robeco Holding B.V. The brand RobecoSAM is used to market services and products which entail Robeco's expertise on Sustainable Investing (SI). The brand RobecoSAM is not to be considered as a separate legal entity.

Additional information for investors with residence or seat in Taiwan

The contents of this document have not been reviewed by any regulatory authority in Hong Kong. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice. This document has been distributed by Robeco Hong Kong Limited ("Robeco"). Robeco is regulated by the Securities and Futures Commission in Hong Kong.

Additional information for investors with residence or seat in Thailand

The Prospectus has not been approved by the Securities and Exchange Commission, which takes no responsibility for its contents. No offer to the public to purchase the Shares will be made in Thailand and the Prospectus is intended to be read by the addressee only and must not be passed to, issued to, or shown to the public generally.

Additional information for investors with residence or seat in the United Arab Emirates

Some Funds referred to in this marketing material have been registered with the UAE Securities and Commodities Authority ("the Authority"). Details of all Registered Funds can be found on the Authority's website. The Authority assumes no liability for the accuracy of the information set out in this material/document, nor for the failure of any persons engaged in the investment Fund in performing their duties and responsibilities.

Additional information for investors with residence or seat in the United Kingdom

Robeco is deemed authorized and regulated by the Financial Conduct Authority.

Additional information for investors with residence or seat in Uruguay

The sale of the Fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627. The Fund must not be offered or sold to the public in Uruguay, except under circumstances which do not constitute a public offering or distribution under Uruguayan laws and regulations. The Fund is not and will not be registered with the Financial Services Superintendency of the Central Bank of Uruguay. The Fund corresponds to investment funds that are not investment funds regulated by Uruguayan law 16,774 dated 27 September 1996, as amended.

© Q4/2023 Robeco