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## The Bundesbank's Sustainable Finance Data Hub<sup>1</sup>

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<sup>1</sup> This presentation was prepared for the conference. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the event.

# The Bundesbank's Sustainable Finance Data Hub

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## 1. Motivation

The lack of good quality and readily accessible climate-related data has posed a challenge for central banks, supervisors and financial sector participants alike. Global progress on improving climate data is under way, but in the short and medium-term, leveraging of already available data sources and approaches is essential. This paper describes the steps taken by the Bundesbank to overcome the shortage of data, the lessons learned, first empirical results, and ways on how to increase data availability through cooperation initiatives.

## 2. Idea of a Data Hub

To enable climate related analytical work within the Bundesbank, a central data hub to collect climate related data was set up in early 2020. It collects user needs within the bank and provides a central access point for data and data related questions. The Sustainable Finance Data Hub is tasked with examining market data that serve inter-divisional and permanent needs within the Bundesbank. The Data Hub is a specialized unit within the statistics directorate, serving varying user needs within the central bank. Data is provided through a central data base and access to this data can be requested at the data hub. It is also the first contact point for any methodological questions.

### In-house data availability

Currently, we are in a market exploration phase for climate related data. Since December 2020, data from two private data providers are available bank-wide. We acquired a variety of climate-related indicators, most notably greenhouse gas emissions, ESG ratings and their underlying sub ratings. Other indicators include carbon risk, temperature alignment, screening criteria etc. A market exploration for geospatial tools on physical risk indicators is currently under way.

Given the different user needs within the institution, measurement uncertainty and differences in coverage of 3rd party providers, one data source is not enough. Even rather established climate related metrics, such as reported scope 1 and 2 emissions can show vastly different results across providers. In addition, two different data sources can complement each other in terms of the type of metrics provides, as well as in terms of the coverage of company level data. For this reason, the Bundesbank has adopted a multi-indicator approach.

We recently conducted a small in-house survey on the currently used providers and found out, that over 70 percent of respondents do in fact work with data from both providers. Satisfaction with the data provider is related to how transparent the

data compilation is and the methodological guidance provided. Almost all users work with climate-related data, such as emissions, followed by carbon risk ratings. We want to continue the exchange with our users on their data needs and experiences through workshops and bilateral exchanges.

### Being transparent to the public

Given the often scattered data sources of publicly available climate data, making macro-data available to the general public through dashboards and underlying data can facilitate access to existing data sources. The Bundesbank dashboard focuses on comparison of Germany vs. rest of the EU and includes financial, real economic and climate-related indicators. Graphs and underlying data are available on the Bundesbank statistics website for download in an easily accessible format.<sup>1</sup>

In addition, we reached an agreement with a 3<sup>rd</sup> data provider to publish certain aggregates on green and social bonds on our website. This work with a non-traditional stakeholder forms part of the Networks on Greening the Financial System Dashboard on scaling up green finance, which we update annually.

## 3. Cooperation efforts to increase data availability

Given the highly dynamic nature of climate-related data and data needs, cooperation with other stakeholders is key. This may include regional central bank cooperation to explore the possibilities to increase data sharing as well as working with non-traditional stakeholders and thinking about how to use digitalisation.

### Regional central bank cooperation

The Bundesbank is the lead central bank in the joint Eurosystem procurement for up to two climate-related data providers. All participating central banks will have the right but not the obligation to participate in the Framework Agreements resulting from the public tender procedure. Given that many central banks face similar data challenges such cooperation minimises duplication of efforts and achieves synergies (e.g. in terms of describing relevant business requirements, the contract management or regarding the process for selecting the most suitable data providers itself). In addition, it ensures consistency of analysis and improves comparability across central banks by the broad use of the same data providers.

### Working with non-traditional stakeholders

To promote using digitalization to bridge climate related data gaps, the Bundesbank submitted, together with Banco de España, a proposal on "Information extraction applied to sustainability-related disclosures" to the recent G20 TechSprint on Green Finance as well as a project proposal for the envisaged BIS Eurosystem Innovation Hub.

In addition, we are at the beginning of joint projects with TU Darmstadt, a technical university, working with international experts on natural language processing where we want to examine issues related to sustainability disclosure

<sup>1</sup> Green finance dashboard | Deutsche Bundesbank

reports and physical risk indicators. Such initiatives will become even more impactful, the more voluntary and mandatory climate related disclosure initiatives are under way, pathing the way for a long-term statistical response.

## 4. Conclusion

Given the growing importance of climate-related data for policy making working has to continue to increase availability and quality of data. Fulfilling UN's Fundamental Principles of Official Statistics shall be an important aim for statistical work and provide guidance on the steps we shall take – worldwide. We are looking forward of the follow up of the G20 Data Gaps Initiative and concrete steps to be taken.

While those and other important initiatives are under way, it is important for central banks to find short and medium term solutions to close data gaps. Given that sustainable finance data is still a new field for statisticians and users alike, it is important to bring together demand and supply for climate data using an appropriate intra-institutional organizational setting, such as a data hub. Different user needs and measurement uncertainty explain the necessity for a multi-source approach to climate data. And while in-house data needs have to be met, central banks should keep in mind the necessity to communicate with the general public.

In the medium term, central banks need to work together with traditional and non-traditional stakeholders and use comparative advantages. This will enable the best possible use of existing data. Finally, promoting digitalization to bridge climate related data gaps is pathing the way for a long-term statistical response, the more voluntary and mandatory climate related disclosure initiatives are under way.



# The Bundesbank's Sustainable Finance Data Hub

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The views expressed are those of the author and do not necessarily reflect those of the Bundesbank

## Introduction

### Short and medium-term approaches to closing data gaps

- Global progress on improving climate data is under way, but in the short and medium-term, **leveraging of already available data sources** and approaches is essential.
- This presentation describes **steps taken by the Bundesbank** to overcome the shortage of data, first empirical results, and ways on how to increase data availability through cooperation initiatives.
- **Five short and medium-term responses** to closing data gaps:

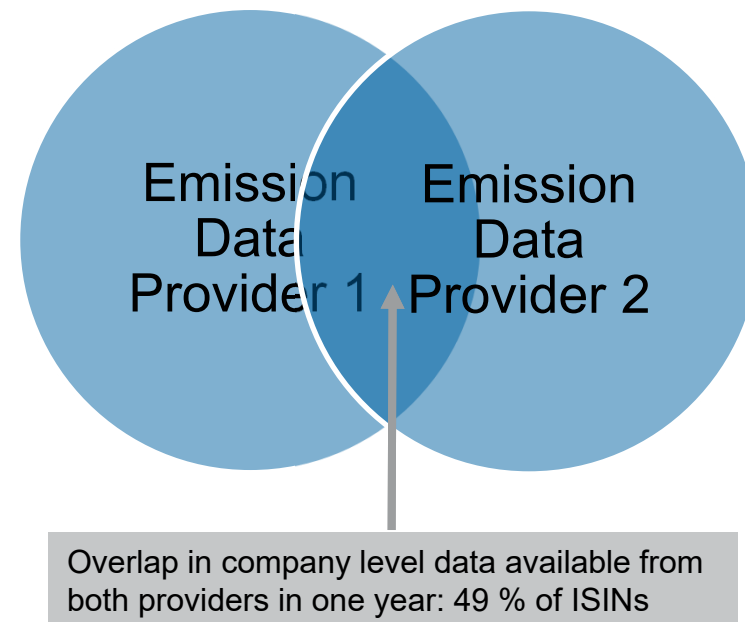


## **Bringing together demand and supply: Using an appropriate intra-institutional organizational setting**

- To enable climate related analytical work within the Bundesbank, a **central data hub** to collect climate related data was set up in early 2020. The Sustainable Finance Data Hub is tasked with examining market data that serve **inter-divisional and permanent needs** within the Bundesbank.
- The Data Hub is a **specialized unit** within the statistics directorate, serving varying user needs within the central bank.
- Data is provided through a **central data base** and access to this data can be requested at the data hub. It is also the **first contact point** for any methodological questions.
- In addition, we **contribute to international climate-related data discussions** through participation in the Network on Greening the Financial System WS Bridging Data Gaps, the Irving Fisher Committee sustainable finance work as well as the Committee on Monetary, Financial and Balance of Payment Statistics TF on sustainable finance.

## Different user needs and measurement uncertainty: The necessity for a multi-source approach

- Various data providers measuring the same or closely related phenomena reveal **measurement uncertainty**.
- **Diverse user needs** call for a comprehensive set of indicators and data source to analyse climate risk.
- In addition, two different data sources can **complement** each other in terms of the type of metrics provides, as well as coverage of company level data.

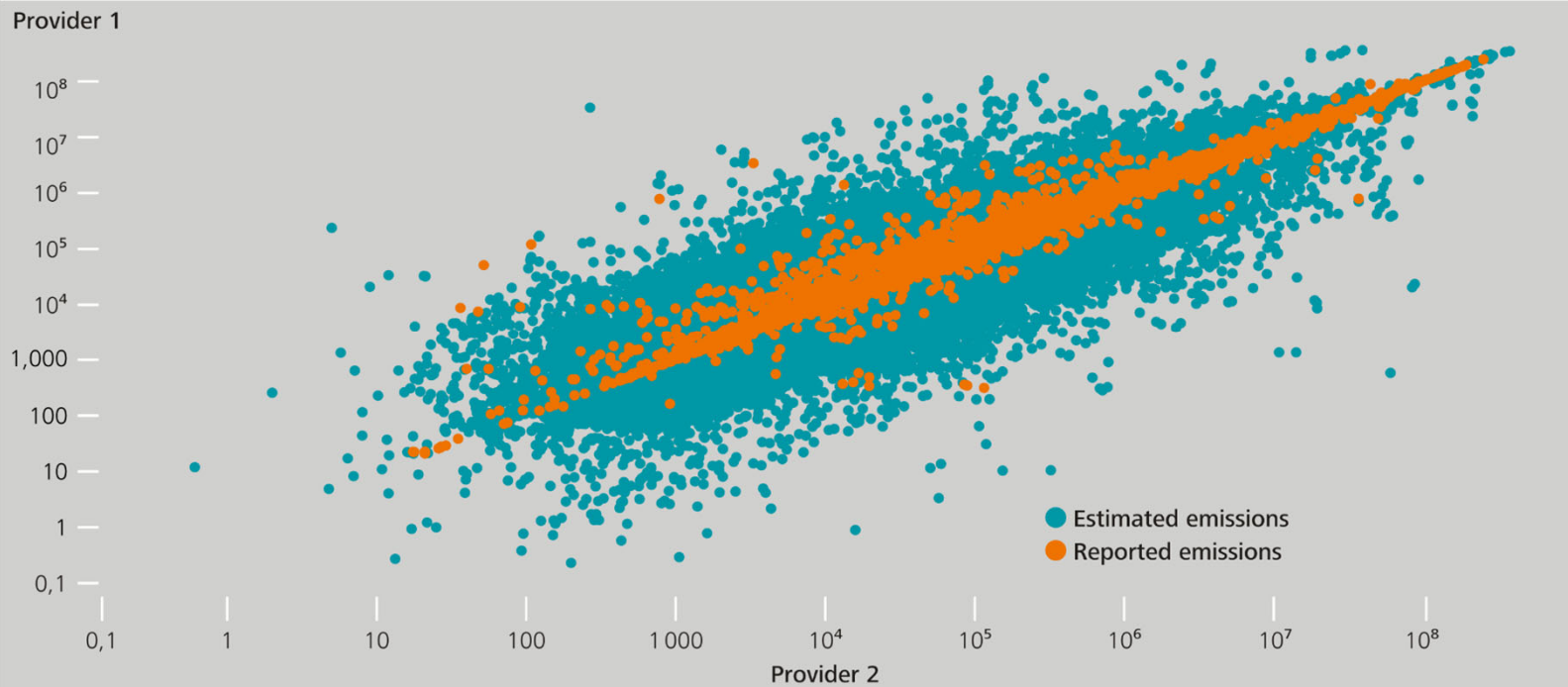




## Multi-source approach: Allows for robustness checks

### Comparison of greenhouse gas emissions (scope 1 + 2) from two providers

Tonnes of CO<sub>2</sub> equivalents, log scale



Deutsche Bundesbank

SOPR0019.Chart

Elena Triebkorn, International Conference on Statistics for Sustainable Finance, Paris

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## **Multi-source approach: Results from recent in-house survey**

- In September 2021 we organized an **in-house workshop, including a small survey**, with users to receive feedback on the two data providers currently available.
- Results show that **70 % of respondents use data from both providers**, mainly for robustness checks and because of a specific data package, only available from one of the vendors.
- Users value having **both access** to:
  1. A data **providers platform** to get an overview of available data and receive methodological information
  2. The **in-house database** for larger data sets as well as other services we provide, such as combined data sets and additional identifiers

## Being transparent to the public: Sustainability Statistics [website](#) including green finance dashboard

- Given the often scattered data sources of publicly available climate data, making data available to the general public through dashboards and underlying data can **facilitate access to existing data sources**.
- We reached an agreement with a 3<sup>rd</sup> party data provider to publish certain **aggregates on green and social bonds** on our website. This work with a non-traditional stakeholder forms part of the NGFS Dashboard on scaling up green finance, which we update annually.



### Sustainability

DE

### Green finance dashboard



indicators. >

This system of indicators uses a number of data items, most of them publicly available, to provide a quick overview over green finance in Germany and its latest developments. It distinguishes financial, real economic and climate-related

### Global market for sustainable finance



Contains a collection of data and graphs on volumes of green and social bonds from global perspective. They form part of the NGFS (Network



The Bundesbank analyses the impact of climate change and climate policy on the financial sector, because climate risks are also financial risks. >



Progress report on bridging data gaps

ngfs.net

## Enhancing (regional) central bank cooperation: Joint Eurosystem procurement for up to two climate data providers

All participating central banks will have the right but not the obligation to participate in the Framework Agreements resulting from the public tender procedure.

Given that many central banks face similar data challenges such cooperation minimises duplication of efforts and achieves synergies.

In addition, it ensures consistency of analysis and improves comparability across central banks by the broad use of the same data providers.

## Work with non-traditional stakeholders: Promoting digitalization

- To **promote using digitalization** to bridge climate related data gaps we submitted, together with Banco de España, a project proposal on "Information extraction applied to sustainability-related disclosures" to for the envisaged **BIS Eurosystem Innovation Hub**.
- We are at the beginning of **joint projects with TU Darmstadt**, a technical university, working with international experts on natural language processing where we want to examine issues related to sustainability disclosure reports and physical risk indicators.



Such initiatives will become even more impactful, the more voluntary and mandatory climate related disclosure initiatives are under way, **pathing the way for a long-term statistical response**.



In the meantime, we support efforts to **build international hubs of already available data sources**, such as the NGFS bridging data gaps repository and CMFB work on data catalogues.

Thank you for your attention!  
**Questions?**