

Data for Action: Carbon Accounting Standards and Practices

People and perspectives meet – insights from an international workshop

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Central Bank Statistics



Carbon content measurement for products, organisations and aggregates: creating a sound basis for decision making

International workshop organized by the IMF, the BIS/IFC, Eurostat, the Deutsche Bundesbank, the Banco Central de Chile and the University of Oxford Blavatnik School of Government

21-13 February 2024, Hamburg, Germany

[Link to conference website, incl presentations](https://www.bundesbank.de/de/service/termine/messung-des-carbon-content-auf-produkt-unternehmens-und-aggregierter-ebene-schaffung-einer-soliden-entscheidungsgrundlage-913006)¹⁾

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Workshop participants

- In Hamburg more than 60 live representatives from
 - international organizations, central banks, ministries, ESG reporting standard setters, statistical offices, corporate accountants, data platform providers, satellite data providers, EU Commission, enterprises, universities
 - six continents (the Americas counting as two)
- More than 200 registered virtual participants worldwide

Consistent results and findings from all participants.

"Only what gets measured, gets managed" (Bo Li)

Use cases

Reliable and readily available measures of **carbon content** would enable

- **Companies** to align their production processes in a climate-friendly way,
- **Investors** to direct their capital towards climate-friendly investments if they wish,
- **Banks** to better assess the climate risks in their portfolios,
- **Governments and regulators** to intervene if needed, and
- **Consumers** to better understand the consequences for the environment of their decision to purchase a particular product or service.

Carbon content information is a **necessary condition for rational**, environmentally-oriented **decision making**.

"Only what gets measured, gets managed" (Bo Li)

Micro-macro consistency required

Carbon content information is produced on three levels:

- **Aggregate level -- country and sector** **statistics**
G 20 Data Gaps Initiative (DGI), ECB climate change related indicators
- **Company level** **non financial reporting**
IFRS Sustainability Disclosure Standards,
EU Legislation, specifically the Corporate Sustainability Reporting Directive (CSRD) and European Sustainability Reporting Standards (ESRS)
- **Product level** **carbon accounting**
industry initiatives (chemical industry, automobiles), accounting research

As yet, measurements and measurement concepts are mostly unrelated.

A joint perspective is needed.

Direct and indirect emissions

Wrap up – terminology

In measurement of emissions by enterprises or enterprise groups, we distinguish:

- **Direct emissions (Scope 1)**, generated in production itself,
- **Indirect emissions**, due to the use of **energy** and **heat (Scope 2)**,
- **All other** indirect emissions, upstream or downstream (**Scope 3**),
- **Carbon content** – sum of direct and upstream indirect emissions.

Main findings

- For **direct emissions, direct measurement** should have priority (incl. satellite recognition and measurement based on chemical composition)
- For **upstream indirect** emissions, priority should be with **communication by input providers**
- **Official Statistics can help to estimate Scope 2 and upstream Scope 3** data where no direct information from the supply chain is available
 - Emission data and Input-Output data within multi-regional Input-Output tables
 - Disaggregated information for industries where emission intensities are heterogeneous will enhance the quality of firm level estimates
 - Distinction between various modes of energy production needed
- **Official Statistics can set a good example for data compilation:**
 - Quality oriented accounting approach in macro statistics

Main findings

- **Official Statistics can benefit from disclosed micro data** (company or product level)
 - Limited availability of good and comparable micro data, as yet not fully used in statistics
 - Central Banks with their statistics machinery can play a pivotal role to improve the situation
 - Example from Europe: CSRD will make a wealth of company level data available. Joint initiative by Central Banks and Statistical Offices (common Task Force of the [Committee on Monetary, Financial and Balance of Payments statistics \(cmfb.org\)](https://cmfb.org) and European Committee of Central Balance Sheet Data Offices ([ECCBSO](https://eccbs.org))):
 - Keep track of regulatory and material developments; investigate use cases for official statistics
 - ECCBSO to collect company level CSRD data
- Using statistical data for filling data gaps on the micro level and using firm level information for official statistics generates an **interactive learning process** that converges to the true values, even if the starting values are poor (as formally shown by von Kalckreuth, 2022).

Main findings

- ESG standard setters are willing to use statistical **classifications** (International Standard Industrial Classification of All Economic Activities (ISIC), Central Product Classification (CPC)) and the Harmonized Commodity Description and Coding System (Harmonized System, HS) for improved **consistency of micro and macro information**.
- **Quality of granular data** is crucial
Core principles for carbon accounting are under development (e.g. in the framework of the [E-liability approach](#)). Official statistics can provide input (e.g. bringing in dimensions of data quality, as expressed in the [Fundamental Principles of Official Statistics | UNECE](#)).

Main messages

Statistics have a role to play

Now is the time to get in contact with standard setters, firm level accountants and academia, at the

- international
- regional, and
- national level,

to prepare the production of reliable and micro / macro consistent data.