Banks' Carbon Footprint Engine

Financed greenhouse gas (GHG) emissions calculation, reporting and analytical engine

Sustainability awareness and transition to a low carbon economy has become an imperative of today's era. Regulators, investors and clients are pushing banks into disclosing relevant environmental, social and governance (ESG) information and setting transparent commitments towards Paris Agreement targets. Carbon footprint and financed GHG emissions gain the most significant traction among environmental factors and simultaneously provide a necessary building block for banks' key decisions and overall ESG strategy.

‣ Did you know that financed GHG emissions (scope 3) might be 1000 times higher than emissions from banks' own operations (scope 1 and 2)?

‣ Are you ready to address disclosures on financed GHG emissions published by EBA that will be in force from 2022?

‣ How will you set targets for your commitments towards environmental sustainability?

‣ Who are the top 10 clients contributing most to the GHG emissions of your banking book?

‣ Which industries will you promote and which clients will you help "to go green"?

‣ Do you have relevant GHG emission inputs into ESG ratings for your clients?

EY has designed a solution that helps you to measure, report and analyze your financed GHG emissions to address regulatory requirements and transform the results into your own ESG strategy and environmental commitments.
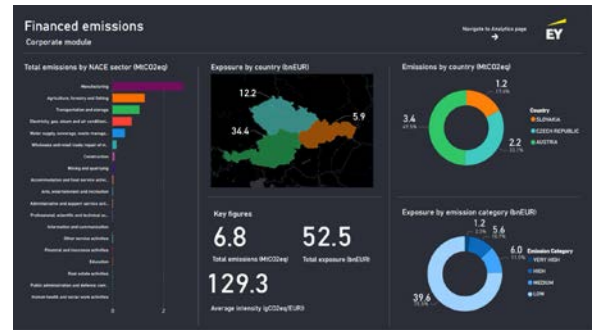
EY

Building a better working world

Banks' Carbon Footprint Engine in a nutshell

Our engine is designed to address your regulatory and business oriented needs providing you with calculated financed GHG emissions at a client/loan level.

- Developed in close collaboration with a major CEE banking group
- Aligned with the Global GHG Accounting and Reporting Standard (PCAF)
- Designed and tested on real data covering six CEE countries
- Business loan and retail mortgage module ready-to-use
- Interactive visualization, reporting and analytical layer in Power BI

Interactive business loans module dashboard outlining key figures and distribution of banks' carbon footprints across multiple metrics

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Engine key components

Input data

- Banks' client level data in defined structure (exposure data, financials, collateral information)
- Reported GHG emissions data at client level
- External data for GHG emission intensities and industry relevant emission drivers
- Built-in data quality testing and data profiling improves reliability

Computing

- Robust calculation platform (currently implemented in SAS while other platforms under consideration)
- Modular structure allows for sectoral focus and operational efficiency
- Parameters defined using industry and sector specific drivers and coefficients
- Multiple calculation approaches within each module to address clients data availability

Outputs

- Financed GHG emissions and emission intensity at client level
- Emissions for individual portfolios, sectors and entities to address EBA non-financial disclosures
- Identification of high emission segments and clients in interactive visualized reports
- Benchmark calculation and comparison with other reporting institutions

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Key features

- Modular approach promotes scalability and focused deep dives
- Transparent and reliable calculation and complete engine documentation facilitates easy auditing
- Adherence to PCAF standards enables benchmarking as well as direct comparison with peers
- Flexible adaptation to selected entities, sectors or portfolios
- Power BI based rich visualization interactive layer

Modules

Tested ready-to-use POCs

- **Business loan module**
  Industry-level emissions built on NACE segmentation and Eurostat data
- **Energy sector loan sub-module**
  Addressing variance in energy production mix, renewable resources and full life-cycle consideration
- **Retail mortgage loan module**
  Loan-level emissions reflecting energy efficiency of a property

Modules in development phase

- Modules for PCAF identified asset classes requiring dedicated approaches
  - Commercial real estate
  - Project finance
- Corporate sector focused modules utilizing sectoral specific emission drivers and physical production
  - Manufacturing
  - Agriculture
  - Transportation

Usage modes

- One-off emissions calculation for selected entities, segments or portfolios (bank or EY environment)
- Managed service, i.e., regular calculation, analysis and emissions reporting with the most up-to-date engine features and updates (EY environment)
- Engine implementation in bank's environment, data integration, with/without regular engine updates

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Our team

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